Abbott

ARCHITECT System Operations Manual

96211-118

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NOTES

Foreword

Congratulations on the addition of the ARCHITECT System to your laboratory. The ARCHITECT family of systems incorporates the latest advancements in laboratory automation, assay technology, and modularity.

- Ease of use
  - System integration and a common software user interface provide single sample management and result reporting capabilities.
  - Touch screen control allows easy navigation.
  - An intuitive software user interface reduces training time.
  - Help?, integrated with the system software, provides immediate access to information about the currently displayed screen, window, or error message.
  - The online operation manual provides the fastest, easiest, most comprehensive, and most accurate resource for your informational needs.
  - Scheduled maintenance procedures display in a To Do list for automatic tracking and ease of performance.
  - A Maintenance log, automatically updated after each procedure is performed, provides current and accurate maintenance records.
- Sample management
  - Sample carriers accommodate a variety of test tube types.
  - Sample handlers allow loading of up to
    - 180 *(ci*4100) samples.
    - 365 *(ci*8200/*ci*16200) samples.
    - 100 (*c*4000) samples.
    - 215 (*c*8000/*c*16000) samples.
    - 125 (*i*2000) samples.
    - 250 (*i*4000) samples.
    - 65 (*i*1000SR) samples.
    - 135 (*i*2000SR) samples.
    - 285 (*i*4000SR) samples.
  - Multi-dimensional sampling provides routine, priority, automated rerun, and reflex processing capabilities.
  - Clot detection ensures accurate sampling.
  - With robotic sample handler (RSH)
    - Indicators provide sample processing status at a glance.
    - Sample handler design provides continuous sample access.

- Simplified troubleshooting
  - Direct access to error message help provides probable cause and corrective action information.
  - A troubleshooting model provides a practical, systematic approach to solving problems and implementing solutions.

Read me first topics include:

What's new

New features included in ARCHITECT System software version 9.25 are described below.

Induction Heating (*i*2000SR) optional feature

The Induction Heating wash station is optional hardware available for the ARCHITECT *i*2000SR. It heats the sample probe as wash buffer is flushed at the wash station for improved washing of the probe.

AWDS (Alternate Wash Delivery System) (*i*1000SR)

The AWDS is optional hardware for the ARCHITECT *i*1000SR that delivers trigger to the wash cup for enhanced probe cleaning. The AWDS incorporates an active, heated trigger solution wash to remove any remaining fluid from the probe interior and exterior surfaces. In addition, a vacuum source dries the exterior of the probe.

Enhancement: Cuvette Segment Inspection

Instructions are provided to more closely inspect cuvette segments for damage or misalignment.

Updated LNs (List Numbers)

List numbers for individual components as well as accessory kits have been updated. The updates are:

- RoHS compliant list numbers have replaced non-compliant list numbers.
- List numbers for the e-assay CD-ROMS have been added to the electronic media list.

System security

Abbott Laboratories is committed to the security of the ARCHITECT System and reducing cybersecurity risks associated with our medical devices.

Abbott Laboratories recognizes the importance of incorporating cybersecurity considerations early and throughout our product design and development process. Our cybersecurity controls were designed, developed, and implemented based on leading practices, regulatory guidance, and government agencies.

Although we have designed the ARCHITECT System with cybersecurity controls, our customers also play a vital role in protecting information security:

- Use of good laboratory practices and adherence to applicable regulations is recommended at all times.
- The system should be installed in a secure location.
- Only authorized users should have access to the system because the system may contain protected health information (PHI) or other sensitive personal data.
- Although the ARCHITECT System incorporates cybersecurity risk mitigation controls relating to network connectivity, each system should be installed on a secure network that adheres to best practices from a network security perspective to prevent unauthorized access to data transmission between the ARCHITECT System and external systems, such as a printer or host.
- The ARCHITECT System also incorporates cybersecurity risk mitigation controls relating to the use of external media, such as USB storage devices or DVD/CDs. Backups, Reports, or other data exported to external media should be controlled with appropriate laboratory practices.
- The instrument firewall used to support AbbottLink and HL7 host communication should not be removed or modified.

Customer service

For questions about the ARCHITECT System, contact your local representative or find country-specific contact information at www.abbottdiagnostics.com.

Intended use

The Abbott ARCHITECT System is intended for *In Vitro* diagnostic use only.

The Abbott ARCHITECT System is designed to perform automated:

- Chemistry tests, utilizing photometry and potentiometric technology
- Immunoassay tests, utilizing CMIA (chemiluminescent microparticle assay) detection technology

Proprietary statement

The software and manual were developed solely for use with the ARCHITECT System and for *In Vitro* diagnostic applications as specified in the operating instructions.

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Abbott Laboratories is not engaged in rendering medical advice or services.

Updates to the Information may be provided in either paper or electronic format. Always refer to the latest documents for the most current information.

Incremental manual updates may cause the master table of contents or master index page numbering to change.

Data Usage Statement for AbbottLink

Data collection:

Abbott's AbbottLink software only collects operational and instrument data. It does not gather or access patient, sensitive health or other identifiable personal information ("Personal Data").

Use of data:

AbbottLink is intended to transmit connected systems operational data, which may be used by Abbott, and third parties providing related services and products, for troubleshooting, complaint investigation, performance monitoring, product improvement, research, development, inventory management, usage analytics, billing and other related purposes. In addition, AbbottLink may be used to send system updates, to provide remote service and to facilitate Abbott's delivery of third party services and products to Customer. The terms and conditions for Customer's use of such third party services and products are to be provided to Customer separately by the applicable third parties.

No Personal Data is transferred or accessed for company use.

Data privacy assurance:

All Personal Data is removed from operational data prior to AbbottLink retrieval. It is important that our customers avoid entering Personal Data in any SID (Sample Identification) or comments fields.

During Remote Support Instrument Screen Sharing, data is accessed and transferred on the basis of consent provided by the user at the point of each individual screen-sharing event. Please refer to the form of consent, displayed on your analyzer screen, when taking advantage of this service.

ARCHITECT System warranty statement for USA customers only

Abbott Laboratories warrants new instruments sold by Abbott Diagnostics Division to be free from defects in workmanship and materials during normal use by the original purchaser. This warranty shall continue for a period of one year from the date of shipment to the original purchaser, or until title is transferred from the original purchaser, whichever occurs first (the "Warranty Period").

If any defects occur during the Warranty period, contact your Abbott Customer Service Representative immediately, and be prepared to furnish information including the serial number, the model number, and pertinent details concerning the defect.

This Warranty does not cover defects or malfunctions which: (1) are not reported to Abbott during the Warranty Period and within one week of occurrence; (2) result from chemical decomposition or corrosion; (3) are caused primarily by failure to comply with any requirements or instruction contained in the applicable Abbott Operations Manual; or (4) result from maintenance, repair, or modification, performed without Abbott's authorization.

Abbott's liability for all matters arising from the supply, installation, use, repair, and maintenance of the instrument, whether arising under this Warranty or otherwise, shall be limited solely to the repair or (at Abbott's sole discretion) replacement of the instrument or of components thereof. Replaced parts shall become the property of Abbott Laboratories. In no event shall Abbott be liable for injuries sustained by third parties.

The ICT module Warranty is 20,000 samples or three months post-installation, whichever occurs first.

The cuvette warranty is one year post-installation.

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Code generated by the Protocol Buffer compiler is owned by the owner of the input file used when generating it. This code is not standalone and requires a support library to be linked with it. This support library is itself covered by the above license.

ARCHITECT System Agency approvals

The ARCHITECT System has been tested and found to comply with the following agency standards:

- UL61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
- IEC/EN 61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
- CAN/CSA-C22.2 No. 61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
- IEC/EN 61010-2-101 Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-101: Particular requirements for in vitro diagnostic (IVD) medical equipment
- IEC/EN 61010-2-081 Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes
- IEC/EN 61010-2-010 Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-010: Particular requirements for laboratory equipment for the heating of materials
- Directive 2012/19/EU: Waste Electrical and Electronic Equipment (WEEE)
- Directive 2011/65/EU: Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS 2)
- Directive 98/79/EC: In Vitro Diagnostic Medical Devices (IVD)
- IEC/BS EN 61326-1 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 1: General requirements
- IEC/BS EN 61326-2-6 Electrical equipment for measurement, control and laboratory use - EMC requirements - Part 2-6: Particular requirements - In vitro diagnostic (IVD) medical equipment
- 21CFR part 1040.10: Performance standards for light-emitting products

CE

In Vitro Diagnostic Directive	98/79/EC
Legal Manufacturer	Abbott Laboratories Diagnostics Division Abbott Park, IL 60064 USA

Authorized Representative in the European Community	Abbott Max-Planck-Ring 2 65205 Wiesbaden Germany +49-6122-580

ARCHITECT *i*ARM Agency approvals

The ARCHITECT *i*ARM accessory has been tested and found to comply with the following agency standards:

- IEC/EN UL 61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1 General Requirements
- CAN/CSA-C22.2 No. 61010-1 Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1 General Requirements
- Directive 2002/96/EC: Waste Electrical and Electronic Equipment
- CE Marking

CE

EMC Directive LVD Directive	2014/30/EU 2014/35/EU
Legal Manufacturer	Abbott Laboratories Diagnostics Division Abbott Park, IL 60064 USA
Authorized Representative in the European Community	Abbott Max-Planck-Ring 2 65205 Wiesbaden Germany +49-6122-580

Trademark statement

AbbottLink, ARCHITECT, *i*1000SR, *i*2000, *i*2000SR, *i*4000SR, *c*4000, *c*8000, *c*16000, *ci*4100, *ci*8200, *ci*16200, Chemiflex, AxSYM, and MasterCheck are registered trademarks of Abbott Laboratories in various jurisdictions.

*i*4000, *i*6000, *i*8000, *c* System, *i* System, ARCHITECT ARM, FlexRate and SmartWash are trademarks of Abbott Laboratories in various jurisdictions.

ACCELERATOR, ACCELERATOR APS, ACCELERATOR *p*540, and ACCELERATOR *a*3600 are trademarks of Abbott Laboratories in various jurisdictions.

The following U.S. Patents are relevant to the ARCHITECT *c* System or its components.

4,533,457	4,619,739	4,647,362	4,678,755
4,797,192	5,025,389	5,413,770	

The following U.S. Patents are relevant to ARCHITECT *i* Systems or components.

5,468,646	5,536,049	5,543,524	5,545,739
5,565,570	5,669,819	5,682,662	5,723,795
5,795,784	Des. 397,938	Des. 401,699	Des. 401,697
Des. 401,700	5,783,699	5,856,194	5,859,429
Des. 404,829	Des. 406,901	5,915,282	5,915,583
5,938,120	Des. 413,539	5,965,828	6,022,746
6,063,634	6,150,113	6,153,377	6,162,645
6,413,780	6,562,298	6,588,625	

There are other such patents and patent applications in the United States and worldwide.

Key to symbols

The symbols in the following table are used on ARCHITECT System labeling.

Key to symbols used on labeling

Symbol	Description
EC REP	Authorized Representative in the European Community
CE Abbott Laboratories Diagnostics Division Abbott Park, IL 60064 USA EC REP ABBOTT MAX-PLANCK-RING 2 65205 WIESBADEN GERMANY +49-6122-580 ABBOTT Diagnostics Division (55496-105)	Legal manufacturer
IVD	*In Vitro* Diagnostic Medical Device
	Manufacturer
	Date of manufacture
SN	Serial number
	Alternating current
	Laser
	Caution, risk of electrical shock
	Electrical and electronic equipment waste **NOTE:** Indicates the item should go to a separate waste collection for electrical and electronic equipment and should not go into the general waste or trash.

Symbol	Description
	Temperature limitation
	Use by/Expiration date
	Consult operating instructions
	Caution, consult accompanying documents
	Batch code/Lot number
	Quantity
	Unit
	Biological risks
	Biohazard
	Caution, hot surface
	Caution, probe stick hazard
	China RoHS Environmentally Friendly Use Period (EFUP) symbol. The number inside the symbol represents EFUP in years and can vary by product.
	Assay disk
	Version
	Conventional units
	Standard international unit
	Sample cups
	ICT Cleaning Fluid
	ICT Lyophilized Cleaning Solution

Symbol	Description
WATER BATH ADDITIVE	Water Bath Additive
PRE-TRIGGER SOLUTION	Pre-Trigger Solution
TRIGGER SOLUTION	Trigger Solution
CONCENTRATED WASH BUFFER	Concentrated Wash Buffer
WASH BUFFER	Wash buffer
REACTION VESSELS	Reaction vessels
SEPTUM	Septum
REPLACEMENT CAPS	Replacement caps
MULTI-ASSAY MANUAL DILUENT	Multi-Assay Manual Diluent
REF	Catalog number/List number
ACID WASH	Acid Wash
ALKALINE WASH	Alkaline Wash
ICT REFERENCE SOLUTION	ICT Reference Solution
DETERGENT A	Detergent A
DETERGENT B	Detergent B
FOR USE WITH	For use with
REFURBISHED	Utilizing approved procedures, the instrument is restored to original specifications. In addition, any approved mandatory upgrades are performed.
DISTRIBUTED BY	Distributed by
DISTRIBUTED IN THE USA BY	Distributed in the USA by
MANUFACTURED BY	Manufactured by
MANUFACTURED FOR	Manufactured for
PRODUCT OF JAPAN	Product of Japan
PRODUCT OF SINGAPORE	Product of Singapore

Symbol	Description
PRODUCED BY	Produced by
PRODUCED FOR ABBOTT BY	Produced for Abbott by
REV	Revision
KIT	Kit

Key to symbols used only on ARCHITECT iARM labeling

Label	Description
	Caution, water inlet pressure is not to exceed 30 psig.
	Caution, surface is unsuitable for stepping onto
	Caution, surface is unsuitable for sitting on
	Flush outlet
	Gravity waste outlet
	Water inlet
	Caution, protective earth ground required

Introduction

Documentation for the ARCHITECT System consists of the ARCHITECT System Operations Manual, available in both printed and online versions, and ARCHITECT System Help.

Please take the time to become familiar with the organization, features, and use of each. Learning to use the documentation will pay off in time saved, trouble averted, and more confident operation of the ARCHITECT System.

System documentation topics include:

Printed documentation

The printed version of the ARCHITECT System Operations Manual contains complete instructions for using and maintaining the ARCHITECT System. You will find it a valuable aid as you learn to use the system and an essential reference.

Printed documentation topics include:

Organization of the printed operations manual

The printed ARCHITECT System Operations Manual is organized as follows.

Read me first	Refer to this section for important information such as: • Customer support numbers • Intended use of the system • Trademark statements • Warranty details
System documentation	Refer to this section for: • Information on content organization • Features of the support documentation • Use of both the printed and online operations manual as well as online help
Section 1 **Use or function**	Use this section to identify: • Basic system components • Fundamentals of the user interface • Operating statuses of the processing module(s) and sample handler
Section 2 **Installation procedures and special requirements**	Refer to this section for: • Information on locating and placing the instrument • Installing system and assay software • Configuring the system to meet your laboratory's specific needs
Section 3 **Principles of operation**	Refer to this section for an explanation of: • The assay technology • How the system translates measurements into useful data and reports
Section 4	Refer to this section for details such as: • Dimensions of the instrument

Performance characteristics and specifications	• System capabilities • Power requirements
Section 5 **Operating instructions**	Use this section to learn how to perform the various tasks related to running assays on the system.
Section 6 **Calibration procedures**	Use this section to learn how to: • Run assay calibrations • Review completed calibration results
Section 7 **Operational precautions and limitations**	Review this section carefully for information about actions or conditions that can impact the: • Integrity of the ARCHITECT System • Accuracy of patient test results
Section 8 **Hazards**	Use this section to become familiar with the safety icons both on the instrument and in the manual that alert you to potentially hazardous situations.
Section 9 **Service and maintenance**	Refer to this section for: • Descriptions of all maintenance procedures • Instructions for performing scheduled and non-scheduled maintenance procedures • Step-by-step instructions for replacing components
Section 10 **Troubleshooting and diagnostics**	Refer to this section for: • Troubleshooting basics • Information on probable causes and corrective actions for observed problems and error codes • Descriptions of all diagnostic procedures • Instructions for performing diagnostic procedures
Appendixes	Refer to the appendixes for information on: • Reports • Assay claim verifications • Math models • List numbers • Screen and window elements
Glossary	Refer to this section for definitions of ARCHITECT System terms.
Index	Use this alphabetical listing of subject matter to find specific information about the system.
Revision history	Refer to this section for a history of revisions to the operations manual.

Conventions for the printed documentation

Conventions are a set of defined standards and are used to convey meaning in an expected manner. The conventions used in the ARCHITECT System printed documentation are intended to facilitate finding, reading, understanding, and using the available information.

Text conventions

Description	Use
Italicized typeface	Indicates references to related information.
Bold typeface	Emphasizes key words within procedures. For example, within the numbered steps bold typeface is applied to names of: • Icons and menu items • Buttons • Function keys • Lists and tables and their available selections • Options and check boxes
Numbers in brackets, for example [1], [2], and so forth	Reference specific areas of an illustration within a procedure.

Content conventions

Description	Use
Requirements tables at the beginning of each procedure	Provide the information you need to know prior to performing a procedure. This information varies by procedure and may include: • Prerequisites for performing the procedure • Module status required to perform the procedure • Operator access level required to perform the procedure • Time required to complete the procedure • Tools required to perform the procedure • Replacement parts or supplies that you must have on hand
Lists of related information topics at the end of procedures, as appropriate	Reference topics that provide information related to the procedure, which can help in performing the procedure.

Description	Use
Lists of related procedural topics at the end of screen and window descriptions, as appropriate	Reference procedures that can be performed from specific screens and windows.

Graphic conventions

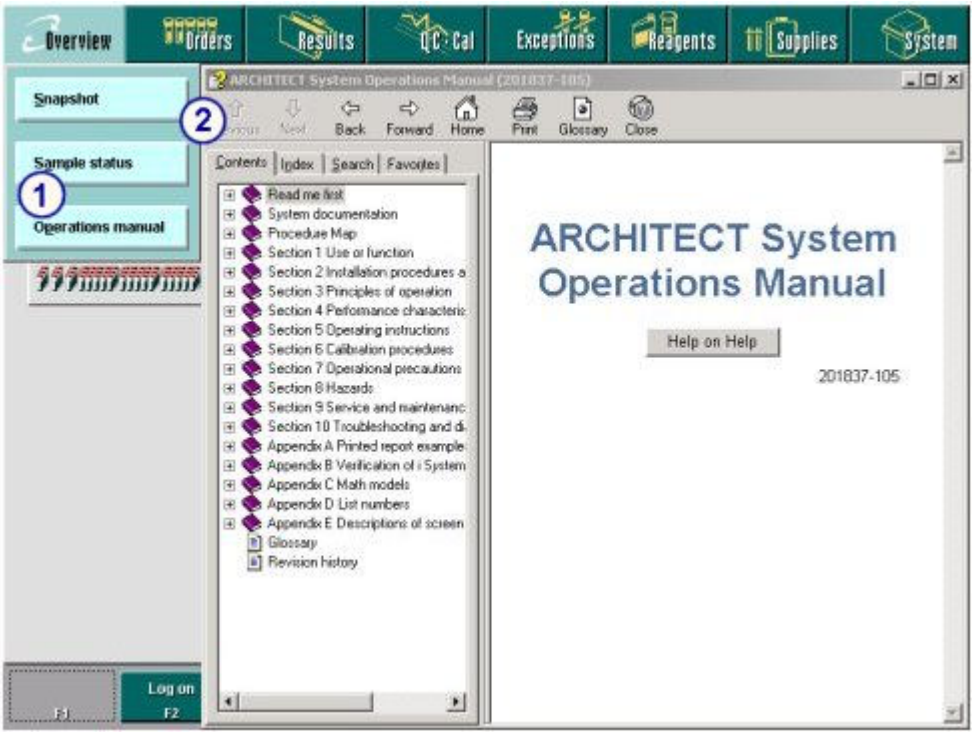
Description	Use
Safety symbols, see *Safety icons*, page 8-3, and the caution or warning signal word 	Identify activities that expose you to potentially dangerous conditions.
Important signal word IMPORTANT:	Advise you of precautions you should take to avoid a negative impact on system operations or assay results.
Note signal word NOTE:	Highlights information that is relevant to the current subject matter.
Numerical references on illustrations, photographs, and reports	Indicate the area described in the table that follows.

Online documentation

The online documentation is designed to provide the fastest, easiest, and most accurate resource for your informational needs.

The online operations manual (ARCHITECT System Operations Manual) includes complete instructions for using and maintaining an ARCHITECT System. You can access the online operations manual from the software on the SCC (system control center).

Access to the online operations manual from the system software



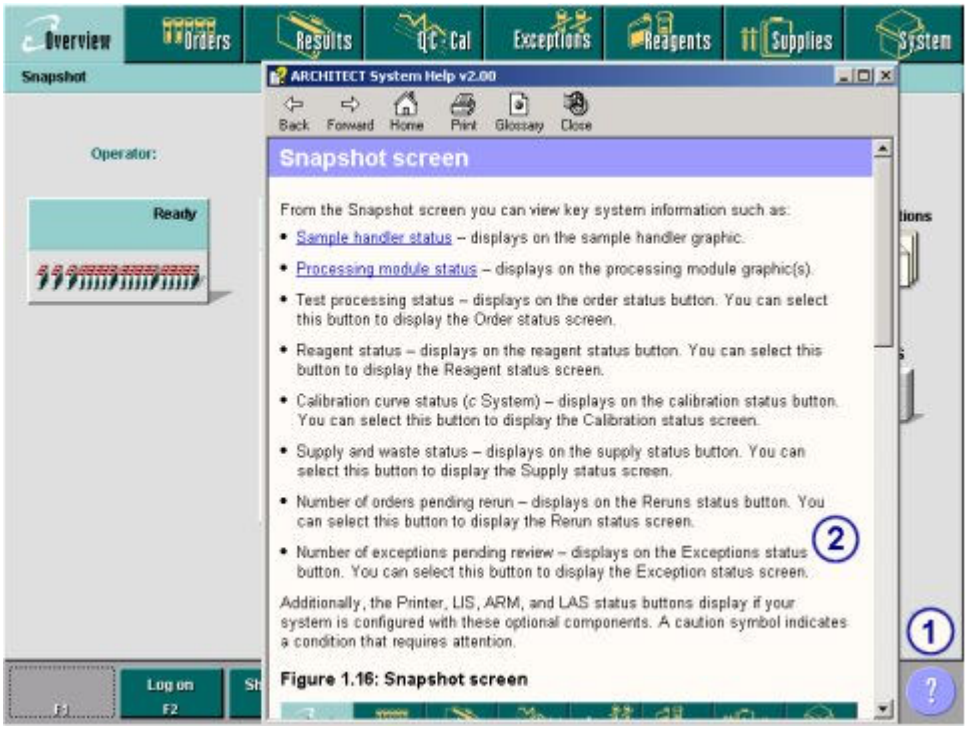
Legend:

1. Operations manual menu item: Displays the online operations manual.
2. Online operations manual: Displays the content of the ARCHITECT System Operations Manual electronically.

Help? (ARCHITECT System Help) is integrated with the system software on the SCC to provide direct access to information about the SCC screen, window, or error message currently displayed. Help? content is a subset of information found in the operations manual. You can access Help? for:

- A screen or window - from the screen or window
- An error message - from the error message, the Details for exception window, and the System logs screen

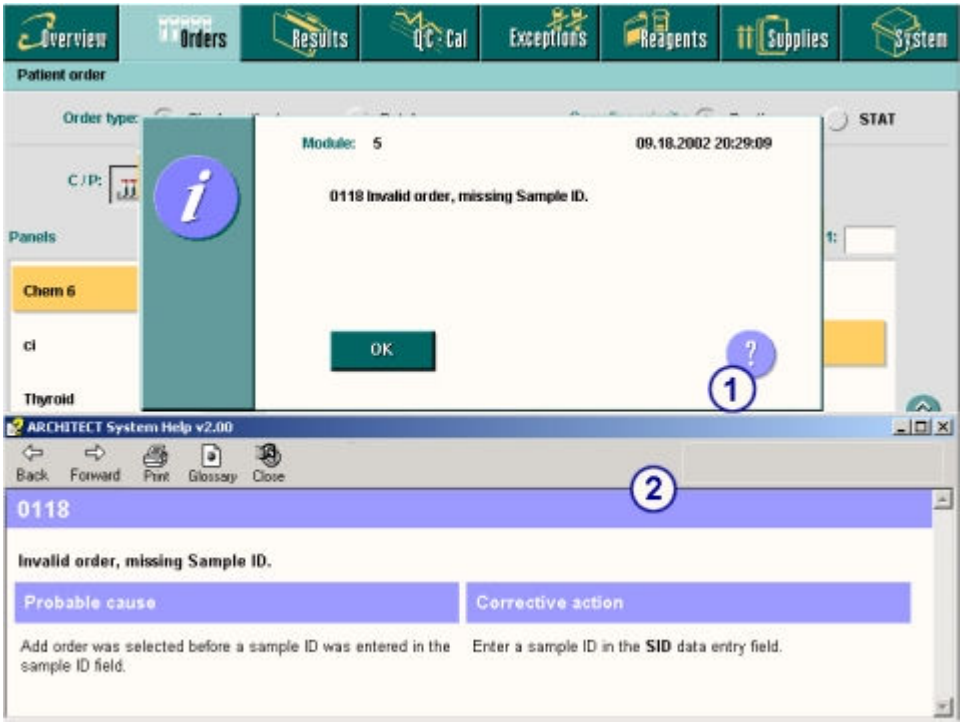
Access to Help? (screen or window)



Legend:

1. Help button: Displays Help? for the current screen or window.
2. Help?: Displays detailed information about the screen or window. Help content for the screen or window currently displayed includes overview information, links to descriptions of all fields, and links to procedures you can perform from the screen or window.

Access to Help? (error message)



Legend:

1. Help button (error message): Displays Help? for the current error message.
2. Help?: Displays detailed information about the error message including corrective actions required to resolve the issue.

Online documentation topics not in this sub-section include:

- *Tips for using the online documentation*, page System documentation-23
- *Procedures for using the online documentation*, page System documentation-25

Online documentation topics in this sub-section include:

- *Conventions for the online documentation*, page System documentation-8
- *Help window descriptions*, page System documentation-10
- *Procedure map description*, page System documentation-20

Conventions for the online documentation

Conventions are a set of defined standards and are used to convey meaning in an expected manner. The conventions used in the ARCHITECT System online documentation are intended to facilitate finding, reading, understanding, and using the available information.

Text conventions

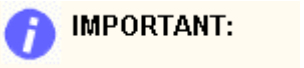
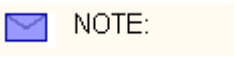
Description	Used
Bold typeface	Emphasizes key words within procedures. For example, within the numbered steps bold typeface is applied to names of: • Icons and menu items • Buttons • Function keys • Lists and tables and their available selections • Options and check boxes
Blue, underlined text	Indicates links to related information.
Numbers in brackets, for example [1], [2], and so forth	Reference specific areas of an illustration within a procedure.

Content conventions

Description	Use
Requirements tables at the beginning of each procedure	Provide the information you need to know prior to performing a procedure. This information varies by procedure and may include: • Prerequisites for performing the procedure • Module status required to perform the procedure • Operator access level required to perform the procedure • Time required to complete the procedure • Tools required to perform the procedure • Replacement parts or supplies that you must have on hand
Lists of related information topics at the end of procedures, as appropriate	Reference topics that provide additional information related to procedures.
Lists of related procedural topics at the end of screen and window descriptions, as appropriate	Reference procedures that can be performed from specific screens and windows.

Graphic conventions

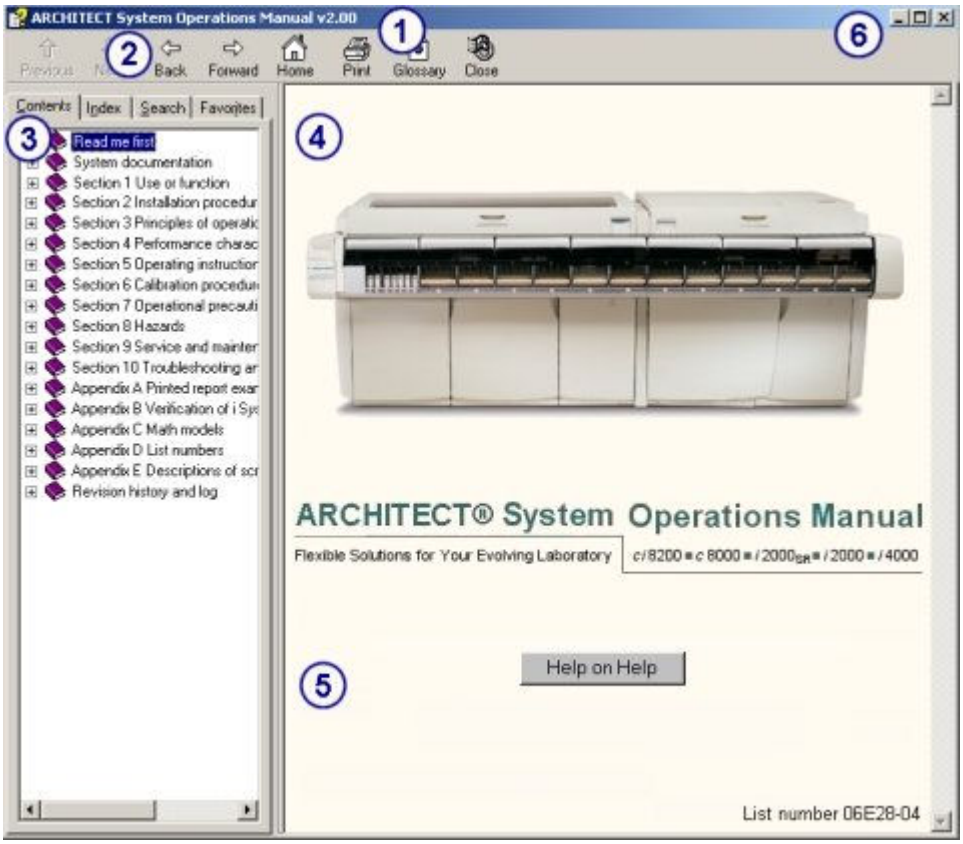
Description	Use
Safety symbols see *Safety icons*, page 8-3, and the caution or warning signal word	Identify activities that expose you to potentially dangerous conditions.

Description	Use
	
Important symbol and signal word 	Advise you of precautions you should take to avoid a negative impact on system operations or assay results.
Note symbol and signal word 	Highlight information that is relevant to the current subject matter.
Numerical references on illustrations and photographs	Indicate the area described in the table that follows.
Numerical references on reports	Indicate the area described in the table that follows and serve as hypertext links to that information.

Help window descriptions

The online documentation (ARCHITECT System Operations Manual and ARCHITECT System Help) is designed for online viewing and use and displays in a help window, which provides several elements to help you quickly access desired information and functionality.

Help window example - online operations manual



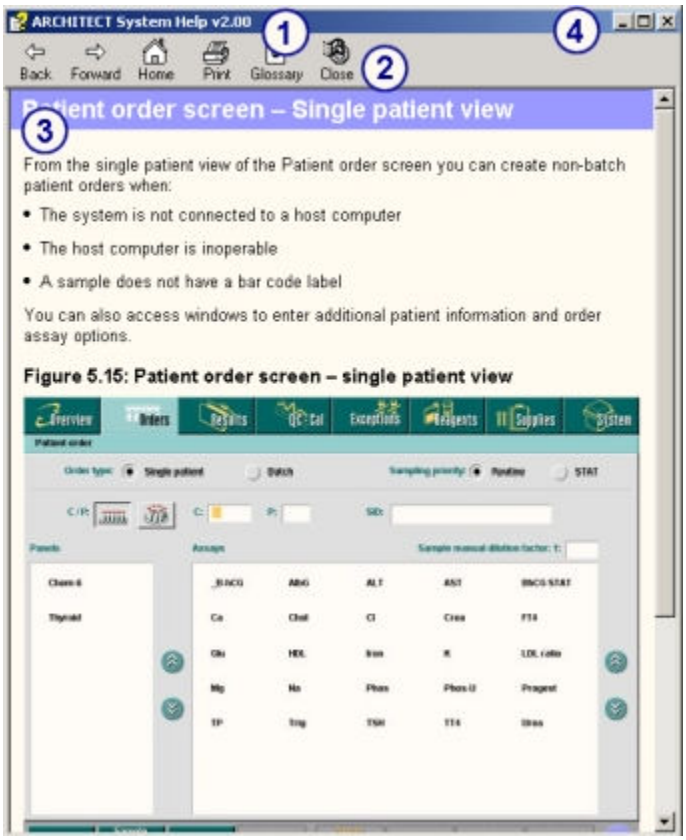
Legend:

1. Title bar: Displays the name of the help window.
2. Toolbar: Use the buttons to display topics in the topic pane, print a topic, or close the help window. See *Help window toolbar*, page System documentation-13.
3. Navigation pane: Use to find and display topics. See *Help window navigation pane (online operations manual)*, page System documentation-14.
4. Topic pane: Use to view topic content and display related information. See *Help window topic pane*, page System documentation-14.
5. Help on Help button: Select to display a list of tasks/procedures for using the online documentation.
6. Minimize button: Select to reduce the help window to a program button on the taskbar at the bottom of the screen. To display the minimized help window, select the program button.

   Maximize/Restore Down button: Select to enlarge the help window to full screen size or to restore the help window to its last size and position before it was maximized.

   Exit button: Select to close the help window.

Help window example - Help? (screen or window)



Legend:

1. Title bar: Displays the name of the help window.
2. Toolbar: Use the buttons to display topics in the topic pane, print a topic, or close the help window.
3. Topic pane: Use to view topic content and display related information.
4. Minimize button: Select to reduce the help window to a program button on the taskbar at the bottom of the screen. To display the minimized help window, select the program button.

   Maximize/Restore Down button: Select to enlarge the help window to full screen size or to restore the help window to its last size and position before it was maximized.

   Exit button: Select to close the help window.

Help window descriptions topics include:

- *Help window toolbar*, page System documentation-13
- *Help window topic pane*, page System documentation-14
- *Help window navigation pane (online operations manual)*, page System documentation-14

Help window toolbar

The toolbar, below the title bar on the help window, contains command buttons that provide quick access to commonly used navigational aids as well as the print and close commands.

Previous

	(Online operations manual) Select to display the previous topic listed in the table of contents.

Next

	(Online operations manual) Select to display the next topic listed in the table of contents.

Back

	Select to display the last topic you viewed.

Forward

	Select to display the next topic in a previously displayed sequence of topics.

Home

	Select to display the procedure map. (Not available for error codes.)

Print

	Select to print the current topic or all topics under a particular heading.

What's New

	Select to see a description of new features.

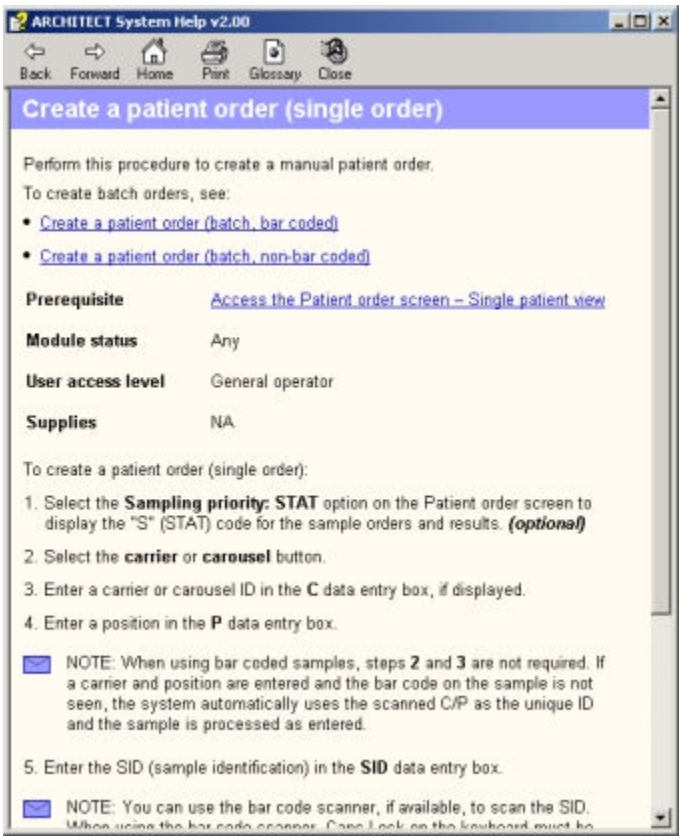
Close

	Select to close the help window.

Help window topic pane

The topic pane, under the toolbar, is the area of the help window where online content displays. In addition to content, individual topics may contain navigational aids (for example, hypertext and image maps) and multimedia.

Topic pane example - Help?



Related procedures…

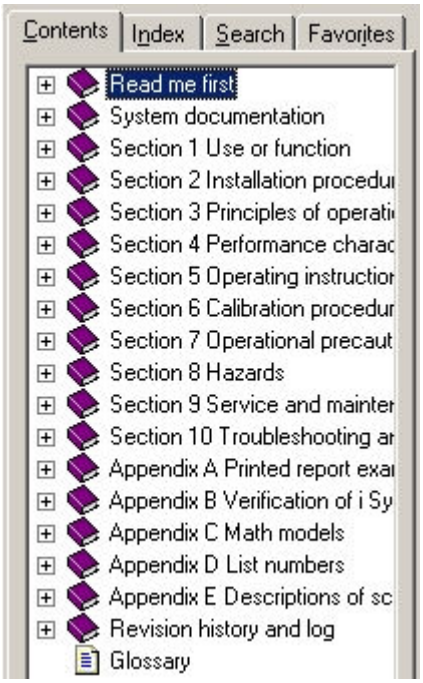
- *Display related information*, page System documentation-37
- *Play videos and animations*, page System documentation-39

Help window navigation pane (online operations manual)

The navigation pane, under the toolbar and to the left of the topic pane, is the area of the help window that provides the primary navigational functionality.

NOTE: When only a portion of the topic title is displayed in the navigation pane, you can click and drag the right border of the pane to widen it.

Navigation pane and tabs



It contains four tabs that you can use to find and display information in the online ARCHITECT System Operations Manual:

- *Contents tab (online operations manual)*, page System documentation-15
- *Index tab (online operations manual)*, page System documentation-18
- *Search tab (online operations manual)*, page System documentation-18
- *Favorites tab (online operations manual)*, page System documentation-19

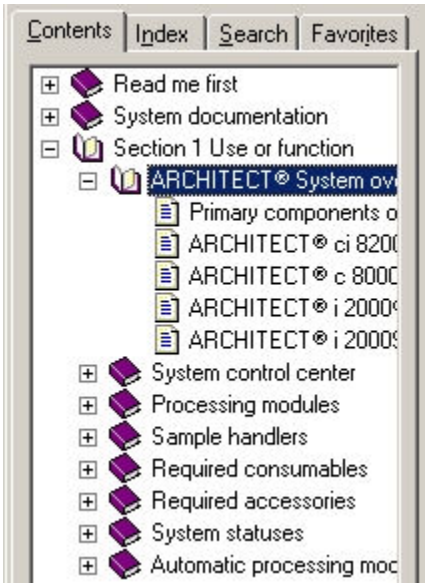
Related procedures…

- *Use the table of contents (online operations manual)*, page System documentation-28
- *Use the index (online operations manual)*, page System documentation-29
- *Search for a term (online operations manual)*, page System documentation-30
- *Add or remove a favorite topic (online operations manual)*, page System documentation-42

Contents tab (online operations manual)

The Contents tab is a tab on the navigation pane that displays the table of contents, which shows how information in the online ARCHITECT System Operations Manual is organized, see *Organization of the online operations manual*, page System documentation-16. Topics identified by a book icon and a plus (+) sign have one or more subtopics. Topics identified by a page icon have no additional subtopics.

Contents tab



Related procedures…

- *Use the table of contents (online operations manual)*, page System documentation-28
- *Page through the content (online operations manual)*, page System documentation-29

Organization of the online operations manual

The online ARCHITECT System Operations Manual is organized as follows:

Read me first	Refer to this section for important information such as: • Customer support numbers • Intended use of the system • Trademark statements • Warranty details
System documentation	Refer to this section for: • Information on content organization • Features of the support documentation • Use of both the printed and online operations manual as well as online help
Section 1 **Use or function**	Use this section to identify: • Basic system components • Fundamentals of the user interface • Operating statuses of the processing module(s) and sample handler
Section 2	Refer to this section for:

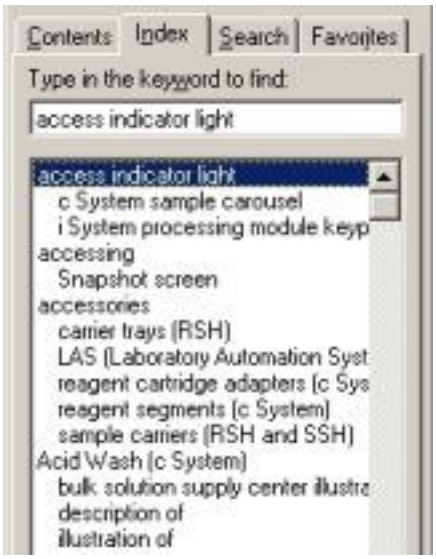
Installation procedures and special requirements	• Information on locating and placing the instrument • Installing system and assay software • Configuring the system to meet your laboratory's specific needs
Section 3 **Principles of operation**	Refer to this section for an explanation of: • The assay technology • How the system translates measurements into useful data and reports
Section 4 **Performance characteristics and specifications**	Refer to this section for details such as: • Dimensions of the instrument • System capabilities • Power requirements
Section 5 **Operating instructions**	Use this section to learn how to perform the various tasks related to running assays on the system.
Section 6 **Calibration procedures**	Use this section to learn how to: • Run assay calibrations • Review completed calibration results
Section 7 **Operational precautions and limitations**	Review this section carefully for information about actions or conditions that can impact the: • Integrity of the ARCHITECT System • Accuracy of patient test results
Section 8 **Hazards**	Use this section to become familiar with the safety icons both on the instrument and in the manual that alert you to potentially hazardous situations.
Section 9 **Service and maintenance**	Refer to this section for: • Descriptions of all maintenance procedures • Instructions for performing scheduled and non-scheduled maintenance procedures • Step-by-step instructions for replacing components
Section 10 **Troubleshooting and diagnostics**	Refer to this section for: • Troubleshooting basics • Information on probable causes and corrective actions for observed problems and error codes • Descriptions of all diagnostic procedures • Instructions for performing diagnostic procedures
Appendixes	Refer to the appendixes for information on: • Reports

	• Assay claim verifications • Math models • List numbers • Screen and window elements
Revision history	Refer to this section for a history of revisions to the operations manual.

Index tab (online operations manual)

The Index tab is a tab on the navigation pane that displays an alphabetical list of all index entries in the online ARCHITECT System Operations Manual. Entries are indexed by subject and relevance, and include terms for all experience levels and informational types from general to specific.

Index tab



Related procedures…

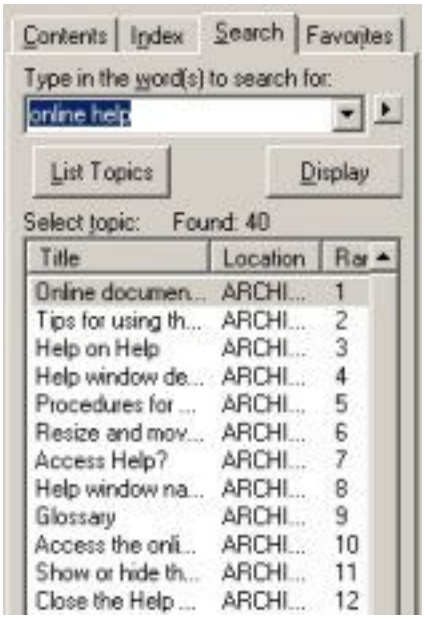
- *Use the index (online operations manual)*, page System documentation-29

Search tab (online operations manual)

The Search tab is a tab on the navigation pane that allows you to locate every occurrence (up to 500) of a word or phrase used in the online ARCHITECT System Operations Manual. You can also limit the number of results returned by using advanced search capabilities to refine your search.

NOTE: When only a portion of the topic title is displayed in the Search tab's navigation pane, you can click and drag either the right border of the pane or the Title column.

Search tab



Related procedures…

- *Search for a term (online operations manual)*, page System documentation-30
- *Find support information (CSC - online operations manual)*, page System documentation-31
- *Perform an advanced search (online operations manual)*, page System documentation-32

Favorites tab (online operations manual)

The Favorites tab is a tab on the navigation pane that displays topics you have added to your favorites list, which are topics you wish to access often. The list is saved and is available each time you open the online ARCHITECT System Operations Manual.

Favorites tab

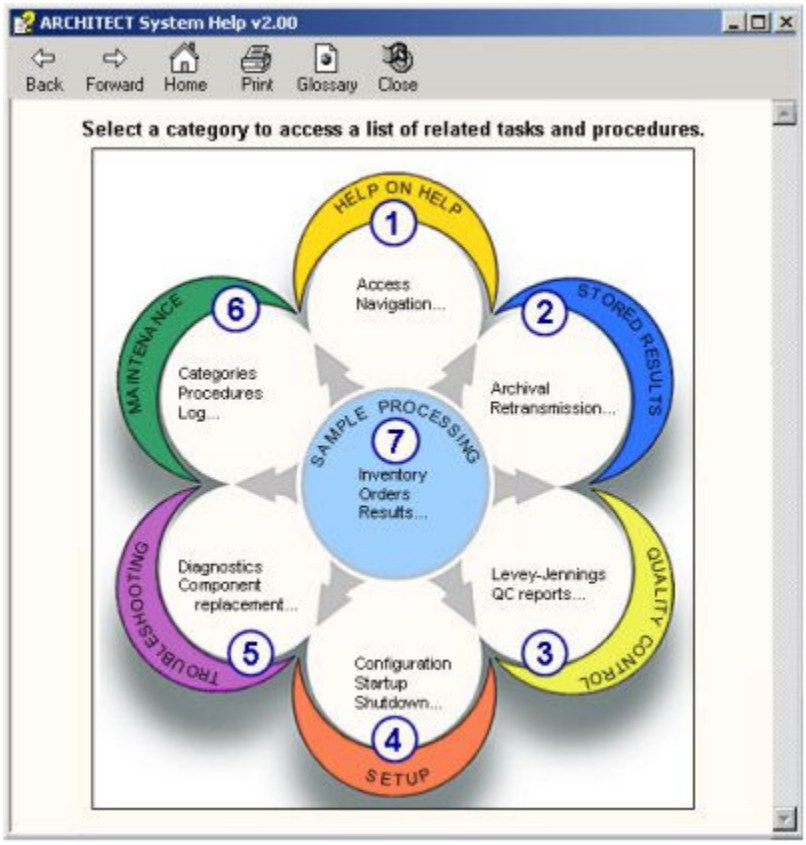
Related procedures...

- *Add or remove a favorite topic (online operations manual)*, page System documentation-42
- *Display a favorite topic (online operations manual)*, page System documentation-38
- *Rename a favorite topic (online operations manual)*, page System documentation-43

Procedure map description

The procedure map is an online image map that displays categories of job-related activities and provides links to lists of tasks and procedures. You can use the procedure map to quickly access step-by-step instructions for performing your primary job responsibilities.

Procedure map



Legend:

1. Help on Help: Provides access to procedures associated with using the online documentation.
2. Stored Results: Provides access to procedures associated with retransmitting, printing, and archiving patient and control results.

3. Quality Control: Provides access to procedures associated with reviewing Levey-Jennings graph data and printing QC reports.
4. Setup: Provides access to procedures associated with configuring and viewing system, assay, and QC/Cal settings, installing software and assays, and printing reports.
5. Troubleshooting: Provides access to procedures associated with emergency shutdown, reviewing system logs, performing diagnostics, replacing components, and printing diagnostic reports.
6. Maintenance: Provides access to procedures associated with performing maintenance, approving maintenance logs, and printing reports.
7. Sample Processing: Provides access to procedures associated with preparing for operation, ordering tests, loading and processing samples, reviewing results, and printing reports.

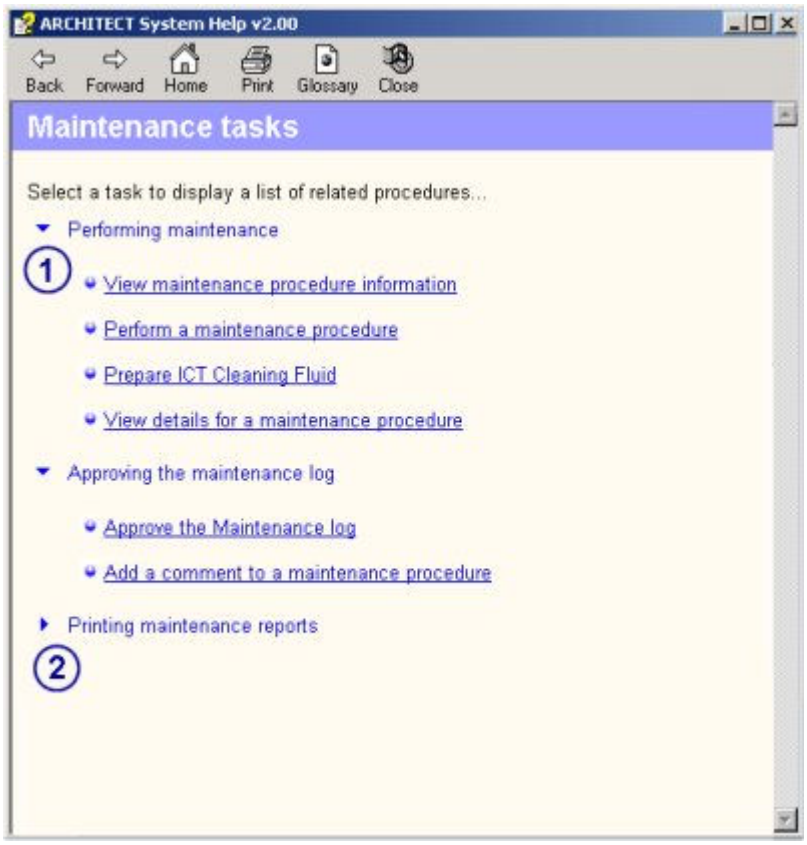
Related procedures…

- *Display and use the procedure map*, page System documentation-27

Task lists

Task lists are online topics you access from the procedure map. Each topic contains an expandable list of tasks related to the selected procedure map category or job-related activity. Under each task is a list of links to the associated procedures.

Example of a task list (maintenance)



Legend:

1. Task list item expanded
2. Task list item collapsed

Online documentation use

The online documentation is designed to help you quickly and easily find the information you need to:

- Accomplish a task
- Recover from a mistake
- Troubleshoot a problem
- Optimize task performance
- Understand the concepts behind system operation and performance

Online documentation use topics include:

- *Tips for using the online documentation*, page System documentation-23
- *Procedures for using the online documentation*, page System documentation-25

Tips for using the online documentation

The online documentation is designed to provide the fastest, easiest, and most accurate resource for your informational needs. However, your understanding of how it works and how to use it will enhance your satisfaction with the results.

For example, there are a number of ways to retrieve information. To an extent the fastest and easiest method depends on the online documentation you are using and the type of information you are seeking.

The following tables provide tips for using Help? (ARCHITECT System Help) and the online operations manual (ARCHITECT System Operations Manual) to find specific types of information.

Using Help?

To…	Then…
View a description of the current screen or window	*Access Help?*, page System documentation-27.
View a list of procedures you can perform from the current screen or window	1. *Access Help?*, page System documentation-27. 2. *Scroll through a topic*, page System documentation-37 to view the list of procedures under Related procedures.
Display the steps of a procedure you can perform from the current screen or window	1. *Access Help?*, page System documentation-27.

To…	Then…
	2. *Scroll through a topic*, page System documentation-37, and then select one of the list items under Related procedures.
Find the location of a part when performing a maintenance procedure	1. *Access Help?*, page System documentation-27, for the Maintenance Perform window. 2. *Display related information*, page System documentation-37, for associated maintenance graphics.
Find a description of a procedure when performing maintenance and diagnostic procedures	1. *Access Help?*, page System documentation-27, for the Maintenance Perform window. 2. *Display related information*, page System documentation-37, for maintenance categories and procedure descriptions.
View all procedures related to the performance of a particular task	*Display and use the procedure map*, page System documentation-27.
Look up a word	*Use the glossary*, page System documentation-36.
View topics that contain related information	*Display related information*, page System documentation-37.
View more information about an error code including suggested corrective actions	*Access Help?*, page System documentation-27.

Using the online operations manual

To…	Then…
Get an overview of the subject matter found in the online ARCHITECT System Operations Manual	*Use the table of contents (online operations manual)*, page System documentation-28
Step through a sequence of associated topics	*Page through the content (online operations manual)*, page System documentation-29
Find a description of a particular screen or window	Perform one of the following: • *Use the index (online operations manual)*, page System documentation-29 • *Search for a term (online operations manual)*, page System documentation-30

To…	Then…
View the procedures you can perform from a particular screen	Select the blue, underlined text found in the body of the content or at the end of the topic under Related procedures.
View all procedures related to the performance of a particular task	*Display and use the procedure map*, page System documentation-27.
Find and view a particular procedure	Perform one of the following: • *Use the index (online operations manual)*, page System documentation-29 • *Search for a term (online operations manual)*, page System documentation-30
Look up a word	*Use the glossary*, page System documentation-36.
View topics that contain related information	*Display related information*, page System documentation-37.
Quickly display frequently accessed topics	1. Add topics to your favorites list. See *Add or remove a favorite topic (online operations manual)*, page System documentation-42. 2. *Display a favorite topic (online operations manual)*, page System documentation-38.
View more information about an error code including suggested corrective actions	Search for the error code, see *Search for a term (online operations manual)*, page System documentation-30.

Procedures for using the online documentation

The following procedures provide instructions on how to access and use the online operations manual (ARCHITECT System Operations Manual) and Help? (ARCHITECT System Help):

- *Access the online operations manual*, page System documentation-26
- *Access Help?*, page System documentation-27
- *Display and use the procedure map*, page System documentation-27
- *Use the table of contents (online operations manual)*, page System documentation-28
- *Page through the content (online operations manual)*, page System documentation-29
- *Use the index (online operations manual)*, page System documentation-29
- *Search for a term (online operations manual)*, page System documentation-30

- *Find support information (CSC - online operations manual)*, page System documentation-31
- *Perform an advanced search (online operations manual)*, page System documentation-32
- *Use the glossary*, page System documentation-36
- *Scroll through a topic*, page System documentation-37
- *Display related information*, page System documentation-37
- *Redisplay a topic*, page System documentation-38
- *Display a favorite topic (online operations manual)*, page System documentation-38
- *Play videos and animations*, page System documentation-39
- *Print topics from the online documentation*, page System documentation-39
- *Close the help window*, page System documentation-41
- *Resize and move the help window*, page System documentation-41
- *Add or remove a favorite topic (online operations manual)*, page System documentation-42
- *Rename a favorite topic (online operations manual)*, page System documentation-43

Access the online operations manual

Perform this procedure to display the online operations manual (ARCHITECT System Operations Manual) on either the SCC (system control center) or a stand-alone computer that has the online operations manual installed.

Prerequisite	NA
Module status	Any
User access level	General operator

To access the online operations manual from the SCC:

Select **Overview** from the menu bar, and then select **Operations manual**.

The online operations manual opens in a help window and displays the title page in the topic pane.

To access the online operations manual from a stand-alone computer:

Click **Start**, point to **Programs**, point to **ARCHITECT System Operations Manual**, and then click the (Language) Operations Manual.

The online operations manual opens in a help window and displays the title page in the topic pane.

Related information...

- *Online documentation*, page System documentation-6
- *Help window descriptions*, page System documentation-10

Access Help?

Perform this procedure to display Help? (ARCHITECT System Help) on the SCC (system control center).

Prerequisite	NA
Module status	Any
User access level	General operator

To access Help?:

Select the **help** button  found in the lower right-hand corner of the software screen or window.

Help? opens and displays content specific to the current screen or window.

To access Help? for error code messages, perform one of the following:

- Select the **help** button on the error message.
- Select the **Error ?** help button 

on the Details for exceptions window.
- Select **F7 - Error ?** from the System logs screen.

  Help? opens and displays content specific to the current error message.

Related information...

- *Online documentation*, page System documentation-6
- *Help window descriptions*, page System documentation-10

Display and use the procedure map

Perform this procedure to view a list of procedures related to the performance of a particular task and to display the instructions associated with each procedure.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To display and use the procedure map:

1. Select the **Home** button on the toolbar.

   The procedure map displays in the topic pane.
2. Select a category on the procedure map to display a list of related tasks.

The topic content related to your selection displays in the topic pane with an expandable list of related tasks.

3. Select a task(s) with a **right arrow** symbol to display a list of related subtasks or procedures.

   The right arrow changes to a down arrow and a list of subtasks or procedures displays.

   NOTE: You can select tasks with a down arrow symbol to collapse the list.

4. Repeat step 3 until the desired procedure displays, and then select the procedure.

   The procedure content displays in the topic pane.

5. Select the **Back** button to return to the task list. ***(optional)***

Related information...

- *Help window toolbar*, page System documentation-13
- *Procedure map description*, page System documentation-20
- *Task lists*, page System documentation-21

Use the table of contents (online operations manual)

Perform this procedure to view a list of topics found in the online operations manual (ARCHITECT System Operations Manual) and to display the associated content.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To use the table of contents:

1. Select the **Contents** tab on the navigation pane.
2. Select the + symbols next to the book icons.

   NOTE: You can select the - symbol to collapse the list.

3. Use the scroll bar to the right of the navigation pane to view all content.
4. Select a topic title.

   The topic content displays in the topic pane.

Related information...

- *Help window descriptions*, page System documentation-10
- *Contents tab (online operations manual)*, page System documentation-15
- *Organization of the online operations manual*, page System documentation-16

Page through the content (online operations manual)

Perform this procedure to step through a sequence of associated topics much like turning the pages of a book. You can start anywhere in the table of contents, but a logical starting point is at a heading or subheading level.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To page through the content:

1. Select the **Contents** tab on the navigation pane, and then select a topic title.

   The topic content displays in the topic pane.

2. Select the **Next** button on the toolbar to display the next topic listed in the table of contents.
3. Repeat step 2 as often as desired.
4. Select the **Previous** button to display the previous topic listed in the table of contents. ***(optional)***

Related information...

- *Help window toolbar*, page System documentation-13
- *Organization of the online operations manual*, page System documentation-16

Use the index (online operations manual)

Perform this procedure to view a list of index entries and display the associated content.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

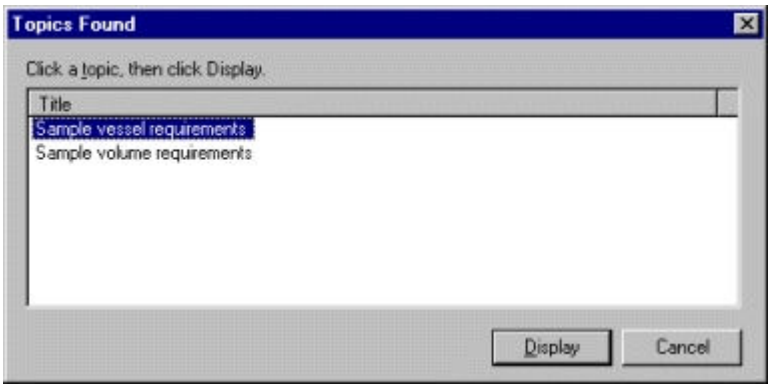
To use the index:

1. Select the **Index** tab on the navigation pane.
2. Type a word or scroll through the list.
3. Select the desired entry, and then select **Display**.

   The topic content displays in the topic pane.

   Or

   The Topics Found dialog displays if the selected entry is found in more than one topic. Highlight the desired topic, and then select **Display**.



Related information...

- *Help window descriptions*, page System documentation-10
- *Index tab (online operations manual)*, page System documentation-18

Search for a term (online operations manual)

Perform this procedure to conduct a basic search of the ARCHITECT System Operations Manual for the use of a particular word or phrase. For example, if you search for the word *create* every topic that contains the word *create* is found.

NOTE: Search results may not provide the expected outcome. In some instances not all word(s) are highlighted. In non-English languages:

- Instances of the same word, with and without accented characters, may be found.
- Exact matches including the accented and non-accented characters may be highlighted.
- Words with accented characters or non-Latin characters may not be found.

The basic rules for formulating search queries are:

- Enter the desired word or phrase in either uppercase or lowercase characters. Searches are not case sensitive.
- Enter any combination of letters (a-z) and numbers (0-9). You cannot search for single letters (a, b, c, and so forth). Punctuation marks such as a period, colon, semicolon, comma, and hyphen are ignored.

To target your search and narrow the number of results returned, see *Perform an advanced search (online operations manual)*, page System documentation-32.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To search for a term:

1. Select the **Search** tab on the navigation pane.
2. Enter the desired word or phrase, or select the **down** arrow  to choose from previous used search terms.

   NOTE: Use quotation marks to specify a literal phrase for example, sample processing. Without the quotation marks, your search is equivalent to specifying "sample" AND "processing," which finds topics that contain both individual words and not necessarily the phrase.
3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select a topic from the **Select Topics to display** list, and then select **Display**.

   The topic content displays in the topic pane.

   NOTE: When only a portion of the topic title is displayed in the Search tab's navigation pane, you can click and drag either the right border of the pane or the Title column.

Related information...

- *Help window descriptions*, page System documentation-10
- *Search tab (online operations manual)*, page System documentation-18

Find support information (CSC - online operations manual)

Perform this procedure to find and display CSC or FSE support information. This content does not display to the general operator or system administrator.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	CSC or FSE

To find support information:

1. Select the **Search** tab on the navigation pane.
2. Enter either:
   - `CSC` - for CSC information
   - `FSE` - for both CSC and FSE information
3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select a topic from the **Select Topics to display** list, and then select **Display**.

   The topic content displays in the topic pane.

Related information...

- *Help window descriptions*, page System documentation-10
- *Search tab (online operations manual)*, page System documentation-18

Perform an advanced search (online operations manual)

Perform this procedure to target your search and narrow the number of results returned. Steps are included to perform an advanced search using:

- Boolean operators - qualifiers that enable you to refine a search by creating a relationship between words
- Nested expressions - a combination of operators, one inside another, that enable you to perform an even more refined search
- Wildcard expressions - keyboard characters that enable you to search for terms without entering a complete entry
- Previous results only
- Similar word matches
- Topic titles only

NOTE: When only a portion of the topic title is displayed in the Search tab's navigation pane, you can click and drag either the right border of the pane or the Title column.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To perform an advanced search using boolean operators:

1. Select the **Search** tab on the navigation pane, and then enter the desired terms.
2. Place the cursor where you want to use a boolean operator, and then select the **right arrow** button  to display a list of operators.
3. Select the boolean operator to add, see *Boolean operators description*, page System documentation-35.
4. Repeat steps 2 and 3 to add additional operators. ***(optional)***

   NOTE: You can type the boolean operator(s) or select the **right arrow** button  , and then select the operator to add.

5. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

6. Select **Title** to sort the topic list alphabetically. ***(optional)***

7. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

To perform an advanced search using nested expressions:

1. Select the **Search** tab on the navigation pane, and then enter the nested expression, see *Nested expressions description*, page System documentation-35.

   NOTE: You can type the boolean operator(s) or select the **right arrow** button  , and then select the operator to add.

2. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

3. Select **Title** to sort the topic list alphabetically. ***(optional)***

4. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

To perform an advanced search using a wildcard expression:

1. Select the **Search** tab on the navigation pane, and then enter the characters and wildcard expression, see *Wildcard expressions description*, page System documentation-36.

2. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

3. Select **Title** to sort the topic list alphabetically. ***(optional)***

4. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

To perform an advanced search in previous results only:

1. Select the **Search** tab on the navigation pane, and then enter the word or phrase you want to find.

2. Select the **Search previous results** check box to search through the results of your last search in the current help session.

3. Select **List Topics**.

The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).

4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

   NOTE: The Search tab opens with the Search previous results check box selected if you used this feature last. To search through all files in the operations manual you must select this check box to clear it.

To perform an advanced search for similar words:

1. Select the **Search** tab on the navigation pane, and then enter the word or phrase you want to find.
2. Select the **Match similar words** check box.

   NOTE: This search feature adjusts word forms to expand the context, for example the word *create* is also found as *creating*, *to create*, *created*, and so forth.

   This feature is not functional for non-English languages.
3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

   NOTE: The Search tab displays with the Match similar words check box selected if you used this feature last. You can select this check box to clear it.

To perform an advanced search in topic titles only:

1. Select the **Search** tab on the navigation pane, and then enter the word or phrase you want to find.
2. Select the **Search titles only** check box.
3. Select **List Topics**.

   The number of results found and a list of topics that contain the word or phrase display sorted by rank (number of occurrences in a topic).
4. Select **Title** to sort the topic list alphabetically. ***(optional)***
5. Select the desired topic, and then select **Display**.

   The topic content displays in the topic pane.

NOTE: The Search tab displays with the Search titles only check box selected if you used this feature last. To search through all files in the operations manual you must select this check box to clear it.

Related information...

- *Help window descriptions*, page System documentation-10
- *Search tab (online operations manual)*, page System documentation-18

Boolean operators description

Boolean operators (AND, OR, NOT, and NEAR) are qualifiers that enable you to refine a search by creating a relationship between words. If you do not specify an operator, AND is used. For example, a search for *system control center* is equivalent to a search for *system AND control AND center*.

The following table shows how to use each operator.

Using boolean operators

To search for	Use	Results in
Both words in the same topic	processing AND module	A list of topics containing both the words "processing" and "module"
Either word in a topic	processing OR module	A list of topics containing either the word "processing" or the word "module" or both
The first word without the second word	processing NOT module	A list of topics containing the word "processing," but not the word "module"
Both words in the same topic, close together	processing NEAR module	A list of topics containing the word "processing" within eight words of the word "module"

Nested expressions description

Nested expressions are a combination of operators, one inside another, that enable you to create a highly refined search. The expressions in parentheses are evaluated first. For example, a search for *calibration NOT (active OR failed)* finds topics containing the word calibration without either of the words active or failed.

Without the parentheses your search is evaluated from left to right and finds topics containing the word calibration without the word active, or topics containing the word failed.

You can nest expressions five levels deep. The following example shows a nested expression using two levels:

calibration AND ((active OR failed) NEAR curve)

This search finds topics containing the word calibration used with the words active and curve close together, or topics containing the word calibration with the words failed and curve close together.

Related information…

- *Boolean operators description*, page System documentation-35

Wildcard expressions description

Wildcard expressions are keyboard characters used to represent one or more real characters. You use wildcard expressions to search for terms without entering a complete entry by:

- Using a question mark as a substitute for a single character
- Using an asterisk as a substitute for any number of characters

NOTE: The question mark or asterisk cannot be the only character used.

The following table shows how to use the asterisk wildcard expression.

Using an asterisk wildcard expression

To search for	Use	Results in
Results that start with specific characters or numbers	op*	A list of topics that contain the terms "operator," "operating," "operation," and so forth.
Results that start and end with specific characters or numbers	80*86	A list of topics that contain the numbers "80186," "80286," "80386," and so forth.
Results that end with specific characters or numbers	*25	A list of topics that contain the numbers "125," "1025," "12025," and so forth.
Results that contain specific characters or numbers	*15*	A list of topics that contain the numbers "15," "215," "3015," and so forth.

Use the glossary

Perform this procedure to look up the definition.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To use the glossary:

1. Select the **Glossary** button on the toolbar.

   The glossary displays.

2. Select the desired letter.

An alphabetized list of terms and definitions that start with the selected letter displays.

3. Use the **scroll bar** to the right of the topic pane, as required, to display the desired word.

Related information...

- *Help window toolbar*, page System documentation-13
- *Help window topic pane*, page System documentation-14

Scroll through a topic

Perform this procedure to view all content of a longer topic or to control which part of the content displays in the help window.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To scroll through a topic:

1. Use the **down** arrow, in the lower right-hand corner of topics that have scroll bars, to scroll through the content.

   The content scrolls down and the scroll box indicates your position in the topic.

2. Select the **up** or **down** arrow to move a few lines at a time. ***(optional)***
3. Select an empty space above or below the scroll box to move several lines at a time. ***(optional)***
4. Drag the **scroll** box to the desired location. ***(optional)***

Related information...

- *Help window topic pane*, page System documentation-14

Display related information

Perform this procedure to display related information such as a further explanation, a definition, procedures, and so forth.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To display related information:

1. Select the hypertext (blue, underlined text).

   The related information displays in the topic pane.

2. Select the **Back** button on the toolbar to return to the previously displayed topic. ***(optional)***

Related information...

- *Help window toolbar*, page System documentation-13
- *Help window descriptions*, page System documentation-10

Redisplay a topic

Perform this procedure to display a topic(s) you have viewed in your current help session.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To redisplay a topic:

1. Select the **Back** button on the toolbar to display the last topic you viewed.
2. Select the **Forward** button to display the next topic in a previously displayed sequence of topics.

Related information...

- *Help window toolbar*, page System documentation-13

Display a favorite topic (online operations manual)

Perform this procedure to display a topic(s) in your favorites list.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To display a favorite topic:

1. Select the **Favorites** tab on the navigation pane.
2. Select the desired topic from the **Topics** list, and then select **Display**.

   The topic content displays in the topic pane.

Related information...

- *Help window descriptions*, page System documentation-10
- *Favorites tab (online operations manual)*, page System documentation-19

Play videos and animations

Perform this procedure to display and play video and animation clips.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To play video and animation clips:

1. Select the **movie** button to the left of images that have multimedia capabilities.

   The video or animation clip loads and begins to play. Three buttons display below the image. These buttons represent the standard play, pause, and stop buttons commonly associated with VCRs and CD-Players.

2. Select the **movie** button after the video or animation has played to return to the original view.

Related information...

- *Help window topic pane*, page System documentation-14

Print topics from the online documentation

Perform this procedure to print the currently displayed topic or to print all topics under a heading.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To print topics from the online documentation:

1. Select the **Print** button on the toolbar.

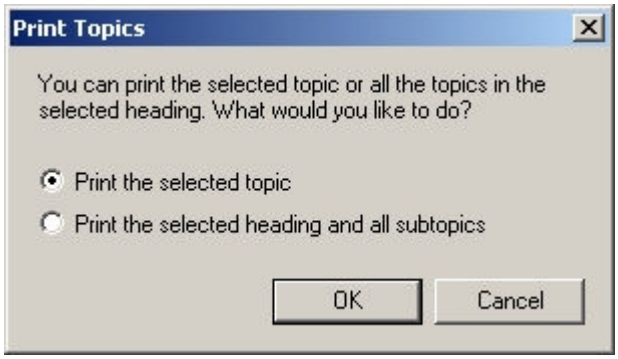
   The Print Topics window displays with Print the selected topic option selected if you are using the Contents tab to access topics.

Or

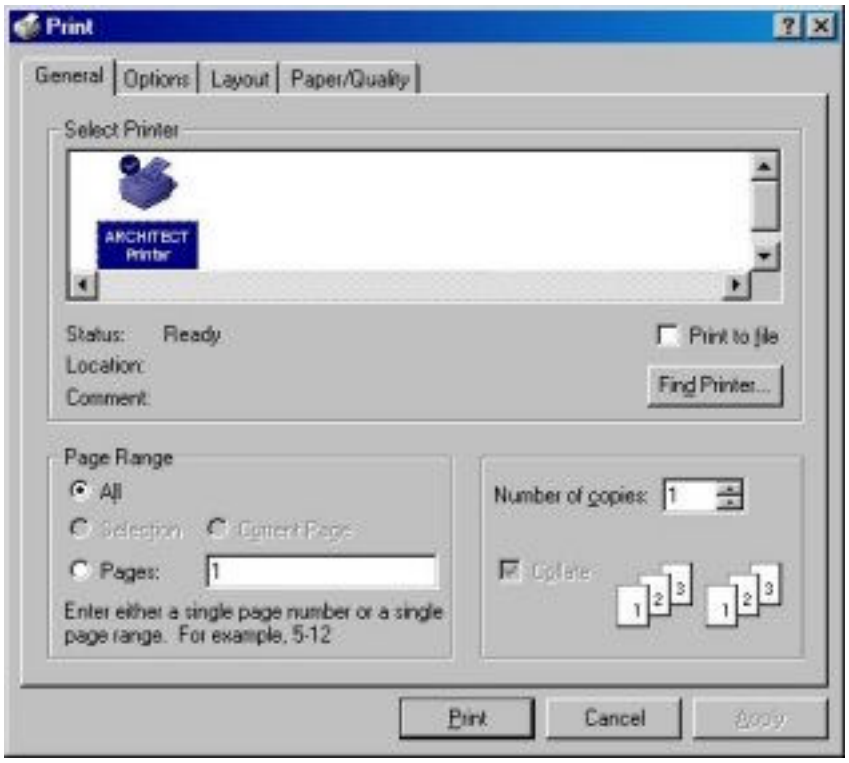
The Print window displays with the General tab selected.

2. Perform steps a and b or step b depending on the window that displays.

   a. From the Print Topics window select **OK** to print the selected topic or select **Print the selected heading and all subtopics** option, and then select **OK**.



   The Print window displays with the General tab selected.



   b. From the Print window follow these instructions:

Option	Instructions
Printer	• Do not change the selection when printing from the SCC (system control center).

Option	Instructions
Print to file	• Do not select.
Find Printer	• Do not select.
Page Range	• Do not change the default selection of All.
Number of copies	• Select the **up** arrow to increase the number of copies. ***(optional)*** • Do not select the Collate option.
Print	• Select to print.

Related information...

- *Help window descriptions*, page System documentation-10
- *Help window toolbar*, page System documentation-13

Close the help window

Perform this procedure to close the help window.

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27
Module status	Any
User access level	General operator

To close the help window:

Select the **Close** button on the toolbar.

The help window closes.

Related information...

- *Help window descriptions*, page System documentation-10
- *Help window toolbar*, page System documentation-13

Resize and move the help window

Perform this procedure to change the size and position of the help window and the width of help window panes. Steps are included to:

- Maximize the help window
- Resize the navigation and topic panes (online operations manual)
- Change the width or height of the help window
- Move the help window

Prerequisite	*Access the online operations manual*, page System documentation-26, or *Access Help?*, page System documentation-27

Module status	Any
User access level	General operator

To maximize the help window:

Select the **Maximize** button in the upper right-hand corner of the help window.

The help window enlarges to full screen size. You can select the **Restore Down** button to return it to its previous size and position.

To resize the navigation and topic panes (online operations manual):

1. Position the pointer on the divider between the two panes.

   The pointer changes to a double arrow ↔.

2. Drag the divider right or left.

To change the height or width of the help window:

1. Position the pointer on the top, bottom, left, or right edge of the help window.

   The pointer changes to a double arrow ↔.

2. Drag the edge in the desired direction.

To move the help window:

1. Position the pointer on the title bar.
2. Drag the help window to the desired position.

Related information...

- *Help window descriptions*, page System documentation-10

Add or remove a favorite topic (online operations manual)

Perform this procedure to add a topic(s) to your favorites list for quick access, or to remove a topic(s) that is no longer needed.

NOTE: When a new version of the operations manual is released, you may need to reconfigure your favorites list due to the addition or deletion of topics.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To add a favorite topic:

1. Display the desired topic.

2. Select the **Favorites** tab on the navigation pane.
3. Select **Add**.

   The topic title displays in the Topic list.

To remove a favorite topic:

1. Select the **Favorites** tab on the navigation pane.
2. Select the desired topic from the **Topics** list, and then select **Remove**.

   The topic title no longer displays in the Topic list.

Related information…

- *Help window descriptions*, page System documentation-10
- *Favorites tab (online operations manual)*, page System documentation-19

Rename a favorite topic (online operations manual)

Perform this procedure to rename a favorites topic.

Prerequisite	*Access the online operations manual*, page System documentation-26
Module status	Any
User access level	General operator

To rename a favorite topic:

1. Select the **Favorites** tab on the navigation pane.
2. Select the desired topic from the **Topics** list, and then select **Display**.

   The topic content displays in the topic pane.
3. Enter the new name in the **Current topic** data entry box, and then select **Add**.
4. Select the old topic name, and then select **Remove**. ***(optional)***

Related information…

- *Help window descriptions*, page System documentation-10
- *Favorites tab (online operations manual)*, page System documentation-19

NOTES

Introduction

The modular design and integration capabilities of the ARCHITECT family of analyzers provide a single workstation capable of processing a variety of assays.

With an intuitive software interface, real-time display of system statuses, and a "to do" list of scheduled maintenance activities, you can minimize system interaction and optimize your productivity.

Use or function topics include:

ARCHITECT System overview

The modular design of the ARCHITECT family of analyzers allows multiple processing modules, which perform all sample processing activities, to be physically joined to form a single workstation or system. The processing module(s) determines your system configuration.

ARCHITECT Systems can be configured to process samples using potentiometric and photometric methods and/or CMIA (chemiluminescent microparticle immunoassay) methods.

System overview topics include:

Primary components of an ARCHITECT System

Each ARCHITECT System, regardless of type, consists of three primary components:

- *System control center*, page 1-11 - provides a common user interface across all ARCHITECT System configurations.
- *Processing modules*, page 1-31 - performs all sample processing activities from aspiration to final read. The type(s) and number(s) of processing module(s) determines your system configuration.
- *Sample handlers*, page 1-166 - transports samples through an ARCHITECT System. Each system has a single, primary sample handler regardless of the number of processing modules and types.

ARCHITECT integrated system

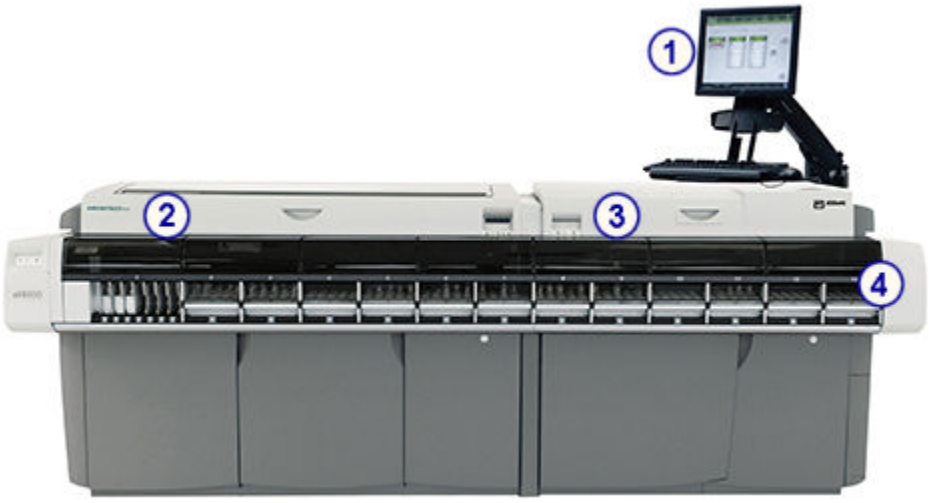
The ARCHITECT integrated system is a fully-automated clinical chemistry and immunoassay system consisting of a *c* System and an *i* System processing module that form a single workstation.

Integrated systems include:

- ARCHITECT *ci*4100 consisting of a *c*4000 and an *i*1000SR processing module

- ARCHITECT *ci*8200 consisting of a *c*8000 and an *i*2000SR processing module
- ARCHITECT *ci*16200 consisting of a *c*16000 and an *i*2000SR processing module

Figure 1.1: Primary components of an integrated system



Legend:

1. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface. The computer may be located on a stand or inside the right-side cover of the *i* System processing module.
2. *Processing module (c System)*, page 1-31: Diagnostic module that performs sample processing using potentiometric and photometric methods.
3. *Processing modules (i System)*, page 1-95: Diagnostic module with priority processing capability that performs sample processing using the CMIA (chemiluminescent microparticle immunoassay) method.
4. RSH - robotic sample handler: Transport module that presents samples to the processing module(s) for analysis and retesting.

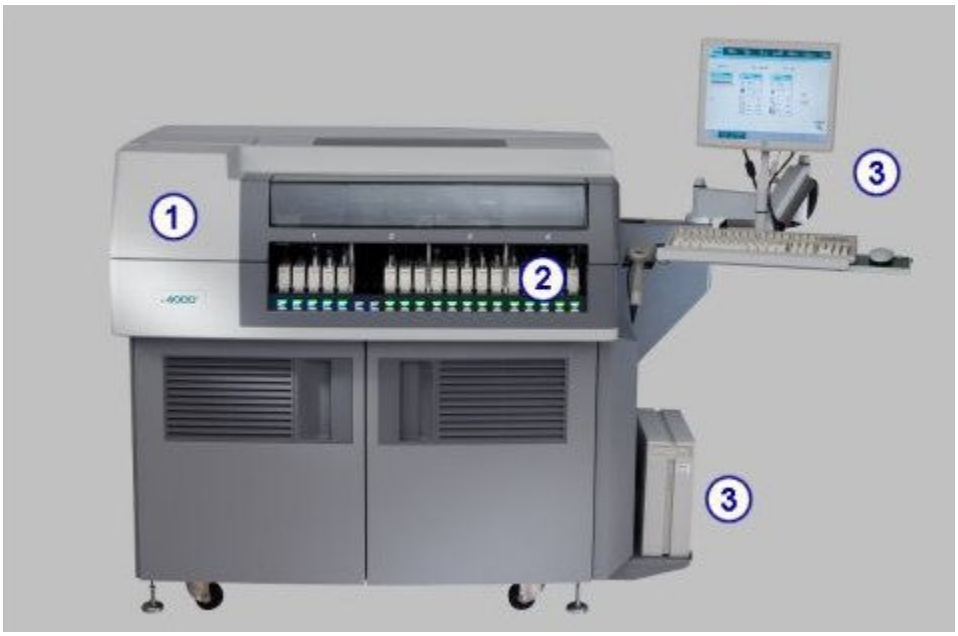
   See *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171.

   See *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166.

ARCHITECT *c*4000 System

The ARCHITECT *c*4000 System is an open, fully-automated, clinical chemistry system allowing random and continuous access, and priority processing.

Figure 1.2: Primary components of a c4000 System



Legend:

1. *c4000 processing module*, page 1-31: Diagnostic module that performs sample processing using potentiometric and photometric methods.
2. *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171: Transport module that presents samples to the processing module(s) for analysis and retesting.
3. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface.

ARCHITECT *c*8000 System

The ARCHITECT *c*8000 System is an open, fully-automated, clinical chemistry system allowing random and continuous access, and priority processing.

Figure 1.3: Primary components of a c8000 System

Legend:

1. *c8000 processing module*, page 1-33: Diagnostic module that performs sample processing using potentiometric and photometric methods.
2. *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166: Transport module that presents samples to the processing module(s) for analysis and retesting.
3. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface. The computer may be located on a stand or inside the right-side cover of the processing module.

ARCHITECT *c*16000 System

The ARCHITECT *c*16000 System is an open, fully-automated, clinical chemistry system allowing random and continuous access, and priority processing.

Figure 1.4: Primary components of a c16000 System

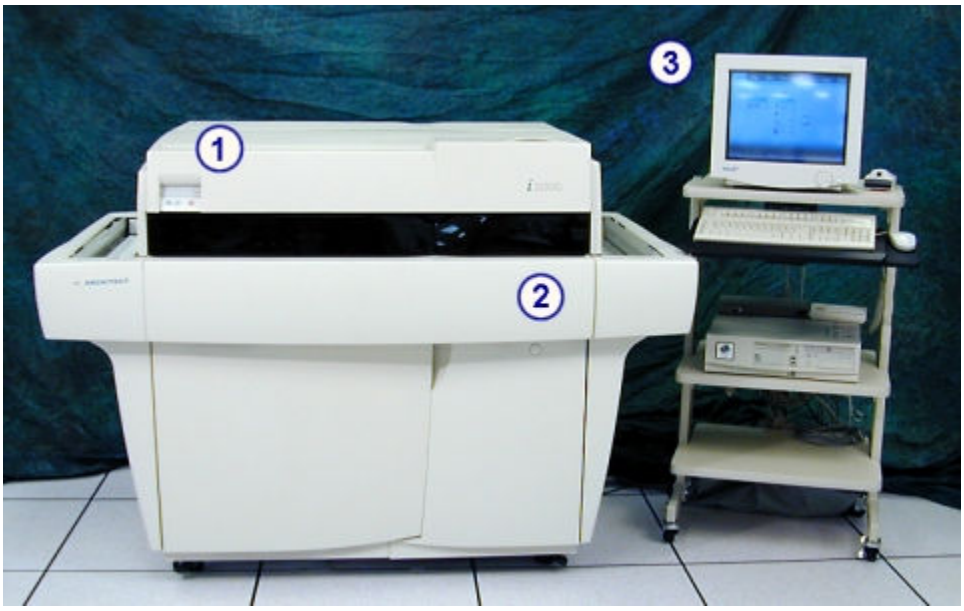
Legend:

1. *c16000 processing module*, page 1-35: Diagnostic module that performs sample processing using potentiometric and photometric methods.
2. *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166: Transport module that presents samples to the processing module(s) for analysis and retesting.
3. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface. The computer may be located on a stand or inside the right-side cover of the processing module.

ARCHITECT *i*2000 System

The ARCHITECT *i*2000 System is a fully-automated immunoassay system allowing random and continuous access, and priority processing. Up to four processing modules can be joined to form a single workstation.

Figure 1.5: Primary components of an i2000 System



Legend:

1. *i2000 processing module*, page 1-96: Diagnostic module that performs sample processing using the CMIA (chemiluminescent microparticle immunoassay) method.
2. *SSH - standard sample handler (i2000)*, page 1-179: Transport module that presents samples to the processing module(s) for analysis.
3. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface.

ARCHITECT *i*2000SR System

The ARCHITECT *i*2000SR System is a fully-automated immunoassay system allowing random and continuous access as well as priority and automated retest processing. The ARCHITECT *i*4000SR System has two *i*2000SR processing modules, joined in a multi-module configuration, to form a single workstation.

Figure 1.6: Primary components of an i2000SR System

Legend:

1. *i2000SR processing module*, page 1-99: Diagnostic module with priority processing capability that performs sample processing using the CMIA (chemiluminescent microparticle immunoassay) method.
2. *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166: Transport module that presents samples to the processing module(s) for analysis and retesting.
3. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface. The computer may be located on a stand or inside the right-side cover of the processing module.

Figure 1.7: i4000SR System

ARCHITECT *i*1000SR System

The ARCHITECT *i*1000SR System is a fully-automated immunoassay system allowing random and continuous access as well as priority and automated retest processing.

Figure 1.8: Primary components of an i1000SR System

Legend:

1. *i1000SR processing module*, page 1-102: Diagnostic module with priority processing capability that performs sample processing using the CMIA (chemiluminescent microparticle immunoassay) method.
2. *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171: Transport module that presents samples to the processing module(s) for analysis and retesting.
3. *System control center*, page 1-11: Computer system that provides user control of the processing module(s) and related components through a centralized interface.

System control center

The SCC (system control center) is a computer system that provides the software interface to the ARCHITECT System and can provide an interface to a host computer. From the SCC you can:

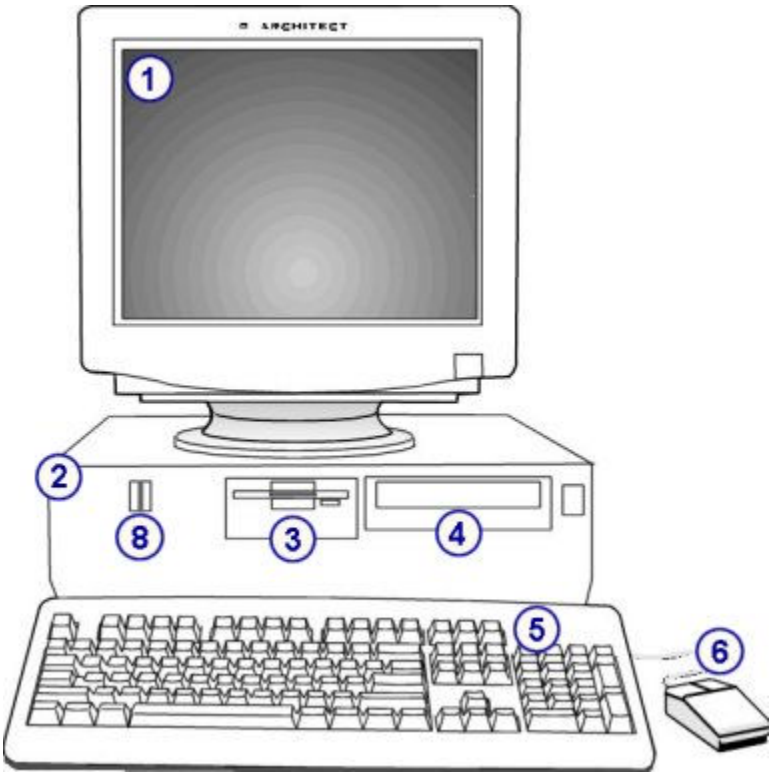
- Configure the system
- Enter patient, control, and calibration orders
- Review patient results, control data, and calibration results
- Control the processing module(s) and the sample handler
- Perform system diagnostics and maintenance procedures
- Receive test orders and diagnostic data from a host computer
- Transfer test results to a host computer

System control center topics include:

SCC standard components

The following illustration shows the standard components of the SCC (system control center).

Figure 1.9: SCC standard components



Legend:

1. Touch-screen monitor: Allows you to make onscreen selections by touching text areas and graphics, icons and menu items, and function bar buttons.
2. CPU (central processing unit): Houses the microprocessor and other computer components.

   NOTE: Upgrades to the computer hardware may change the location of CPU components.
3. Floppy drive: Used to import and export assay files (*c* System).
4. DVD/CD-RW drive: Used to:
   - Install assay, maintenance, and diagnostic files
   - Upgrade system software
   - Archive patient and quality control results and calibration curve data
   - Collect system logs for troubleshooting purposes
   - Backup software database
   - Import QC and calibration data
5. Keyboard: Used with the mouse and/or touch-screen monitor to enter information. You can use the keyboard as an alternate means of performing most functions.
6. Mouse (pointing device): Used with the touch-screen monitor and/or keyboard to make onscreen selections.
7. *Network hub and CPU back panel*, page 1-13 (not shown): Provides the connection between the SCC and modules for information exchange.

8. USB Flash drive: Used to:
   - Import QC and calibrator data
   - Import and export assay files (*c* System)
   - Collect system logs for troubleshooting purposes

Related information…

- *SCC optional components*, page 1-14

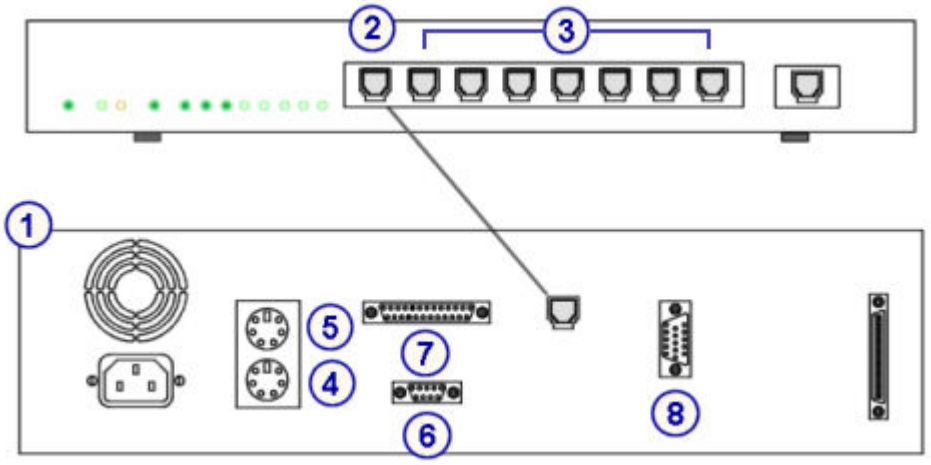
Network hub and CPU back panel

The network hub is an external device that joins communication lines and enables the electronic transfer of information between the SCC (system control center) and processing module(s). Cables run from the hub to ethernet connectors on the back of the SCC and processing module(s).

Additional I/O (input/output) ports and connectors on the back panel of the CPU (central processing unit) provide connections to other external devices, such as a keyboard, mouse, printer, and monitor.

NOTE: Upgrades to the computer hardware and network hub may change the location of CPU components.

Figure 1.10: Network hub and CPU back panel



Legend:

1. CPU (central processing unit - rear view): Provides the I/O (input/output) ports and connectors for external devices.
2. Ethernet connector: Provides the physical connection between the network hub and the SCC and allows communication between the SCC and the processing module(s).
3. Ethernet connectors: Provides the physical connection between the network hub and each module, and allows communication between the processing module(s) and the SCC.

4. Scanner and keyboard connector: Provides the connection for the bar code scanner and keyboard.
5. Mouse connector: Provides the connection for the mouse.
6. Com1 port: Provides the connection for the touch-screen interface.
7. Printer port: Provides the connection for the printer.
8. Video connector: Provides the connection for the monitor.

SCC optional components

Optional components available for the SCC (system control center) include:

- Printer - provides a hard copy of test results and printed reports.
- Bar code scanner - provides a convenient means of scanning sample bar codes to allow positive sample identification.
- UPS (uninterruptible power supply) - provides a temporary, continuous flow of power to the CPU (central processing unit) during a power failure, allowing you to save data as necessary and perform a controlled shutdown procedure.
- External modem - connects the ARCHITECT System to a telephone line, which allows communication with Abbott personnel for training and troubleshooting purposes.
- Cart - supports the SCC components.
- Speakers - provide audio output.

ARCHITECT System software

ARCHITECT System software is the computer program or set of computer instructions that interprets system and assay information, calculates results, and provides the interface for controlling the system hardware.

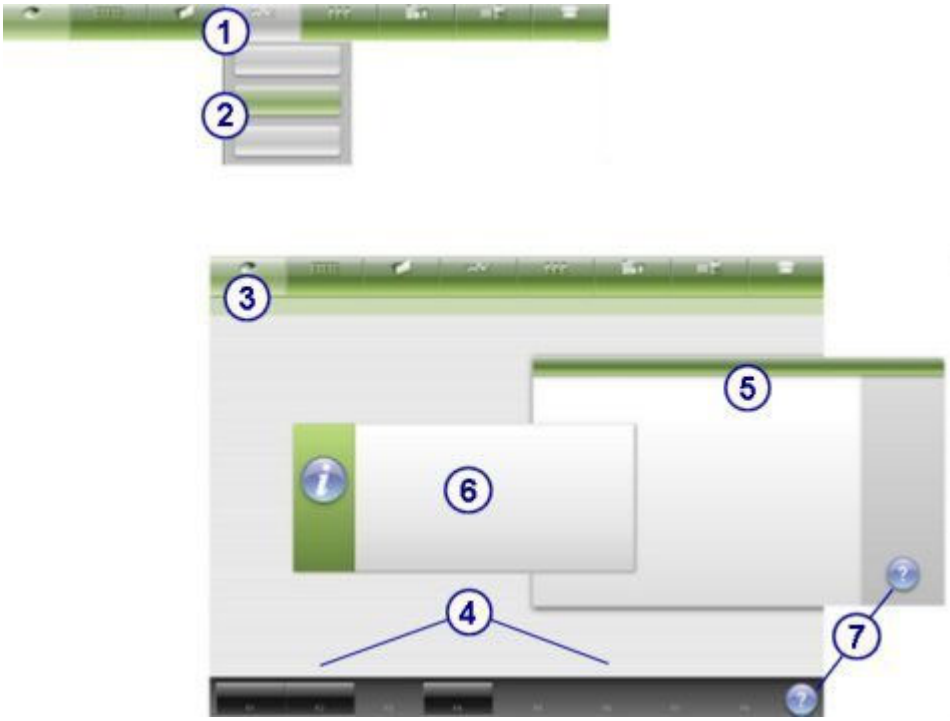
System software topics include:

Software interface description

The software interface is the portion of the computer program with which you interact by making selections and entering information. The interface provided by the ARCHITECT System software is a GUI (graphical user interface), which is a type of display format. A GUI allows you to initiate commands or make choices by selecting icons, buttons, items from lists, and so forth. You can use the mouse, touch-screen monitor, and/or keyboard to make your selections.

The software interface is common among all ARCHITECT Systems.

Figure 1.11: Software interface layout



Legend:

1. Icons: Represent a category of screens. When you select an icon, its color changes from green to gray and a menu displays below the icon. See *Icons and menus*, page E-2.
2. Menus: Lists the available items for the selected category (icon). When you select a menu item, the associated screen displays. See *Icons and menus*, page E-2.
3. Screens: Provides access to all related system information and functions. See *Screens*, page 1-16.
4. Buttons: Allow you to perform actions associated with the active screen and correspond to the function keys on the keyboard. Some may be unavailable until you make a selection on the screen. See *Buttons*, page E-5.
5. Windows: Provides additional details or functions related to the active screen. See *Windows*, page 1-18.

6. Messages or prompts: Provides informational or error messages that allow you to complete a procedure or address the current situation. See *Messages*, page 1-19 or *Prompts*, page 1-20.
7. Help button: Provides access to context-sensitive help for the active screen, window, or error message.

Screens

When you select an icon, and then a menu item, the associated screen displays. This screen is considered the active screen and provides access to all related system information and functions.

A screen can have different views (information displays) based on module type and your onscreen selections.

Figure 1.12: Example of a screen

Legend:

1. Icons: Provide access to a menu that lists related screens. See *Icons and menus*, page 1-17.
2. Title bar: Identifies the active screen.
3. Information area: Displays data and allows you to make selections and/or enter information to perform various functions.
4. Function bar buttons: Allow you to perform actions associated with the active screen and correspond to the function keys on the keyboard. Some may be unavailable until you make a selection on the screen. See *Function bar buttons*, page 1-17.
5. Help button: Provides access to context-sensitive help for the active screen, window, or error message.

For descriptions of all elements on a screen or window, see *Descriptions of screen elements*, page E-1.

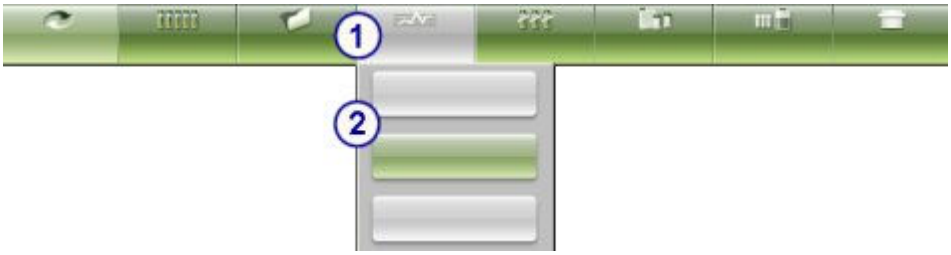
Screen topics include:

- *Icons and menus*, page 1-17
- *Function bar buttons*, page 1-17

Icons and menus

Icons and menus are the navigational elements that allow you to display specific screens. Additionally, icons serve as blinking indicators to inform you that a condition requires your attention.

Figure 1.13: Example of icons and a menu



Legend:

1. Icons: Represent a category of screens. When you select an icon, its color changes from green to gray and a menu displays below the icon.
2. Menu: Lists the available items for the selected category (icon). When you select a menu item, the associated screen displays.

NOTE: Icons can be accessed by the keyboard equivalents shown in the figure below.

Figure 1.14: Icon keyboard equivalents

Function bar buttons

Function bar buttons are the buttons at the bottom of each screen that allow you to perform actions or access windows associated with the screen. They correspond to the function keys on the keyboard. You can use either the function bar buttons or the keyboard function keys.

The two types of function bar buttons are:

- Screen available - have white lettering and are always available (black background). For example, from the Order status screen you can always select F3 - Find.
- Context available - have yellow lettering and are available (black background) or unavailable (gray background) based on selections you

make from the screen. For example, from the Order status screen you can only select the F5 - Details function key after you select an order.

Figure 1.15: Screen and context function bar buttons

Legend:

1. Screen available function bar buttons: Are always enabled for the active screen.
2. Unavailable context function bar buttons: Are available after you make a selection on the screen.

Windows

Windows provide additional information or functions related to the active screen. You access windows by selecting a button on the screen. The window displays on top of, or in front of, the screen.

Figure 1.16: Example of a window

Legend:

1. Title bar: Identifies the active window.
2. Information area: Displays data and allows you to make selections and/or enter information to perform various functions.
3. Help button: Provides access to context-sensitive help for the active screen, window, or error message.

For a description of all elements on a screen or window, see *Descriptions of screen elements*, page E-1.

Messages

Messages provide important information during the course of normal system operation. They display in front of the currently displayed screen or window and require an acknowledgement. All interaction with the user interface is suspended as long as the message displays.

Figure 1.17: Example of a message

The type of message is indicated by one of two symbols at the left of the window.

	Caution: Indicates a condition that requires you to take corrective action as described in the text of the message.
	Information: Provides feedback or other useful information.

Prompts

Prompts allow you to continue or cancel the requested operation. They display in front of the currently displayed screen or window and require a response. All interaction with the user interface is suspended as long as the prompt displays.

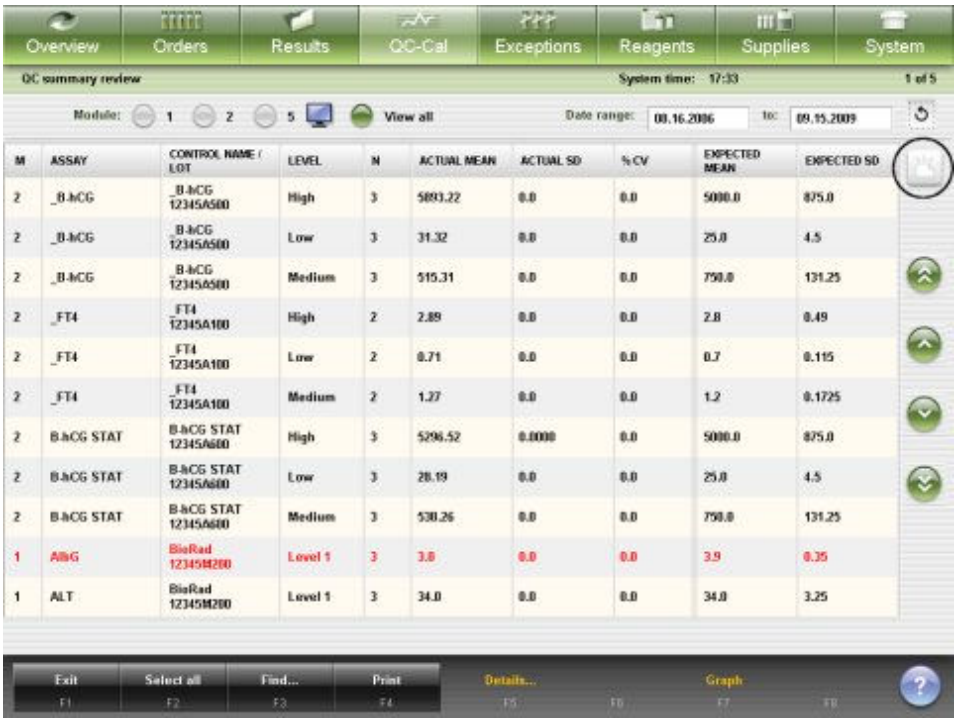
Figure 1.18: Example of a prompt

Refresh button

The Refresh button allows you to update the screen for items that do not update automatically. The button is located on the upper right corner of the screen and is available when the system has new data to display. The following screens update automatically:

- Sample status
- Order status
- Reagent status - module view
- Reagent status - view all view

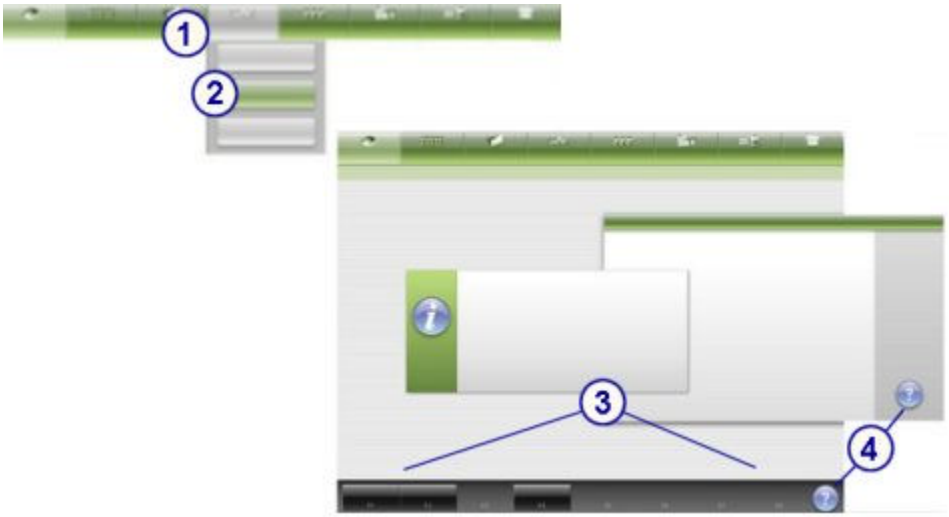
Figure 1.19: Example of a refresh button



Software navigation

The ARCHITECT System software interface is designed to provide consistent and easy access to system information, software functions, and context-sensitive help. You can navigate through the screens and windows by using the mouse (pointing device), touch-screen monitor, and/or keyboard.

Figure 1.20: Software navigation



Legend:

1. Select an icon to display a menu that lists related items. See *Icons and menus*, page 1-17.
2. Select a menu item from the menu to display that screen. See *Icons and menus*, page 1-17.
3. Select a function bar button to perform an action or access a window associated with the screen.

   NOTE: Some function bar buttons may be unavailable until you make a selection on the screen.
4. Select the help button to access context-sensitive help for the screen, window, or error message.

Once you access a screen where scroll buttons appear, additional navigation is available via the keyboard.

Key name	Function
Page Up	Allows you to move the cursor up a page at a time.
Page Down	Allows you to move the cursor down a page at a time.
Home	Allows you to move to the top of the list.
End	Allows you to move to the end of the list.

Snapshot screen

From the Snapshot screen you can view key system information such as:

- *Sample handler status*, page 1-221 - displays on the sample handler graphic.

  NOTE: The sample handler status graphic is not displayed for an *i*2000SR processing module configured with a LAS (laboratory automation system).
- *Processing module status*, page 1-224 - displays on the processing module graphic(s).
- Test processing status - displays on the order status button. You can select this button to display the Order status screen.
- Reagent status - displays on the reagent status button. You can select this button to display the Reagent status screen.
- Calibration curve status (*c* System) - displays on the calibration status button. You can select this button to display the Calibration status screen.
- Supply and waste status - displays on the supply status button. You can select this button to display the Supply status screen.
- Number of orders pending rerun - displays on the Reruns status button. You can select this button to display the Rerun status screen.
- Number of exceptions pending review - displays on the Exceptions status button. You can select this button to display the Exception status screen.

Additionally, the Printer, LIS, ARM, LAS, and RSHx status buttons and Sample find button display if your system is configured with these optional components.

A caution symbol indicates a condition that requires attention.

Figure 1.21: Snapshot screen

For descriptions of these fields, see *Snapshot screen field descriptions*, page E-14.

To display this screen, see *Access the Snapshot screen*, page 1-24.

Related procedures…

- *Log on (general operator)*, page 1-26
- *Log on (system administrator)*, page 1-27
- *Log on (CSC and FSE)*, page 1-27
- *Log off*, page 1-28
- *Log off (CSC and FSE)*, page 1-29
- *Cancel pending transmission*, page 5-417
- *Enable or disable the host or secondary HL7 connections*, page 5-417
- *Power on the SCC*, page 5-3
- *Power off the SCC*, page 5-4
- *Cycle power to the SCC*, page 5-5
- *Start up the processing module and/or sample handler*, page 5-15
- *Pause the processing module*, page 5-16
- *Pause the RSH*, page 5-17

- *Pause the sample carousel (c8000/c16000)*, page 5-18
- *Pause the sample load queue (SSH)*, page 5-19
- *Pause the LAS carousel sample handler (i2000)*, page 5-20
- *Initiate or resume sample processing (RSH and SSH)*, page 5-277
- *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278

Access the Snapshot screen

Perform this procedure to display the Snapshot screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Snapshot screen:

Select **Overview** from the menu bar, and then select **Snapshot**.

The Snapshot screen displays. The information is dependent on your system configuration and test processing status.

Related information…

- *Snapshot screen*, page 1-22
- *Sample handler status*, page 1-221
- *Processing module status*, page 1-224

Window - Snapshot screen

The window you can access from the Snapshot screen is the *Log on window*, page 1-24.

Log on window

From the Log on window you can log on as:

- General operator - required to display your operator ID on printouts and reports
- System administrator - required to perform system configuration, assay configuration, specific diagnostic procedures, and approve the maintenance log

In addition to the general user and administrator logons, Abbott representatives can log on as:

- CSC - requires the CSC user name and password to restore software and to perform diagnostic procedures not available to the administrator.
- FSE - requires the FSE user name and password to edit configuration settings and to perform diagnostic procedures not available to the

administrator or CSC. The FSE logon also allows access to the Task manager.

Figure 1.22: Log on window (system administrator)

For descriptions of these fields, see *Log on window field descriptions*, page E-18.

Related procedures…

- *Log on (general operator)*, page 1-26
- *Log on (system administrator)*, page 1-27
- *Change the system administrator password (password control not required)*, page 2-25
- *Log on (CSC and FSE)*, page 1-27
- *Log off*, page 1-28
- *Log off (CSC and FSE)*, page 1-29

User logon

User logon is the identifier that controls access to certain SCC (system control center) functionality. The two types of user logon are:

- General operator - required to print the operator ID of the current user on printouts and reports
- Administrator - required to perform administrator functions such as configuring settings, performing specific diagnostic procedures, and approving the maintenance log

Additionally, Abbott Area Customer Support may provide a user name and temporary password to operators who call for troubleshooting assistance. This logon authorizes selected functions in addition to those allowed by the system administrator logon.

User logon topics include:

- *Log on (general operator)*, page 1-26

- *Log on (system administrator)*, page 1-27
- *Log on (CSC and FSE)*, page 1-27
- *Log off*, page 1-28
- *Log off (CSC and FSE)*, page 1-29

Log on (general operator)

Perform this procedure so that your operator ID displays on various screens and reports.

NOTE: Although you can run the system without logging on, you must log on if your operator ID is needed on system printouts and reports.

If your system is configured to require password-controlled logon you are required to log on.

To configure your system to require password-controlled logon, see *Change the requirement for password-controlled log on (premium feature)*, page 2-23.

To log on as a system administrator, see *Log on (system administrator)*, page 1-27.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	General operator
Supplies	NA

To log on (general operator):

1. Select **F2 - Log off** on the Snapshot screen, if the log on window is not displayed.

   The Log on window displays.

2. Enter your operator ID in the **User name** data entry box (maximum of 12 alphanumeric characters).

3. Enter the user name password in the **Password** field.

   NOTE: If your system is not configured to require password-controlled logon, the password field does not display.

4. Press Enter or select **Done** to log on.

   Your operator ID displays in the upper left-hand corner of the Snapshot screen.

Related information...

- *User logon*, page 1-25
- *Snapshot screen*, page 1-22
- *Log on window*, page 1-24

- *Configure system control center window*, page 2-50

Log on (system administrator)

Perform this procedure to complete system administrator functions such as configuring settings, performing specific diagnostic procedures, and approving the maintenance log.

To log on as a general operator, see *Log on (general operator)*, page 1-26.

To configure a new administrator user name and password, see *Configure user name and password (premium feature)*, page 2-9.

To change the administrator password when password control is not required, see *Change the system administrator password (password control not required)*, page 2-25.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	System administrator
Supplies	NA

To log on (system administrator):

1. Select **F2 - Log off** on the Snapshot screen.

   The Log on window displays.

2. Enter your administrator ID in the **User name** data entry box.

   NOTE: ADMIN is a system default administrator ID.

3. Enter the system administrator password in the **Password** field.

4. Press Enter or select **Done** to log on.

   Your administrator ID displays in the upper left-hand corner of the Snapshot screen.

Related information...

- *User logon*, page 1-25
- *Snapshot screen*, page 1-22
- *Log on window*, page 1-24

Log on (CSC and FSE)

Perform this procedure to log on as an Abbott representative to perform diagnostic procedures not available to the system administrator. Additionally:

- CSC and FSE/FSR logon allows you to restore software from a backup.
- FSE/FSR logon allows you to access the task manager and edit configuration settings.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	CSC or FSE
Supplies	NA

To log on (CSC and FSE):

1. Select **F2 - Log Off** on the Snapshot screen.

   The Log on window displays.

2. Enter `CSC` or `FSE` (all capital letters) in the **User name** data entry box.
3. Enter the CSC password or FSE logon date code in the Password data entry box.
4. Press Enter or select **Done** to log on.

   CSC or FSE displays in the upper left-hand corner of the Snapshot screen.

Prior to leaving the site, you are required to return the system to the general operator level of access. See *Log off (CSC and FSE)*, page 1-29.

Related information…

- *User logon*, page 1-25
- *Snapshot screen*, page 1-22
- *Log on window*, page 1-24

Log off

Perform this procedure to log off if you are currently logged on to the system.

NOTE: If samples are processing when the user logs off or the system inactivity time expires, the ID of the previously logged on operator is used until a different operator logs on.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	Any
Supplies	NA

To log off:

1. Select **F2 - Log off** on the Snapshot screen.

   The Log on window displays.

2. Press the **Delete** key on the keyboard to delete the user name.

   The log on screen stays visible until a new user logs on.

Related information...

- *User logon*, page 1-25
- *Snapshot screen*, page 1-22
- *Log on window*, page 1-24

Log off (CSC and FSE)

Before leaving a customer site, you are required to log off the system. Perform this procedure to return the system to the general operator access level.

NOTE: If samples are processing when the user logs off or the system inactivity time expires, the ID of the previously logged on operator is used until a different operator logs on.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	Any
Supplies	NA

To log off (CSC and FSE):

1. Select **F2 - Log Off** on the Snapshot screen.

   The Log on window displays.

2. Press the **Delete** key on the keyboard to delete the user name.

   The log on screen stays visible until a new user logs on.

Related information...

- *User logon*, page 1-25
- *Snapshot screen*, page 1-22
- *Log on window*, page 1-24

Premium features

The system software includes premium features that are accessible only upon activation.

These features are activated by entering an activation key. You can evaluate these features for 30 days by entering a temporary activation key. Contact your local sales representative for more informaton regarding premium features.

Premium features are specific to a software version. ARCHITECT System software version 7.00 features include:

- Calibration curve compare - allows you to view current and previous calibration curves in the same window.
- Enhanced user interface - includes improved resolution, updated icons, increased number of items in a list per page, and a new color scheme.

- Plan my day - assists you with preparation for daily operation to maximize workflow in your laboratory.
- User-defined maintenance - allows you to add text-based maintenance procedures specific to your laboratory.

ARCHITECT System software version 8.00 features include:

- Control tracking by kit and disable a reagent kit on a control failure - allows you to configure the system to automatically disable a reagent kit when one level of a control fails.
- Improved password control - you can configure your system to allow individual user names and passwords.
- Require a control to be run after calibration - allows you to configure the system to require at least one level of control to complete before patient tests are processed on a new calibration curve.
- Track calibration and control lot number expiration - when configured, the system verifies the calibrator and control lot is not expired prior to allowing a calibrator or control order to be added.
- Inventory low alert for bulk and onboard solutions - provides the ability to define an alternative to the default 20% low alert threshold for bulk and onboard solutions.
- Track bulk and onboard solution lot number and expiration - the Update supplies window includes fields for lot numbers and expiration dates for bulk and onboard solutions.

If you activate premium features for version 8.00 or 8.10, premium features from version 7.00 are also available.

Related procedures…

- *Configure premium features*, page 2-12

Processing modules

Processing modules perform all sample processing activities from aspiration to final read.

Unless otherwise indicated, the term processing module is used generically throughout this documentation to refer to all types.

Processing module topics include:

Processing module (*c* System)

The *c* System processing modules perform all sample processing activities from aspiration to final read.

Processing module (*c* System) topics include:

*c*4000 processing module

The *c*4000 processing module is a chemistry analyzer that performs sample processing. It processes up to 400 photometric and 600 potentiometric tests per hour making use of up to 90 reagents in a temperature-controlled reagent supply center.

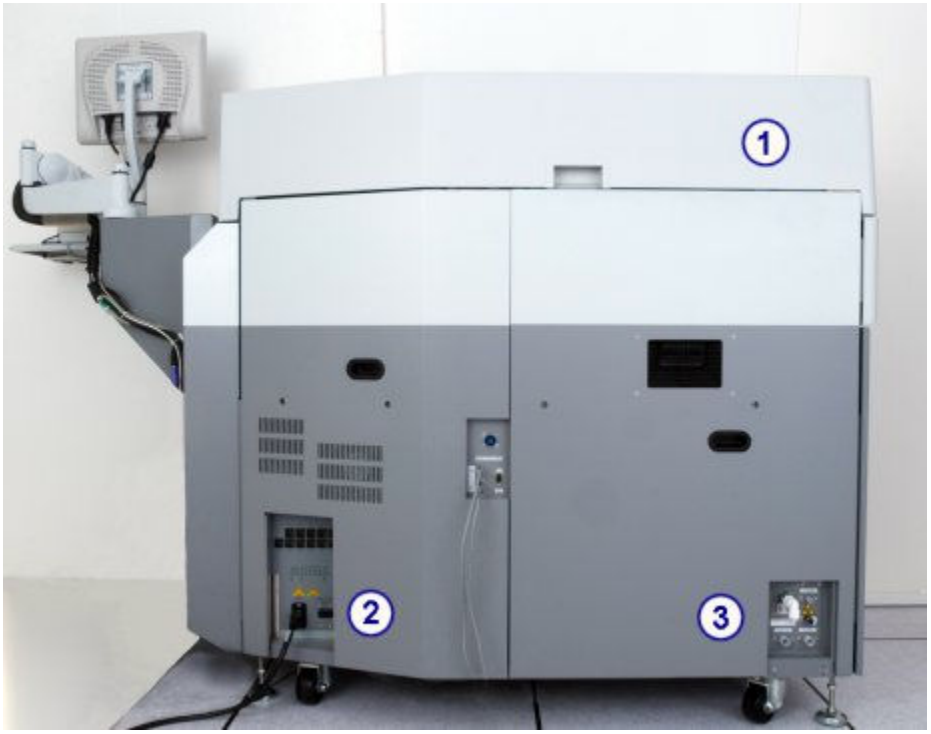
For the *c*4000 processing module, the sample handler configuration is the robotic sample handler, which automatically positions samples for retest.

Figure 1.23: c4000 processing module (front view - RSH)

Legend:

1. Front processing center cover: Provides access to the components that perform assay processing activities.
2. Supply and pump center door: Provides access to bulk solution storage and pump center.
3. Card cage door: Provides access to the card cage.

Figure 1.24: c4000 processing module (rear view - RSH)



Legend:

1. Rear processing center cover: Provides access to the components that perform assay processing activities.
2. Main power supply: Provides power to the processing module.
3. Water management unit: Provides the water supply connection.

Related information...

- *Processing center (c4000)*, page 1-39
- *Sample and reagent syringe area (c4000)*, page 1-57
- *Optional components*, page 1-158
- *ARCHITECT c4000 System*, page 1-3
- *ARCHITECT integrated system*, page 1-2
- *Processing module keypad (c4000)*, page 1-37
- *Supply and pump center (c4000)*, page 1-54

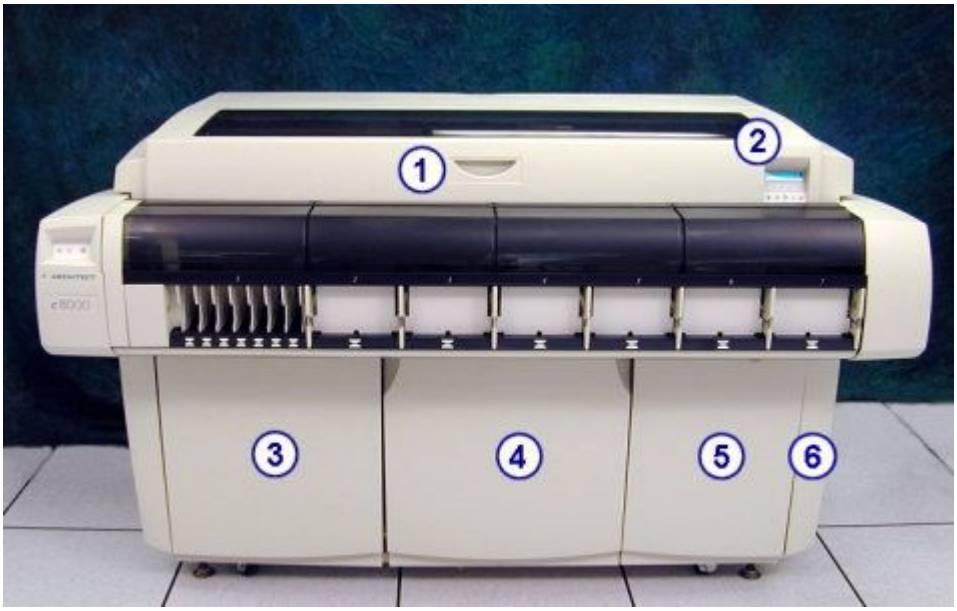
*c*8000 processing module

The *c*8000 processing module is a chemistry analyzer that performs sample processing. It processes up to 800 photometric and 600 potentiometric tests per hour making use of up to 56 - 65 onboard reagents in two temperature-controlled reagent supply centers.

For the *c*8000 processing module, the sample handler configuration is the robotic sample handler, which automatically positions samples for retest.

The *c*8000 processing module can also be configured with a LAS (laboratory automation system).

Figure 1.25: c8000 processing module (front view - RSH)



Legend:

1. Front processing center cover: Provides access to the components that perform assay processing activities.
2. *Processing module keypad (c8000/c16000)*, page 1-38: Provides a local user interface for controlling the processing center.
3. Supply center door: Provides access to the bulk storage supply center.
4. Pump center door: Provides access to the pump center.
5. Card cage door: Provides access to the card cage.
6. CPU access door: Provides access to the CPU depending on the module configuration.

Figure 1.26: c8000 processing module (rear view - RSH)

Legend:

1. Rear processing center cover: Provides access to the components that perform assay processing activities.
2. Main power supply: Provides power to the processing module.
3. Water management unit: Provides the water supply connection.

Related information...

- *Processing center (c8000)*, page 1-57
- *Sample and reagent syringe area (c8000)*, page 1-76
- *Optional components*, page 1-158
- *ARCHITECT integrated system*, page 1-2
- *ARCHITECT c8000 System*, page 1-4
- *Supply and pump center (c8000)*, page 1-73

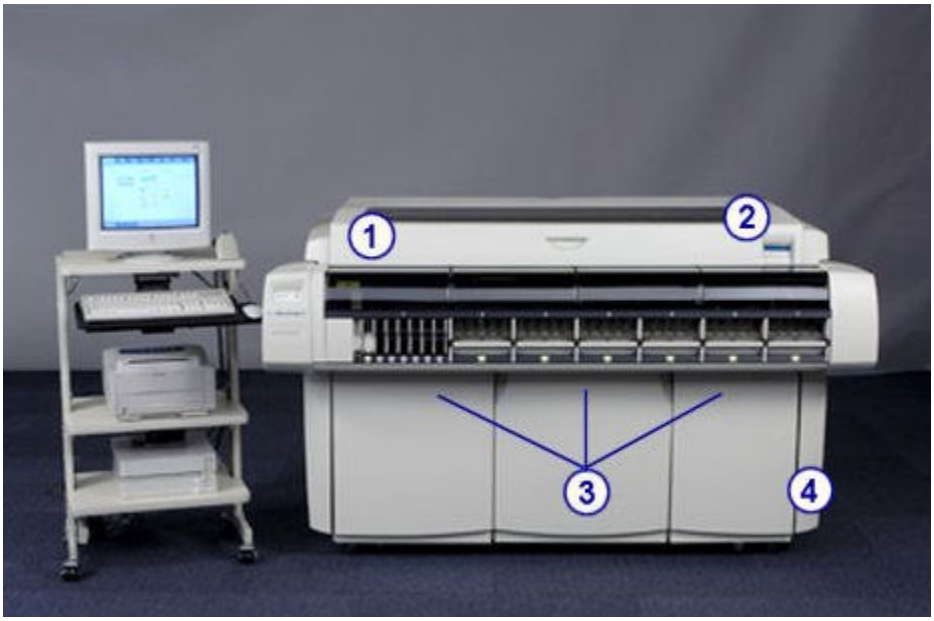
*c*16000 processing module

The *c*16000 processing module is a chemistry analyzer that performs sample processing. It processes up to 1600 photometric and 600 potentiometric tests per hour making use of up to 56 - 65 onboard reagents in two temperature-controlled reagent supply centers.

For the *c*16000 processing module, the sample handler configuration is the robotic sample handler, which automatically positions samples for retest.

The *c*16000 processing module can also be configured with a LAS (laboratory automation system).

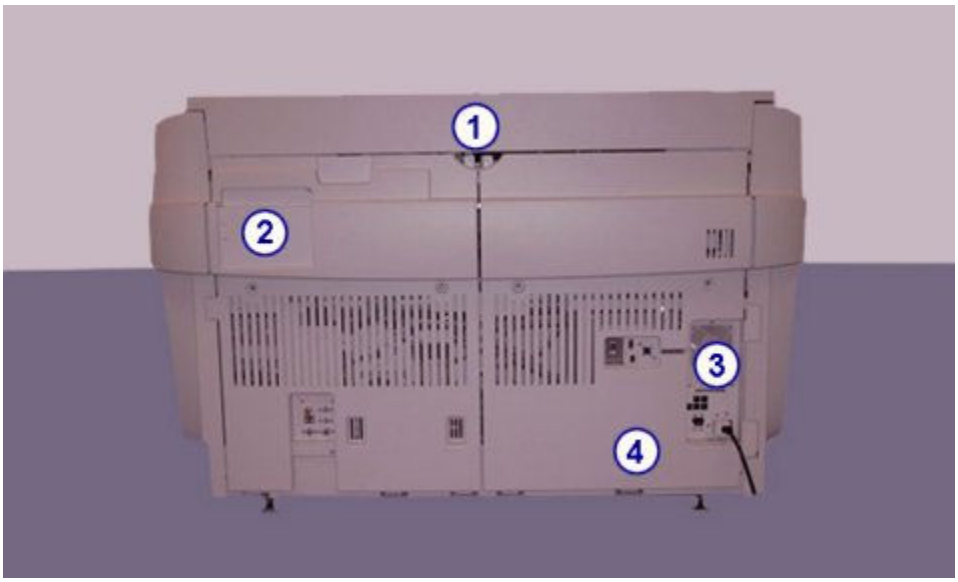
Figure 1.27: c16000 processing module (front view - RSH)



Legend:

1. Front processing center cover: Provides access to the components that perform assay processing activities.
2. *Processing module keypad (c8000/c16000)*, page 1-38: Provides a local user interface for controlling the processing center.
3. Supply and pump center doors:
   - Left - Provides access to the sample and reagent syringes.
   - Middle - Provides access to the sample and reagent syringe and probe wash pumps.
   - Right - Provides access to the bulk solution storage supply center and the wash solution and cuvette wash pumps.
4. CPU access door: Provides access to the CPU depending on the module configuration.

Figure 1.28: c16000 processing module (rear view - RSH)



Legend:

1. Rear processing center cover: Provides access to the components that perform assay processing activities.
2. ICT pump access cover: Provides access to the ICT aspiration and reference solution pumps.
3. Main power supply: Provides power to the processing module.
4. Water management unit: Provides the water supply connection.

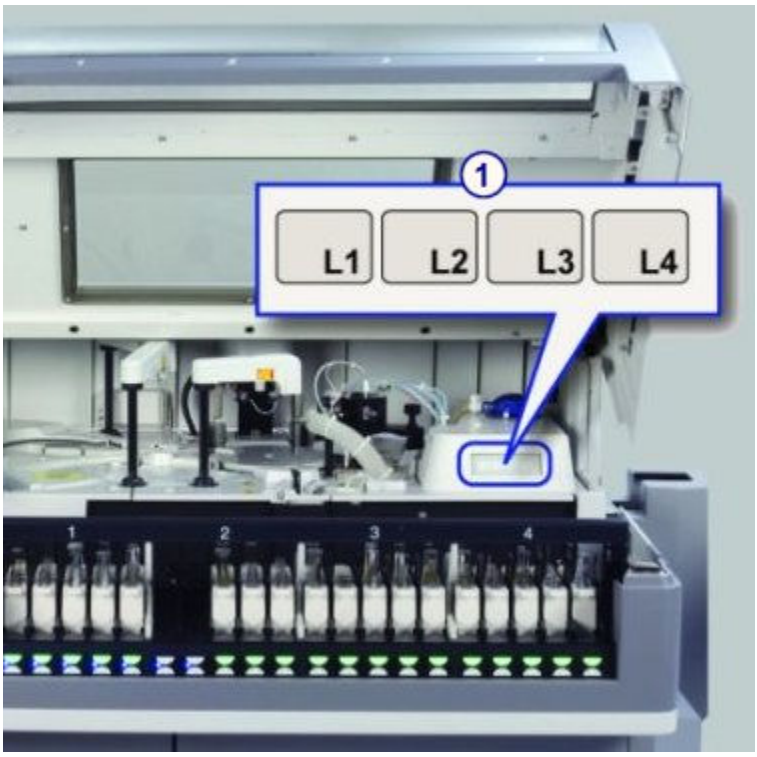
Related information…

- *Processing center (c16000)*, page 1-77
- *Sample and reagent syringe area (c16000)*, page 1-94
- *Optional components*, page 1-158
- *ARCHITECT c16000 System*, page 1-5
- *ARCHITECT integrated system*, page 1-2
- *Supply and pump centers (c16000)*, page 1-91

Processing module keypad (*c*4000)

The *c*4000 processing module keypad, located on the right side of the processing module, is an input device used by the operator when performing some diagnostics and maintenance procedures.

Figure 1.29: Components of the c4000 processing module keypad



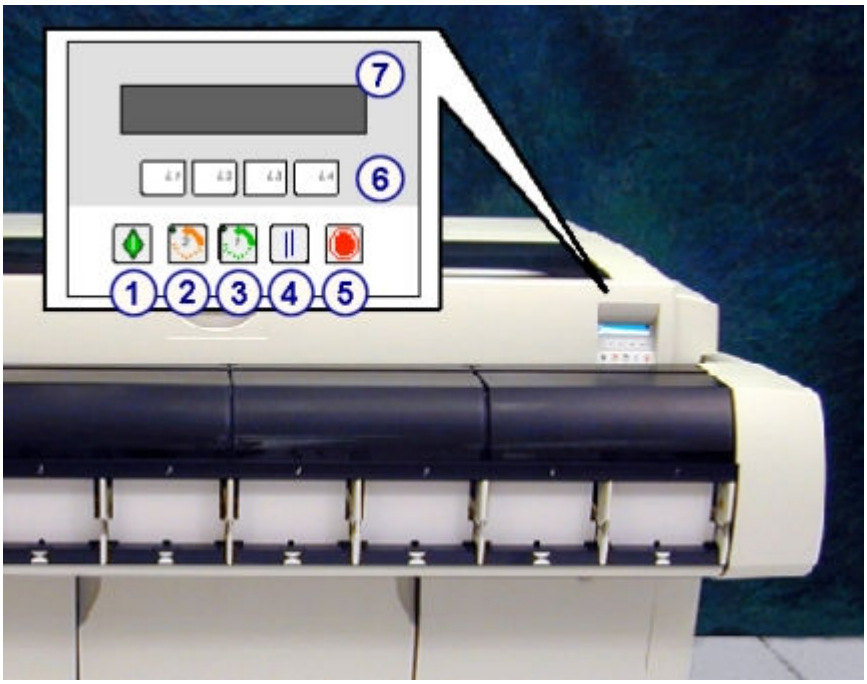
Legend:

1. L1, L2, L3, and L4 keys: Used to perform some maintenance and diagnostic procedures.

Processing module keypad (*c*8000/*c*16000)

The processing module keypad, located on the right side of the processing module, is an input device used by the operator to direct the processing center activities.

Figure 1.30: Components of the c8000/c16000 processing module keypad



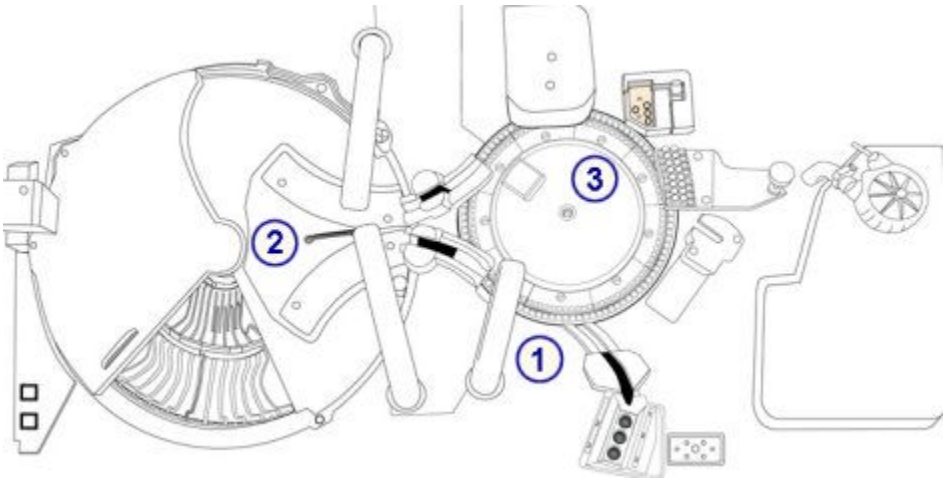
Legend:

1. Run key:
   - Places the processing module into a Running status and prepares the module to accept samples.
   - Restarts the processing center after a Scheduled Pause.
2. Carousel advance key (2): Aligns if necessary, and then advances reagent supply center 2 by 1/3 turn to aid in loading and unloading reagents. The LED illuminates when access to the reagent supply center is allowed.
3. Carousel advance key (1): Aligns if necessary, and then advances reagent supply center 1 by 1/3 turn to aid in loading and unloading reagents. The LED illuminates when access to the reagent supply center is allowed.
4. Pause key: Places the processing module into a Scheduled Pause status and stops aspiration of new tests. Tests already in progress continue to completion.
5. Stop key: Stops all processing module activity, but does not shut down power to the processing module.
6. L1, L2, L3, L4 keys: Used when performing some diagnostic and maintenance procedures.
7. Display area: Displays text during some maintenance and diagnostic procedures.

Processing center (*c*4000)

The processing center is the main activity area of the processing module. Samples and reagents are dispensed and mixed in a reaction carousel where assay processing is performed.

Figure 1.31: ARCHITECT c4000 processing center components



Legend:

1. Sample hardware components: Provide sample aspiration and dispense.
2. Reagent hardware components: Provide reagent aspiration, dispense, and positive identification.
3. Reaction carousel hardware components: Position the cuvettes for sample and reagent dispense, mixing, photometric or potentiometric analysis, and cuvette washing.

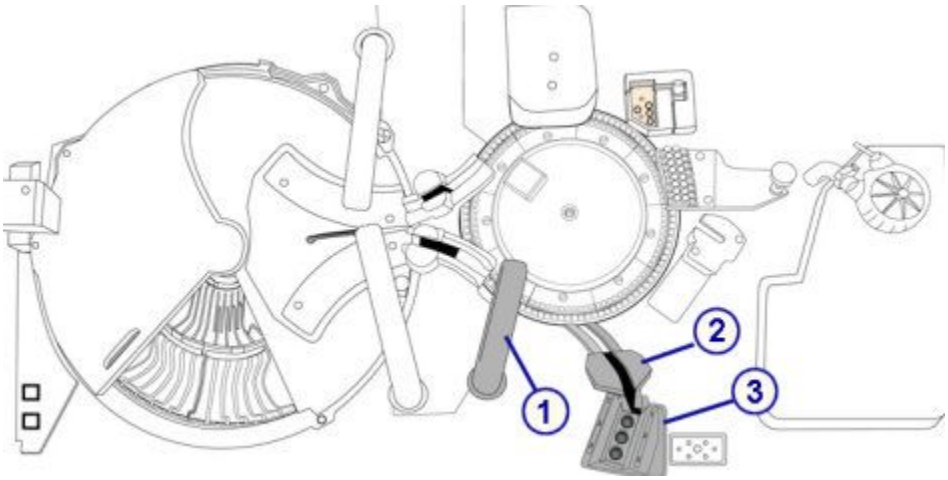
Related information…

- *Sample hardware components (c4000)*, page 1-40
- *Reagent hardware components (c4000)*, page 1-43
- *Reaction carousel (c4000)*, page 1-47

Sample hardware components (*c*4000)

Sample hardware components are devices that provide sample aspiration and dispense.

Figure 1.32: Sample hardware components (c4000)



Legend:

1. Sample pipettor: Aspirates and dispenses samples into cuvettes.
2. Sample probe wash cup: Used to wash remaining fluid from the probe exterior, interior, and tip.
3. Sample Wash Solution position 1, 2, and 3: Holds probe wash solutions for the SmartWash function and maintenance procedures.

Related information…

- *Sample pipettor and sample probe wash cup (c4000)*, page 1-41
- *Sample wash solution area (c4000)*, page 1-42

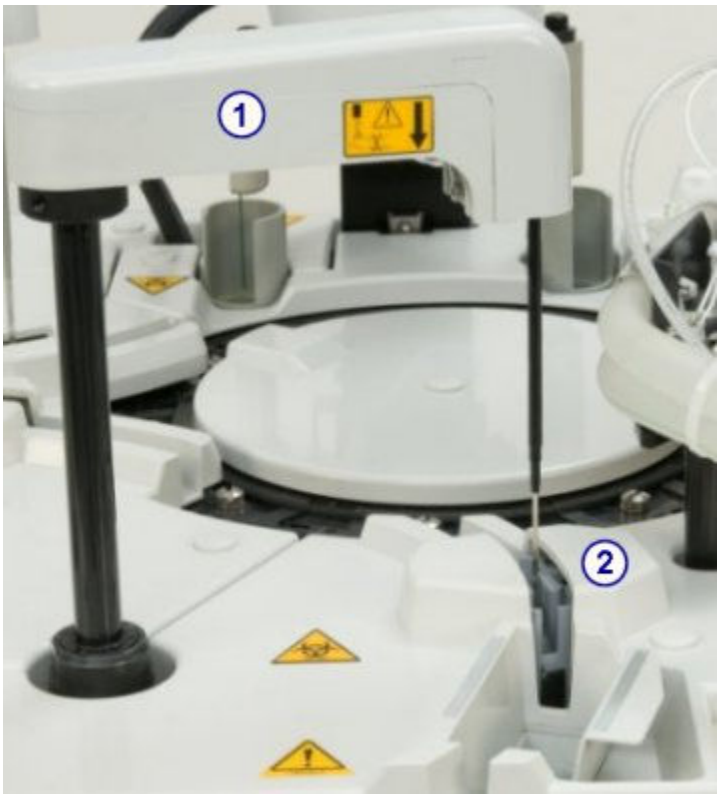
Sample pipettor and sample probe wash cup (*c*4000)

The sample pipettor is a device that detects, aspirates, transfers, and dispenses samples into the cuvettes. It also transfers diluted samples from the cuvette used to make the dilution into the cuvette used for the reaction. This pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

The sample probe wash cup is an active wash station that washes any remaining fluid from the probe exterior, interior, and tip. The sample probe is washed between samples to eliminate carryover.

IMPORTANT: For systems with the whole blood option installed, the exterior sample probe is washed before dispensing into the cuvette. The modified wash cup must be installed.

Figure 1.33: Sample pipettor and sample probe wash cup (c4000)



Legend:

1. Sample pipettor: Aspirates and dispenses samples into cuvettes.
2. Sample probe wash cup: Washes remaining fluid from the probe exterior, interior, and tip.

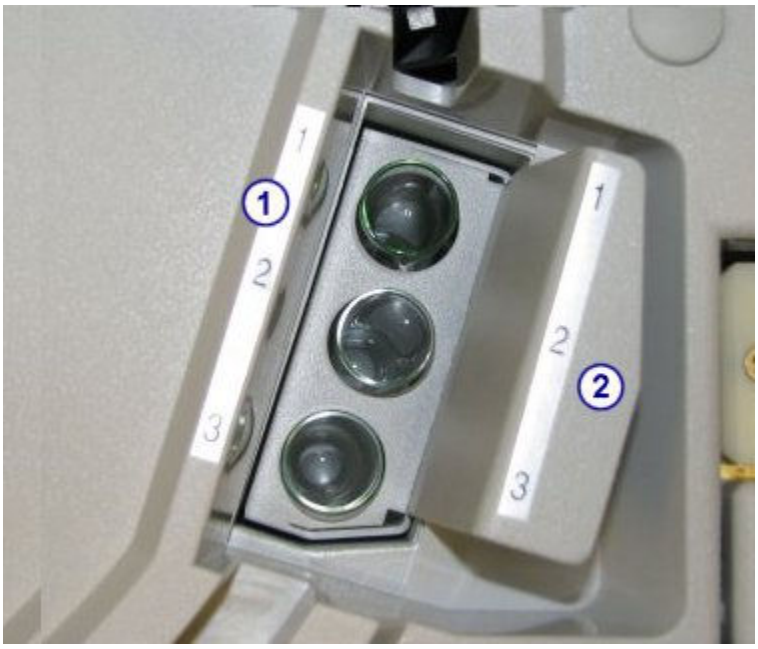
Sample wash solution area (*c*4000)

The sample wash solution area is a storage location for sample probe wash solutions used for the SmartWash function and maintenance procedures.

A removable sample wash solution carrier inserted in the area holds three sample tubes. Sample wash solutions are added directly to the sample tubes.

NOTE: Sample cups can be loaded in to the sample tubes to allow smaller wash solution volumes.

Figure 1.34: Sample wash solution area (c4000)



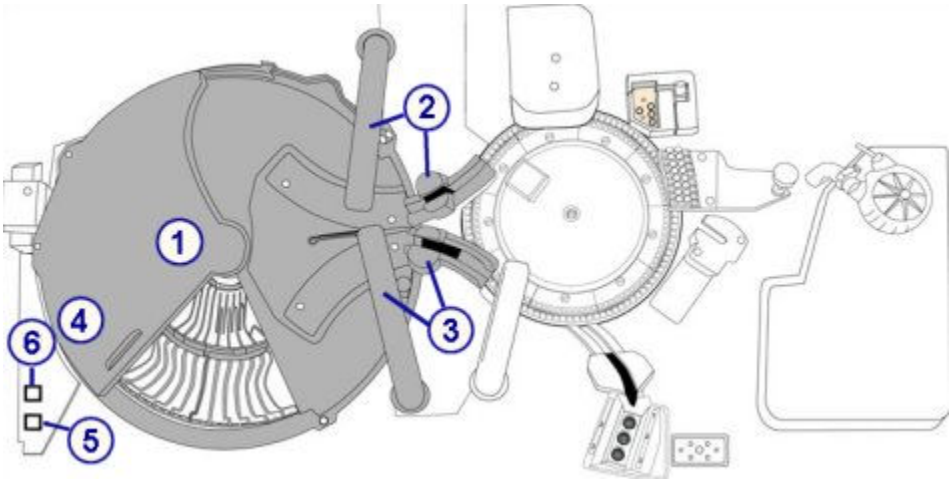
Legend:

1. Sample Wash Solution position 1, 2, and 3: Holds probe wash solutions for the SmartWash function and maintenance procedures.
2. Sample wash solution carrier: Removable sample wash solution carrier.

Reagent hardware components (*c*4000)

Reagent hardware components are devices that provide reagent aspiration, dispense, and positive identification.

Figure 1.35: Reagent hardware components (c4000)



Legend:

1. Reagent supply center: Provides refrigerated storage for reagent kits, wash solutions, and diluents.
2. Reagent pipettor 1 and wash cup: Pipettor aspirates and dispenses reagents into cuvettes. Wash cup washes the probe exterior, interior, and tip.
3. Reagent pipettor 2 and wash cup: Pipettor aspirates and dispenses reagents into cuvettes. Wash cup washes the probe exterior, interior, and tip.
4. Reagent bar code reader: Reads 2D (two-dimensional) bar code labels on Abbott pre-packaged reagents or 1D bar code labels on user-defined reagents.
5. Reagent supply center access button: Opens and closes the reagent supply center cover and indicates when you can access the reagent supply center. When the reagent supply center button is:

   On - The reagent supply center can be accessed

   Off - The reagent supply center cannot be accessed
6. Reagent supply center advance button: Indicates when you can advance the reagent supply center carousels. When the indicator light is:

   On - The reagent supply center cover is open and the carousels can be advanced. When pressed, the inner and outer carousels will rotate 1/5 of a turn.

   Off - The reagent supply center carousels cannot be advanced.

Related information…

- *Reagent supply center (c4000)*, page 1-44
- *Reagent pipettors and wash cups (c4000)*, page 1-45

Reagent supply center (*c*4000)

The reagent supply center is refrigerated for onboard storage of:

- reagent kits (R1 and R2)
- onboard solutions
- sample diluents

See *Onboard solutions (c System)*, page 1-194 for more information.

The outer / inner carousels of the reagent supply center and the reagent pipettors are separately controlled to allow reagents to be independently aspirated and dispensed by each reagent pipettor.

The *c*4000 reagent supply center consists of an inner and outer carousel and is segmented to store a maximum of 90 reagent cartridges depending on the configuration of the segments. The location and capacity of each carousel is presented in the following table.

Carousel	Number of segments	Available segment types	Total cartridge capacity
Outer	10	Large (holds 4 cartridges) Small (holds 6 cartridges)	Up to 40 - 60 cartridges
Inner	5	Large (holds 5 cartridges) Small (holds 6 cartridges)	Up to 25 - 30 cartridges

For more information on available reagents segments, see *Reagent segments (c4000)*, page 1-211.

Reagents can be bar coded labeled to provide positive identification.

Figure 1.36: Temperature-controlled reagent supply center (c4000)

Legend:

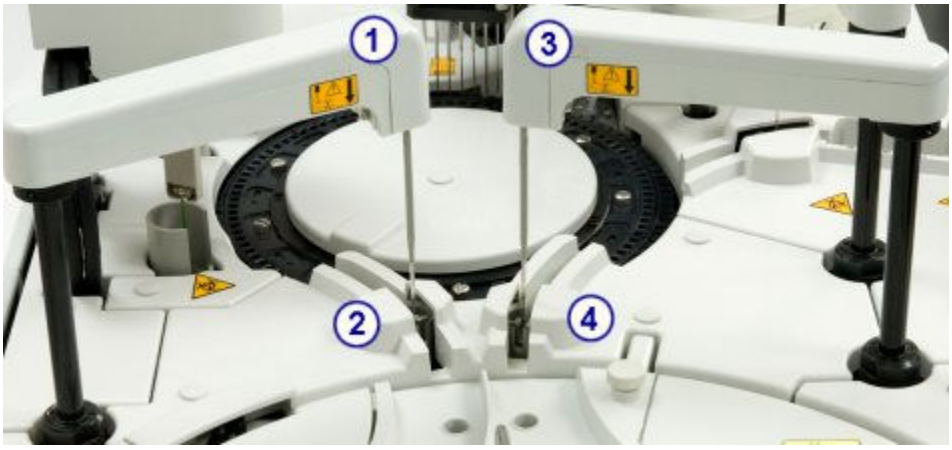
1. Reagent supply center inner carousel: Provides refrigerated storage for reagent kits, onboard solutions, and sample diluents.
2. Reagent supply center outer carousel: Provides refrigerated storage for reagent kits, onboard solutions, and sample diluents.

Reagent pipettors and wash cups (*c*4000)

Reagent pipettors 1 and 2 are devices that detect, aspirate, transfer, and dispense reagents and onboard solutions into the cuvette. The pipettor assemblies include a fluid sense/pressure monitoring system that helps identify errors in aspiration.

Reagent pipettor wash cups are active wash stations that wash any remaining fluid from the probe exterior, interior, and tip.

Figure 1.37: Reagent pipettors and wash cups (c4000)



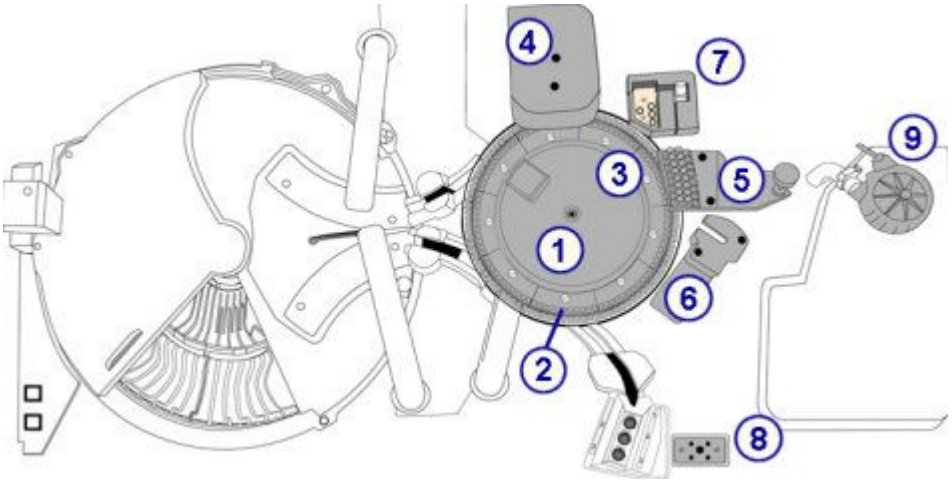
Legend:

1. Reagent pipettor 1: Aspirates and dispenses reagents into cuvettes.
2. Reagent pipettor 1 wash cup: Washes the probe exterior, interior, and tip.
3. Reagent pipettor 2: Aspirates and dispenses reagents into cuvettes.
4. Reagent pipettor 2 wash cup: Washes the probe exterior, interior, and tip.

Reaction carousel hardware components (*c*4000)

Reaction carousel hardware components are devices that position the cuvettes for sample and reagent dispense, mixing, photometric or potentiometric analysis, and cuvette washing.

Figure 1.38: Reaction carousel hardware components (c4000)



Legend:

1. Reaction carousel: Positions the cuvettes for sample processing.

2. Cuvette segments: Hold cuvettes in the reaction carousel.
3. Lamp: Provides the light source for photometric measurement.
4. Mixer unit: Houses the mixers that mix sample with reagent.
5. Cuvette washer: Washes and dries the cuvettes.
6. ICT unit: Measures potentiometric assays (electrolytes) using ICT (integrated chip technology).
7. Water bath/waste overflow area: Receives overflow from the water bath, excess water from the pipettors, and liquid waste from the ICT reference solution cup.
8. ICT waste area: Receives liquid waste from the ICT reference solution cup and ICT unit.
9. High concentration waste pump: Works with the cuvette washer to aspirate waste from the cuvettes to the optional high-concentration waste container or the drain.

Related information…

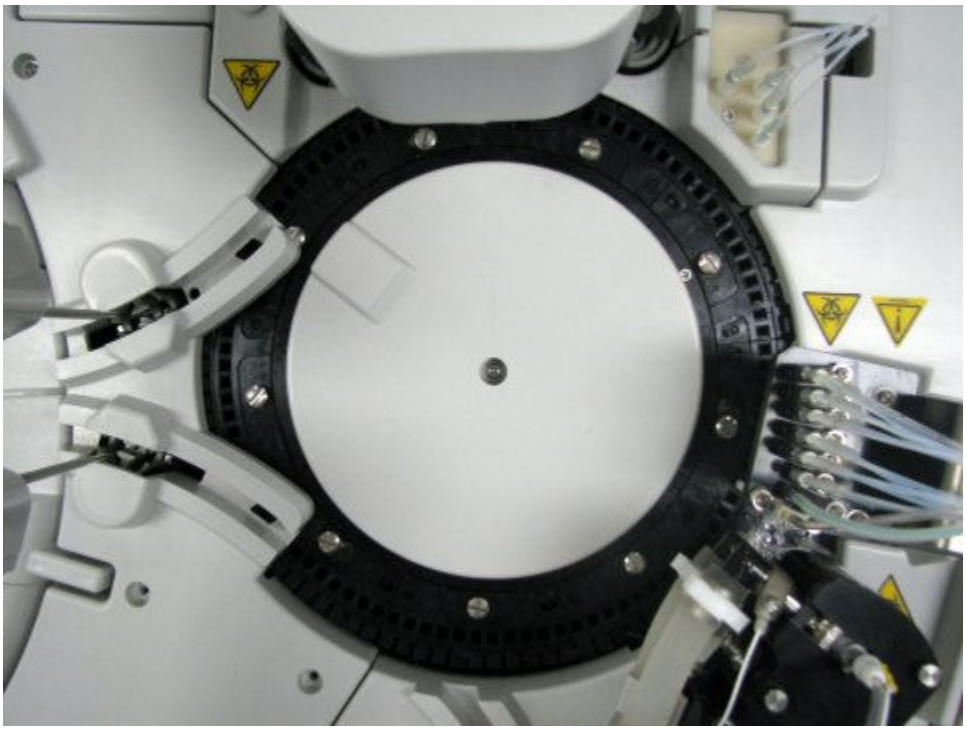
- *Reaction carousel (c4000)*, page 1-47
- *Cuvette segments (c4000)*, page 1-48
- *Lamp (c4000)*, page 1-48
- *Mixer unit (c4000)*, page 1-49
- *Cuvette washer (c4000)*, page 1-50
- *ICT unit (c4000)*, page 1-50
- *Water bath/waste overflow area (c4000)*, page 1-52
- *ICT high-concentration waste area (c4000)*, page 1-51
- *High-concentration waste pump (c4000)*, page 1-53

Reaction carousel (*c*4000)

The reaction carousel is a device that:

- Accommodates a variety of assay protocols
- Consists of 9 cuvette segments
- Is surrounded by a 37°C water bath
- Rotates clockwise to position the cuvettes at the following locations:
  - Sample dispense
  - R1 reagent dispense
  - R2 reagent dispense
  - ICT electrolyte aspiration
  - Mixing positions (2)
  - Photometric read position
  - Diluted sample aspiration

Figure 1.39: Reaction carousel (c4000)



Cuvette segments (*c*4000)

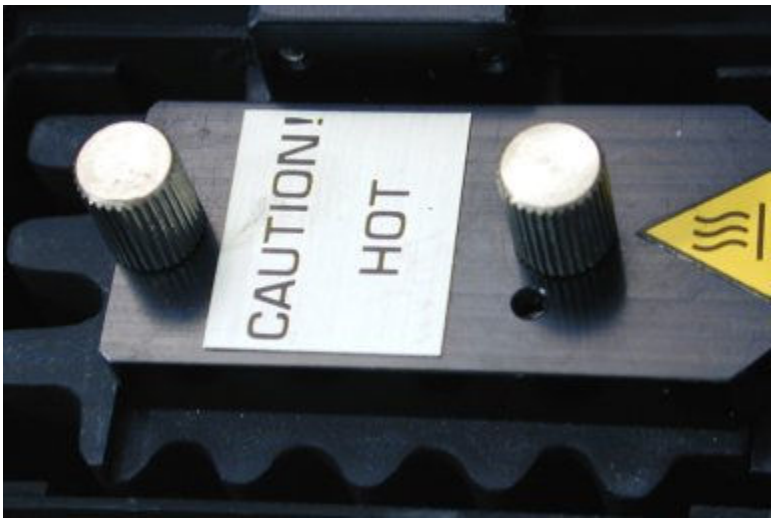
Cuvette segments are racks that sit in the reaction carousel and hold cuvettes. Each cuvette segment holds 11 cuvettes. With 9 segments, the reaction carousel holds 99 cuvettes.

Figure 1.40: Cuvette segment (c4000)

Lamp (*c*4000)

The lamp is an optical device used to provide the light source for photometric measurement.

Figure 1.41: Lamp (c4000)



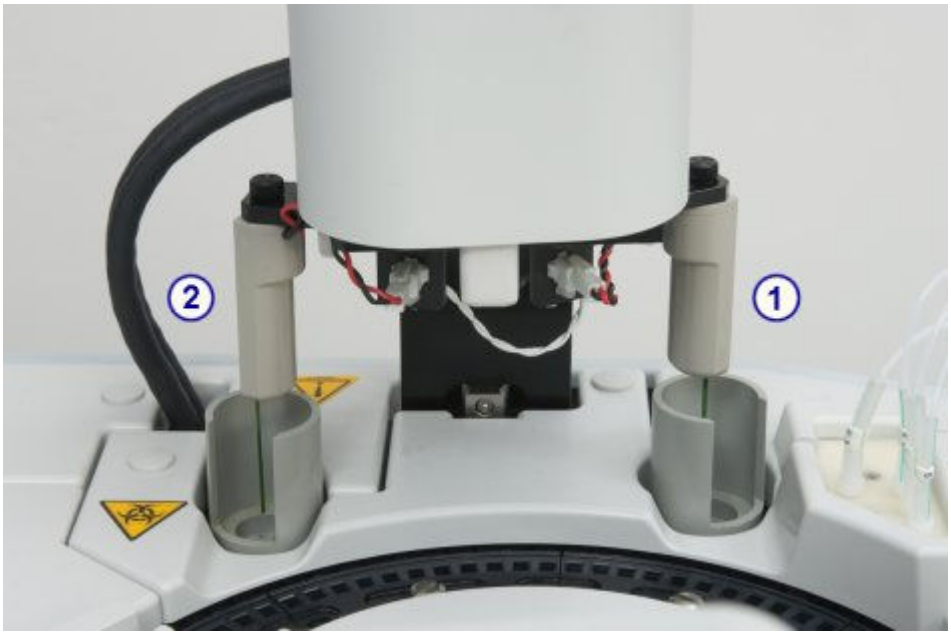
Mixer unit (*c*4000)

The mixer unit is a device that houses two mixers (1 and 2) that mix the sample and reagent together.

- Mixer 1 (right side) mixes the sample (undiluted or diluted) with reagent 1.
- Mixer 2 (left side) mixes the sample/reagent 1 mixture with reagent 2.

The exterior of each mixer is washed after each mixing operation.

Figure 1.42: Mixer unit and mixers (c4000)



Legend:

1. Mixer 1: Mixes the sample with reagent 1.

2. Mixer 2: Mixes the sample/reagent 1 mixture with reagent 2.

Cuvette washer (*c*4000)

The cuvette washer is a device with eight nozzles that, from left to right, perform the following functions before and after each cuvette is used:

- Nozzle 1 - aspirates sample and reagent mixture to waste
- Nozzle 2 - dispenses Alkaline Wash to clean the cuvette, and then aspirates it to waste
- Nozzle 3 - dispenses Acid Wash to clean the cuvette, and then aspirates it to waste
- Nozzles 4 and 5 - dispense water to rinse the cuvette, and then aspirate it to waste
- Nozzle 6 - dispenses water into the cuvette for the water blank measurement, which ensures cuvette integrity
- Nozzle 7 - aspirates the remaining water in the cuvette to waste
- Nozzle 8 - dries the cuvette

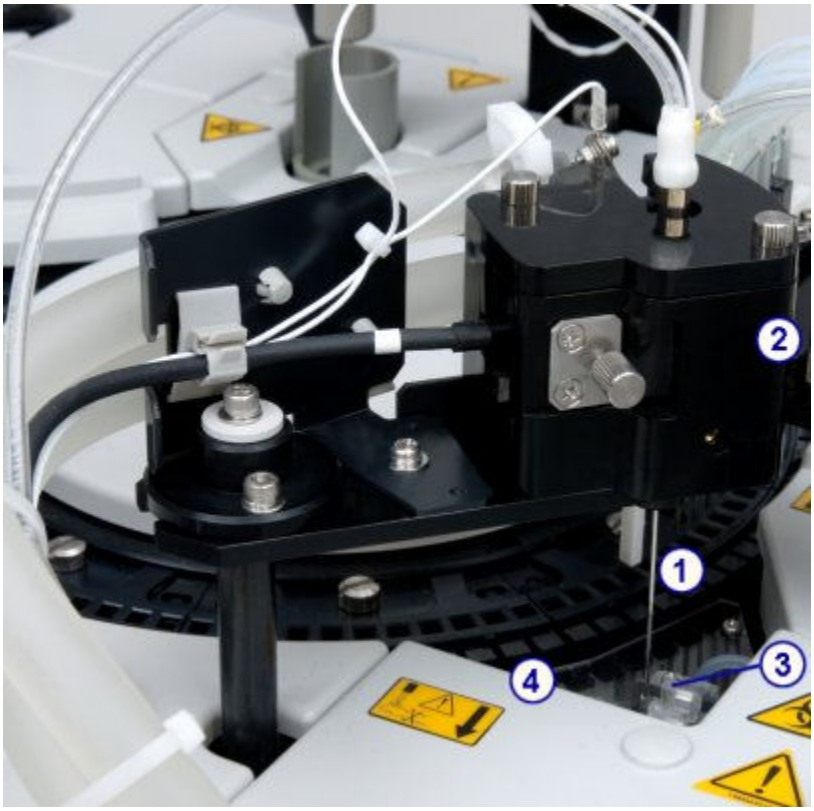
Figure 1.43: Cuvette washer (c4000)

ICT unit (*c*4000)

The ICT (integrated chip technology) unit is a device that consists of the ICT probe and ICT module and is used to perform indirect potentiometric analysis.

The ICT probe aspirates the diluted sample. The ICT module simultaneously measures Na+, K+, and Cl- using integrated chip technology.

Figure 1.44: ICT unit (c4000)



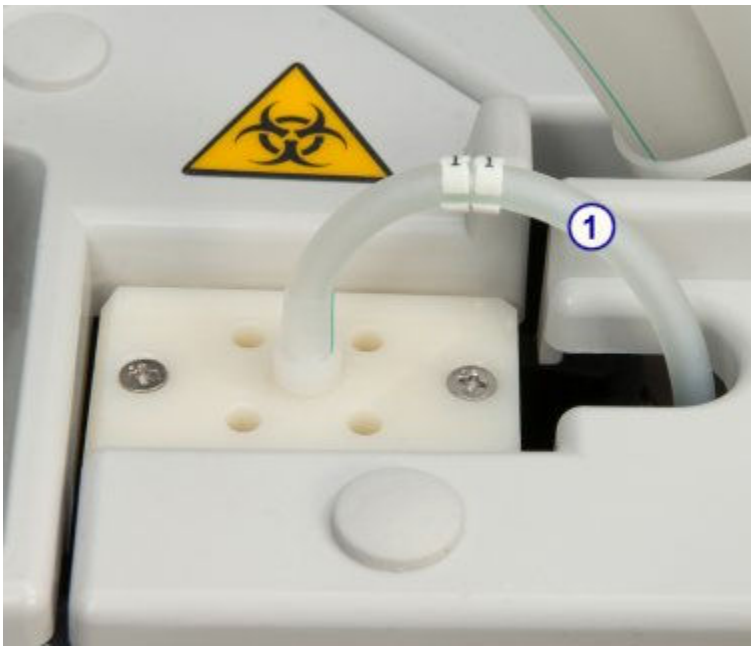
Legend:

1. ICT probe: Connected to the ICT module in the ICT unit. The ICT probe aspirates diluted sample from the cuvettes or ICT Reference Solution from the ICT reference solution cup into the ICT module for processing.
2. ICT module: Located in the ICT unit. The ICT module measures potentiometric assays (electrolytes) using integrated chip technology.
3. ICT reference solution cup: Located beneath the ICT probe when the ICT unit is in the home position. ICT reference solution cup contains preheated reference solution that is aspirated by the ICT probe and measured by the ICT module. Sensors in the cup confirm the cup fills completely and sufficient solution is aspirated during measurement.
4. ICT reference solution warming ring: A narrow metal tube located in the water bath. The ICT reference solution warming ring warms the reference solution to 37°C before the reference solution fills the ICT reference solution cup.

ICT high-concentration waste area (*c*4000)

Liquid waste from the ICT unit collects in a high-concentration waste compartment, and then is removed through the high-concentration waste tubing.

Figure 1.45: ICT high-concentration waste area (c4000)



Legend:

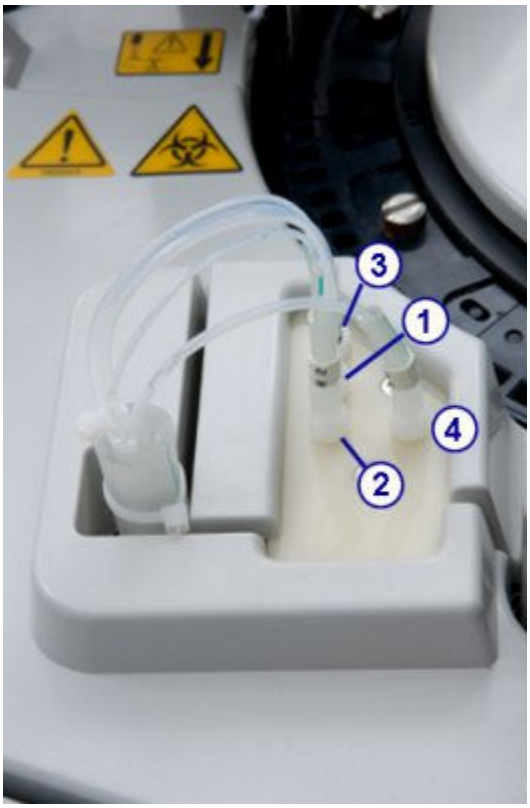
1. ICT unit high-concentration waste tubing: Delivers liquid waste from the ICT unit into the high-concentration waste compartment.

Water bath/waste overflow area (*c*4000)

The water bath/waste overflow area is a waste collection compartment that receives overflow from the water bath, excess water from the pipettors, and liquid waste from the ICT reference solution cup.

Liquid waste from the pipettors and ICT reference solution cup collect in a low-concentration waste compartment, and then is removed through the low-concentration waste tubing.

Figure 1.46: Water bath and waste overflow area (c4000)



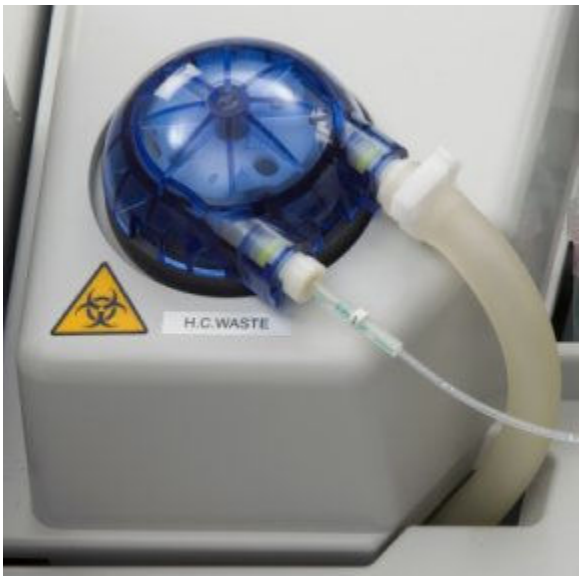
Legend:

1. R1 tubing: Delivers excess deionized water from reagent pipettor 1 into the low-concentration waste compartment.
2. R2 tubing: Delivers excess deionized water from reagent pipettor 2 into the low-concentration waste compartment.
3. Sample tubing: Delivers excess deionized water from the sample pipettor into the low-concentration waste compartment.
4. ICT reference solution cup low-concentration waste tubing: Delivers liquid waste from the ICT reference solution cup into the low-concentration waste compartment

High-concentration waste pump (*c*4000)

Works with the cuvette washer to aspirate waste from the cuvettes to the optional high-concentration waste container or drain.

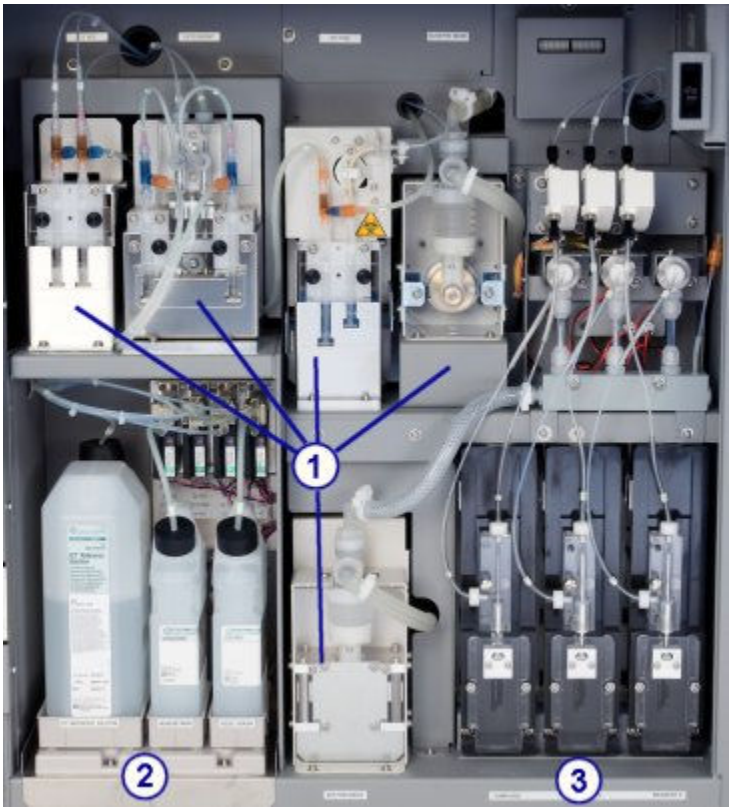
Figure 1.47: High-concentration waste pump (c4000)



Supply and pump center (*c*4000)

The supply and pump center is the storage area for processing module pumps, bulk solutions, and sample and reagent syringes and drives.

Figure 1.48: Supply and pump center (c4000)



Legend:

1. Pump center: Houses the processing module pumps.
2. Bulk solution supply center: Provides onboard storage for ICT Reference Solution, Alkaline Wash, and Acid Wash.
3. Sample and reagent syringes area: Houses the sample and reagent syringes and drives.

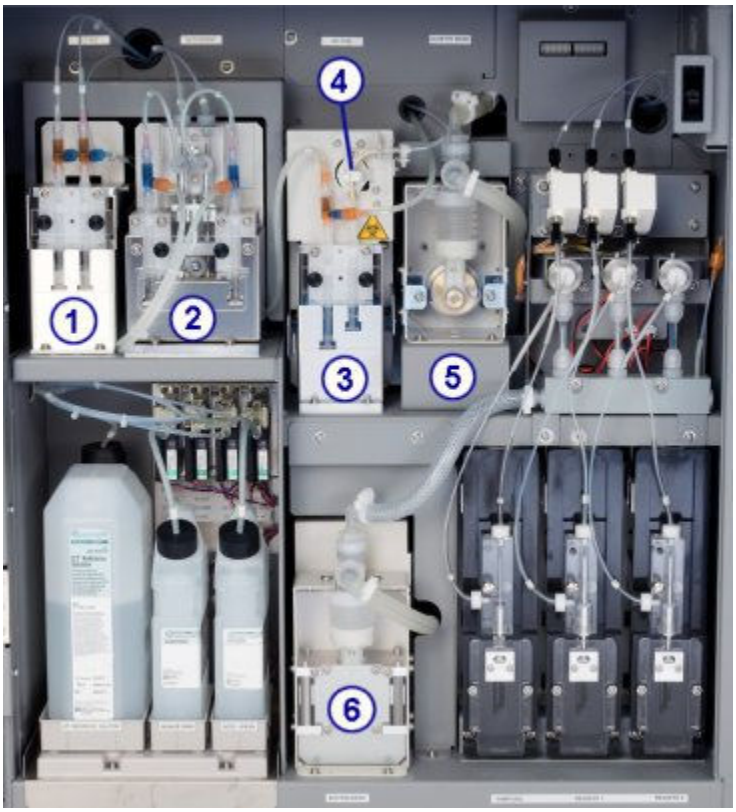
Supply and pump center (*c*4000) topics include:

- *Pump center (c4000)*, page 1-55
- *Bulk solution supply center (c4000)*, page 1-56
- *Sample and reagent syringe area (c4000)*, page 1-57

Pump center (*c*4000)

The pump center is the area that houses the processing module pumps. These pumps provide the pressure needed to aspirate and dispense liquids into the appropriate components in the processing center and to the sample and reagent syringes.

Figure 1.49: Processing module pumps (c4000)



Legend:

1. ICT reference solution pump: Uses the syringe on the right to deliver ICT Reference Solution into the ICT reference solution cup. After the reference solution is

measured, the ICT reference solution pump uses the syringe on the left to drain the cup.

2. Wash solution pump: Delivers diluted alkaline and acid wash solutions to the cuvettes during daily operation and maintenance procedures.
3. ICT aspiration pump: Uses the syringe on the right to deliver samples or ICT Reference Solution into the ICT module for measurement. Once measurement is complete, the ICT aspiration pump uses the syringe on the left to aspirate waste from the ICT high concentration waste area to the high-concentration waste tubing.
4. ICT aspiration valve: Controls the direction of liquid flow while the ICT aspiration pump operates.
5. Cuvette wash pump: Delivers purified water to the cuvette washer.
6. Probe wash pumps: Uses purified water to flush the sample and reagent probes.

Bulk solution supply center (*c*4000)

The bulk solution supply center is an onboard storage area for ICT Reference Solution, Alkaline Wash, and Acid Wash. The quantity of each bulk solution is verified by individual weight sensors. The sensor is tripped when approximately 20% of the solution volume remains or the configured low alert (premium feature) is reached.

Figure 1.50: Bulk solution supply center (c4000)

Legend:

1. *ICT reference solution (c System)*, page 1-191: Aspirated and analyzed by the ICT module before and after each sample to provide a reference potential used to calculate results.
2. *Alkaline wash (c System)*, page 1-192: Used by the cuvette washer to clean the cuvettes after sample analysis.
3. *Acid wash (c System)*, page 1-193: Used by the cuvette washer to clean the cuvettes after sample analysis.

Sample and reagent syringe area (*c*4000)

The sample and reagent syringe area is the location for the sample and reagent syringes and drives. Each drive supports a syringe that controls the aspiration and dispense of samples or reagents.

Figure 1.51: Sample and reagent syringes (c4000)

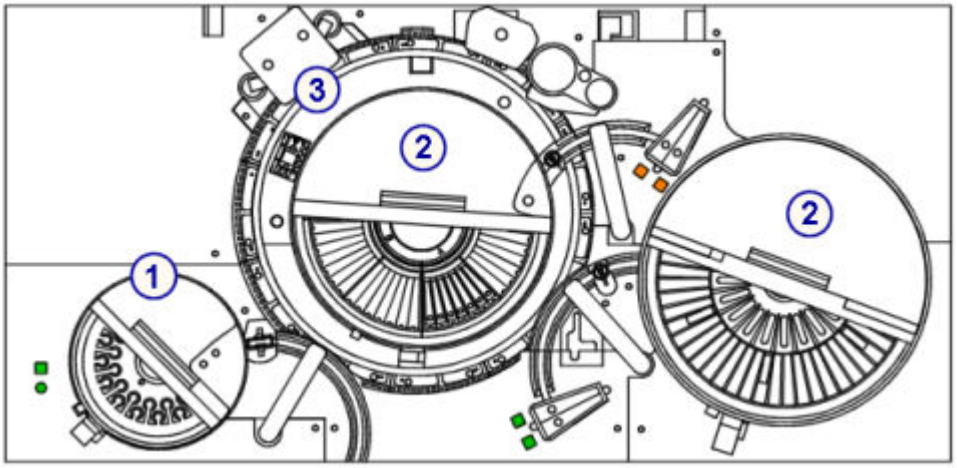
Legend:

1. Sample syringe: Aspirates and dispenses the sample.
2. Reagent syringes 1 and 2: Aspirate and dispense the reagent.

Processing center (*c*8000)

The processing center is the main activity area of the processing module. Samples and reagents are dispensed and mixed in a reaction carousel where assay processing is performed.

Figure 1.52: ARCHITECT c8000 processing center components



Legend:

1. *Sample hardware components (c8000)*, page 1-58: Provide sample aspiration, dispense, and positive identification.
2. *Reagent hardware components (c8000)*, page 1-61: Provide reagent aspiration, dispense, and positive identification.
3. *Reaction carousel hardware components (c8000)*, page 1-66: Position the cuvettes for sample and reagent aspiration, mixing, photometric or potentiometric analysis, and cuvette washing.

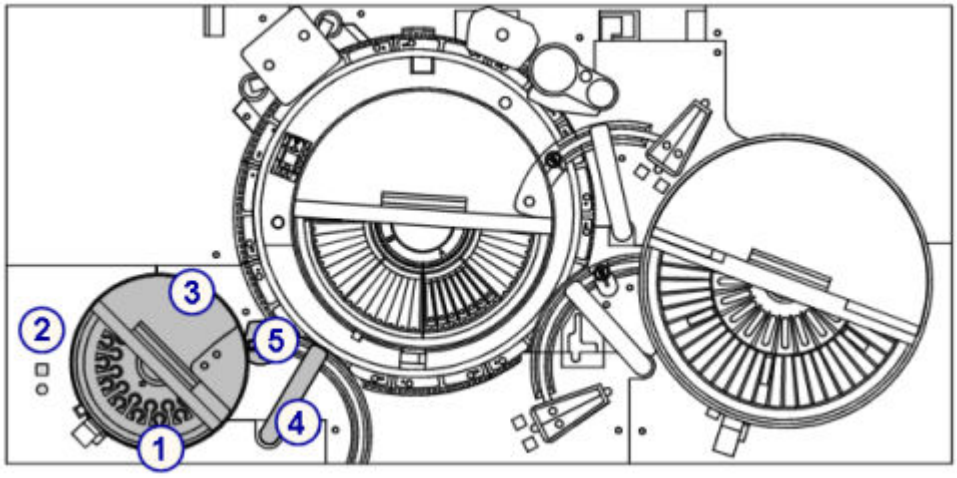
Related information...

- *Sample hardware components (c8000)*, page 1-58
- *Reagent hardware components (c8000)*, page 1-61
- *Reaction carousel hardware components (c8000)*, page 1-66

Sample hardware components (*c*8000)

Sample hardware components are devices that provide sample aspiration, dispense, and positive identification.

Figure 1.53: Sample hardware components (c8000)



Legend:

1. *Sample carousel (c8000)*, page 1-59: Used for loading patient samples, calibrators, and controls.
2. Indicator lights: Used to access and advance the sample carousel. See *Sample carousel and indicator lights (c8000)*, page 1-60.
3. Sample bar code reader: Reads the carousel ID and sample ID.
4. Sample pipettor: Aspirates and dispenses samples into cuvettes. See *Sample pipettor and sample probe wash cup (c8000)*, page 1-60.
5. Sample probe wash cup: Used to wash remaining fluid from the probe exterior, interior, and tip. See *Sample pipettor and sample probe wash cup (c8000)*, page 1-60.

Related information…

- *Sample carousel (c8000)*, page 1-59
- *Sample pipettor and sample probe wash cup (c8000)*, page 1-60

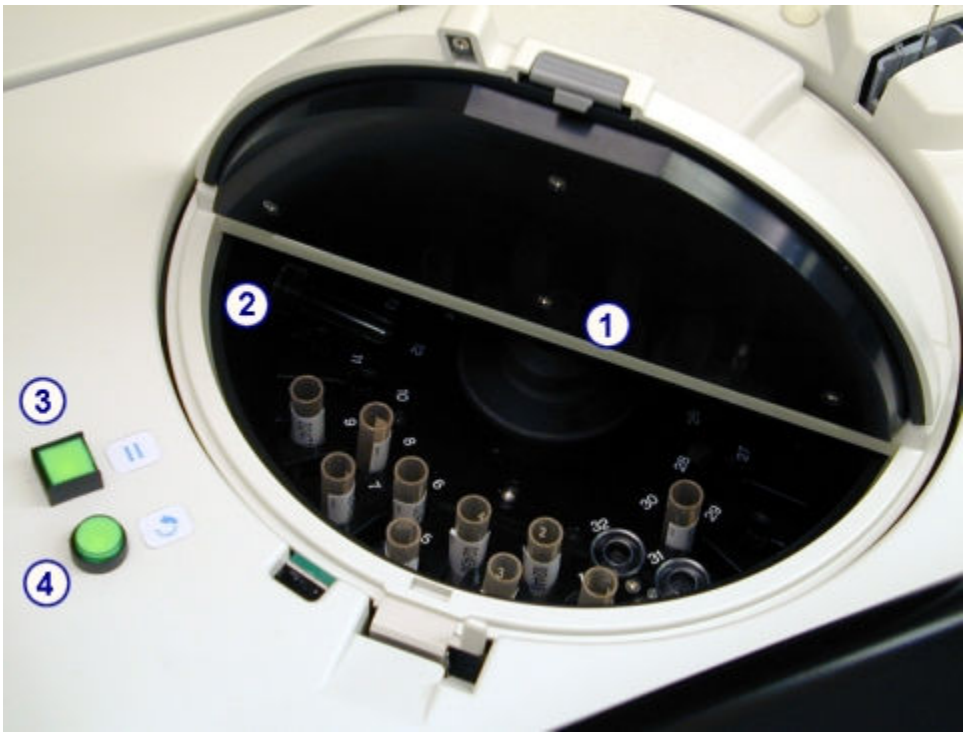
Sample carousel (*c*8000)

The sample carousel is a local sample handler with 32 refrigerated positions used for loading clinical chemistry patient samples, calibrators, and controls. Positions 31 and 32 are reserved for onboard solutions that are used in the SmartWash function and maintenance procedures.

Samples can be loaded in tubes and sample cups. Patient samples, calibrators, and controls in tubes can be bar code labeled to provide positive identification.

Samples on the carousel take priority over those on the RSH (robotic sample handler) or LAS (laboratory automation system) under normal operating conditions. In the event of a RSH or LAS failure, the sample carousel can be used as the primary area for loading clinical chemistry samples.

Figure 1.54: Sample carousel and indicator lights (c8000)



Legend:

1. Sample carousel: Used for loading patient samples, calibrators, and controls.
2. Sample bar code reader: Reads the carousel ID and bar coded labels on samples, calibrators, and controls.
3. Sample carousel access indicator (square): Indicates when you can access the sample carousel and provides a method to pause. When the access indicator light is:
   - Off - the sample carousel is moving and cannot be accessed.
   - Blinking - the access indicator has been pressed and the sample carousel is in the process of pausing.
   - On - the sample carousel can be accessed.
4. Sample carousel advance indicator (round): Indicates when you can advance the sample carousel. When the advance indicator light is:
   - On - the sample carousel can be advanced.
   - Off - the advance indicator button has been pressed and the sample carousel is in the process of advancing a 1/3 rotation or the sample carousel is closed.

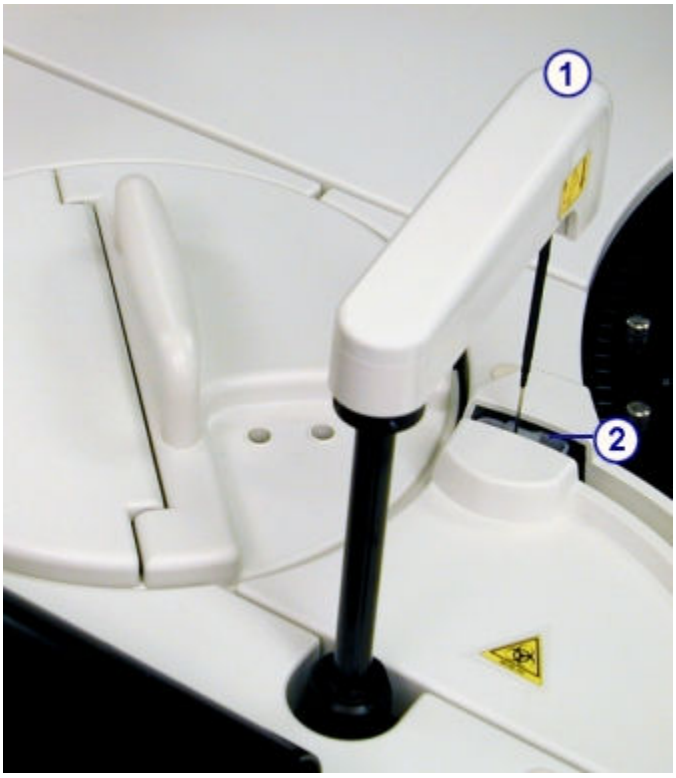
Sample pipettor and sample probe wash cup (c8000)

The sample pipettor is a device that detects, aspirates, transfers, and dispenses samples into the cuvettes. It also transfers diluted samples from the cuvette used to make the dilution into the cuvette used for the reaction. This pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

The sample probe wash cup is an active wash station that washes any remaining fluid from the probe exterior, interior, and tip. The sample probe is washed between samples to eliminate carryover.

IMPORTANT: For systems with the whole blood option installed, the exterior sample probe is washed before dispensing into the cuvette. The modified wash cup must be installed.

Figure 1.55: Sample pipettor and sample probe wash cup (c8000)



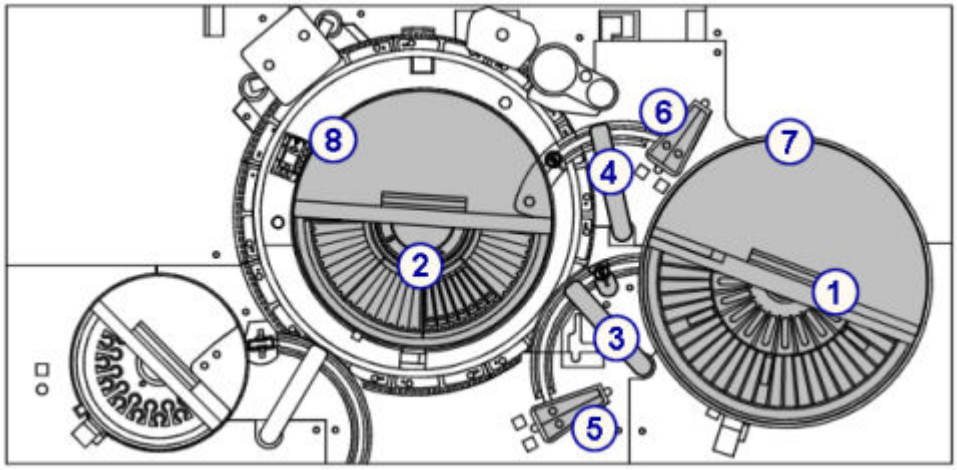
Legend:

1. Sample pipettor: Aspirates and dispenses samples into cuvettes.
2. Sample probe wash cup: Washes remaining fluid from the probe exterior, interior, and tip.

Reagent hardware components (*c*8000)

Reagent hardware components are devices that provide reagent aspiration, dispense, and positive identification.

Figure 1.56: Reagent hardware components (c8000)



Legend:

1. Reagent supply center 1 (R1): Provides refrigerated storage for reagent kits and diluents. See *Reagent supply centers (c8000)*, page 1-62.
2. Reagent supply center 2 (R2): Provides refrigerated storage for reagent kits and onboard solutions. See *Reagent supply centers (c8000)*, page 1-62.
3. Reagent pipettor 1 and wash cup: Pipettor aspirates and dispenses reagents into cuvettes. Wash cup washes the probe exterior, interior, and tip. See *Reagent pipettors and wash cups (c8000)*, page 1-64.
4. Reagent pipettor 2 and wash cup: Pipettor aspirates and dispenses reagents into cuvettes. Wash cup washes the probe exterior, interior, and tip. See *Reagent pipettors and wash cups (c8000)*, page 1-64.
5. R1 onboard solution area: Holds probe wash solutions for the SmartWash function and maintenance procedures. See *Onboard solution areas (c8000)*, page 1-65.
6. R2 onboard solution area: Holds probe wash solutions for the SmartWash function and maintenance procedures. See *Onboard solution areas (c8000)*, page 1-65.
7. R1 bar code reader: Reads 2D (two-dimensional) bar code labels on Abbott pre-packaged reagents or 1D bar code labels on user-defined reagents.
8. R2 bar code reader: Reads 2D bar code labels on Abbott pre-packaged reagents or 1D bar code labels on user-defined reagents.

Related information…

- *Reagent supply centers (c8000)*, page 1-62
- *Reagent pipettors and wash cups (c8000)*, page 1-64
- *Onboard solution areas (c8000)*, page 1-65

Reagent supply centers (*c*8000)

Reagent supply centers (R1 and R2) are refrigerated reagent carousels for onboard storage of:

- reagent kits (R1 and R2)

- onboard solutions in position D1 (R1 and R2)
- sample diluents

See *Onboard solutions (c System)*, page 1-194 for more information.

These reagent supply centers and their associated reagent pipettors are separately controlled to allow reagents to be independently aspirated and dispensed by each reagent pipettor.

The *c*8000 reagent supply center 1 consists of an inner and outer carousel that are segmented to store a maximum of 56 - 65 reagent cartridges depending on the configuration of the segments. The location and capacity of each segment is presented in the following table.

Segment	Description
Outer A	A 12 position reagent segment designed for large cartridges. This segment also has a pipettor calibration target.
Outer A, B, and C	A 12 position reagent segment designed for large cartridges or a 15 position reagent segment designed for small cartridges.
Inner D	A 20 position reagent segment designed for large cartridges. This segment also has a pipettor calibration target.

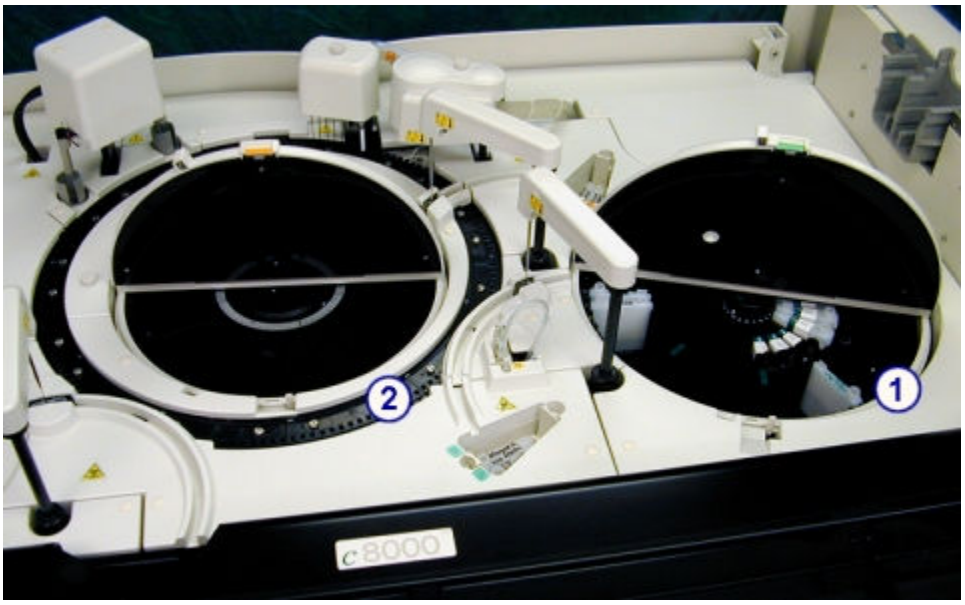
The *c*8000 reagent supply center 2 consists of one carousel that is segmented to store a maximum of 36 - 56 reagent cartridges depending on the configuration of the segments. The location and capacity of each segment is presented in the following table.

Segment	Description
A	A 14 position reagent segment designed for small cartridges. This segment also has a pipettor calibration target.
B, C, and D	A 9 position reagent segment designed for large cartridges or a 14 position reagent segment designed for small cartridges.

For more information on available reagent segments, see *Reagent segments (c8000)*, page 1-213.

Reagents can be bar code labeled to provide positive identification.

Figure 1.57: Temperature-controlled reagent supply centers (c8000)



Legend:

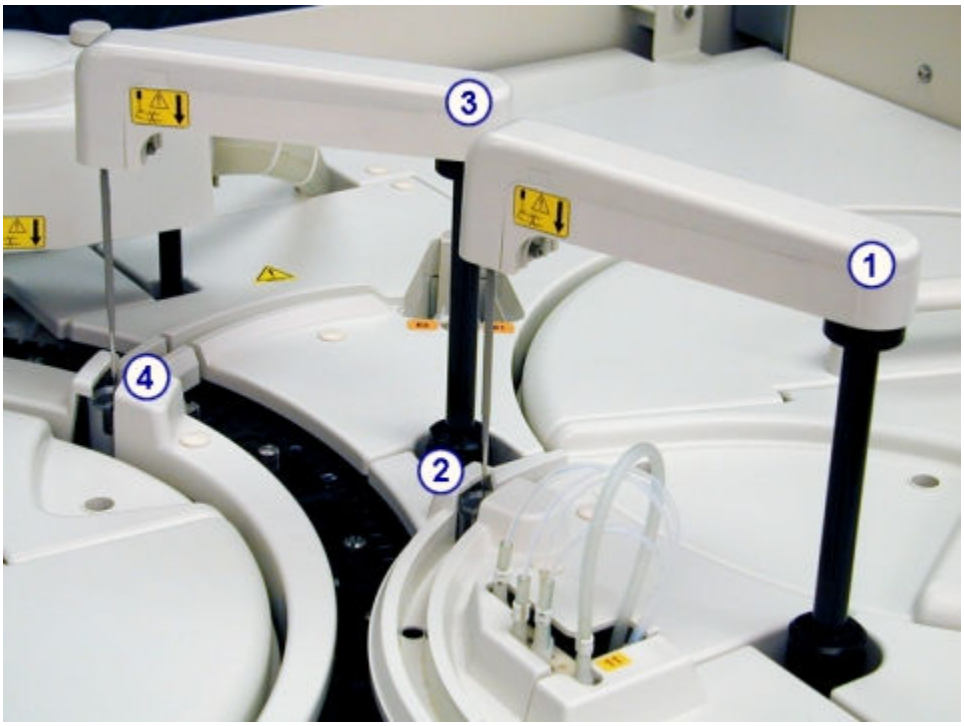
1. Reagent supply center 1 (R1): Provides refrigerated storage for reagent kits and onboard solutions.
2. Reagent supply center 2 (R2): Provides refrigerated storage for reagent kits and onboard solutions.

Reagent pipettors and wash cups (*c*8000)

Reagent pipettors 1 and 2 are devices that detect, aspirate, transfer, and dispense reagents into the cuvette. Reagent pipettor 1 also transfers sample diluents from reagent supply center 1 into a cuvette to be used for onboard sample dilution.

Reagent pipettor wash cups are active wash stations that wash any remaining fluid from the probe exterior, interior, and tip.

Figure 1.58: Reagent pipettors and wash cups (c8000)



Legend:

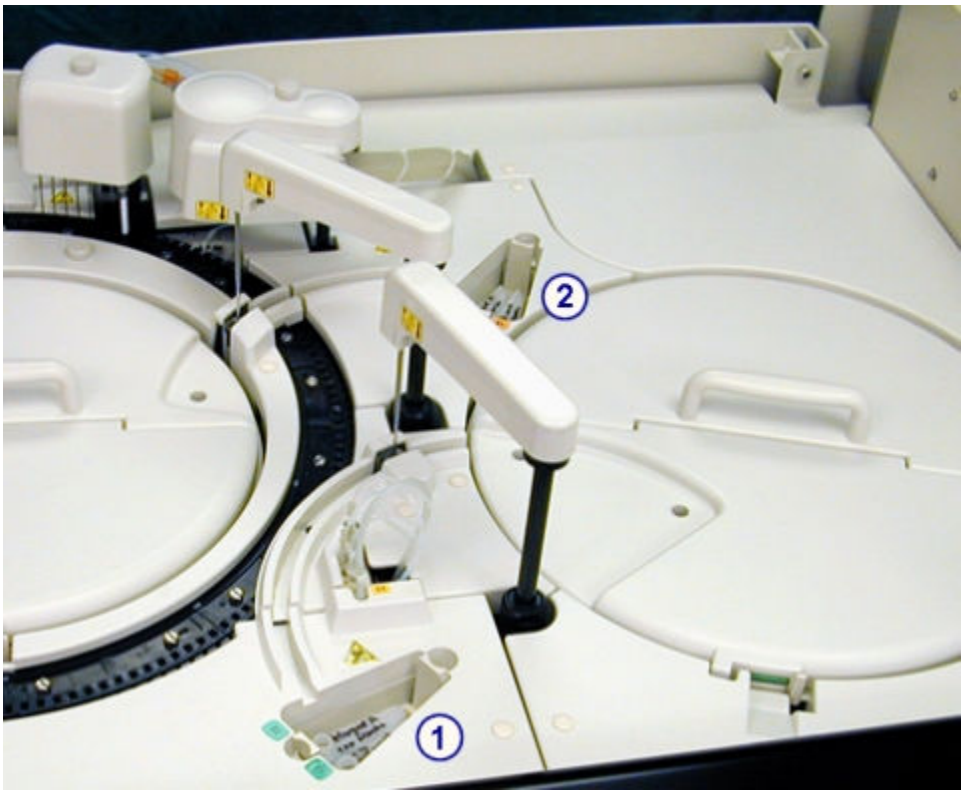
1. Reagent pipettor 1: Aspirates and dispenses reagents into cuvettes.
2. Reagent pipettor 1 wash cup: Washes the probe exterior, interior, and tip.
3. Reagent pipettor 2: Aspirates and dispenses reagents into cuvettes.
4. Reagent pipettor 2 wash cup: Washes the probe exterior, interior, and tip.

Onboard solution areas (*c*8000)

Reagent onboard solution areas are storage locations for probe wash solutions, which are used for the SmartWash function and maintenance procedures. A rack within each area holds two 90 mL cartridges in positions E1 and E2.

Position D1 in each reagent carousel may also be used for onboard solution storage when an additional location is necessary.

Figure 1.59: Onboard solution areas (c8000)



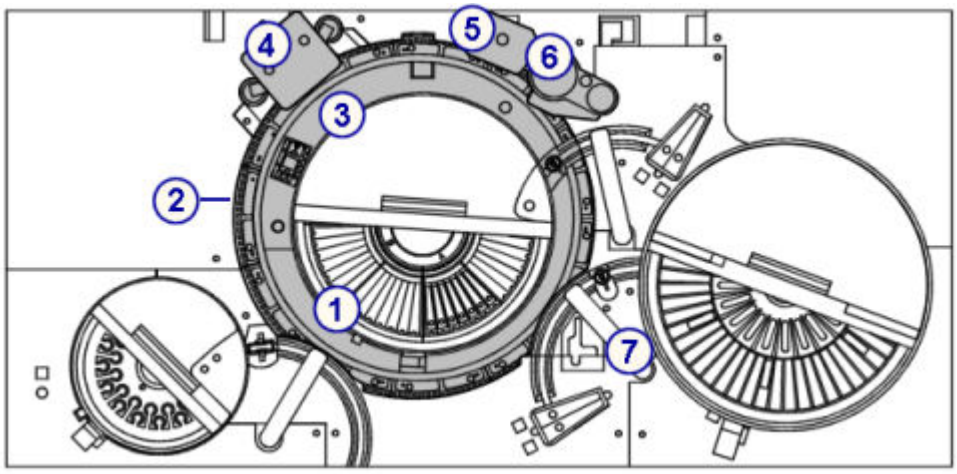
Legend:

1. Reagent supply center 1 (R1) onboard solution area: Holds probe wash solutions for the SmartWash function and maintenance procedures.
2. Reagent supply center 2 (R2) onboard solution area: Holds probe wash solutions for the SmartWash function and maintenance procedures.

Reaction carousel hardware components (*c*8000)

Reaction carousel hardware components are devices that position the cuvettes for sample and reagent aspiration, mixing, photometric or potentiometric analysis, and cuvette washing.

Figure 1.60: Reaction carousel hardware components (c8000)



Legend:

1. *Reaction carousel (c8000)*, page 1-67: Positions the cuvettes for sample processing.
2. *Cuvette segments (c8000)*, page 1-68: Hold cuvettes in the reaction carousel.
3. *Lamp (c8000)*, page 1-69: Provides the light source for photometric measurement.
4. *Mixer unit (c8000)*, page 1-69: Houses the mixers that mix sample with reagent.
5. *Cuvette washer (c8000)*, page 1-70: Washes and dries the cuvettes.
6. *ICT unit (c8000)*, page 1-71: Measures potentiometric assays (electrolytes) using ICT (integrated chip technology).
7. *Water bath/waste overflow area (c8000)*, page 1-72: Receives overflow from the water bath, excess water from the pipettors, and liquid waste from the ICT reference solution cup and ICT unit.

Related information…

- *Reaction carousel (c8000)*, page 1-67
- *Cuvette segments (c8000)*, page 1-68
- *Lamp (c8000)*, page 1-69
- *Mixer unit (c8000)*, page 1-69
- *Cuvette washer (c8000)*, page 1-70
- *ICT unit (c8000)*, page 1-71
- *Water bath/waste overflow area (c8000)*, page 1-72

Reaction carousel (*c*8000)

The reaction carousel is a device that:

- Accommodates a variety of assay protocols
- Consists of 11 cuvette segments
- Is surrounded by a 37°C water bath

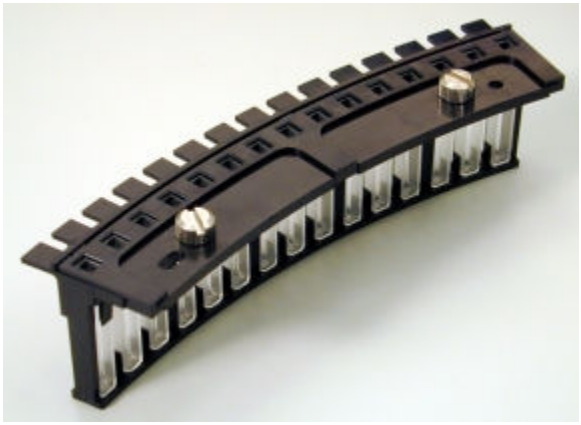
- Rotates counter-clockwise to position the cuvettes at the following locations:
  - Sample dispense
  - R1 reagent dispense
  - R2 reagent dispense
  - ICT electrolyte aspiration
  - Mixing positions (2)
  - Photometric read position
  - Diluted sample aspiration

Figure 1.61: Reaction carousel (c8000)

Cuvette segments (*c*8000)

Cuvette segments are racks that sit in the reaction carousel and hold cuvettes. Each cuvette segment holds 15 cuvettes. With 11 segments, the reaction carousel can hold 165 cuvettes.

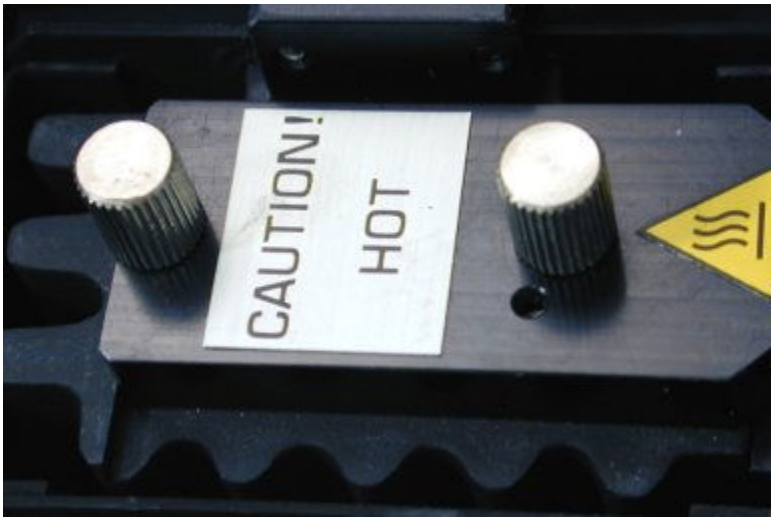
Figure 1.62: Cuvette segment (c8000)



Lamp (*c*8000)

The lamp is an optical device used to provide the light source for photometric measurement.

Figure 1.63: Lamp (c8000)



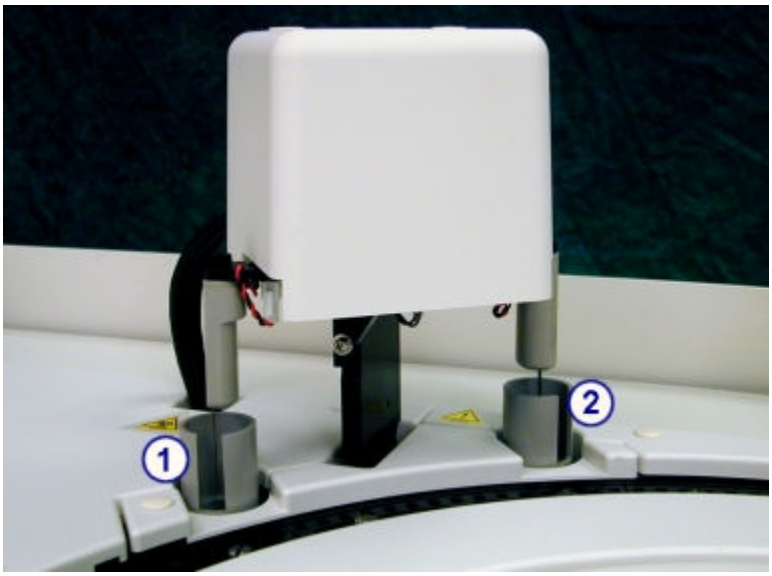
Mixer unit (*c*8000)

The mixer unit is a device that houses two mixers (1 and 2) that mix the sample and reagent together.

- Mixer 1 (left side) mixes the sample (undiluted or diluted) with reagent 1.
- Mixer 2 (right side) mixes the sample/reagent 1 mixture with reagent 2.

The exterior of each mixer is washed after each mixing operation.

Figure 1.64: Mixer unit and mixers (c8000)



Legend:

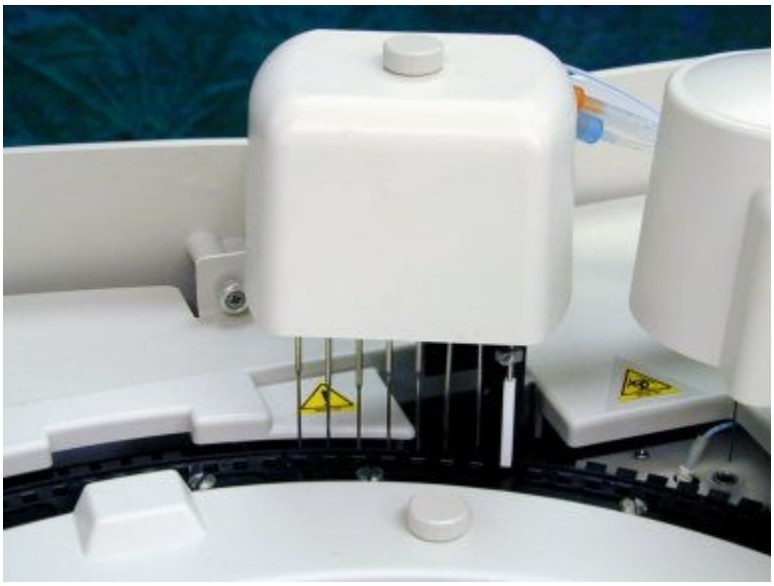
1. Mixer 1: Mixes the sample with reagent 1.
2. Mixer 2: Mixes the sample/reagent 1 mixture with reagent 2.

Cuvette washer (*c*8000)

The cuvette washer is a device with eight nozzles that, from left to right, perform the following functions before and after each cuvette is used:

- Nozzle 1 - aspirates sample and reagent mixture to waste
- Nozzle 2 - dispenses Alkaline Wash to clean the cuvette, and then aspirates it to waste
- Nozzle 3 - dispenses Acid Wash to clean the cuvette, and then aspirates it to waste
- Nozzles 4 and 5 - dispense water to rinse the cuvette, and then aspirate it to waste
- Nozzle 6 - dispenses water into the cuvette for the water blank measurement, which ensures cuvette integrity
- Nozzle 7 - aspirates the remaining water in the cuvette to waste
- Nozzle 8 - dries the cuvette

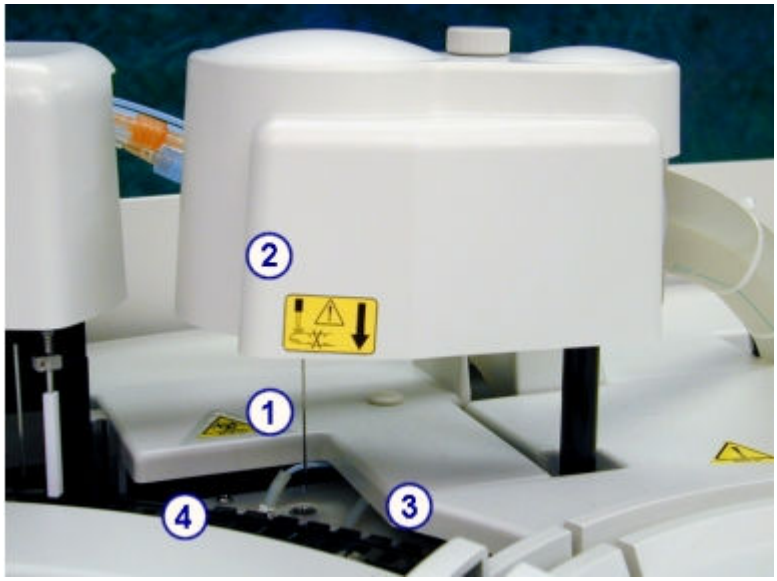
Figure 1.65: Cuvette washer (c8000)



ICT unit (*c*8000)

The ICT (integrated chip technology) unit is a device that consists of the ICT probe and ICT module and is used to perform indirect potentiometric analysis. The ICT probe aspirates the sample. The ICT module simultaneously measures Na+, K+, and Cl- using integrated chip technology.

Figure 1.66: ICT unit (c8000)



Legend:

1. ICT probe: Connected to the ICT module in the ICT unit. The ICT probe aspirates diluted sample from the cuvettes or ICT Reference Solution from the ICT reference solution cup into the ICT module for processing.

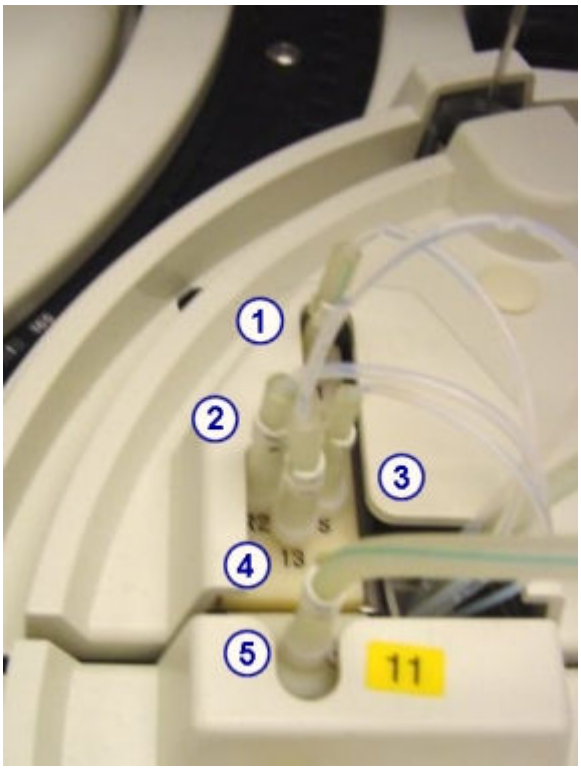
2. ICT module: Located in the ICT unit. The ICT module measures potentiometric assays (electrolytes) using integrated chip technology.
3. ICT reference solution cup: Located beneath the ICT probe when the ICT unit is in the home position. ICT reference solution cup contains preheated reference solution that is aspirated by the ICT probe and measured by the ICT module. Sensors in the cup confirm the cup fills completely and sufficient solution is aspirated during measurement.
4. ICT reference solution warming ring: A narrow metal tube located in the water bath. The ICT reference solution warming ring warms the reference solution to 37°C before the reference solution fills the ICT reference solution cup.

Water bath/waste overflow area (*c*8000)

The water bath/waste overflow area is a waste collection compartment that receives overflow from the water bath, excess water from the pipettors, and liquid waste from the ICT reference solution cup and ICT unit.

Liquid waste from the pipettors and ICT reference solution cup collect in a low-concentration waste compartment, and then is removed through the low-concentration waste tubing. Liquid waste from the ICT unit collects in a high-concentration waste compartment and then is removed through the high-concentration waste tubing.

Figure 1.67: Water bath and waste overflow area (c8000)



Legend:

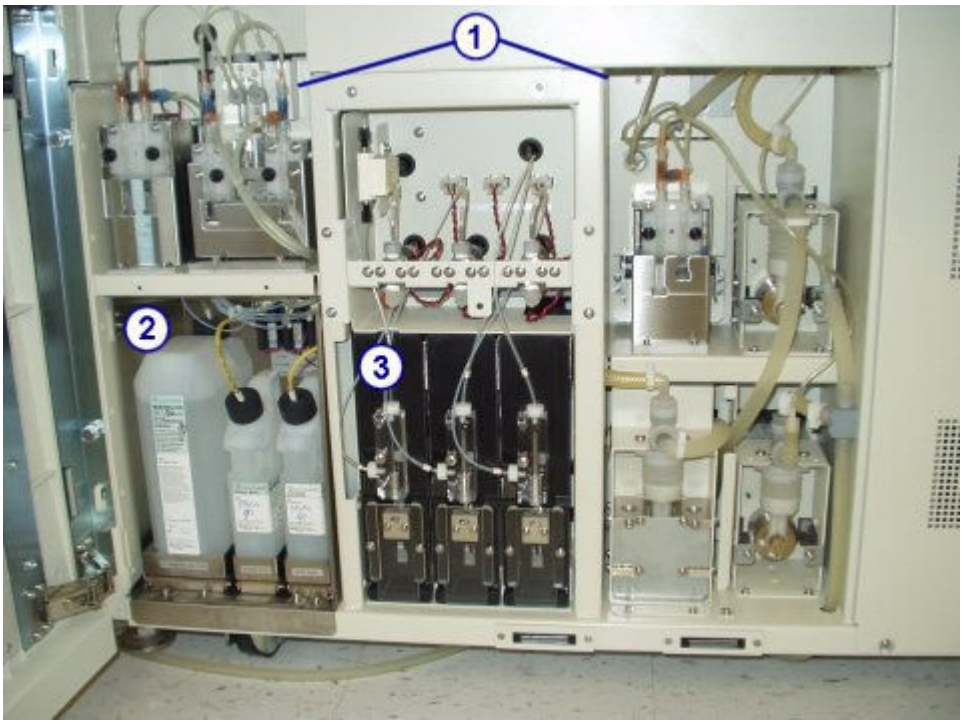
1. R1 tubing: Delivers excess deionized water from reagent pipettor 1 into the low-concentration waste compartment.

2. R2 tubing: Delivers excess deionized water from reagent pipettor 2 into the low-concentration waste compartment.
3. Sample tubing: Delivers excess deionized water from the sample pipettor into the low-concentration waste compartment.
4. ICT reference solution cup low-concentration waste tubing: Delivers liquid waste from the ICT reference solution cup into the low-concentration waste compartment.
5. ICT unit high-concentration waste tubing: Delivers liquid waste from the ICT unit into the high-concentration waste compartment.

Supply and pump center (*c*8000)

The supply and pump center is the storage area for processing module pumps, bulk solutions, and sample and reagent syringes and drives.

Figure 1.68: Supply and pump center (c8000)



Legend:

1. Pump center: Houses the processing module pumps.
2. Bulk solution supply center: Provides onboard storage for ICT Reference Solution, Alkaline Wash, and Acid Wash.
3. Sample and reagent syringes area: Houses the sample and reagent syringes and drives.

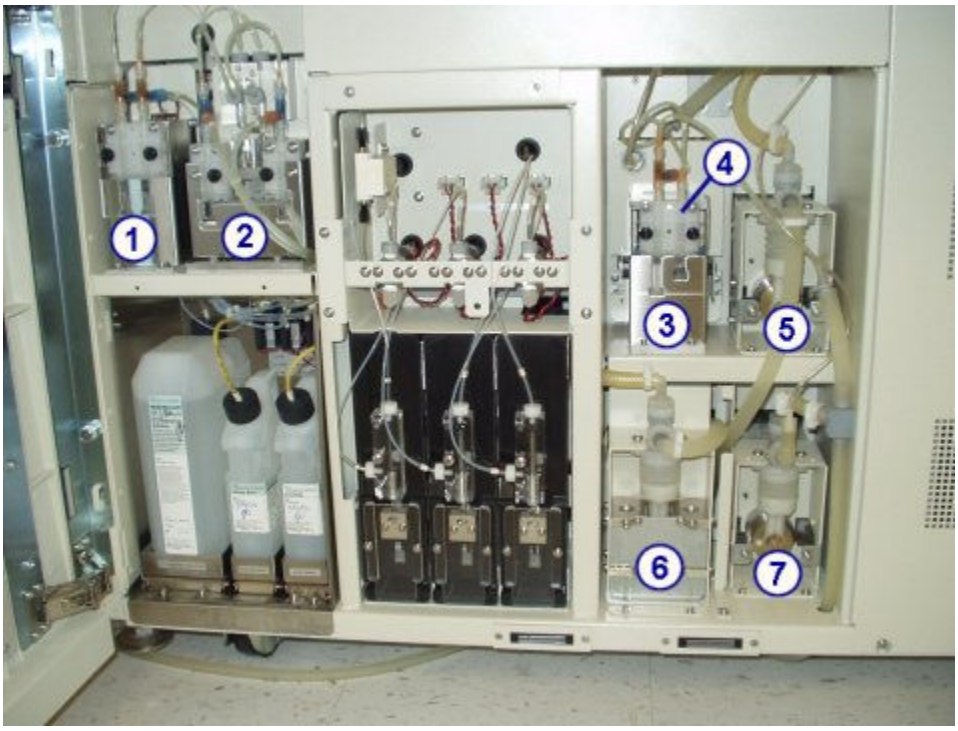
Supply and pump center (*c*8000) topics include:

- *Pump center (c8000)*, page 1-74
- *Bulk solution supply center (c8000)*, page 1-75
- *Sample and reagent syringe area (c8000)*, page 1-76

Pump center (*c*8000)

The pump center is the area that houses the processing module pumps. These pumps provide the pressure needed to aspirate and dispense liquids into the appropriate components in the processing center and to the sample and reagent syringes.

Figure 1.69: Processing module pumps (c8000)

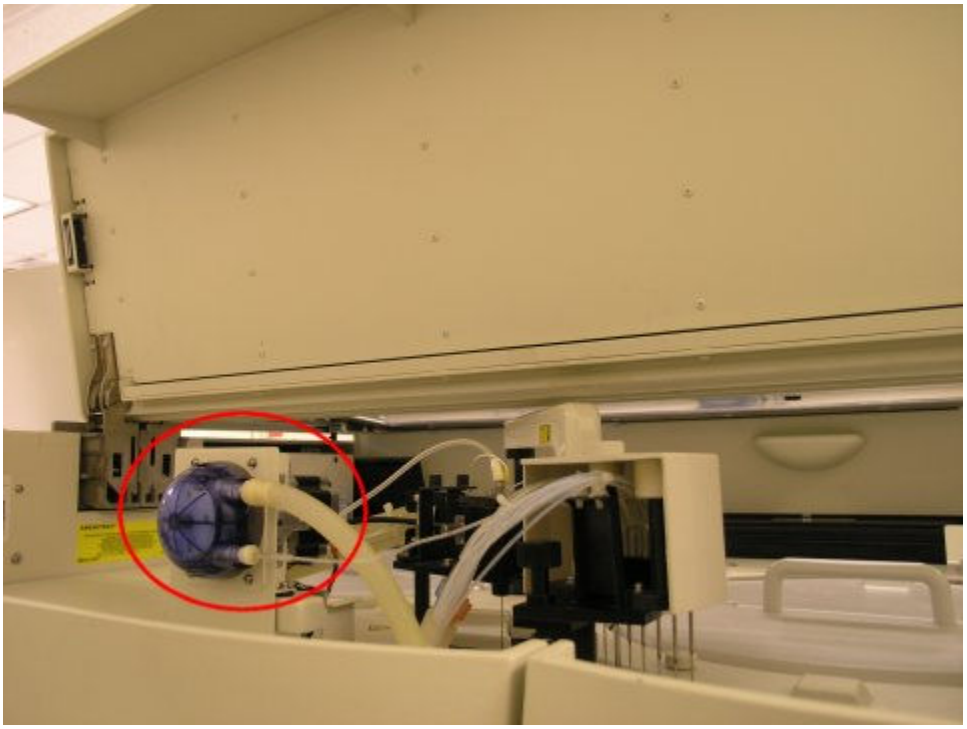


Legend:

1. ICT reference solution pump: Uses the syringe on the right to deliver ICT Reference Solution into the ICT reference solution cup. After the reference solution is measured, the ICT reference solution pump uses the syringe on the left to drain the cup.
2. Wash solution pump: Delivers diluted alkaline and acid wash solutions to the cuvette washer to wash cuvettes during daily operation and maintenance procedures.
3. ICT aspiration pump: Uses the syringe on the right to deliver samples or ICT Reference Solution into the ICT module for measurement. Once measurement is complete, the ICT aspiration pump uses the syringe on the left to aspirate waste from the water bath/waste overflow area to the high-concentration waster tubing:
4. ICT aspiration valve: Controls the direction of liquid flow while the ICT aspiration pump operates.
5. Cuvette wash pump: Delivers purified water to the cuvette washer.
6. Probe wash pump: Uses purified water to flush the sample and reagent probes.
7. High-concentration (bellows) waste pump: Works with the cuvette washer to aspirate waste from the cuvettes to the optional high-concentration waste bottle or

the drain. The *c*8000 processing module has either the bellows or peristaltic type waste pump.

Figure 1.70: Peristaltic high-concentration waste pump



The peristaltic high-concentration waste pump is located in the back under the rear processing module cover.

Bulk solution supply center (*c*8000)

The bulk solution supply center is an onboard storage area for ICT Reference Solution, Alkaline Wash, and Acid Wash. The quantity of each bulk solution is verified by individual weight sensors. The sensor is tripped when approximately 20% of the solution volume remains or the configured low alert (premium feature) is reached.

Figure 1.71: Bulk solution supply center (c8000)

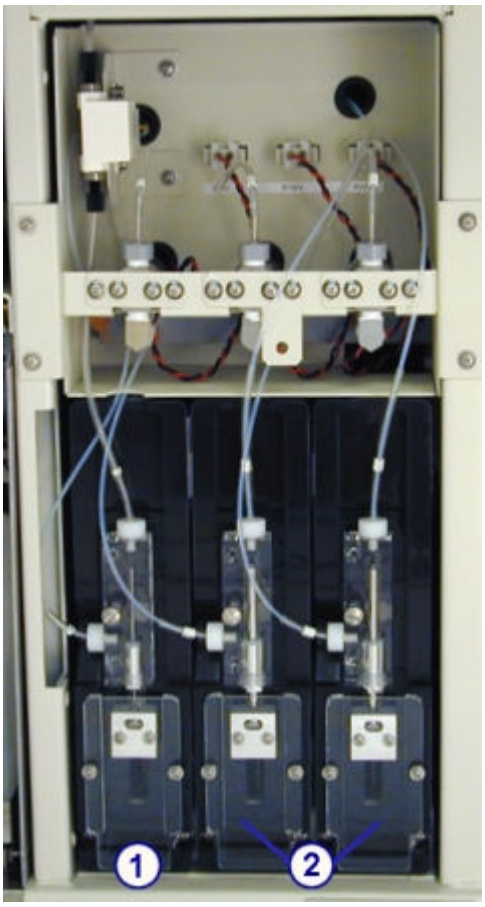
Legend:

1. *ICT reference solution (c System)*, page 1-191: Aspirated and analyzed by the ICT module before and after each sample to provide a reference potential used to calculate results.
2. *Alkaline wash (c System)*, page 1-192: Used by the cuvette washer to clean the cuvettes after sample analysis.
3. *Acid wash (c System)*, page 1-193: Used by the cuvette washer to clean the cuvettes after sample analysis.

Sample and reagent syringe area (*c*8000)

The sample and reagent syringe area is the location for the sample and reagent syringes and drives. Each drive supports a syringe that controls the aspiration and dispense of samples or reagents.

Figure 1.72: Sample and reagent syringes (c8000)



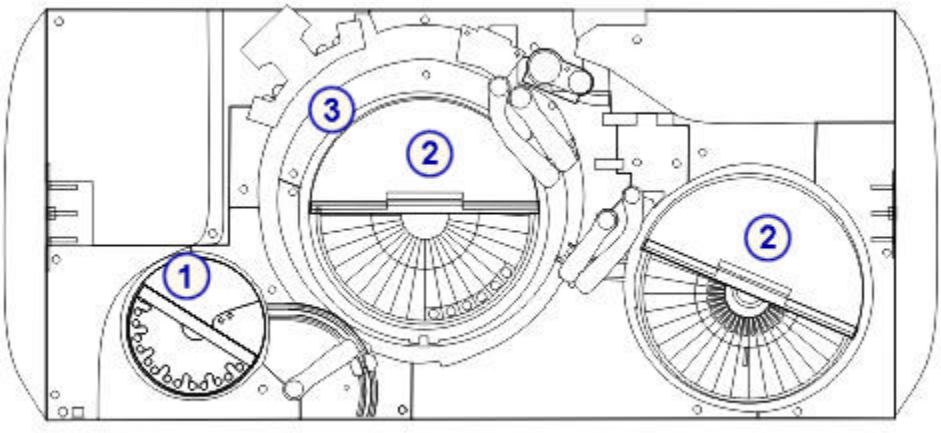
Legend:

1. Sample syringe: Aspirates and dispenses the sample.
2. Reagent syringes 1 and 2: Aspirates and dispenses the reagent.

Processing center (*c*16000)

The processing center is the main activity area of the processing module. Samples and reagents are dispensed and mixed in a reaction carousel where assay processing is performed.

Figure 1.73: ARCHITECT c16000 processing center components



Legend:

1. Sample hardware components: Provide sample aspiration, dispense, and positive identification.
2. Reagent hardware components: Provide reagent aspiration, dispense, and positive identification.
3. Reaction carousel hardware components: Position the cuvettes for sample and reagent aspiration, mixing, photometric or potentiometric analysis, and cuvette washing.

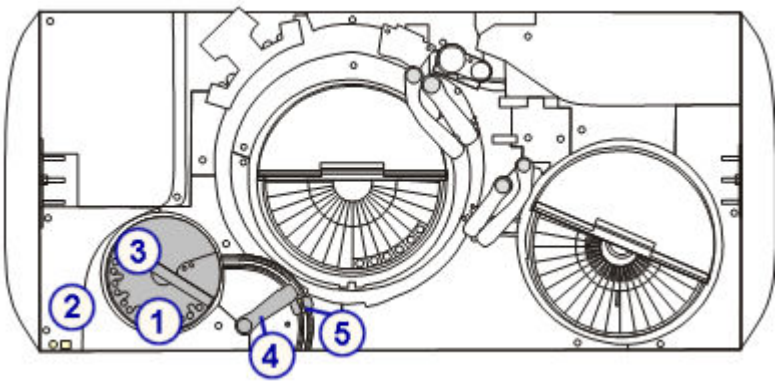
Related information…

- *Sample hardware components (c16000)*, page 1-78
- *Reagent hardware components (c16000)*, page 1-81
- *Reaction carousel hardware components (c16000)*, page 1-85

Sample hardware components (*c*16000)

Sample hardware components are devices that provide sample aspiration, dispense, and positive identification.

Figure 1.74: Sample hardware components (c16000)



Legend:

1. Sample carousel: Used for loading patient samples, calibrators, and controls.
2. Indicator lights: Used to access and advance the sample carousel.
3. Sample bar code reader: Reads the carousel ID and sample ID.
4. Sample pipettor: Aspirates and dispenses samples into cuvettes.
5. Sample probe wash cup: Used to wash remaining fluid from the probe exterior, interior, and tip.

Related information…

- *Sample carousel (c16000)*, page 1-79
- *Sample pipettor and sample probe wash cup (c16000)*, page 1-80

Sample carousel (*c*16000)

The sample carousel is a local sample handler with 32 refrigerated positions used for loading clinical chemistry patient samples, calibrators, and controls. Positions 31 and 32 are reserved for onboard solutions that are used in the SmartWash function and maintenance procedures.

Samples can be loaded in tubes and sample cups. Patient samples, calibrators, and controls in tubes can be bar code labeled to provide positive identification.

Samples on the carousel take priority over those on the RSH (robotic sample handler) or LAS (laboratory automation system) under normal operating conditions. In the event of a RSH or LAS failure, the sample carousel can be used as the primary area for loading clinical chemistry samples.

Figure 1.75: Sample carousel and indicator lights (c16000)

Legend:

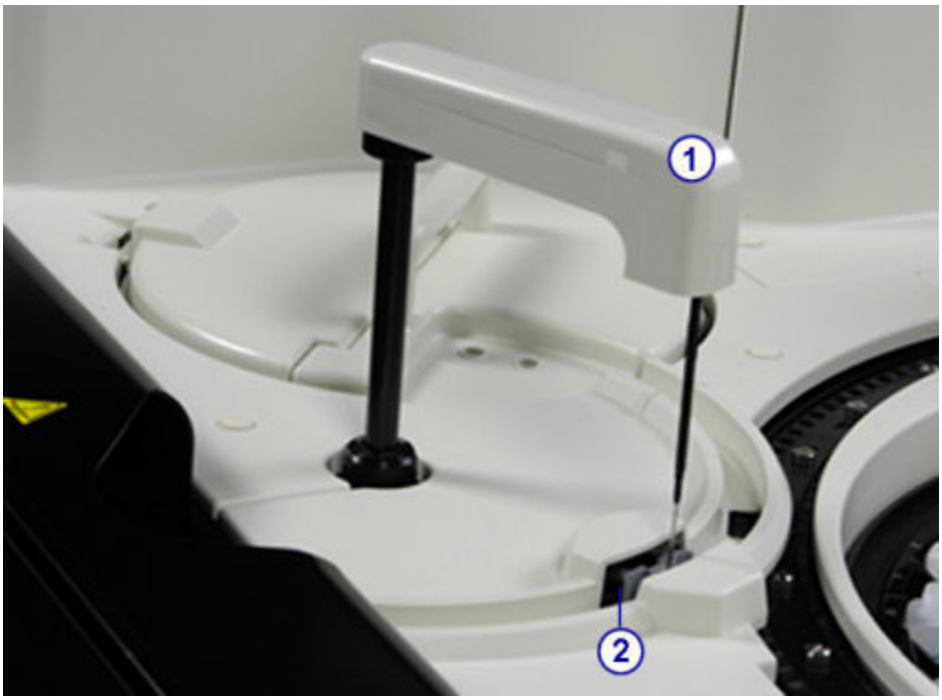
1. Sample carousel: Used for loading patient samples, calibrators, and controls.
2. Sample bar code reader: Reads the carousel ID and bar coded labels on samples, calibrators, and controls.
3. Sample carousel access indicator (square): Indicates when you can access the sample carousel and provides a method to pause. When the access indicator light is:
   - Off - the sample carousel is moving and cannot be accessed.
   - Blinking - the access indicator has been pressed and the sample carousel is in the process of pausing.
   - On - the sample carousel can be accessed.
4. Sample carousel advance indicator (round): Indicates when you can advance the sample carousel. When the advance indicator light is:
   - On - the sample carousel can be advanced.
   - Off - the advance indicator button has been pressed and the sample carousel is in the process of advancing a 1/3 rotation or the sample carousel is closed.

Sample pipettor and sample probe wash cup (*c*16000)

The sample pipettor is a device that detects, aspirates, transfers, and dispenses samples into the cuvettes. It also transfers diluted samples from the cuvette used to make the dilution into the cuvette used for the reaction. This pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

The sample probe wash cup is an active wash station that washes any remaining fluid from the probe exterior, interior, and tip. The sample probe is washed between samples to eliminate carryover.

Figure 1.76: Sample pipettor and sample probe wash cup (c16000)



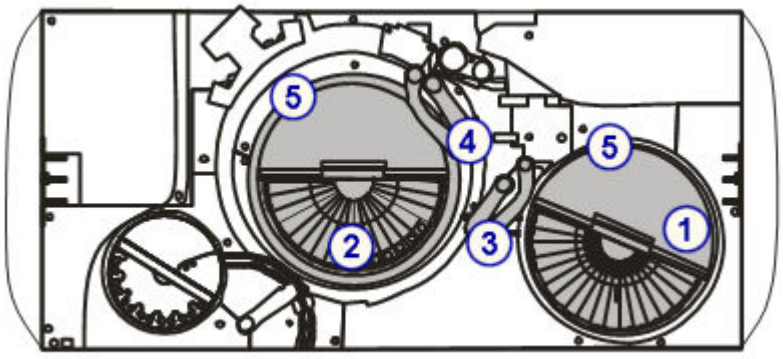
Legend:

1. Sample pipettor: Aspirates and dispenses samples into cuvettes.
2. Sample probe wash cup: Washes remaining fluid from the probe exterior, interior, and tip.

Reagent hardware components (*c*16000)

Reagent hardware components are devices that provide reagent aspiration, dispense, and positive identification.

Figure 1.77: Reagent hardware components (c16000)



Legend:

1. Reagent supply center 1 (R1): Provides refrigerated storage for reagent kits, diluents, and onboard solutions.
2. Reagent supply center 2 (R2): Provides refrigerated storage for reagent kits and onboard solutions.
3. Reagent pipettors R1A and R1B and wash cups: Pipettors aspirate and dispense reagents into cuvettes. Wash cups wash the probe exterior, interior, and tip.
4. Reagent pipettors R2A and R2B and wash cups: Pipettors aspirate and dispense reagents into cuvettes. Wash cups wash the probe exterior, interior, and tip.
5. Reagent bar code readers: Read 2D (two-dimensional) bar code labels on Abbott pre-packaged reagents or 1D bar code labels on user-defined reagents.

Related information…

- *Reagent supply centers (c16000)*, page 1-82
- *Reagent pipettors and wash cups (c16000)*, page 1-84

Reagent supply centers (*c*16000)

Reagent supply centers (R1 and R2) are refrigerated reagent carousels for onboard storage of:

- reagent kits
- sample diluents
- onboard solutions

See *Onboard solutions (c System)*, page 1-194 and *Onboard solution areas (c16000)*, page 1-84 for more information.

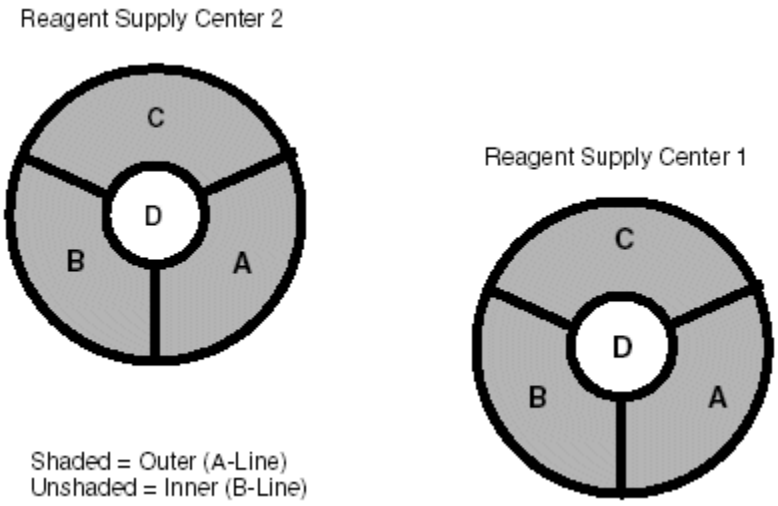
These reagent supply centers and their associated reagent pipettors are separately controlled to allow reagents to be independently aspirated and dispensed by each reagent pipettor. To improve throughput the *c*16000 uses a dual line feature to pair assays for each run. The system aspirates reagents for the two assays, one assay on a designated A-line and the other on a designated B-line, in the same cycle.

Both reagent supply centers consists of an inner and outer carousel that are segmented to store a maximum of 56 - 65 reagent cartridges. The location and capacity of each segment on the carousel is presented in the following table.

Carousel	Segment	Description
Outer (A-line)	Outer A, B, and C	A 12 position reagent segment designed for large cartridges or a 15 position reagent segment for small cartridges. The 12 position reagent segment A has a pipettor calibration target.
Inner (B-line)	Inner D	A 20 position reagent segment designed for large cartridges. This segment also has a pipettor calibration target.

The shaded areas in the figure below indicate the location of the segments used for A-line (Outer) reagents. The unshaded area is the location for B-line (Inner) reagents.

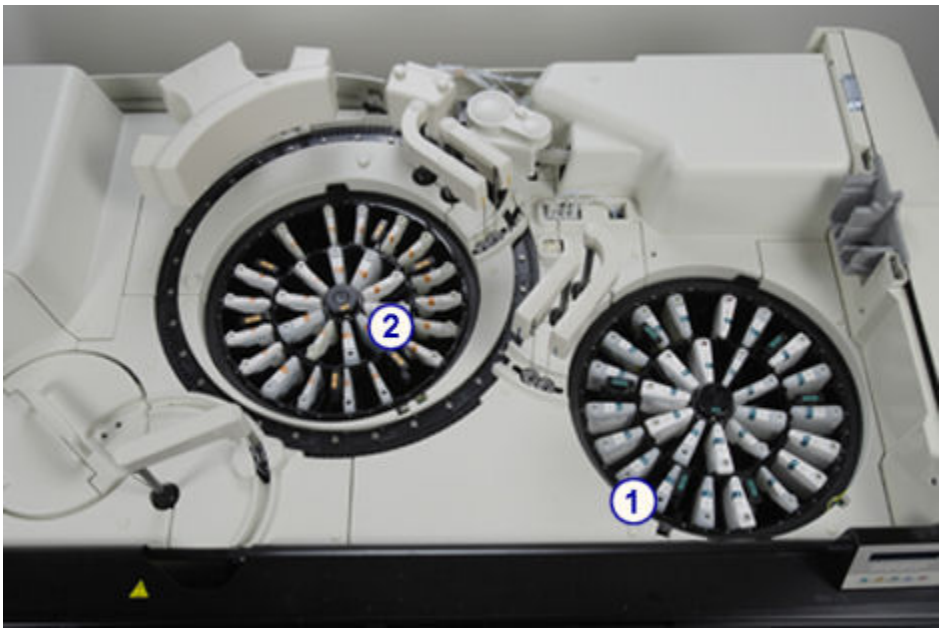
Figure 1.78: A-line and B-line locations on reagent supply centers



For more information on available reagent segments, see *Reagent segments (c16000)*, page 1-216.

Reagents can be bar code labeled to provide positive identification.

Figure 1.79: Temperature-controlled reagent supply centers (c16000)



Legend:

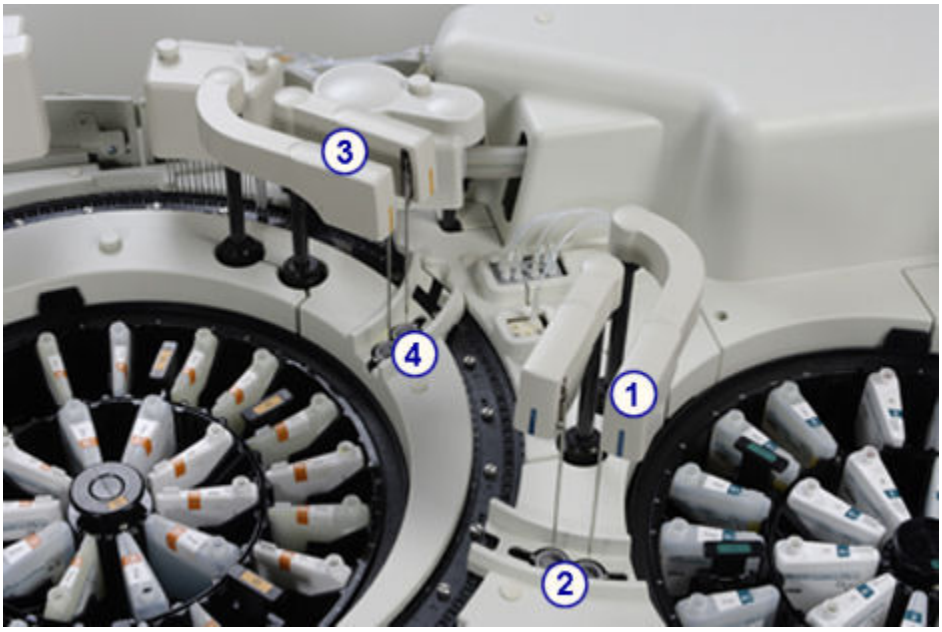
1. Reagent supply center 1 (R1): Provides onboard storage for reagent kits, onboard solutions, and diluents.
2. Reagent supply center 2 (R2): Provides onboard storage for reagent kits and onboard solutions.

Reagent pipettors and wash cups (*c*16000)

Reagent pipettors 1 (A and B) and 2 (A and B) are devices that detect, aspirate, transfer, and dispense reagents into the cuvette. Reagent pipettors 1 also transfer sample diluents from reagent supply center 1 into cuvettes to be used for onboard sample dilution.

Reagent pipettor wash cups are active wash stations that wash any remaining fluid from the probe exterior, interior, and tip.

Figure 1.80: Reagent pipettors and wash cups (c16000)



Legend:

1. Reagent pipettors R1A and R1B: Aspirate and dispense reagents into cuvettes.
2. Reagent pipettor 1 wash cups: Washes the probe exterior, interior, and tip.
3. Reagent pipettors R2A and R2B: Aspirate and dispense reagents into cuvettes.
4. Reagent pipettor 2 wash cups: Washes the probe exterior, interior, and tip.

Onboard solution areas (*c*16000)

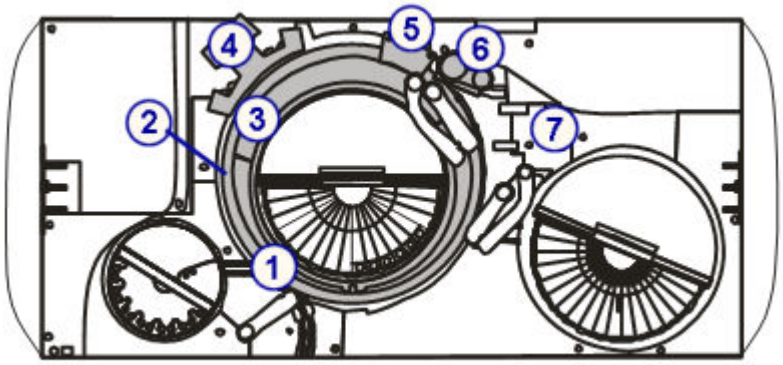
Onboard solutions are wash solutions used to clean probes, mixers, and cuvettes for the SmartWash function and maintenance procedures.

These solutions are stored in positions 1, 2, and 3 on reagent segments C and D on both the R1 and R2 reagent supply centers.

Reaction carousel hardware components (*c*16000)

Reaction carousel hardware components are devices that position the cuvettes for sample and reagent aspiration, mixing, photometric or potentiometric analysis, and cuvette washing.

Figure 1.81: Reaction carousel hardware components (c16000)



Legend:

1. Reaction carousel: Positions the cuvettes for sample processing.
2. Cuvette segments: Hold cuvettes in the reaction carousel.
3. Lamp: Provides the light source for photometric measurement.
4. Mixer unit: Houses the mixers that mix sample with reagent.
5. Cuvette washer: Washes and dries the cuvettes.
6. ICT unit: Measures potentiometric assays (electrolytes) using ICT (integrated chip technology).
7. Water bath/waste overflow area: Receives overflow from the water bath, excess water from the pipettors, and liquid waste from the ICT reference solution cup and ICT unit.

Related information…

- *Reaction carousel (c16000)*, page 1-85
- *Cuvette segments (c16000)*, page 1-86
- *Lamp (c16000)*, page 1-87
- *Mixer unit (c16000)*, page 1-87
- *Cuvette washer (c16000)*, page 1-88
- *ICT unit (c16000)*, page 1-89
- *Water bath/waste overflow area (c16000)*, page 1-90

Reaction carousel (*c*16000)

The reaction carousel is a device that:

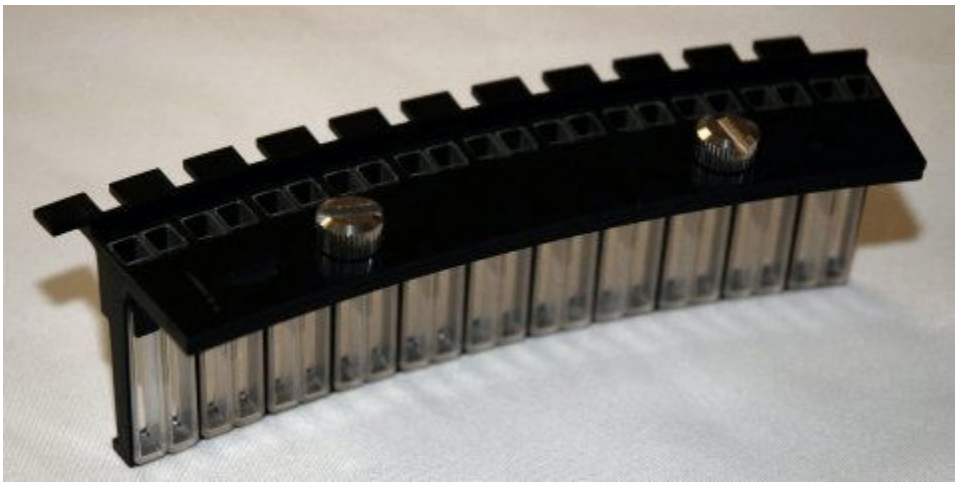
- Accommodates a variety of assay protocols
- Consists of 15 cuvette segments
- Is surrounded by a 37°C water bath
- Rotates counter-clockwise to position the cuvettes at the following locations:
  - Sample dispense
  - R1 reagent dispense
  - R2 reagent dispense
  - ICT electrolyte aspiration
  - Mixing positions (2)
  - Photometric read position
  - Diluted sample aspiration

Figure 1.82: Reaction carousel (c16000)

Cuvette segments (*c*16000)

Cuvette segments are racks that sit in the reaction carousel and hold cuvettes. Each cuvette segment holds 11 cuvette pairs (22 cuvettes). With 15 cuvette segments the reaction carousel contains 165 cuvette pairs or a total of 330 cuvettes (22 cuvettes x 15 cuvette segments).

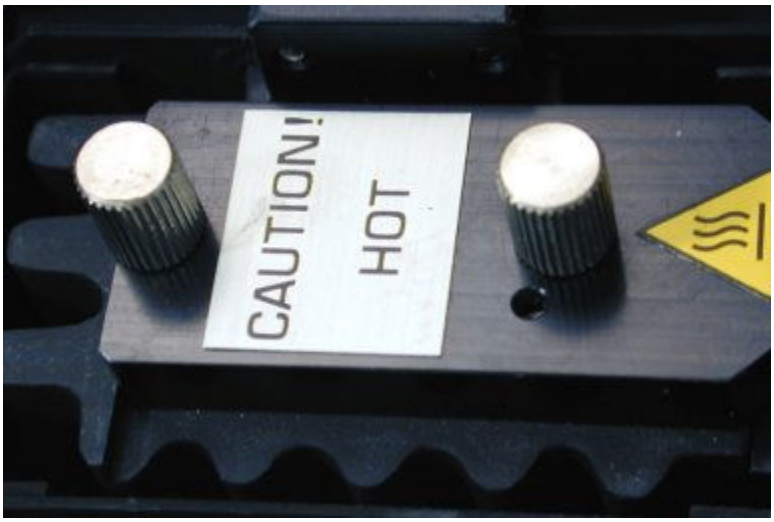
Figure 1.83: Cuvette segment (c16000)



Lamp (*c*16000)

The lamp is an optical device used to provide the light source for photometric measurement.

Figure 1.84: Lamp (c16000)



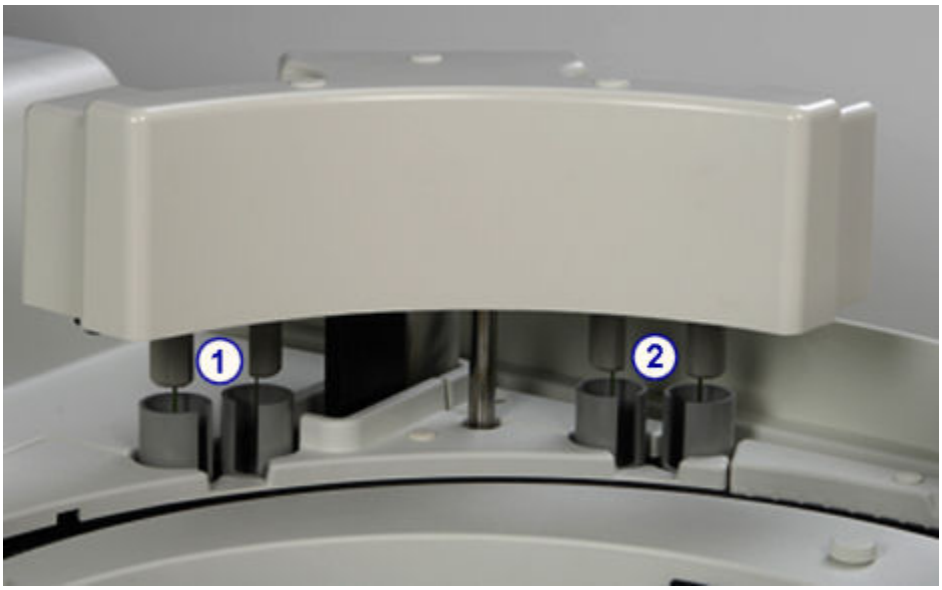
Mixer unit (*c*16000)

The mixer unit is a device that houses two mixer pairs (1A, 1B and 2A, 2B) that mix the sample and reagent together.

- Mixer 1 pair (left side) mixes the sample (undiluted or diluted) with reagent 1.
- Mixer 2 pair (right side) mixes the sample/reagent 1 mixture with reagent 2.

The exterior of each mixer is washed after each mixing operation.

Figure 1.85: Mixer unit and mixers (c16000)



Legend:

1. Mixer 1: Mixes the sample with reagent 1.
2. Mixer 2: Mixes the sample/reagent 1 mixture with reagent 2.

Cuvette washer (*c*16000)

The cuvette washer is a device with eight nozzle pairs that, from left to right, perform the following functions before and after each cuvette is used:

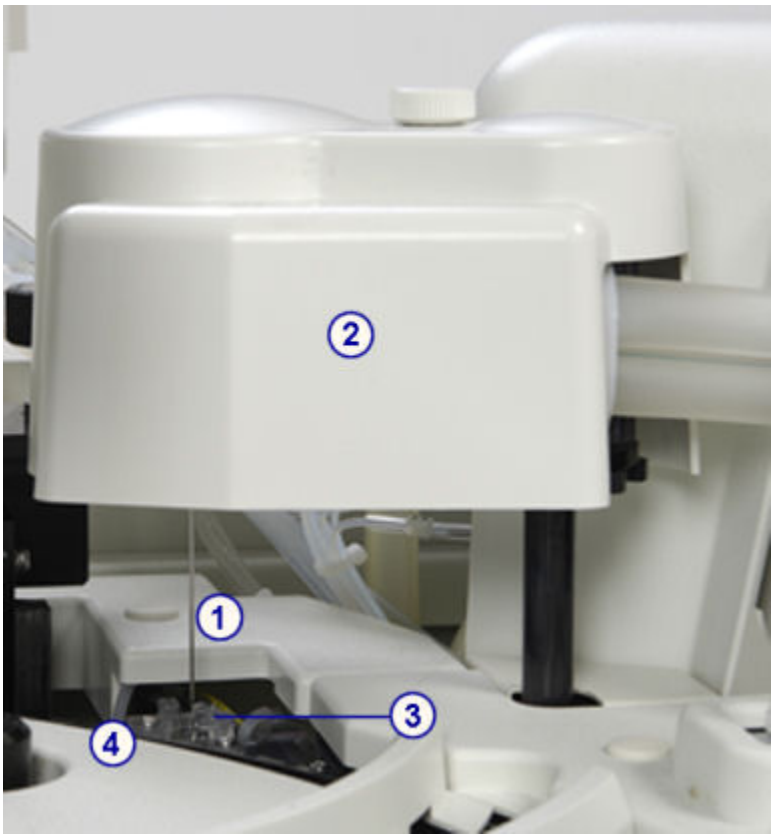
- Nozzle pair 1 - aspirates sample and reagent mixture to waste
- Nozzle pair 2 - dispenses Alkaline Wash to clean the cuvette, and then aspirates it to waste
- Nozzle pair 3 - dispenses Acid Wash to clean the cuvette, and then aspirates it to waste
- Nozzle pairs 4 and 5 - dispense water to rinse the cuvette, and then aspirate it to waste
- Nozzle pair 6 - dispenses water into the cuvette for the water blank measurement, which ensures cuvette integrity
- Nozzle pair 7 - aspirates the remaining water in the cuvette to waste
- Nozzle pair 8 - dries the cuvette

Figure 1.86: Cuvette washer (c16000)

ICT unit (*c*16000)

The ICT (integrated chip technology) unit is a device that consists of the ICT probe and ICT module and is used to perform indirect potentiometric analysis. The ICT probe aspirates the sample. The ICT module simultaneously measures Na+, K+, and Cl- using integrated chip technology.

Figure 1.87: ICT unit (c16000)



Legend:

1. ICT probe: Connected to the ICT module in the ICT unit. The ICT probe aspirates diluted sample from the cuvettes or ICT Reference Solution from the ICT reference solution cup into the ICT module for processing.
2. ICT module: Located in the ICT unit. The ICT module measures potentiometric assays (electrolytes) using integrated chip technology.
3. ICT reference solution cup: Located beneath the ICT probe when the ICT unit is in the home position. ICT reference solution cup contains preheated reference solution that is aspirated by the ICT probe and measured by the ICT module. Sensors in the cup confirm the cup fills completely and sufficient solution is aspirated during measurement.
4. ICT reference solution warming ring: A narrow metal tube located in the water bath. The ICT reference solution warming ring warms the reference solution to 37°C before the reference solution fills the ICT reference solution cup.

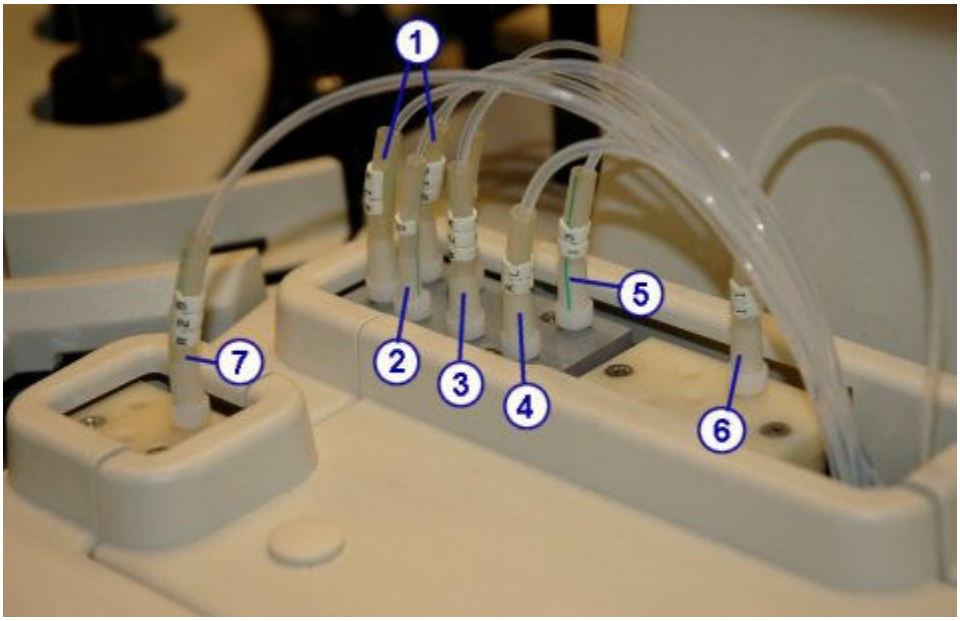
Water bath/waste overflow area (*c*16000)

The water bath/waste overflow area is a waste collection compartment that receives overflow from the water bath, excess water from the pipettors, and liquid waste from the ICT reference solution cup and ICT unit.

Liquid waste from the pipettors and ICT reference solution cup collect in a low-concentration waste compartment, and then is removed through the low-concentration waste tubing. Liquid waste from the ICT unit collects in a high-

concentration waste compartment and then is removed through the high-concentration waste tubing.

Figure 1.88: Water bath and waste overflow area (c16000)



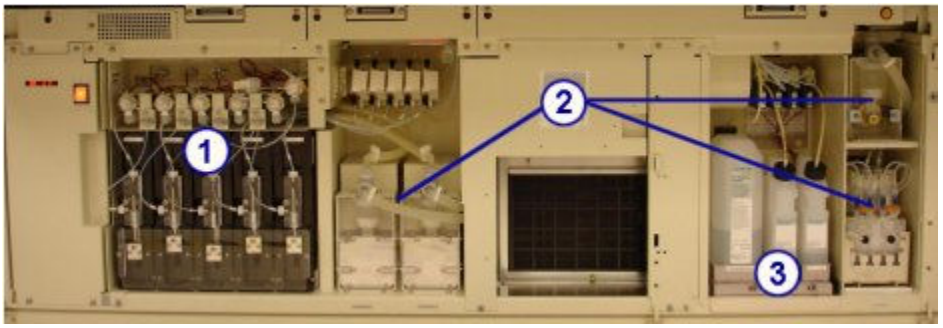
Legend:

1. R1 (A and B) tubing: Delivers excess deionized water from reagent pipettors 1 into the low-concentration waste compartment.
2. Sample tubing: Delivers excess deionized water from the sample pipettor into the low-concentration waste compartment.
3. R2A tubing: Delivers excess deionized water from reagent pipettors 2 into the low-concentration waste compartment.
4. Alkaline wash solution tubing: Delivers diluted alkaline wash solution from the wash solution pump into the low-concentration waste compartment.
5. ICT reference solution cup low-concentration waste tubing: Delivers liquid waste from the ICT reference solution cup into the low-concentration waste compartment
6. ICT unit high-concentration waste tubing: Delivers liquid waste from the ICT unit into the high-concentration waste compartment.
7. R2B tubing: Delivers deionized water into the water bath to compensate for loss of water during normal running.

Supply and pump centers (*c*16000)

The supply and pump centers are the storage areas for processing module pumps, bulk solutions, and sample and reagent syringes and drives.

Figure 1.89: Supply and pump centers (c16000)



Legend:

1. Sample and reagent syringes area: Houses the sample and reagent syringes and drives.
2. Pump center: Houses the processing module pumps.
3. Bulk solution supply center: Provides onboard storage for ICT Reference Solution, Alkaline Wash, and Acid Wash.

Supply and pump centers (*c*16000) topics include:

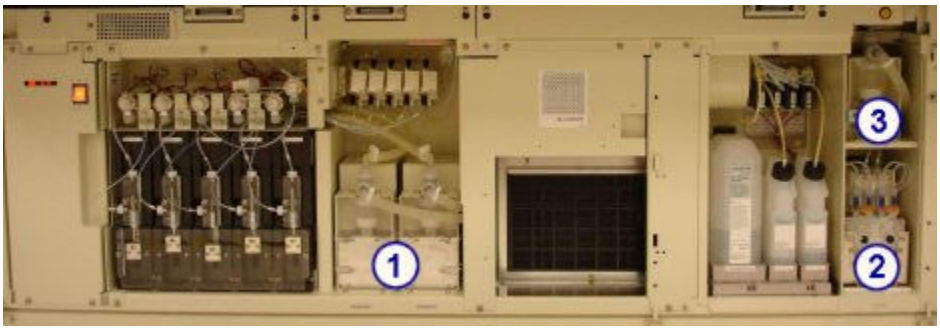
- *Pump centers (c16000)*, page 1-92
- *Bulk solution supply center (c16000)*, page 1-93
- *Sample and reagent syringe area (c16000)*, page 1-94

Pump centers (*c*16000)

The pump centers are the areas that house the processing module pumps. These pumps provide the pressure needed to aspirate and dispense liquids into the appropriate components in the processing center and to the sample and reagent syringes.

The pump center on the front of the processing module houses the probe wash, wash solution, and cuvette wash pumps.

Figure 1.90: c16000 Pump center (front view)



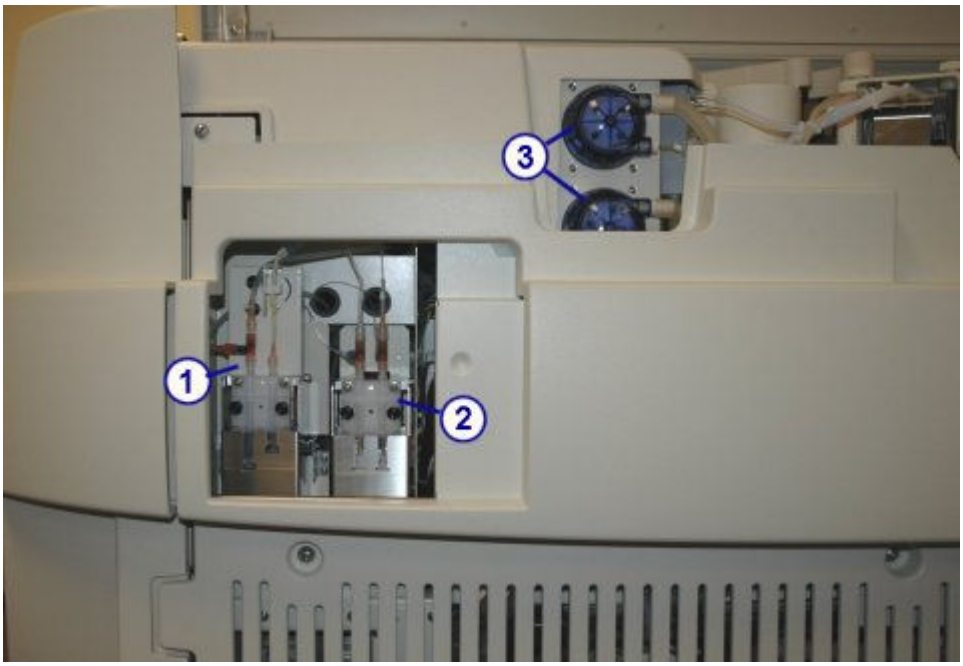
Legend:

1. Probe wash pumps: Uses purified water to flush the sample and reagent probes.
2. Wash solution pump: Delivers diluted alkaline and acid wash solutions to the cuvettes during daily operation and maintenance procedures.

3. Cuvette wash pump: Delivers purified water to the cuvette washer.

The pump centers on the back of the processing module house the ICT and high-concentration waste pumps.

Figure 1.91: c16000 Pump centers (rear view)



Legend:

1. ICT aspiration pump: Uses the syringe on the right to deliver samples or ICT Reference Solution into the ICT module for measurement. Once measurement is complete, the ICT aspiration pump uses the syringe on the left to aspirate waste from the water bath/waste overflow area to the high-concentration waste tubing. The ICT aspiration valve controls the direction of liquid flow while the ICT aspiration pump operates.
2. ICT reference solution pump: Uses the syringe on the right to deliver ICT Reference Solution into the ICT reference solution cup. After the reference solution is measured, the ICT reference solution pump uses the syringe on the left to drain the cup.
3. High-concentration waste pump: Works with the cuvette washer to aspirate waste from the cuvettes to the optional high-concentration waste container or the drain.

Bulk solution supply center (*c*16000)

The bulk solution supply center is an onboard storage area for ICT Reference Solution, Alkaline Wash, and Acid Wash. The quantity of each bulk solution is verified by individual weight sensors. The sensor is tripped when approximately 20% of the solution volume remains or the configured low alert (premium feature) is reached.

Figure 1.92: Bulk solution supply center (c16000)

Legend:

1. *ICT reference solution (c System)*, page 1-191: Aspirated and analyzed by the ICT module before and after each sample to provide a reference potential used to calculate results.
2. *Alkaline wash (c System)*, page 1-192: Used by the cuvette washer to clean the cuvettes after sample analysis.
3. *Acid wash (c System)*, page 1-193: Used by the cuvette washer to clean the cuvettes after sample analysis.

Sample and reagent syringe area (*c*16000)

The sample and reagent syringe area is the location for the sample and reagent syringes and drives. Each drive supports a syringe that controls the aspiration and dispense of samples or reagents.

Figure 1.93: Sample and reagent syringes (c16000)

Legend:

1. Sample syringe: Aspirates and dispenses the sample.
2. R1 Reagent syringes (A and B): Aspirate and dispense the reagent.
3. R2 Reagent syringes (A and B): Aspirate and dispense the reagent.

Processing modules (*i* System)

The *i* System processing modules perform all sample processing activities from aspiration to final read.

Processing modules (*i* System) topics include:

- *i2000 processing module*, page 1-96
- *i2000SR processing module*, page 1-99

- *Processing module keypad (i2000/i2000SR)*, page 1-101
- *i1000SR processing module*, page 1-102
- *Processing center (i2000/i2000SR)*, page 1-104
- *Supply and waste center (i2000/i2000SR)*, page 1-122
- *Processing center (i1000SR)*, page 1-132
- *Supply and waste center (i1000SR)*, page 1-145

*i*2000 processing module

An *i*2000 processing module is an immunoassay analyzer that performs sample processing. It processes up to 200 CMIA (chemiluminescent microparticle immunoassay) tests per hour making use of up to 25 onboard reagent kits (100 and/or 500 tests) in a temperature-controlled reagent carousel.

The *i*2000 processing module can be configured with either the SSH (standard sample handler) or LAS (laboratory automation system) carousel sample handler. The following illustrations show the:

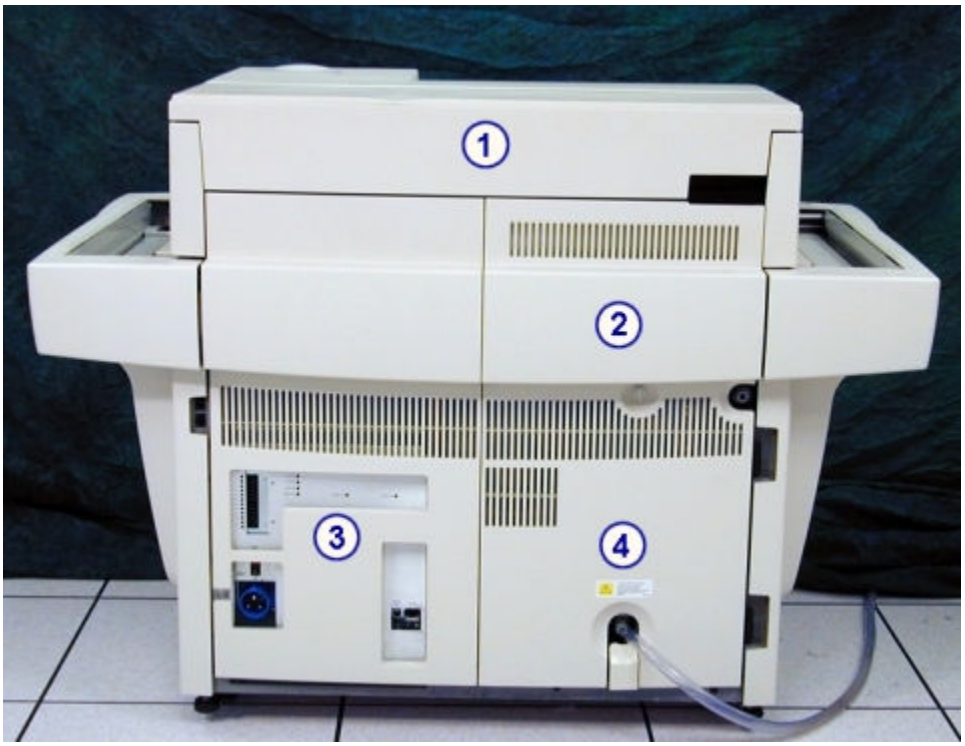
- *i2000 processing module (front view - SSH)*, page 1-96
- *i2000 processing module (rear view - SSH)*, page 1-97
- *i2000 processing module (front view - LAS carousel sample handler)*, page 1-98
- *i2000 processing module (rear view - LAS carousel sample handler)*, page 1-99

Figure 1.94: i2000 processing module (front view - SSH)

Legend:

1. Front processing center cover: Provides access to the components that perform assay processing activities.
2. *Processing module keypad (i2000/i2000SR)*, page 1-101: Provides a local user interface for controlling the processing center.
3. Supply and waste center door: Provides access to the bulk storage and solid waste storage area.
4. Card cage door: Provides access to the card cage.

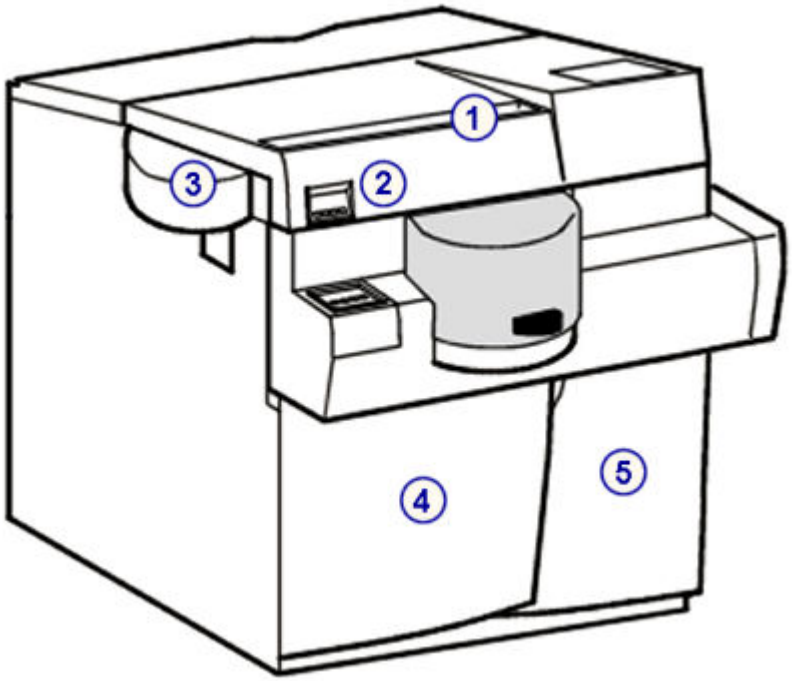
Figure 1.95: i2000 processing module (rear view - SSH)



Legend:

1. Rear processing center cover: Provides access to the components that perform assay processing activities.
2. Rear processing center access panel: Provides access to the processing center components.
3. Power supply panel: Provides access to the power supply components.
4. Pump bay panel: Provides access to the pumps and vacuum center.

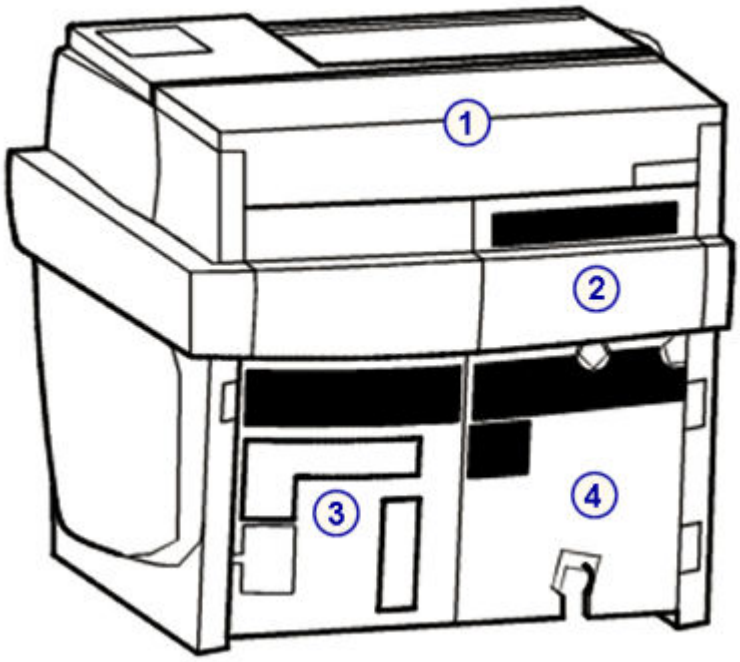
Figure 1.96: i2000 processing module (front view - LAS carousel sample handler)



Legend:

1. Front processing center cover: Provides access to the components that perform assay processing activities.
2. *Processing module keypad (i2000/i2000SR)*, page 1-101: Provides a local user interface for controlling the processing center.
3. Sample pipettor cover: Covers the sample pipettor as it accesses samples on the LAS track.
4. Supply and waste center door: Provides access to the bulk storage and solid waste storage area.
5. Card cage door: Provides access to the card cage.

Figure 1.97: i2000 processing module (rear view - LAS carousel sample handler)



Legend:

1. Rear processing center cover: Provides access to the components that perform assay processing activities.
2. Rear processing center access panel: Provides access to the processing center components.
3. Power supply panel: Provides access to the power supply components.
4. Pump bay panel: Provides access to the pumps and vacuum system.

Related information…

- *Processing center (i2000/i2000SR)*, page 1-104
- *Supply and waste center (i2000/i2000SR)*, page 1-122
- *Optional components*, page 1-158
- *ARCHITECT i2000 System*, page 1-6

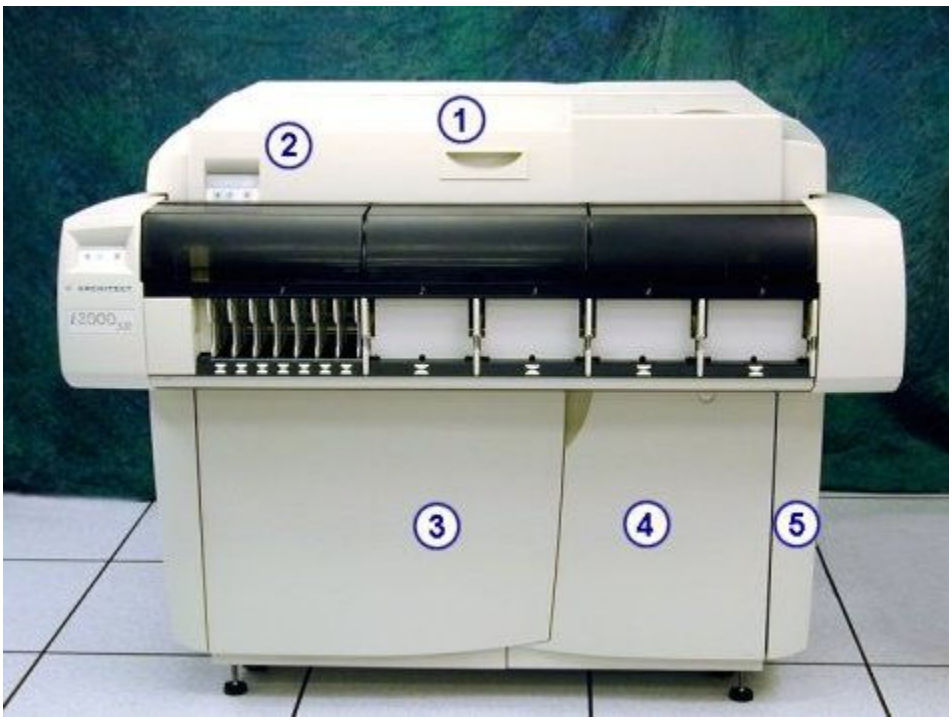
*i*2000SR processing module

An *i*2000SR processing module is an immunoassay analyzer that performs sample processing. It processes up to 200 CMIA (chemiluminescent microparticle immunoassay) tests per hour making use of up to 25 onboard reagent kits (100 and/or 500 tests) in a temperature-controlled reagent carousel and provides stat processing.

For the *i*2000SR processing module the sample handler configuration is the robotic sample handler, which automatically positions samples for retest.

The *i*2000SR processing module can also be configured with a LAS (laboratory automation system).

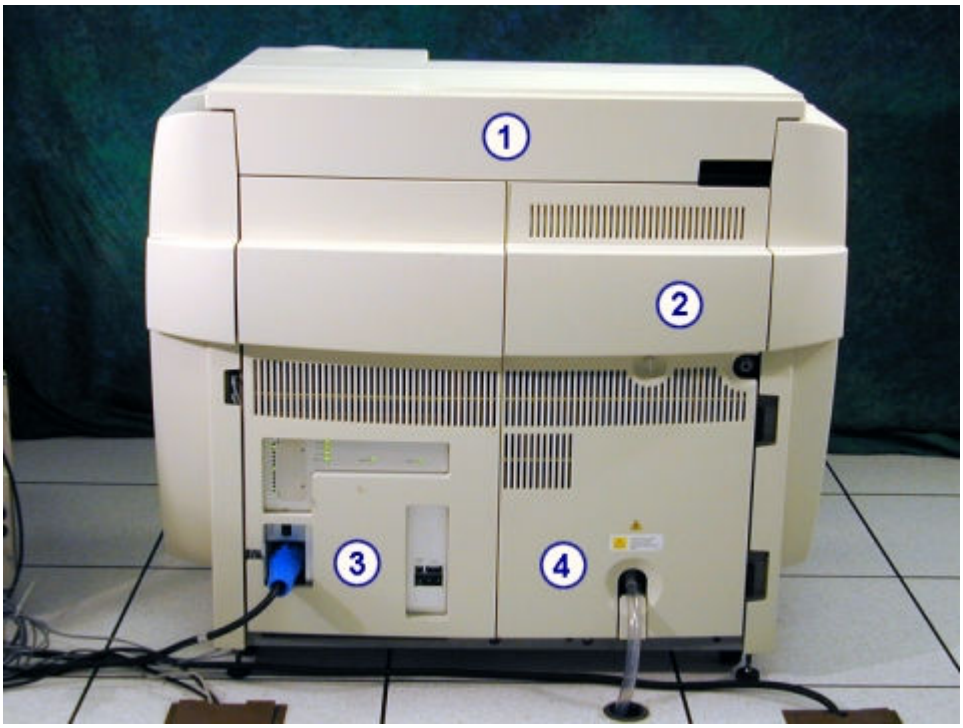
Figure 1.98: i2000SR processing module (front view - RSH)



Legend:

1. Front processing center cover: Provides access to the components that perform assay processing activities.
2. *Processing module keypad (i2000/i2000SR)*, page 1-101: Provides a local user interface for controlling the processing center.
3. Supply and waste center door: Provides access to the bulk storage and solid waste storage area.
4. Card cage door: Provides access to the card cage.
5. CPU access door: Provides access to the CPU depending on the module configuration.

Figure 1.99: i2000SR processing module (rear view - RSH)



Legend:

1. Rear processing center cover: Provides access to the components that perform assay processing activities.
2. Rear processing center access panel: Provides access to the processing center components.
3. Power supply panel: Provides access to the power supply components.
4. Pump bay panel: Provides access to the pumps and vacuum system.

Related information…

- *Processing center (i2000/i2000SR)*, page 1-104
- *Supply and waste center (i2000/i2000SR)*, page 1-122
- *Optional components*, page 1-158
- *ARCHITECT integrated system*, page 1-2
- *ARCHITECT i2000SR System*, page 1-7

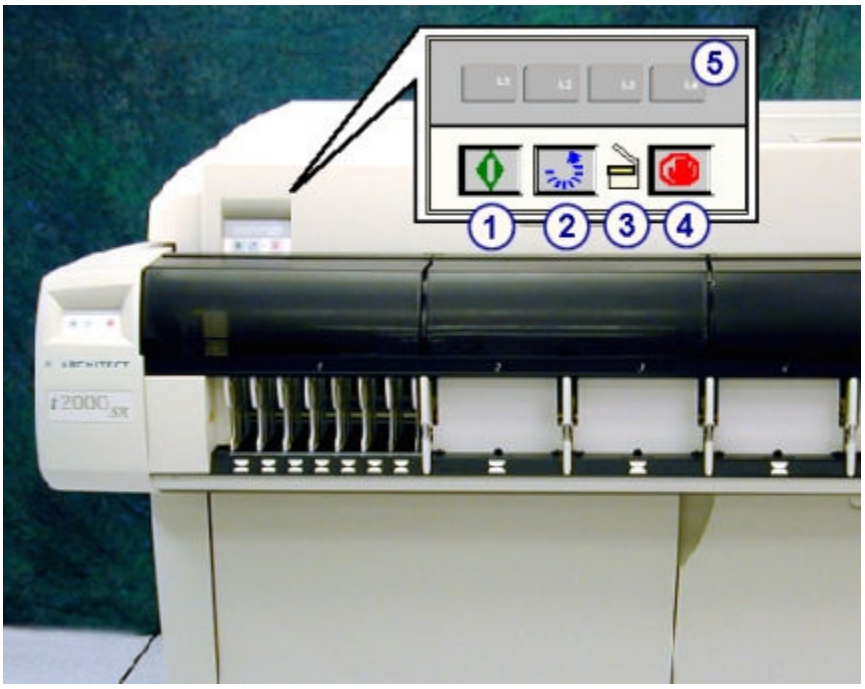
Processing module keypad (*i*2000/*i*2000SR)

The processing module keypad, located on the left side of the processing module, is an input device used by the operator to direct the processing center activities.

CAUTION: Moving Parts. The access indicator light does not turn off when in the maintenance status. When performing a maintenance or diagnostic procedure the processing module cover can be opened,

however, these procedures may expose operators to moving parts that can potentially cause personal injury. Use caution when opening the lid. See *Mechanical hazards*, page 8-16.

Figure 1.100: Components of an i2000/i2000SR processing module keypad



Legend:

1. Run key:
   - Places the processing module into Running status and prepares the module to accept samples.
   - Restarts the processing center after a Scheduled Pause.
2. Carousel advance key: Aligns the reagent carousel and advances the reagent carousel five positions to aid in loading reagents.
3. Access indicator light: Illuminates to indicate that the processing module is in the Warming or Ready status and you can access the reagent carousel.

   NOTE: Refer to the Caution at the beginning of this topic.
4. Stop key: Stops all processing module activity, but does not shut down power to the processing module.
5. L1, L2, L3, L4 keys: Used when performing some diagnostic and maintenance procedures.

*i*1000SR processing module

An *i*1000SR is an immunoassay analyzer that performs sample processing. It processes up to 100 CMIA (chemiluminescent microparticle immunoassay) tests per hour when using a one step 11 STAT protocol. It has the capability to load up to 25 onboard reagent kits (100 tests) in a temperature-controlled reagent carousel and provides stat processing.

Figure 1.101: i1000SR processing module (front view)

Legend:

1. Processing center cover: Provides access to the components that perform assay processing activities.
2. SCC articulated arm: Provides access to the SCC monitor, keyboard, and mouse.
3. Supply and waste center door: Provides access to the bulk storage and waste storage area.
4. Card cage and SCC center door: Provides access to the card cage and SCC components.

Figure 1.102: i1000SR processing module (rear view)

Legend:

1. SCC rear panel: Provides access to the SCC CPU back panel connectors.
2. Card cage rear panel: Provides access to the card cage backplane and power supply.
3. Fluidics rear panel: Provides access to the fluidics components.

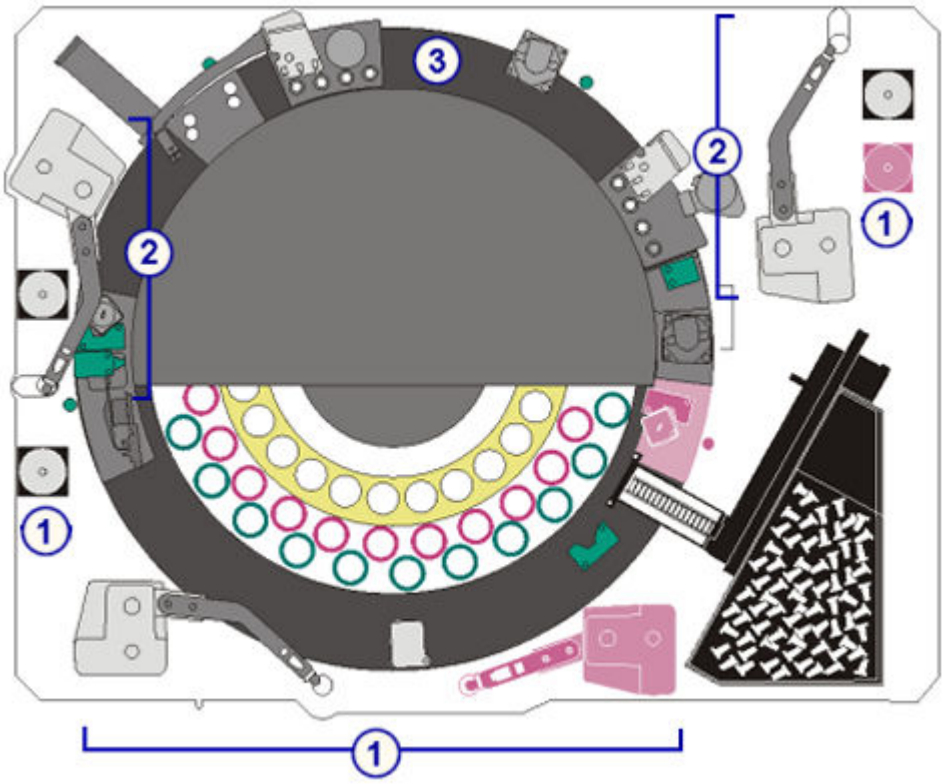
Related information…

- *Processing center (i1000SR)*, page 1-132
- *Supply and waste center (i1000SR)*, page 1-145
- *Optional components*, page 1-158
- *ARCHITECT integrated system*, page 1-2
- *ARCHITECT i1000SR System*, page 1-9

Processing center (*i*2000/*i*2000SR)

The processing center is the main activity area of the processing module. Samples and reagents are dispensed and mixed into the RVs (reaction vessels) in the process path where assay processing is performed.

Figure 1.103: ARCHITECT i2000/i2000SR processing center hardware components



Legend:

1. *Sample hardware components (i2000/i2000SR)*, page 1-106: Provide sample aspiration and dispense.
2. *Reagent hardware components (i2000/i2000SR)*, page 1-110: Provide reagent aspiration and dispense.
3. *Process path hardware components (i2000/i2000SR)*, page 1-114: Position the RVs for sample and reagent aspiration, mixing, washing, and CMIA processing.

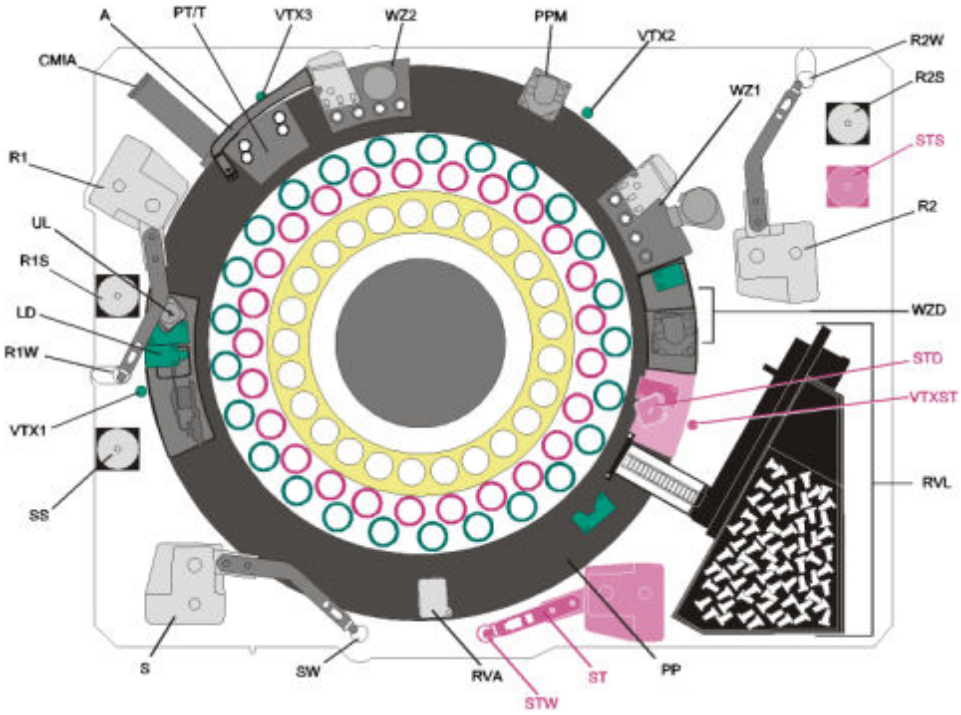
Related information...

- *Processing center map (i2000/i2000SR)*, page 1-105

Processing center map (*i*2000/*i*2000SR)

Processing center maps are attached to the front and rear processing center covers on an ARCHITECT *i*2000/*i*2000SR to assist you in locating components when you are performing component replacement procedures or troubleshooting processing module problems. The map displays a letter and/or number identifier for each component. The *i*2000SR processing module has additional components which display on the map in pink (ST, STW, VTXST, STD, STS). These components are used when processing STAT assay protocols.

Figure 1.104: Processing center map i2000/i2000SR

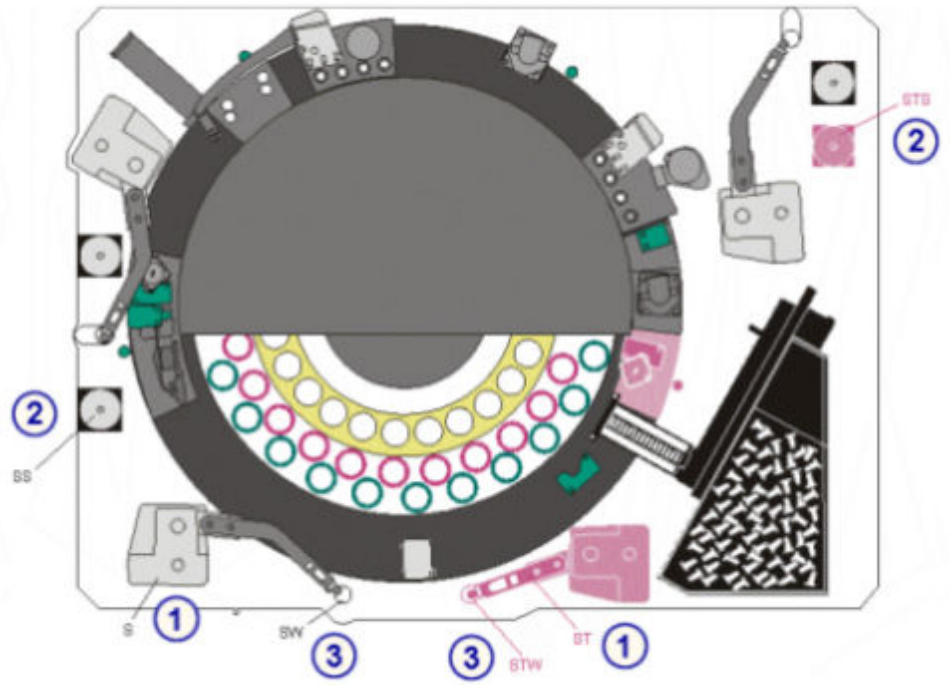


For a description of each component refer to *Sample hardware components (i2000/i2000SR)*, page 1-106, *Reagent hardware components (i2000/i2000SR)*, page 1-110, or *Process path hardware components (i2000/i2000SR)*, page 1-114.

Sample hardware components (*i*2000/*i*2000SR)

Sample hardware components are devices that provide sample aspiration and dispense.

Figure 1.105: Sample hardware components of the processing center (i2000/i2000SR)



Legend:

1. *Sample and STAT pipettors (i2000/i2000SR)*, page 1-107 (S and ST): Aspirate and dispense samples into the RVs (reaction vessels).
2. *Sample and STAT syringes (i2000/i2000SR)*, page 1-108 (SS and STS): Control the aspiration and dispense of samples.
3. *Sample and STAT wash stations (i2000/i2000SR)*, page 1-109 (SW and STW): Used to wash remaining fluid from the probe interior and tip.

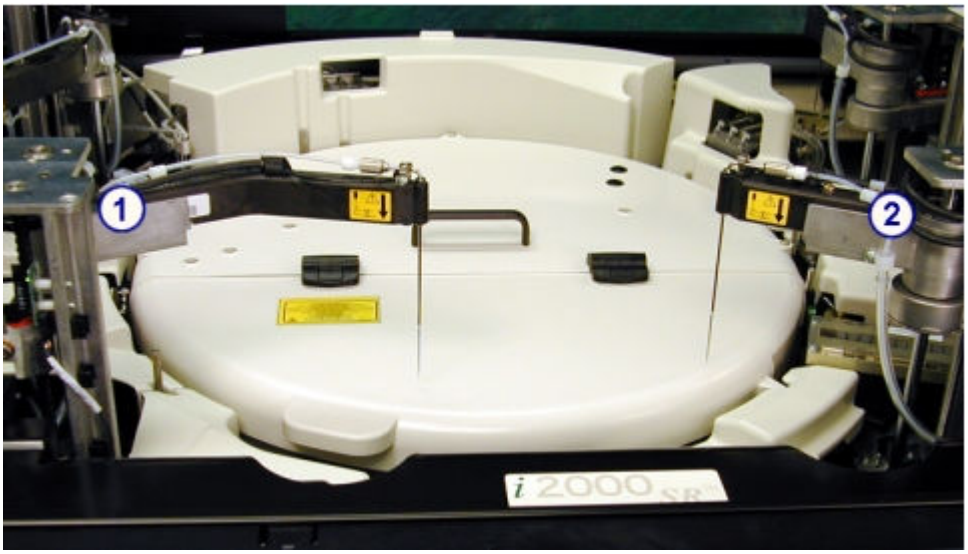
Sample hardware components (*i*2000/*i*2000SR) topics include:

- *Sample and STAT pipettors (i2000/i2000SR)*, page 1-107
- *Sample and STAT syringes (i2000/i2000SR)*, page 1-108
- *Sample and STAT wash stations (i2000/i2000SR)*, page 1-109
- *Induction Heating wash station (i2000SR)*, page 1-109

Sample and STAT pipettors (*i*2000/*i*2000SR)

The sample and STAT pipettors (S and ST, respectively, on the processing center map) are devices that detect, aspirate, transfer, and dispense samples into the reaction vessel. The sample pipettor also transfers pretreated samples into a new reaction vessel after the appropriate incubation period. These pipettor assemblies include a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

Figure 1.106: Sample and STAT pipettors (i2000/i2000SR)



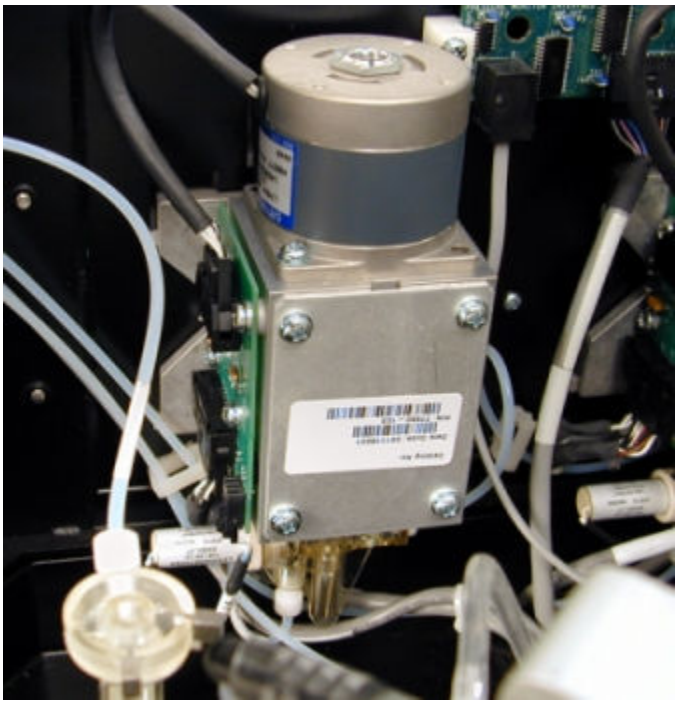
Legend:

1. Sample pipettor
2. STAT pipettor

Sample and STAT syringes (*i*2000/*i*2000SR)

The sample and STAT syringes (SS and STS, respectively, on the processing center map) are devices that control the aspiration and dispense of samples.

Figure 1.107: Example of a sample or STAT syringe (i2000/i2000SR)



Sample and STAT wash stations (*i*2000/*i*2000SR)

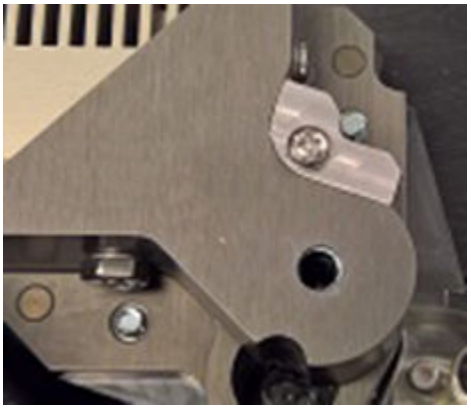
The sample and STAT wash stations (SW and STW, respectively, on the processing center map) are passive wash stations where the sample and STAT probes dispense excess sample and any remaining fluid is washed from the probe interior and tip.

Figure 1.108: Example of a sample or STAT wash station (i2000/i2000SR)

Induction Heating wash station (*i*2000SR)

The sample Induction Heating wash station (SW on the processing center map) is optional hardware available on the *i*2000SR. It is a passive wash station where the sample probe dispenses excess sample and any remaining fluid is washed from the probe interior and tip with heated wash buffer. With this hardware, the sample probe is heated during the flush for improved washing of the probe.

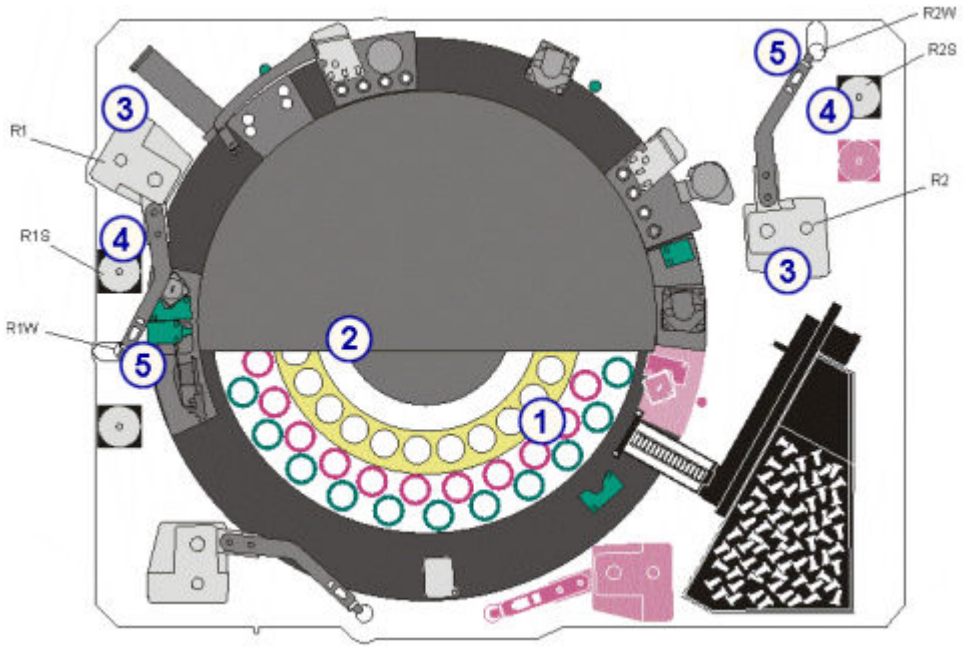
Figure 1.109: Example of an Induction Heating wash station (i2000SR)



Reagent hardware components (*i*2000/*i*2000SR)

Reagent hardware components are devices that provide reagent aspiration, dispense, and positive identification.

Figure 1.110: Reagent hardware components of the processing module (i2000/i2000SR)



Legend:

1. Reagent carousel: Provides cooled, temperature-controlled storage for reagent kits. See *Reagent carousel and bar code reader (i2000/i2000SR)*, page 1-110.
2. Reagent bar code reader: Reads 2D (two dimensional) bar code labels on reagent bottles. See *Reagent carousel and bar code reader (i2000/i2000SR)*, page 1-110.
3. *Reagent pipettors (i2000/i2000SR)*, page 1-111 (R1 and R2): Aspirate and dispense reagents into RVs (reaction vessels).
4. *Reagent syringes (i2000/i2000SR)*, page 1-112 (R1S and R2S): Aspirate and dispense reagents.
5. *Reagent wash stations (i2000/i2000SR)*, page 1-113 (R1W and R2W): Wash any remaining fluid from the probe interior and exterior surfaces.

Reagent hardware components (*i*2000/*i*2000SR) topics include:

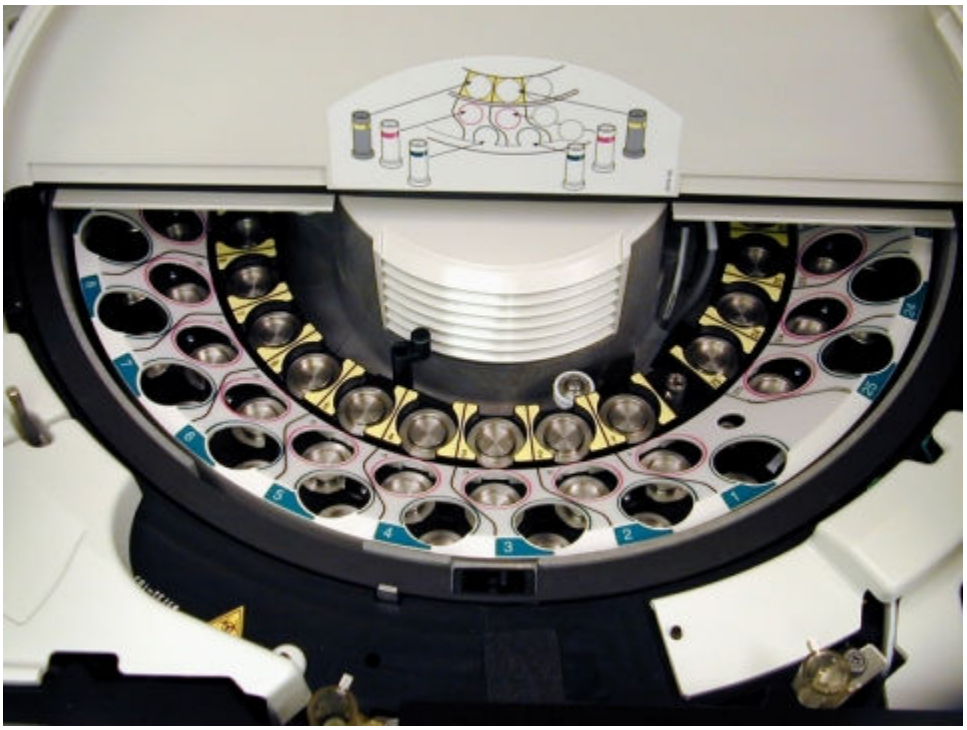
- *Reagent carousel and bar code reader (i2000/i2000SR)*, page 1-110
- *Reagent pipettors (i2000/i2000SR)*, page 1-111
- *Reagent syringes (i2000/i2000SR)*, page 1-112
- *Reagent wash stations (i2000/i2000SR)*, page 1-113

Reagent carousel and bar code reader (*i*2000/*i*2000SR)

The reagent carousel is a rotating circular device that:

- Holds up to 25 bar coded reagent kits (75 individual bottles) in a cooled, temperature-controlled environment
- Consists of three rings that are color coded to match the color stripe at the top of the reagent bottle labels
- Provides microparticle dispersion by continuously rotating the microparticle reagent bottles
- Rotates to position bottles for reagent aspiration and dispense

Figure 1.111: Reagent carousel (i2000/i2000SR)



Reagent pipettors (*i*2000/*i*2000SR)

Reagent pipettors (R1 and R2 on the processing center map) are devices that detect, aspirate, transfer, and dispense reagents into the RV (reaction vessel). Each pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

Figure 1.112: Reagent pipettor (R1 - i2000/i2000SR)

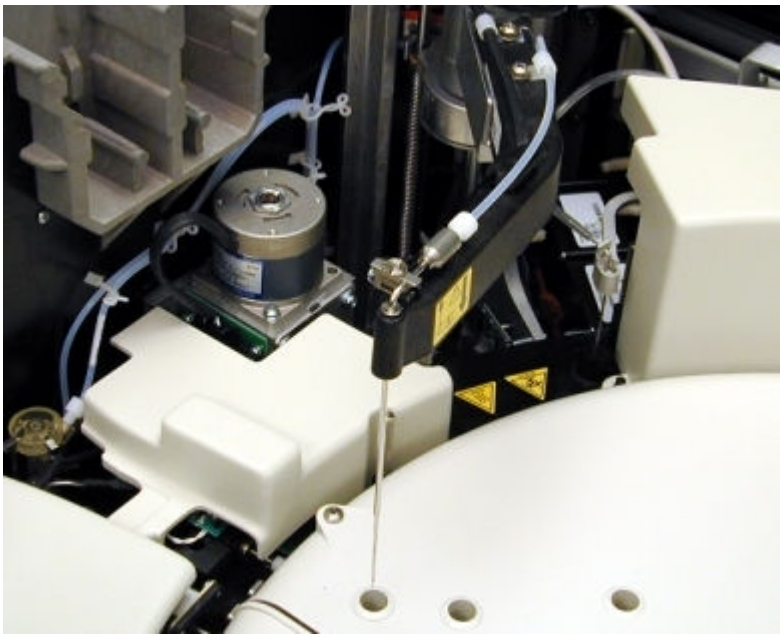
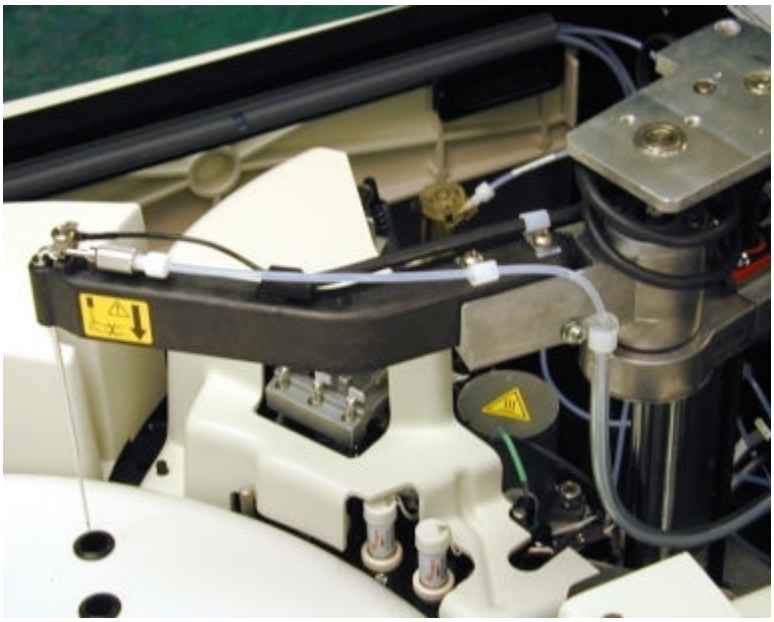


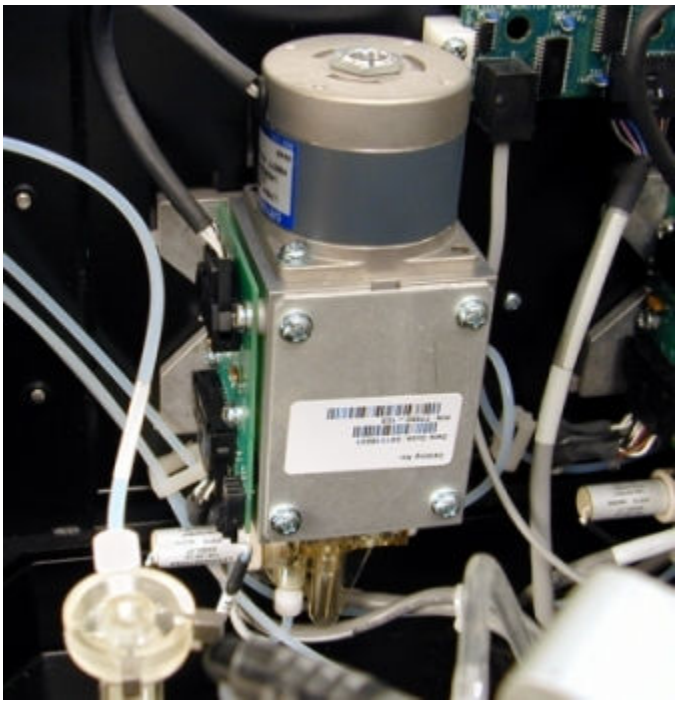
Figure 1.113: Reagent pipettor (R2 - i2000/i2000SR)



Reagent syringes (*i*2000/*i*2000SR)

The reagent syringes (R1S and R2S on the processing center map) are devices that control the aspiration and dispense of reagents.

Figure 1.114: Example of a reagent syringe (R1 or R2 - i2000/i2000SR)



Reagent wash stations (*i*2000/*i*2000SR)

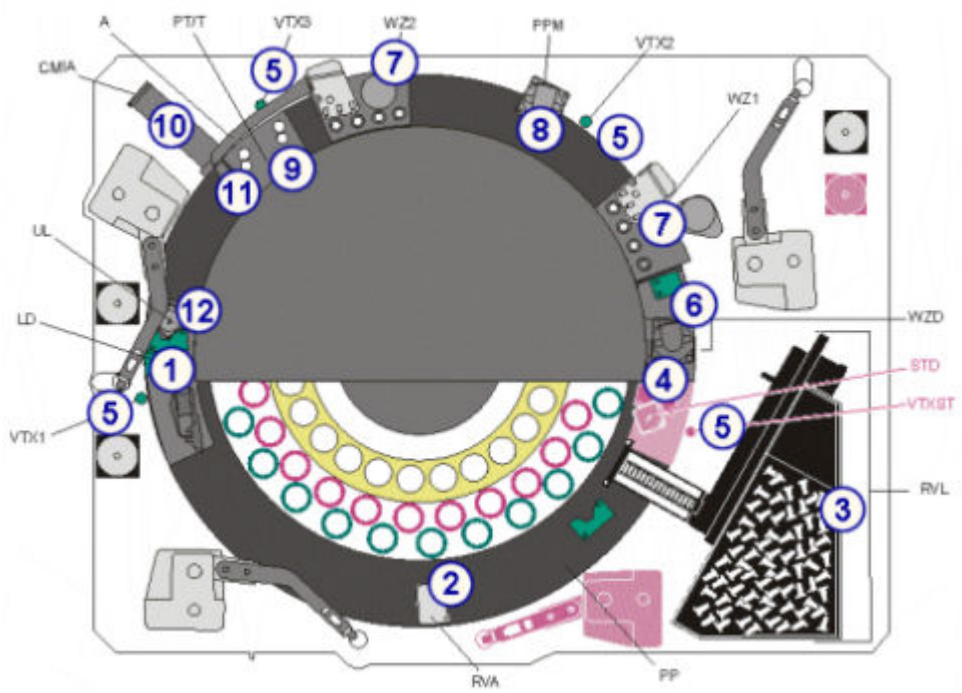
The reagent wash stations (R1W and R2W on the processing center map) are active wash stations that wash any remaining fluid from the probe interior and exterior surfaces. In addition, a vacuum source dries the exterior of the probe. The portion of the probe that enters the reagent bottle is washed and dried in this wash station.

Figure 1.115: Example of a reagent wash station (R1 or R2 - i2000/i2000SR)

Process path hardware components (*i*2000/*i*2000SR)

The process path is a covered circular track that provides incubation temperatures, liquid aspiration, and wash points as necessary for the assay protocol. The process path advances RVs (reaction vessels) every 18 seconds and positions them at the designated locations to process the CMIA reaction. For information on the CMIA reaction, see *CMIA technology and reaction sequence*, page 3-28.

Figure 1.116: Process path hardware components (i2000/i2000SR)



Legend:

1. *Load diverter (i2000/i2000SR)*, page 1-115 (LD): Moves RVs from the inner track to the outer track of the process path when reaction vessels are needed for processing.
2. *RV access door (i2000/i2000SR)*, page 1-116 (RVA): Used for diagnostic purposes only. This door allows access to one position on the outer track.
3. *RV loader and hopper assembly (i2000/i2000SR)*, page 1-116 (RVL): Provides onboard storage for RVs and transports RVs into the process path.
4. *STAT diverter (i2000SR)*, page 1-117 (STD): Moves RVs on an *i*2000SR processing module from the inner track to the outer track of the process path when RVs are needed for STAT processing.
5. *Vortexers (i2000/i2000SR)*, page 1-118 (VTX1, VTX2, VTX3, VTXST): Mix the reaction mixture to suspend microparticles.
6. *Wash zone diverter (i2000/i2000SR)*, page 1-118 (WZD): Directs RVs to one of two paths. One path moves RVs through the wash zone where a wash occurs. The other path moves RVs around the wash zone.

7. *Wash zone manifolds (i2000/i2000SR)*, page 1-119 (WZ1, WZ2): Dispenses wash buffer, and removes and discards unbound analyte from the reaction mixture in the RV.
8. *Process path drive motor (i2000/i2000SR)*, page 1-119 (PPM): Rotates the process path disk, which holds RVs in place, and advances the RVs from position to position.
9. *Pre-trigger/trigger manifold (i2000/i2000SR)*, page 1-120 (PT/T): Dispenses Pre-Trigger Solution, and then Trigger Solution into the RVs.
10. *CMIA reader (i2000/i2000SR)*, page 1-120 (CMIA): Measures the chemiluminescent emission from RVs and outputs data corresponding to the quantity of emission detected.
11. *Liquid waste arm (i2000/i2000SR)*, page 1-121 (A): Removes liquid from RVs prior to unloading it to the solid waste container.
12. *RV unloader (i2000/i2000SR)*, page 1-121 (UL): Removes used RVs from the process path and discards them into the solid waste container after assay processing.

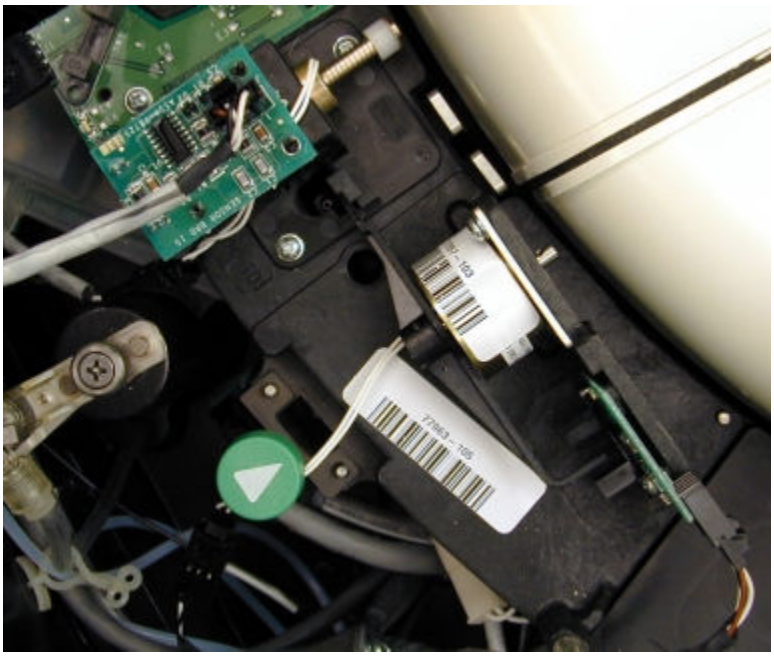
Process path hardware components (*i*2000/*i*2000SR) topics include:

- *Load diverter (i2000/i2000SR)*, page 1-115
- *RV access door (i2000/i2000SR)*, page 1-116
- *RV loader and hopper assembly (i2000/i2000SR)*, page 1-116
- *STAT diverter (i2000SR)*, page 1-117
- *Vortexers (i2000/i2000SR)*, page 1-118
- *Wash zone diverter (i2000/i2000SR)*, page 1-118
- *Wash zone manifolds (i2000/i2000SR)*, page 1-119
- *Process path drive motor (i2000/i2000SR)*, page 1-119
- *Pre-trigger/trigger manifold (i2000/i2000SR)*, page 1-120
- *CMIA reader (i2000/i2000SR)*, page 1-120
- *Liquid waste arm (i2000/i2000SR)*, page 1-121
- *RV unloader (i2000/i2000SR)*, page 1-121

Load diverter (*i*2000/*i*2000SR)

The load diverter (LD on the processing center map) is a device that moves RVs (reaction vessels) from the inner track to the outer track of the process path when RVs are needed for routine processing.

Figure 1.117: Load diverter (i2000/i2000SR)



RV access door (*i*2000/*i*2000SR)

The RV access door (RVA on the processing center map) is an opening that allows access to one position on the outer track. You use this door for diagnostic purposes only and should always make sure it is closed during system operation.

Figure 1.118: RV access door (i2000/i2000SR)

RV loader and hopper assembly (*i*2000/*i*2000SR)

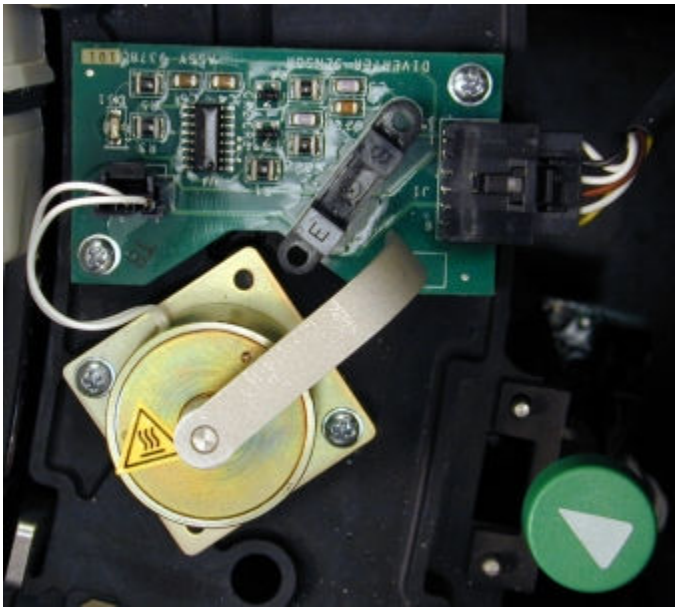
The RV loader and hopper assembly (RVL on the processing center map) is a device that provides onboard storage for RVs (reaction vessels) and transports the RVs into the process path.

Figure 1.119: RV loader and hopper assembly (i2000/i2000SR)

STAT diverter (*i*2000SR)

The STAT diverter (STD on the processing center map) is a device that moves RVs (reaction vessels) from the inner track to the outer track of the process path when the RVs are needed for STAT processing.

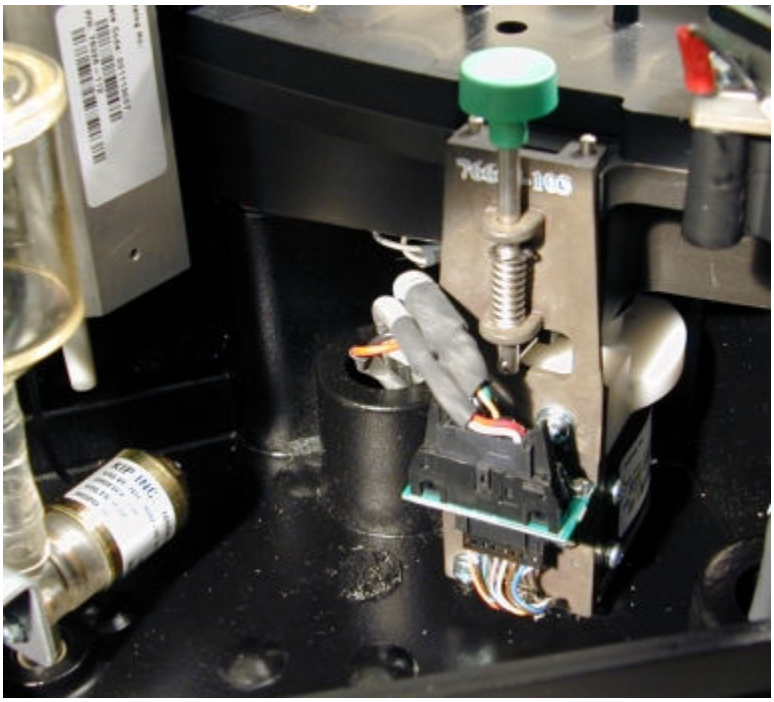
Figure 1.120: STAT diverter (i2000SR)



Vortexers (*i*2000/*i*2000SR)

The vortexers (VTX1, VTX2, VTX3, and VTXST on the processing center map) are devices that mix the reaction mixture to suspend microparticles. The RVs are vortexed in the process path.

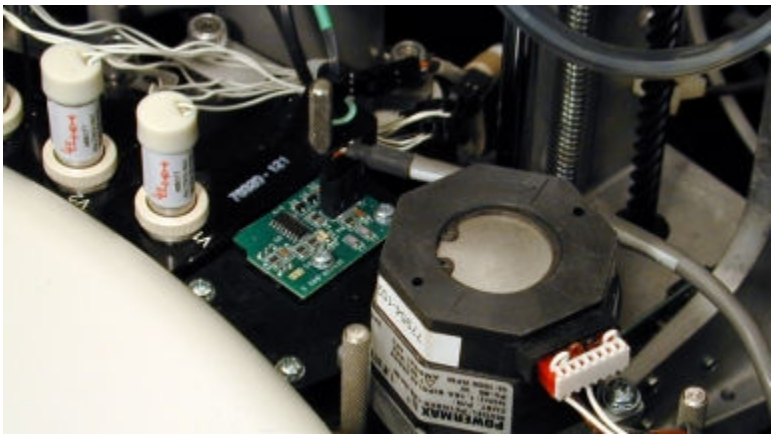
Figure 1.121: Vortexers (i2000/i2000SR)



Wash zone diverter (*i*2000/*i*2000SR)

The wash zone diverter (WZD on the processing center map) is a device that directs RVs (reaction vessels) to one of two paths. One path moves RVs through the wash zone where a wash occurs. The other path moves RVs around the wash zone.

Figure 1.122: Wash zone diverter (i2000/i2000SR)

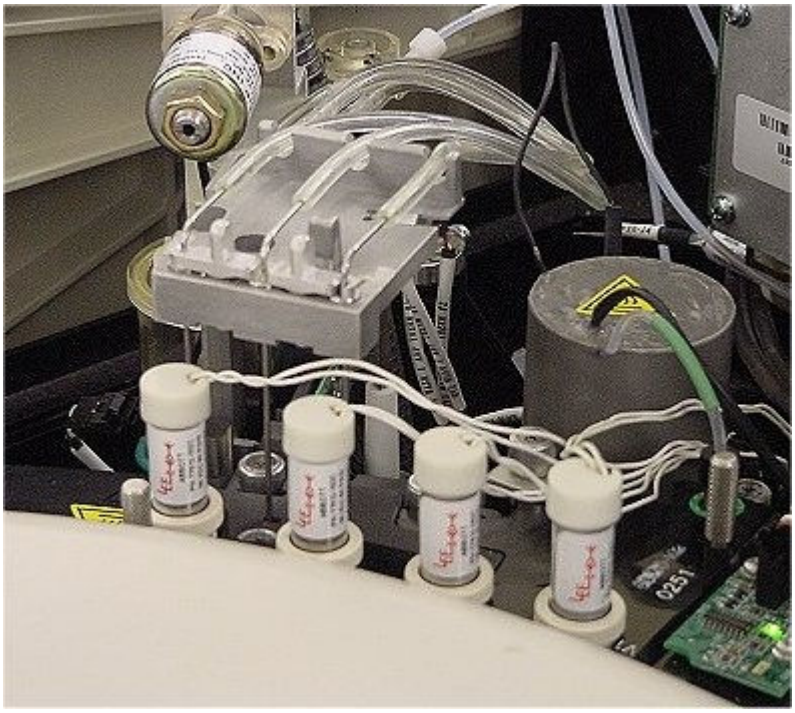


Wash zone manifolds (*i*2000/*i*2000SR)

The wash zone manifolds (WZ1 and WZ2 on the processing center map) are devices that remove and discard unbound analyte from the reaction mixture in an RV (reaction vessel). Each wash zone has four positions where the following actions occur:

- Position 1 - A magnet attracts paramagnetic microparticles to the wall of the RV and a dispense nozzle dispenses wash buffer into the RV.
- Positions 2 and 3 - A vacuum is applied to the wash zone probes as they move to the bottom of the RV. In addition, nozzles dispense wash buffer into the RV. Additional wash/aspiration cycles occur at these positions.
- Position 4 - A wash zone probe aspirates liquid waste from the RV.

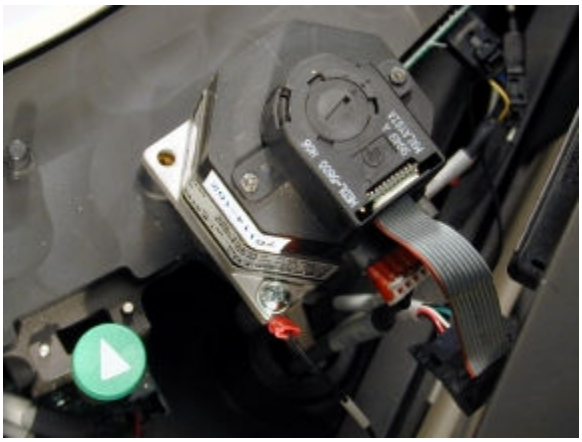
Figure 1.123: Wash zone manifold (WZ1 - i2000/i2000SR)



Process path drive motor (*i*2000/*i*2000SR)

The process path drive motor (PPM on the processing center map) is a device that rotates the process path disk, which holds the RVs (reaction vessels) in place, and advances the RVs from position to position.

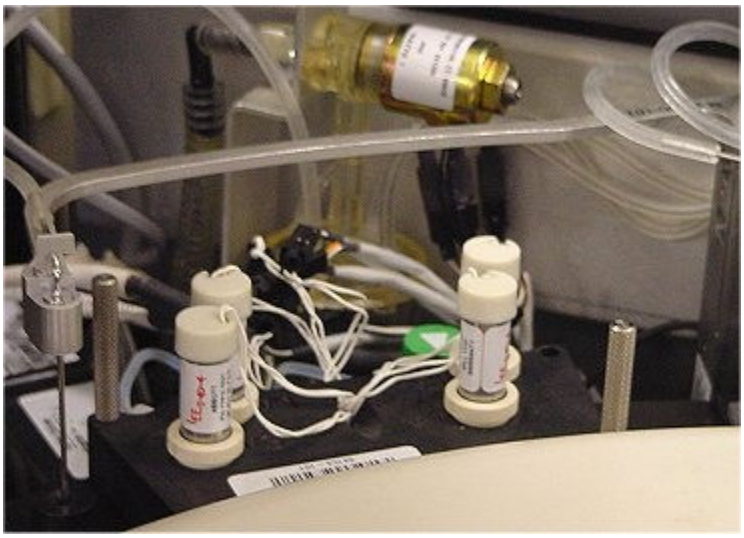
Figure 1.124: Process path drive motor (PPM - i2000/i2000SR)



Pre-trigger/trigger manifold (*i*2000/*i*2000SR)

The pre-trigger/trigger manifold (PT/T on the processing center map) is a device that dispenses Pre-Trigger Solution, and then Trigger Solution into RVs (reaction vessels).

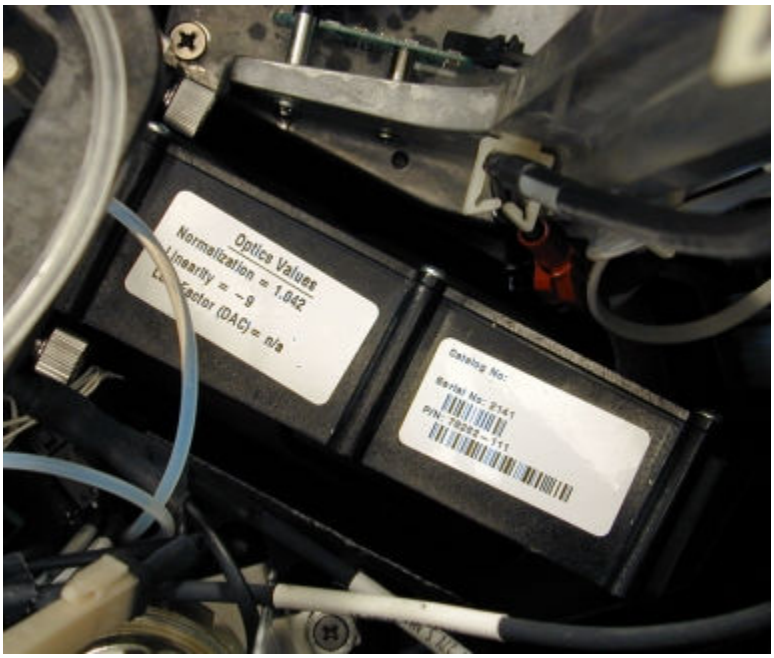
Figure 1.125: Pre-trigger/trigger manifold (PT/T - i2000/i2000SR)



CMIA reader (*i*2000/*i*2000SR)

The CMIA reader (CMIA on the processing center map) is a device that measures the chemiluminescent emission from RVs (reaction vessels) and reports the quantity of emission detected.

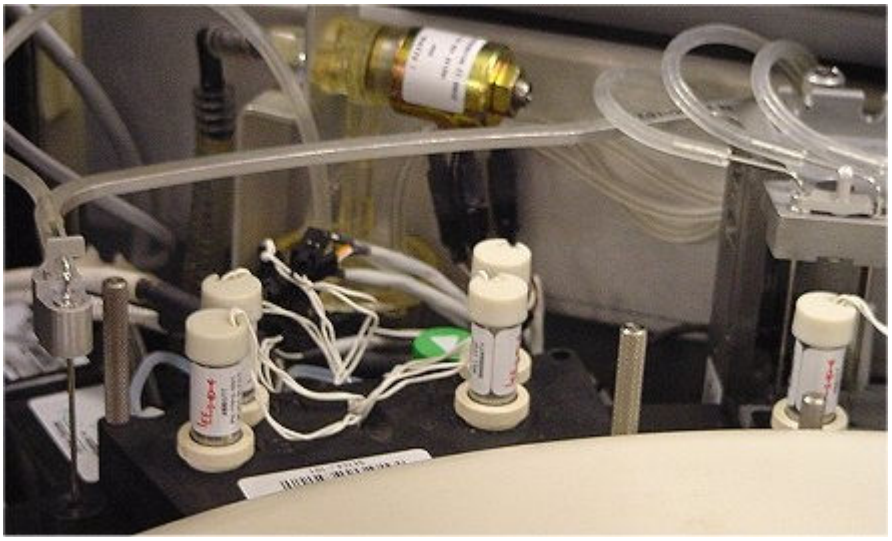
Figure 1.126: CMIA reader (CMIA - i2000/i2000SR)



Liquid waste arm (*i*2000/*i*2000SR)

The liquid waste arm (A on the processing center map) is a device that removes liquid from RVs (reaction vessels) prior to unloading them to the solid waste container.

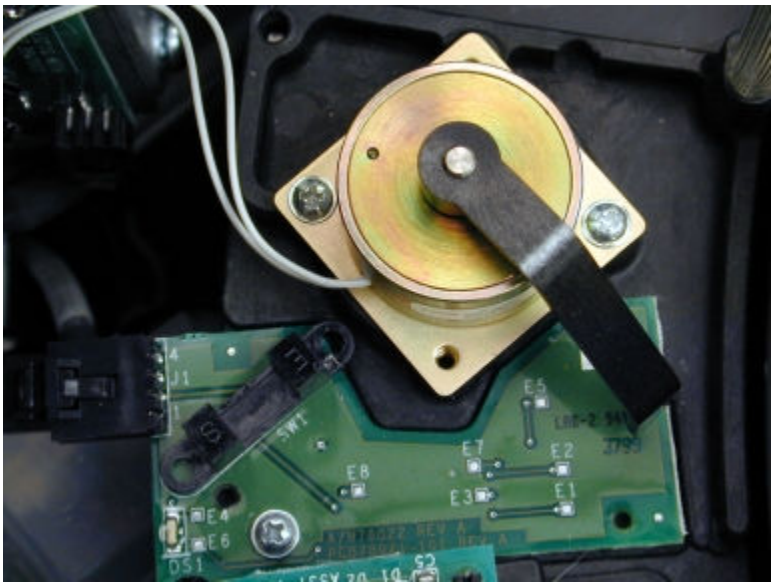
Figure 1.127: Liquid waste arm (A - i2000/i2000SR)



RV unloader (*i*2000/*i*2000SR)

The RV unloader (UL on the processing center map) is a device that removes used RVs (reaction vessels) from the process path and discards them into the solid waste container after assay processing.

Figure 1.128: RV unloader (UL - i2000/i2000SR)



Supply and waste center (*i*2000/*i*2000SR)

The supply and waste center is the onboard storage area for bulk solutions and solid waste.

Figure 1.129: Supply and waste center (i2000/i2000SR)

Legend:

1. *Pre-trigger/trigger storage area (i2000/i2000SR)*, page 1-123: Provides onboard storage for Pre-Trigger Solution and Trigger Solution.
2. *Wash buffer storage area (i2000/i2000SR)*, page 1-126: Provides onboard storage for the wash buffer.
3. *Solid waste storage area (i2000/i2000SR)*, page 1-130: Provides storage for the used RVs (reaction vessels).

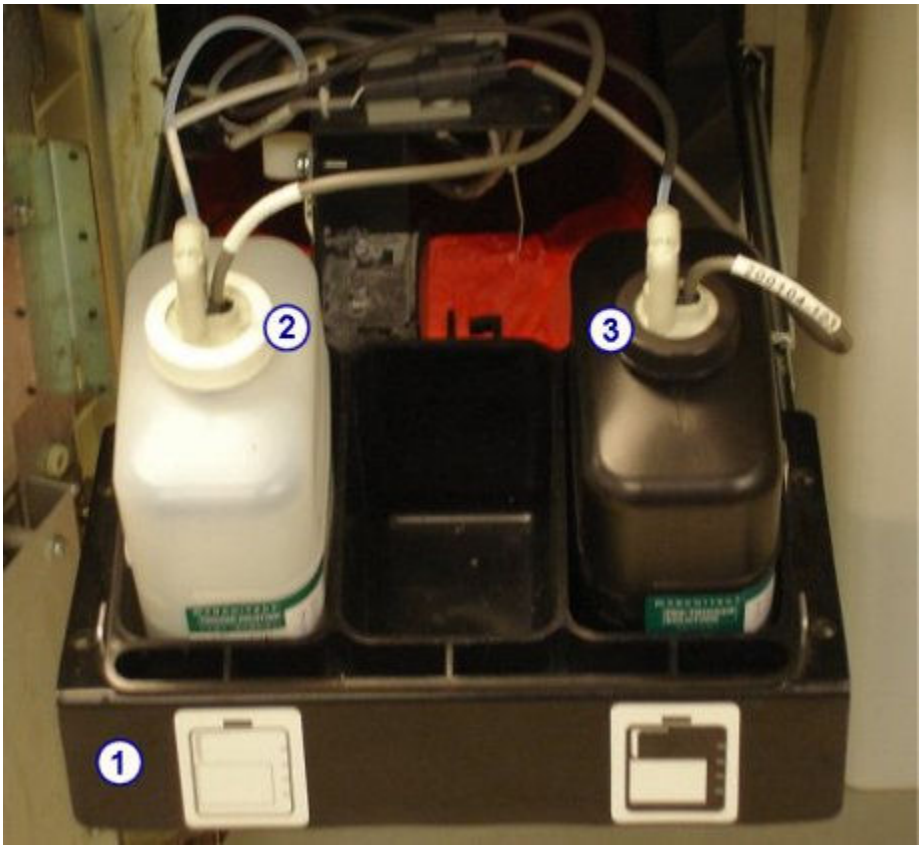
Supply and waste center (*i*2000/*i*2000SR) topics include:

- *Pre-trigger/trigger storage area (i2000/i2000SR)*, page 1-123
- *Wash buffer storage area (i2000/i2000SR)*, page 1-126
- *Solid waste storage area (i2000/i2000SR)*, page 1-130

Pre-trigger/trigger storage area (*i*2000/*i*2000SR)

The pre-trigger/trigger storage area is the location in the supply and waste center that provides onboard storage for the Pre-Trigger Solution and Trigger Solution, which are necessary for test processing.

Figure 1.130: Pre-trigger/trigger storage area (i2000/i2000SR)



Legend:

1. *Pre-trigger/trigger tray (i2000/i2000SR)*, page 1-124: Holds the pre-trigger and trigger bottles.
2. *Trigger level sensor (i2000/i2000SR)*, page 1-125: Detects the volume of remaining trigger solution.
3. *Pre-trigger level sensor (i2000/i2000SR)*, page 1-125: Detects the volume of remaining pre-trigger solution.

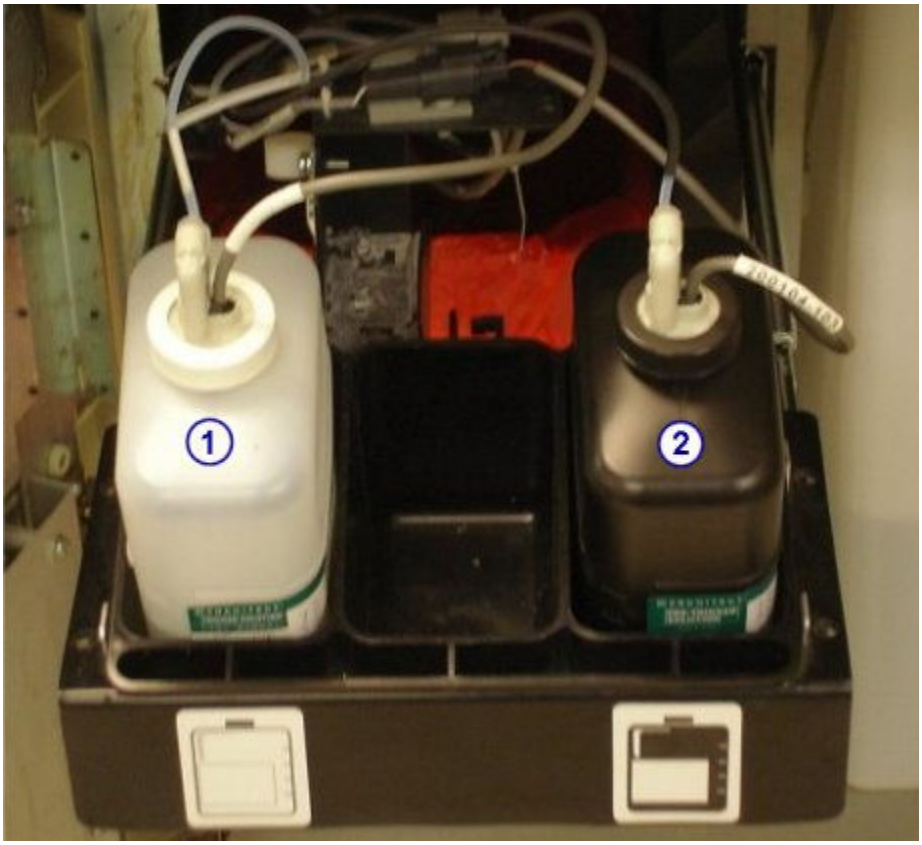
Pre-trigger /trigger storage area (*i*2000/*i*2000SR) topics include:

- *Pre-trigger/trigger tray (i2000/i2000SR)*, page 1-124
- *Pre-trigger level sensor (i2000/i2000SR)*, page 1-125
- *Trigger level sensor (i2000/i2000SR)*, page 1-125

Pre-trigger/trigger tray (*i*2000/*i*2000SR)

The pre-trigger/trigger tray is a platform in the supply and waste center that holds the Pre-Trigger Solution and Trigger Solution bottles.

Figure 1.131: Pre-trigger/trigger tray (i2000/i2000SR)



Legend:

1. *Trigger solution (i System)*, page 1-204: Used to produce the chemiluminescent reaction that provides the final read.

2. *Pre-trigger solution (i System)*, page 1-204: Used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of trigger solution.

Pre-trigger level sensor (*i*2000/*i*2000SR)

The pre-trigger level sensor is an assembly with a magnetic float sensor located in the pre-trigger bottle that indicates when the liquid level is low. When the sensor trips, approximately 70 mLs of usable solution remains.

Figure 1.132: Pre-trigger level sensor (i2000/i2000SR)

Trigger level sensor (*i*2000/*i*2000SR)

The trigger level sensor is an assembly with a magnetic float sensor located in the trigger bottle that indicates when the liquid level is low. When the sensor trips, approximately 70 mLs of usable solution remains.

Figure 1.133: Trigger level sensor (i2000/i2000SR)

Wash buffer storage area (*i*2000/*i*2000SR)

The wash buffer storage area is the location in the supply and waste center for onboard storage of wash buffer, which is used in test processing.

Figure 1.134: Wash buffer storage area (i2000/i2000SR)

Legend:

1. *Wash buffer reservoir (i2000/i2000SR)*, page 1-128: Provides onboard storage for up to 25 liters of wash buffer.
2. Wash buffer level sensor: Draws wash buffer from the reservoir and measures the remaining volume of wash buffer. See *Wash buffer level sensor and wash buffer inlet assembly (i2000/i2000SR)*, page 1-128.
3. Wash buffer inlet assembly: Dispenses wash buffer into the reservoir from the wash buffer preparation container or ARCHITECT ARM (Automatic Reconstitution Module). See *Wash buffer level sensor and wash buffer inlet assembly (i2000/i2000SR)*, page 1-128.
4. *Wash buffer filter (i2000/i2000SR)*, page 1-129: Protects the fluidics components by eliminating particulates.

Wash buffer storage area (*i*2000/*i*2000SR) topics include:

- *Wash buffer reservoir (i2000/i2000SR)*, page 1-128
- *Wash buffer level sensor and wash buffer inlet assembly (i2000/i2000SR)*, page 1-128
- *Wash buffer filter (i2000/i2000SR)*, page 1-129

Wash buffer reservoir (*i*2000/*i*2000SR)

The wash buffer reservoir is an onboard container in the supply and waste center that holds up to 25 liters of wash buffer.

Figure 1.135: Wash buffer reservoir (i2000/i2000SR)

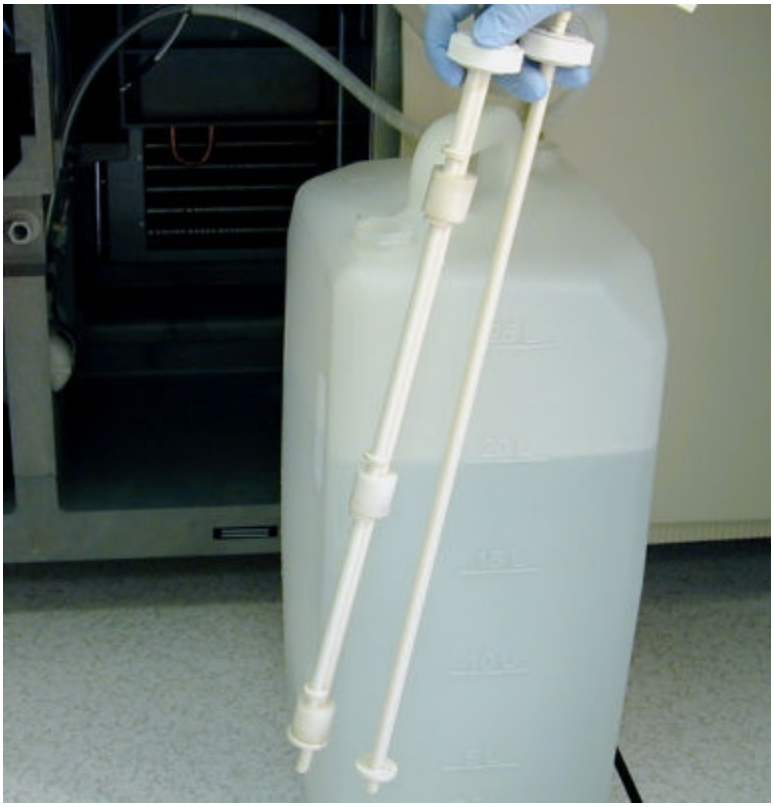
Wash buffer level sensor and wash buffer inlet assembly (*i*2000/*i*2000SR)

The wash buffer level sensor, located in the wash buffer reservoir, is an assembly containing a tube with three magnetic float sensors that indicate when the wash buffer reservoir is full (top sensor), needs to be filled by the ARCHITECT ARM (Automatic Reconstitution Module) accessory (middle sensor), or is empty (lower sensor).

The wash buffer level sensor tube transports wash buffer from the reservoir during test processing.

The wash buffer inlet assembly tube transports wash buffer into the reservoir from the wash buffer preparation container or ARM.

Figure 1.136: Wash buffer level sensor and wash buffer inlet assembly (i2000/ i2000SR)



Wash buffer filter (*i*2000/*i*2000SR)

The wash buffer filter, located in the wash buffer storage area, is an assembly containing material used to eliminate particulates that might damage the fluidics components of the system.

Figure 1.137: Wash buffer filter (i2000/i2000SR)

Solid waste storage area (*i*2000/*i*2000SR)

The solid waste storage area is the location in the supply and waste center that provides a storage area for the solid waste container that holds used RVs (reaction vessels). The RVs are directed into the container by a waste chute.

Figure 1.138: Solid waste storage area (i2000/i2000SR)

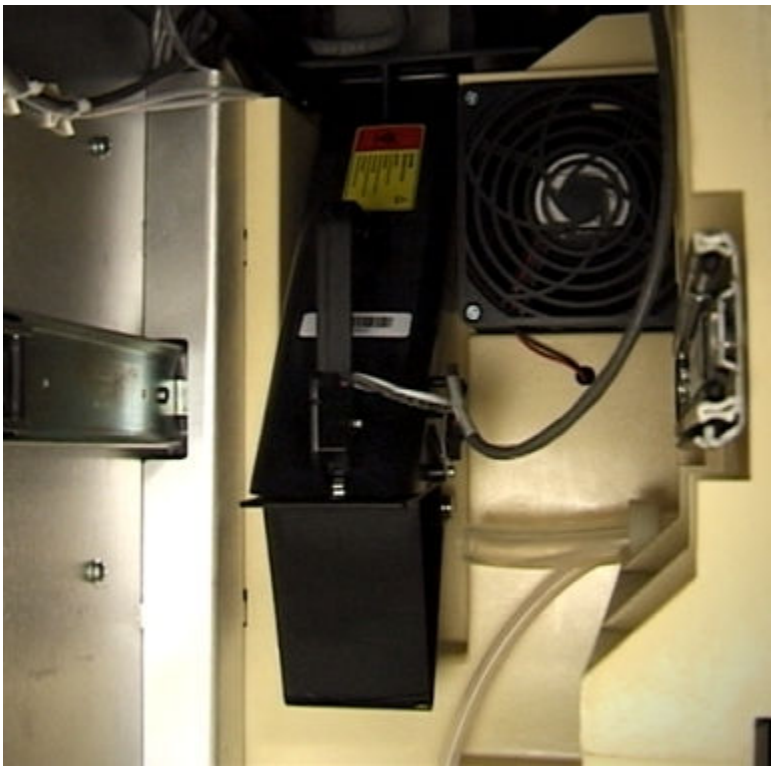
Solid waste storage area (*i*2000/*i*2000SR) topics include:

- *Waste chute and trap door (i2000/i2000SR)*, page 1-131

Waste chute and trap door (*i*2000/*i*2000SR)

The waste chute is a device in the supply and waste center that receives used RVs (reaction vessels) by gravity and directs them into the solid waste container. The trap door holds up to 50 RVs when you remove the solid waste container during processing.

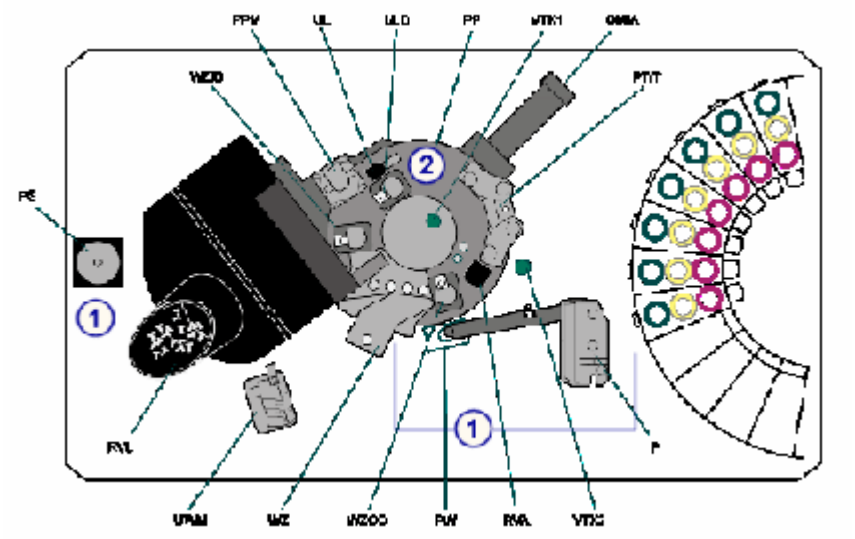
Figure 1.139: Waste chute and trap door (i2000/i2000SR)



Processing center (*i*1000SR)

The processing center is the main activity area of the processing module. Samples and reagents are dispensed and mixed into the RVs (reaction vessels) in the process path where assay processing is performed.

Figure 1.140: ARCHITECT i1000SR processing center hardware components



Legend:

1. *Pipetting hardware components (i1000SR)*, page 1-133: Provide sample and reagent aspiration and dispense.
2. *Process path hardware components (i1000SR)*, page 1-137: Position the RVs for sample and reagent aspiration, mixing, washing, and CMIA processing.

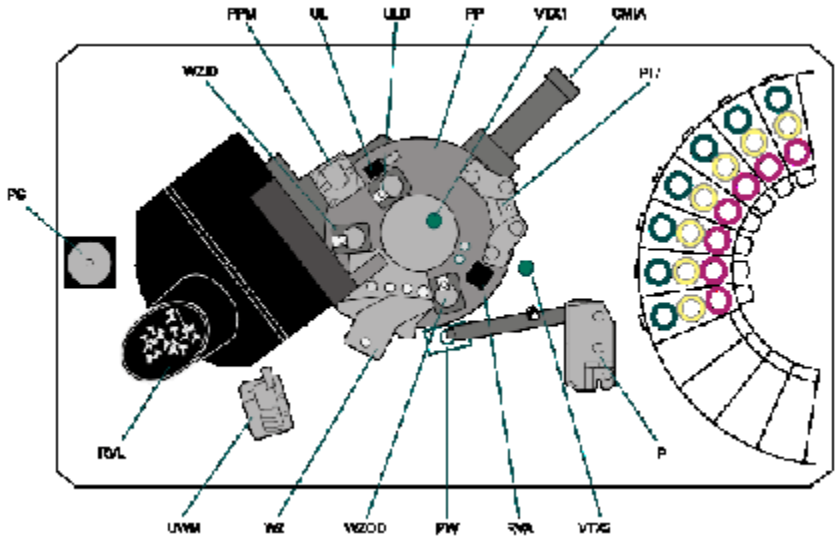
Related information...

- *Processing center map (i1000SR)*, page 1-133

Processing center map (*i*1000SR)

A processing center map is attached to the processing center cover on an ARCHITECT *i*1000SR to assist you in locating components when you are performing component replacement procedures or troubleshooting processing module problems. The map displays a letter and/or number identifier for each component.

Figure 1.141: Processing center map (i1000SR)

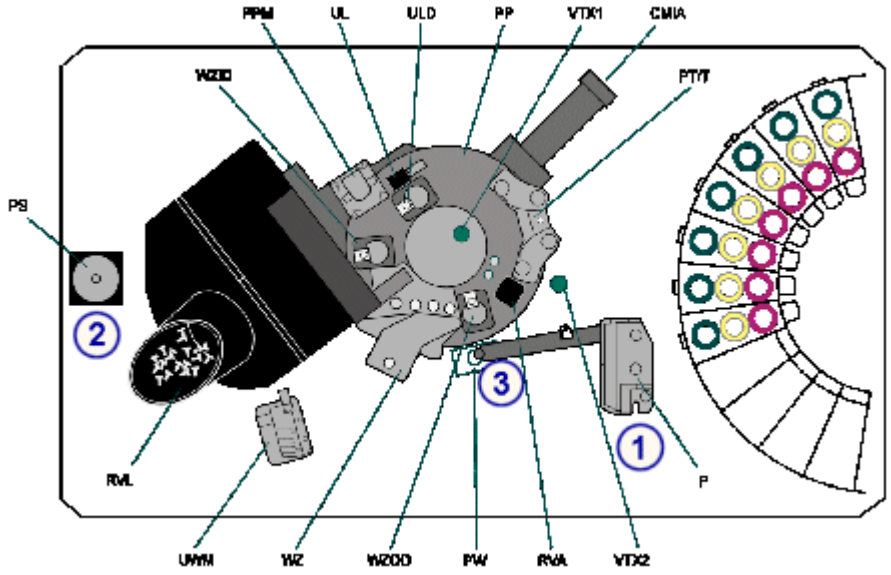


For a description of each component, refer to *Pipetting hardware components (i1000SR)*, page 1-133, or *Process path hardware components (i1000SR)*, page 1-137.

Pipetting hardware components (*i*1000SR)

Pipetting hardware components are devices that provide sample and reagent aspiration and dispense.

Figure 1.142: Pipetting hardware components of the processing center (i1000SR)



Legend:

1. *Pipettor (i1000SR)*, page 1-134 (P): Aspirates and dispenses samples and reagents into the RVs (reaction vessels).
2. *Syringe (i1000SR)*, page 1-135 (PS): Controls the aspiration and dispense of samples and reagents.
3. *Wash cup (i1000SR)*, page 1-136 (PW): Used to wash remaining fluid from the probe interior and exterior surfaces.

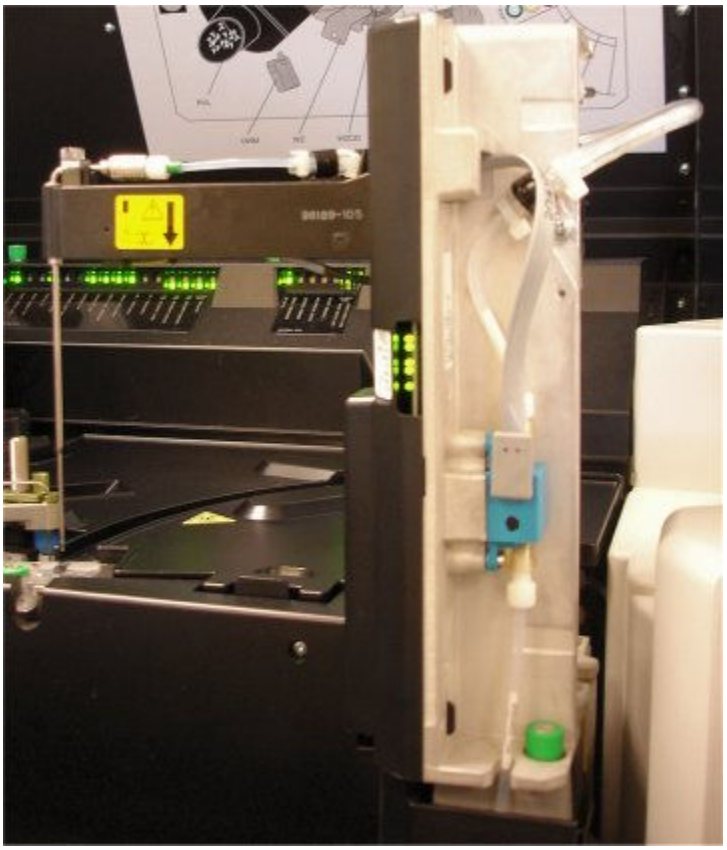
Pipetting hardware components (*i*1000SR) topics include:

- *Pipettor (i1000SR)*, page 1-134
- *Syringe (i1000SR)*, page 1-135
- *Wash cup (i1000SR)*, page 1-136
- *AWDS (Alternate Wash Delivery System) (i1000SR)*, page 1-136

Pipettor (*i*1000SR)

The pipettor (P on the processing center map) is a device that detects, aspirates, transfers, and dispenses samples and reagents into the reaction vessel. The pipettor also transfers pretreated samples into a new reaction vessel after the appropriate incubation period. A fluid sense/pressure monitoring system is included in the pipettor assembly to help identify errors in aspiration.

Figure 1.143: Pipettor (i1000SR)



Syringe (*i*1000SR)

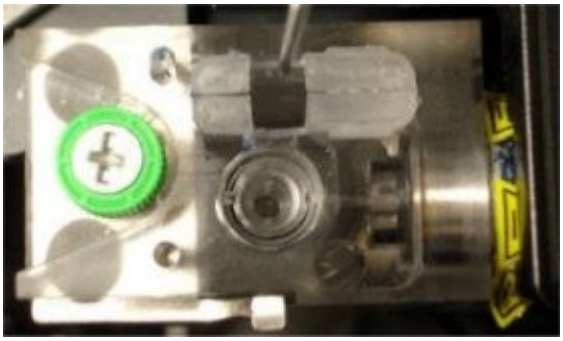
The syringe (PS on the processing center map) is a device that controls the aspiration and dispense of samples and reagents.

Figure 1.144: Example of a syringe (i1000SR)

Wash cup (*i*1000SR)

The wash cup (PW on the processing center map) is an active wash cup that washes any remaining fluid from the probe interior and exterior surfaces. In addition, a vacuum source dries the exterior of the probe.

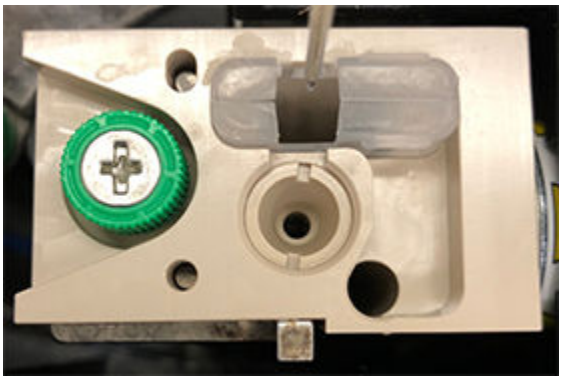
Figure 1.145: Example of a wash cup (i1000SR)



AWDS (Alternate Wash Delivery System) (*i*1000SR)

The Alternate Wash Delivery System hardware (PW on the processing center map) is optional hardware which incorporates an active, heated trigger solution wash of any remaining fluid from the probe interior and exterior surfaces. In addition, a vacuum source dries the exterior of the probe.

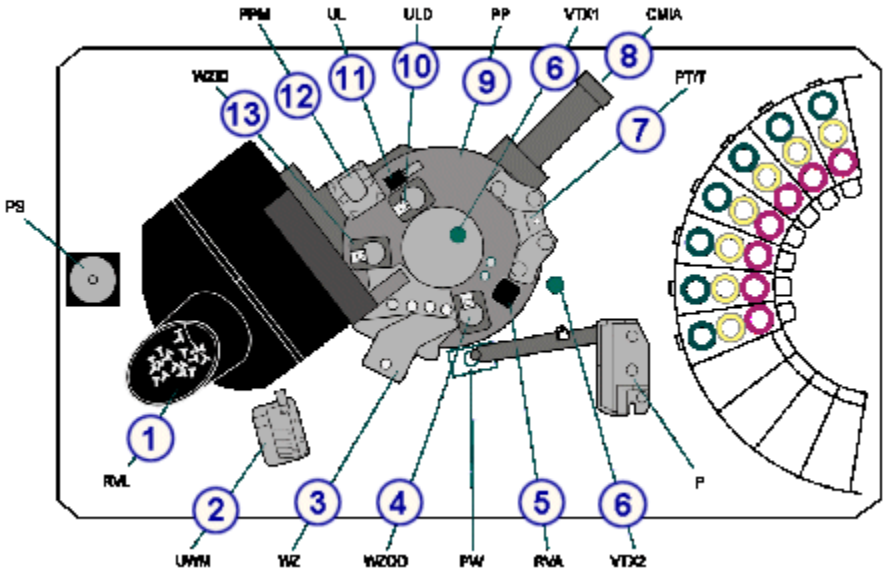
Figure 1.146: Example of an AWDS (i1000SR)



Process path hardware components (*i*1000SR)

The process path is a covered circular track that provides incubation temperatures, liquid aspiration, and wash points as necessary for the assay protocol. The process path advances RVs (reaction vessels) every 18 seconds and positions them at the designated locations to process the CMIA reaction. For information on the CMIA reaction, see *CMIA technology and reaction sequence*, page 3-28.

Figure 1.147: Process path hardware components (i1000SR)



Legend:

1. *RV loader and hopper assembly (i1000SR)*, page 1-138 (RVL): Provides onboard storage for RVs and transports RVs into the process path.
2. *Upper waste manifold (i1000SR)*, page 1-139 (UWM): Directs liquid waste from the RVs after washing into the waste area.
3. *Wash zone manifold (i1000SR)*, page 1-139 (WZ): Dispenses wash buffer, and removes and discards unbound analyte from the reaction mixture in the RV.

4. *Wash zone outlet diverter (i1000SR)*, page 1-140 (WZOD): Directs RVs either into the inner track or keeps the RVs in the outer track.
5. *RV access door (i1000SR)*, page 1-140 (RVA): Used for diagnostic purposes only. This door allows access to one position on the outer track.
6. *Vortexers (i1000SR)*, page 1-141 (VTX1, VTX2): Mix the reaction mixture to suspend microparticles.
7. *Pre-trigger/trigger manifold (i1000SR)*, page 1-142 (PT/T): Dispenses Pre-Trigger Solution, and Trigger Solution into the RVs.
8. *CMIA reader (i1000SR)*, page 1-142 (CMIA): Measures the chemiluminescent emission from RVs and outputs data corresponding to the quantity of emission detected.
9. *Process path (i1000SR)*, page 1-143 (PP): Contains provisions for moving RVs, positioning them at processing stations, and providing incubation temperatures required for the assay processing.
10. *Unload diverter (i1000SR)*, page 1-143 (ULD): Unloads RVs used for pretreatment or dilution of samples from the inner track into the solid waste container.
11. *Unloader (i1000SR)*, page 1-144 (UL): Removes used RVs from the process path and discards them into the solid waste container after assay processing.
12. *Process path motor (i1000SR)*, page 1-144 (PPM): Rotates the process path disk, which holds RVs in place, and advances the RVs from position to position.
13. *Wash zone inlet diverter (i1000SR)*, page 1-144 (WZID): Directs RVs either into the wash zone (outer track) where a wash occurs or keeps the RVs in the inner track.

Process path hardware components (*i*1000SR) topics include:

- *RV loader and hopper assembly (i1000SR)*, page 1-138
- *Upper waste manifold (i1000SR)*, page 1-139
- *Wash zone manifold (i1000SR)*, page 1-139
- *Wash zone outlet diverter (i1000SR)*, page 1-140
- *RV access door (i1000SR)*, page 1-140
- *Vortexers (i1000SR)*, page 1-141
- *Pre-trigger/trigger manifold (i1000SR)*, page 1-142
- *CMIA reader (i1000SR)*, page 1-142
- *Process path (i1000SR)*, page 1-143
- *Unload diverter (i1000SR)*, page 1-143
- *Unloader (i1000SR)*, page 1-144
- *Process path motor (i1000SR)*, page 1-144
- *Wash zone inlet diverter (i1000SR)*, page 1-144

RV loader and hopper assembly (*i*1000SR)

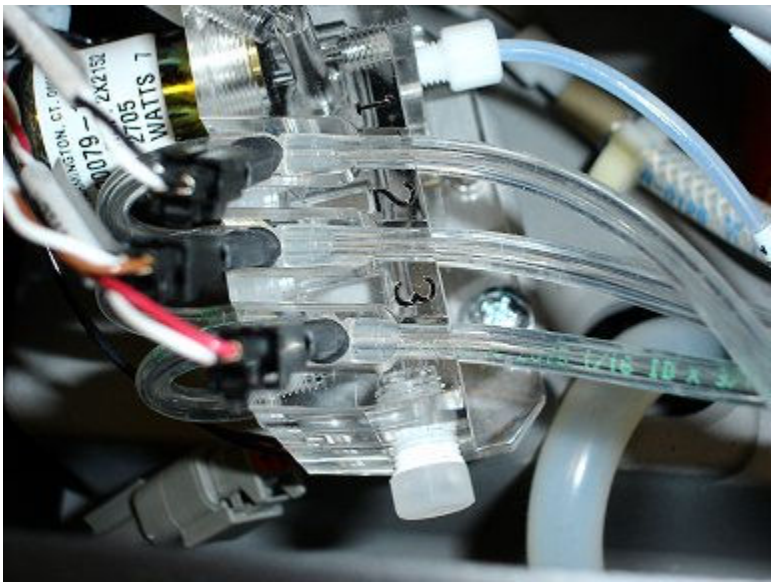
The RV loader and hopper assembly (RVL on the processing center map) is a device that provides onboard storage for RVs (reaction vessels) and transports the RVs into the process path.

Figure 1.148: RV loader and hopper assembly (i1000SR)

Upper waste manifold (*i*1000SR)

The upper waste manifold (UWM on the processing center map) is a device that directs liquid waste from the RVs after washing into the waste area.

Figure 1.149: Upper waste manifold (i1000SR)



Wash zone manifold (*i*1000SR)

The wash zone manifold (WZ on the processing center map) is a device that removes and discards unbound analyte from the reaction mixture in an RV

(reaction vessel). Each wash zone has four positions where the following actions occur:

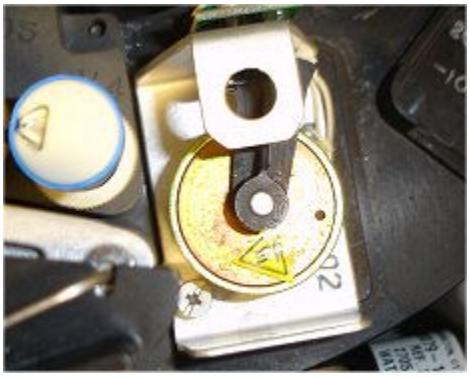
- Position 1 - A magnet attracts paramagnetic microparticles to the wall of the RV and a dispense nozzle dispenses wash buffer into the RV.
- Position 2 and 3 - A vacuum is applied to the wash zone probes as they move to the bottom of the RV. In addition, nozzles dispense wash buffer into the RV. Additional wash/aspiration cycles occur at these positions.
- Position 4 - A wash zone probe aspirates liquid waste from the RV.

Figure 1.150: Wash zone manifold (i1000SR)

Wash zone outlet diverter (*i*1000SR)

The wash zone outlet diverter (WZOD on the processing center map) is a device that directs RVs either into the inner track or keeps the RVs in the outer track.

Figure 1.151: Wash zone outlet diverter (i1000SR)



RV access door (*i*1000SR)

The RV access door (RVA on the processing center map) is an opening that allows access to one position on the outer track. You use this door for diagnostic purposes only and should always make sure it is closed during system operation.

Figure 1.152: RV access door (i1000SR)

Vortexers (*i*1000SR)

The vortexers (VTX1 and VTX2 on the processing center map) are devices that mix the reaction mixture to suspend microparticles. The RVs are vortexed in the process path.

Figure 1.153: Vortexers (i1000SR)

Pre-trigger/trigger manifold (*i*1000SR)

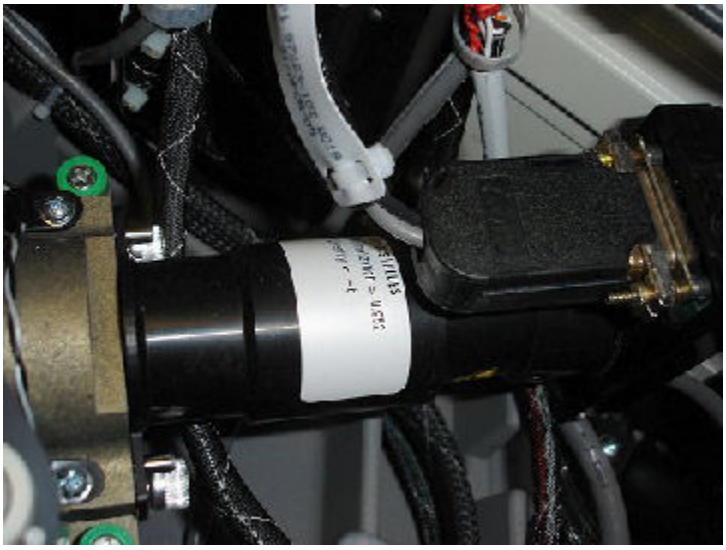
The pre-trigger/trigger manifold (PT/T on the processing center map) is a device that dispenses Pre-Trigger Solution, and then Trigger Solution into RVs (reaction vessels).

Figure 1.154: Pre-trigger/trigger manifold (i1000SR)

CMIA reader (*i*1000SR)

The CMIA reader (CMIA on the processing center map) is a device that measures the chemiluminescent emission from RVs (reaction vessels) and reports the quantity of emission detected.

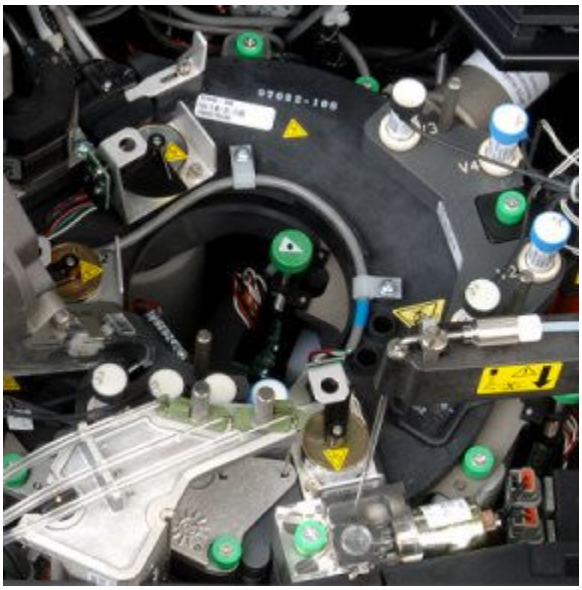
Figure 1.155: CMIA reader (i1000SR)



Process path (*i*1000SR)

The process path (PP on the processing center map) is a device that contains provisions for moving RVs, positioning them at processing stations, and provides incubation temperatures required for assay processing.

Figure 1.156: Process path (i1000SR)



Unload diverter (*i*1000SR)

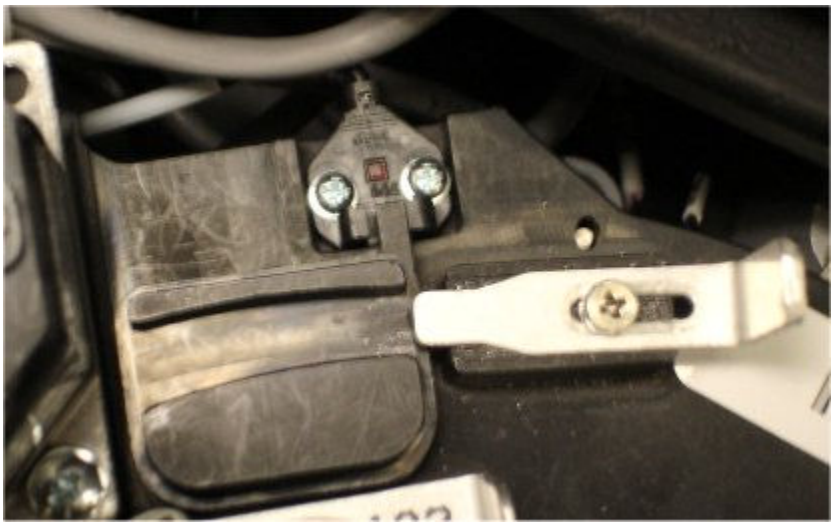
The unload diverter (ULD on the processing center map) is a device that unloads RVs used for pretreatment or dilution of samples from the inner track into the solid waste container.

Figure 1.157: Unload diverter (i1000SR)

Unloader (*i*1000SR)

The unloader (UL on the processing center map) is a device that removes used RVs from the process path and discards them into the solid waste container after assay processing.

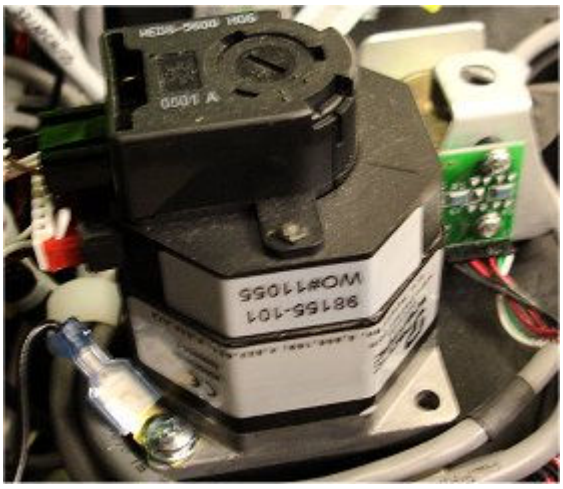
Figure 1.158: Unloader (i1000SR)



Process path motor (*i*1000SR)

The process path drive motor (PPM on the processing center map) is a device that rotates the process path disk, which holds RVs (reaction vessels) in place, and advances the RVs from position to position.

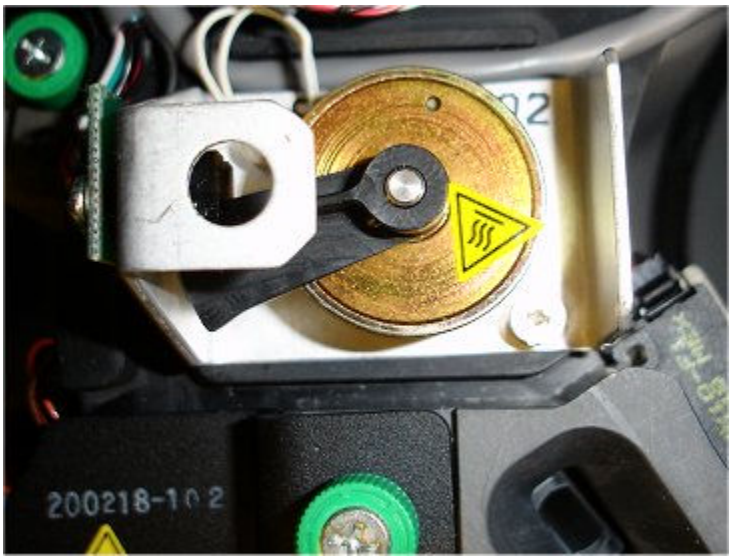
Figure 1.159: Process path motor (i1000SR)



Wash zone inlet diverter (*i*1000SR)

The wash zone inlet diverter (WZID on the processing center map) is a device that directs RVs either into the wash zone (outer track) where a wash occurs or keeps the RVs in the inner track.

Figure 1.160: Wash zone inlet diverter (i1000SR)



Supply and waste center (*i*1000SR)

The supply and waste center is the onboard storage area for bulk solutions and waste.

Figure 1.161: Supply and waste center (i1000SR)

Legend:

1. *Pre-trigger/trigger storage area (i1000SR)*, page 1-146: Provides onboard storage for Pre-Trigger Solution and Trigger Solution.
2. *Wash buffer storage area (i1000SR)*, page 1-149: Provides onboard storage for the wash buffer.

3. *Waste storage area (i1000SR)*, page 1-153: Provides storage for liquid and solid waste.

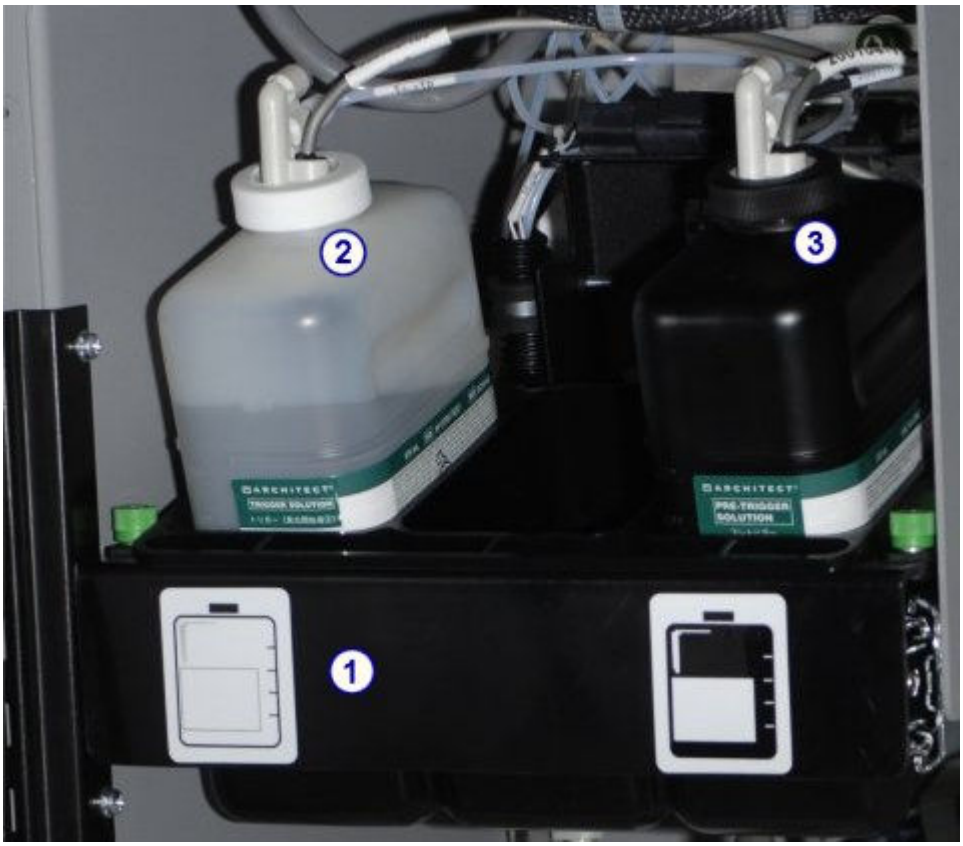
Supply and waste center (*i*1000SR) topics include:

- *Pre-trigger/trigger storage area (i1000SR)*, page 1-146
- *Wash buffer storage area (i1000SR)*, page 1-149
- *Waste storage area (i1000SR)*, page 1-153

Pre-trigger/trigger storage area (*i*1000SR)

The pre-trigger/trigger storage area is the location in the supply and waste center that provides onboard storage for the Pre-Trigger Solution and Trigger Solution, which are necessary for test processing.

Figure 1.162: Pre-trigger/trigger storage area (i1000SR)



Legend:

1. *Pre-trigger/trigger tray (i1000SR)*, page 1-147: Holds the pre-trigger and trigger bottles.
2. *Trigger level sensor (i1000SR)*, page 1-148: Detects the volume of remaining trigger solution.
3. *Pre-trigger level sensor (i1000SR)*, page 1-147: Detects the volume of remaining pre-trigger solution.

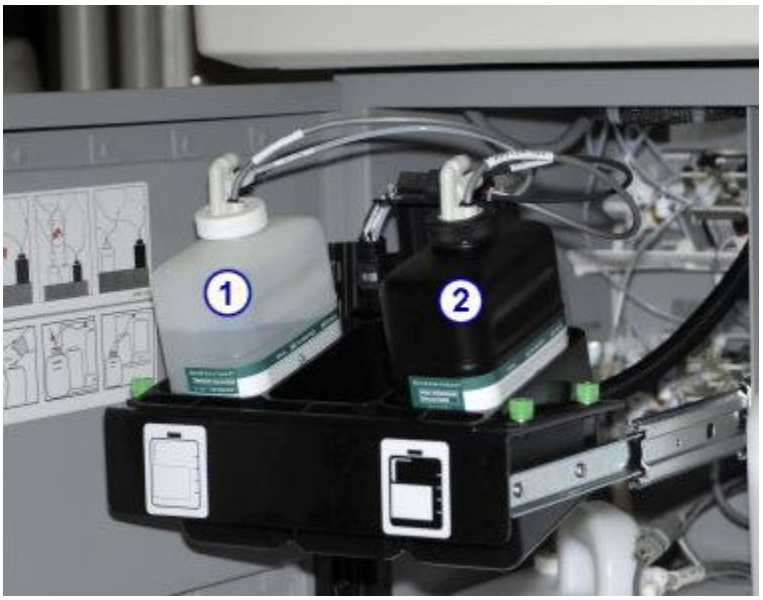
Pre-trigger/trigger storage area (*i*1000SR) topics include:

- *Pre-trigger/trigger tray (i1000SR)*, page 1-147
- *Pre-trigger level sensor (i1000SR)*, page 1-147
- *Trigger level sensor (i1000SR)*, page 1-148

Pre-trigger/trigger tray (*i*1000SR)

The pre-trigger/trigger tray is a platform in the supply and waste center that holds the Pre-Trigger Solution and Trigger Solution bottles.

Figure 1.163: Pre-trigger/trigger tray (i1000SR)



Legend:

1. *Trigger solution (i System)*, page 1-204: Used to produce the chemiluminescent reaction that provides the final read.
2. *Pre-trigger solution (i System)*, page 1-204: Used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of trigger solution.

Pre-trigger level sensor (*i*1000SR)

The pre-trigger level sensor is an assembly with a magnetic float sensor located in the pre-trigger bottle that indicates when the liquid level is low. When the sensor trips, approximately 70 mLs of usable solution remains.

Figure 1.164: Pre-trigger level sensor (i1000SR)

Trigger level sensor (*i*1000SR)

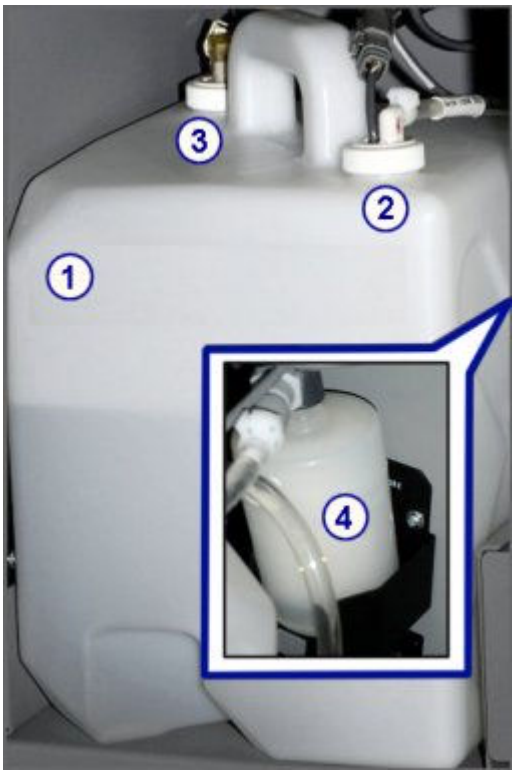
The trigger level sensor is an assembly with a magnetic float sensor located in the trigger bottle that indicates when the liquid level is low. When the sensor trips, approximately 70 mLs of usable solution remains.

Figure 1.165: Trigger level sensor (i1000SR)

Wash buffer storage area (*i*1000SR)

The wash buffer storage area is the location in the supply and waste center for onboard storage of wash buffer, which is used in test processing.

Figure 1.166: Wash buffer storage area (i1000SR)



Legend:

1. *Wash buffer reservoir (i1000SR)*, page 1-150: Provides onboard storage for up to 12 liters of wash buffer.
2. *Wash buffer level sensor and outlet assembly (i1000SR)*, page 1-151: Dispenses wash buffer into the reservoir and measures the remaining volume of wash buffer.
3. *Wash buffer level sensor and outlet assembly (i1000SR)*, page 1-151: Draws wash buffer from the reservoir during test processing.
4. *Wash buffer filter (i1000SR)*, page 1-152: Protects the fluidics components by eliminating particulates.

Wash buffer storage area (*i*1000SR) topics include:

- *Wash buffer reservoir (i1000SR)*, page 1-150
- *Wash buffer level sensor and outlet assembly (i1000SR)*, page 1-151
- *Wash buffer filter (i1000SR)*, page 1-152

Wash buffer reservoir (*i*1000SR)

The wash buffer reservoir is an onboard container in the supply and waste center that holds up to 12 liters of wash buffer.

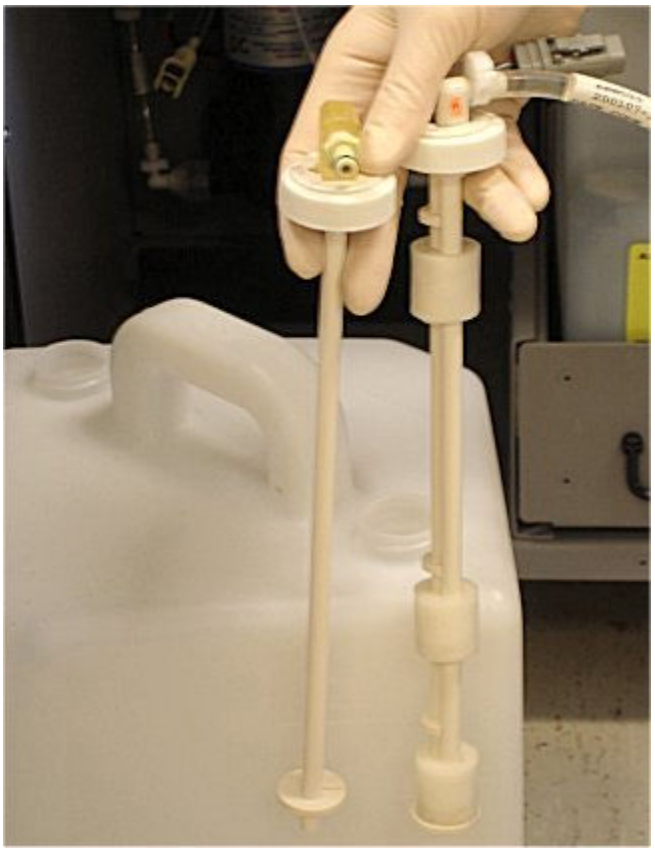
Figure 1.167: Wash buffer reservoir (i1000SR)

Wash buffer level sensor and outlet assembly (*i*1000SR)

The wash buffer level sensor, located in the wash buffer reservoir, is an assembly containing a tube with three magnetic float sensors that indicate when the wash buffer reservoir is full (top sensor), needs to be filled by the ARCHITECT ARM (Automatic Reconstitution Module) accessory (middle sensor), or is empty (lower sensor).

The buffer level sensor dispenses wash buffer into the reservoir. The outlet assembly draws wash buffer from the reservoir during test processing.

Figure 1.168: Wash buffer level sensor and outlet tube (i1000SR)



Wash buffer filter (*i*1000SR)

The wash buffer filter, located in the wash buffer storage area, is an assembly containing material used to eliminate particulates that might damage the fluidics components of the system.

Figure 1.169: Wash buffer filter (i1000SR)

Waste storage area (*i*1000SR)

The waste storage area is the location in the supply and waste center that provides a storage area for the solid waste container that holds used RVs (reaction vessels) and the liquid waste container. These containers are accessed by sliding out the waste drawer.

Figure 1.170: Waste storage area (i1000SR)

Legend:

1. *Waste drawer (i1000SR)*, page 1-154: Provides onboard storage for the liquid and solid waste containers.
2. *Liquid waste container (i1000SR)*, page 1-155: Provides onboard storage for liquid waste.
3. *Solid waste container (i1000SR)*, page 1-156: Provides onboard storage for the used RVs (reaction vessels).
4. *Waste pan (i1000SR)*, page 1-157: Provides storage for up to 25 used RVs when the solid waste container is removed during processing.

Waste storage area (*i*1000SR) topics include:

- *Waste drawer (i1000SR)*, page 1-154
- *Liquid waste container (i1000SR)*, page 1-155
- *Solid waste container (i1000SR)*, page 1-156
- *Waste pan (i1000SR)*, page 1-157

Waste drawer (*i*1000SR)

The waste drawer is the location in the waste area that holds the liquid and solid waste containers. Sliding this drawer out of the waste area allows access to the liquid and solid waste containers.

Figure 1.171: Waste drawer (i1000SR)

Liquid waste container (*i*1000SR)

The liquid waste container is a receptacle that holds the liquid waste from the system. This is an optional item and only required if your system is not configured for an external floor drain.

Figure 1.172: Liquid waste container (i1000SR)

Solid waste container (*i*1000SR)

The solid waste container is a receptacle that holds used RVs (reaction vessels).

Figure 1.173: Solid waste container (i1000SR)

Waste pan (*i*1000SR)

The waste pan is a receptacle that holds used RVs (reaction vessels) when the solid waste container is not present. This pan holds up to 25 RVs when you remove the solid waste container during processing.

Figure 1.174: Waste pan (i1000SR)

Optional components

Optional components for processing modules include:

- UPS (uninterruptible power supply) - provides a temporary, continuous flow of power to the processing module during a power failure.
- High-concentration waste bottle (*c* System) - collects the high-concentration liquid waste from the cuvettes and the ICT unit.
- ARM optional accessory (*i*2000/*i*2000SR) and *i*ARM optional accessory - dilutes Concentrated Wash Buffer to the proper concentration and delivers it to the wash buffer reservoir.
- External waste pump (except for *i*1000SR) - pumps waste from the processing module(s) to an elevated drain located in a sink.

Optional components topics include:

- *ARM optional accessory (i2000/i2000SR)*, page 1-158
- *iARM optional accessory (i System)*, page 1-163
- *External waste pump (i System)*, page 1-164

ARM optional accessory (*i*2000/*i*2000SR)

The ARCHITECT ARM (Automatic Reconstitution Module) accessory is an optional ARCHITECT *i*2000/*i*2000SR accessory that automatically dilutes Concentrated Wash Buffer to the proper concentration and delivers it to the wash buffer reservoir.

The ARM is connected to a water supply and is loaded with a 10 L container of concentrated wash buffer. A single motor operating at a constant speed is

geared to drive two pumps at a 9:1 ratio to each other, pumping the necessary proportions of water and concentrated wash buffer into a mixing chamber.

Sensors verify that incoming water and outgoing wash buffer meet predetermined specifications for ion content and temperature. If the standards are not met, the ARM motor stops automatically.

Figure 1.175: ARM (front view)

Legend:

1. *ARM keypad (i2000/i2000SR)*, page 1-160: Provides a local user interface for controlling the ARM.
2. Tubing assembly: Detects the level of concentrated wash buffer in the 10 L container and transfers the concentrated wash buffer to the mixing chamber inside the ARM.
3. Fluidics and electronics bay: Provides access to the pump and circuit boards.
4. Concentrated wash buffer (10 L container): Concentrated wash buffer diluted by the ARM and delivered to the processing modules.

Figure 1.176: ARM (rear view)

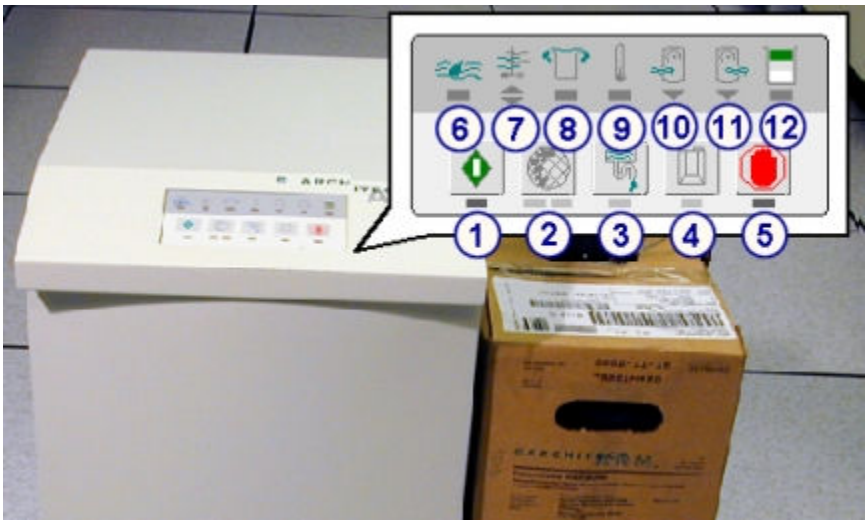
Related information…

- *ARM connectors (i2000/i2000SR)*, page 1-161

ARM keypad (*i*2000/*i*2000SR)

The ARM keypad is an input device used by the operator to operate the ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Figure 1.177: Components of the ARM keypad



Legend:

1. Start key: Initiates operation. The green indicator below the key illuminates during operation and flashes when wash buffer is being pumped to the wash buffer reservoir in the processing module.
2. Decontamination key (used by Abbott service representatives): Initiates the decontamination procedures.
3. Flush to drain key: Initiates a flush. This key is not functional when your wash buffer transfer option is set to Automatic.
4. Replace buffer key: Initiates loading of the 10 L container of Concentrated Wash Buffer. The amber indicator illuminates during this procedure.
5. Stop key: Stops the procedure currently in progress and/or interrupts communication to the SCC (system control center). The red indicator illuminates when you press the stop key.
6. Water quality error indicator: Illuminates red if the incoming water does not meet the minimum resistivity requirement. When this occurs, transfer of buffer stops.
7. Buffer quality error indicator: Illuminates red if the diluted buffer mixture is outside acceptable limits. The up arrow indicates too little water. The down arrow indicates too much water. When either occurs, the system stops transfer of buffer.
8. Flood indicator: Illuminates red if liquid is detected in the flood pan. When this occurs, transfer of buffer stops.
9. Water temperature indicator: Illuminates red if incoming water temperature is outside the range of 15˚ - 37˚C. When this occurs, transfer of buffer stops.
10. Low inlet pressure indicator: Illuminates red if incoming water pressure or the flow rate is too low. When this occurs, transfer of buffer stops.
11. High outlet pressure indicator: Illuminates red if the outgoing wash buffer pressure exceeds the pressure limit of the inlet valves. When this occurs, transfer of buffer stops.
12. Inventory level indicator: Indicates the volume of buffer remaining in the container.

    3 bars illuminated = full

    2 bars illuminated = mid (50%)

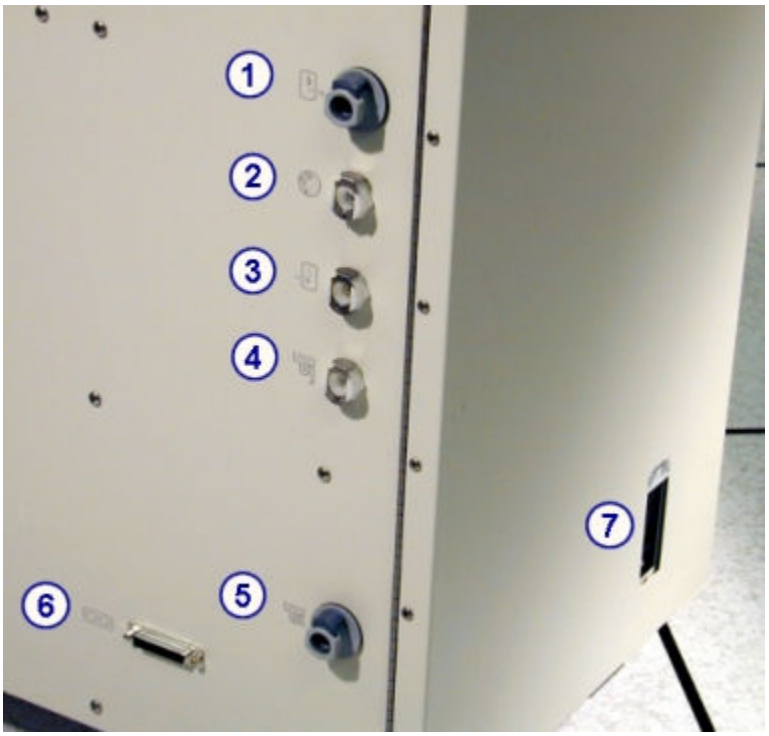
    1 bar illuminated = low (20%)

    No bar illuminated = empty (<2%) The red indicator illuminates and the ARM stops.

ARM connectors (*i*2000/*i*2000SR)

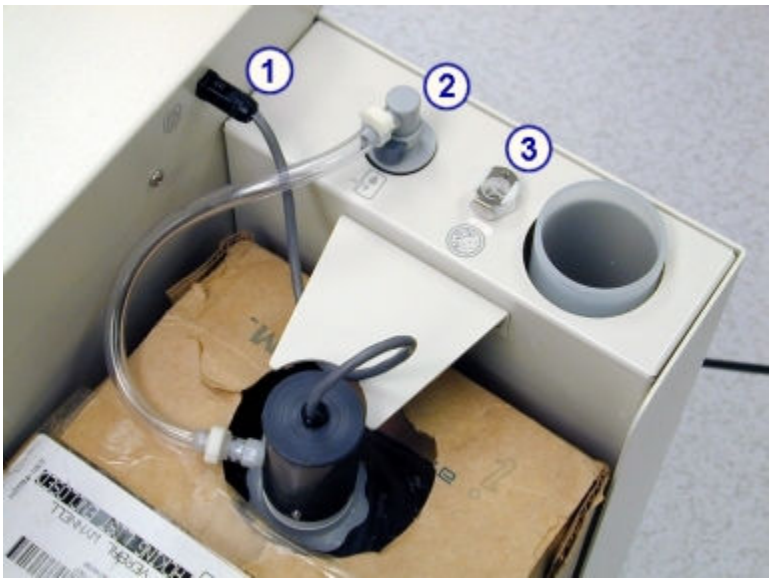
Connectors on the ARCHITECT ARM (Automatic Reconstitution Module) accessory are ports that provide the connections for transporting fluids to and from the ARM and communicating with the SCC (system control center).

Figure 1.178: Connectors on rear of ARM



1.	Diluted wash buffer outlet: Provides the connection that allows diluted wash buffer to be transferred to the wash buffer reservoir in the processing module.	
2.	Decontamination port 1: Provides the connection that allows a 0.5% sodium hypochlorite solution to be flushed through the ARM for decontamination.	
3.	Water inlet: Provides the connection from the deionized water system to the ARM.	
4.	Waste 1 (pressurized) port: Provides pressurized waste from the internal drip pan located inside the ARM to the external waste pump or floor drain.	
5.	Waste 2 (gravity) port: Provides gravity waste from the internal drip pan, located inside the ARM, to the external waste pump or floor drain.	
6.	RS232 port: Provides communication between the ARM and the SCC.	
7.	Power switch: Used to cycle the power.	

Figure 1.179: Connectors on top of ARM



1.	Sensor cable: Provides the connection from the tubing assembly to the ARM.	
2.	Concentrated wash buffer inlet: Provides the connection that allows the concentrated wash buffer to be transferred to the mixing chamber of the ARM.	
3.	Decontamination port 2: Provides the connection that allows the ARM system to be flushed with water to remove the 0.5% sodium hypochlorite solution.	

*i*ARM optional accessory (*i* System)

The *i*ARM (Automatic Reconstitution Module) is an optional ARCHITECT *i* System accessory that automatically dilutes ARCHITECT Concentrated Wash Buffer and delivers it to the ARCHITECT System wash buffer reservoir.

The *i*ARM is connected to a water supply and is loaded with two 10 L cubitainers of concentrated wash buffer. A single motor drives two pumps preset to deliver the proper ratio of water and concentrated wash buffer into a mixing chamber.

Sensors verify that outgoing wash buffer meets predetermined specifications for ion content and temperature. If the standards are not met, the *i*ARM motor stops automatically.

The *i*ARM can serve from one to four ARCHITECT processing modules. The number of wash buffer reservoirs cannot total more than four. For example, you can connect the *i*ARM to two ARCHITECT *i*4000SR Systems or four ARCHITECT *i*2000SR or *i*1000SR Systems. Each example represents a total of four processing modules.

In Filling Station mode, the *i*ARM can fill a wash buffer reservoir container from the ARCHITECT System with reconstituted buffer that can be used to manually fill other ARCHITECT Systems. It is highly recommended that you use a standalone *i*ARM rather than an *i*ARM connected to a processing module, for the Filling Station mode.

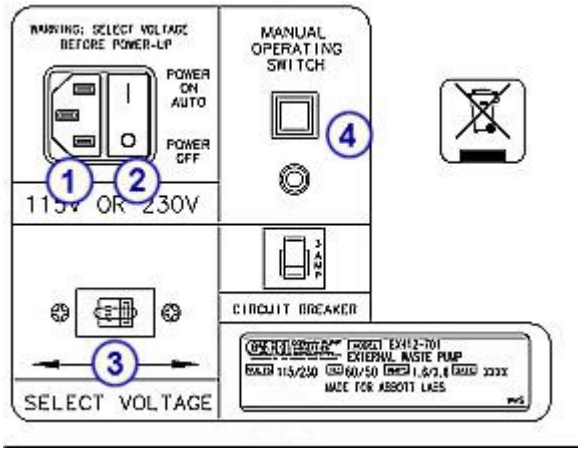
IMPORTANT: You must completely disconnect both the Filling Station cable and tubing assemblies when the *i*ARM is not running in Filling Station mode. Failure to disconnect cable and tubing assemblies could result in flooding.

See *ARCHITECT iARM*, page F-1 for an overview, specifications and requirements, operating instructions, hazards, maintenance and diagnostics, and troubleshooting for the ARCHITECT *i*ARM.

External waste pump (*i* System)

The external waste pump is an optional accessory that transports waste from the processing module(s) to an elevated drain located in a sink when a floor drain is not available.

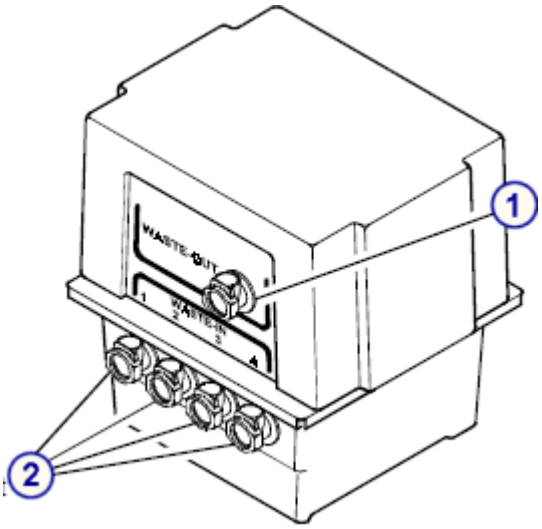
Figure 1.180: External waste pump (front)



Legend:

1. Power outlet: Supplies power to the external waste pump.
2. Power switch: Turns the power to the pump on and off. When the power is on the pump will automatically activate to pump waste.
3. Voltage select switch: Switches the allowable voltage from 110v to 220v.
4. Manual operating switch: Turns the power to the pump on and activates the pump.

Figure 1.181: External waste pump (back)



Legend:

1. Waste outlet quick disconnect: Provides a connection for tubing to an elevated drain.
2. Inlet quick disconnect (4): Provides a connection for tubing from the processing module. Up to four processing modules can connect to one external waste pump.

Sample handlers

The sample handler is a transport system used for loading calibrators, controls, and patient samples and presenting them to the processing module(s).

A single primary sample handler transports samples through an ARCHITECT System regardless of the number of processing modules and types.

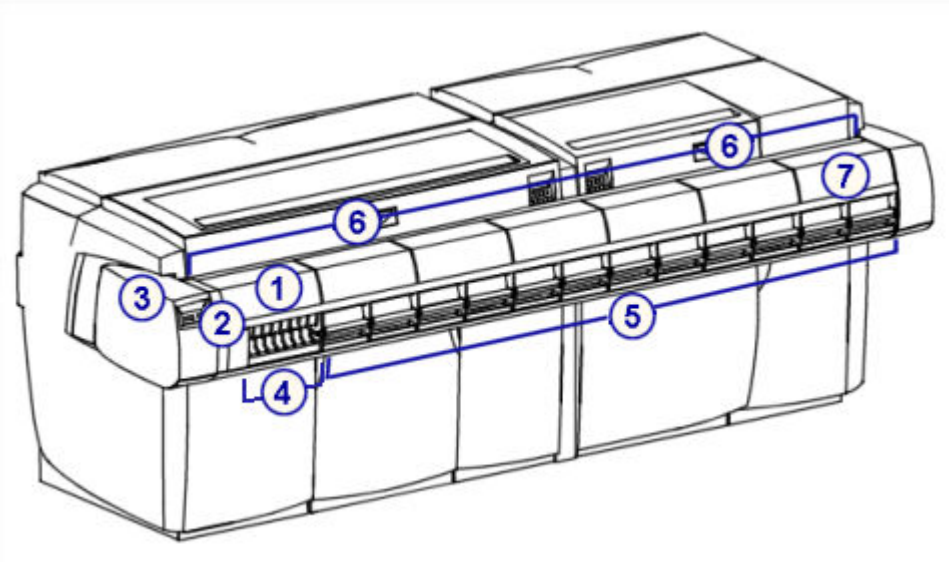
NOTE: Unless otherwise indicated, the term sample handler is used generically throughout this documentation to refer to all configurations.

Sample handler topics include:

RSH - robotic sample handler (*c*8000/*c*16000/*i*2000SR)

The RSH (robotic sample handler) is a transport system used for loading calibrators, controls, and patient samples and presenting them to a *c*8000/*c*16000 and/or *i*2000SR processing module. The design of the RSH allows random and continuous access, and sample positioning for automatic retesting. Two types of bays position samples for either routine or priority processing.

Figure 1.182: Robotic sample handler components (c8000/c16000/i2000SR)



Legend:

1. RSH cover: Provides access to the RSH components.

2. *RSH keypad (c8000/c16000/i2000SR)*, page 1-171: Provides a local user interface for controlling the sample handler.
3. RSH bar code reader: Reads the sample and sample carrier ID.
4. *Priority bay (RSH - c8000/c16000/i2000SR)*, page 1-167: Positions samples for priority processing.
5. *Routine bay (RSH - c8000/c16000/i2000SR)*, page 1-168: Positions samples for routine processing.
6. *Carrier positioner (c8000/c16000/i2000SR)*, page 1-170: Positions carriers for sample aspiration.
7. *Carrier transport (c8000/c16000/i2000SR)*, page 1-169: Transfers sample carriers from the bays to the carrier positioner and back.

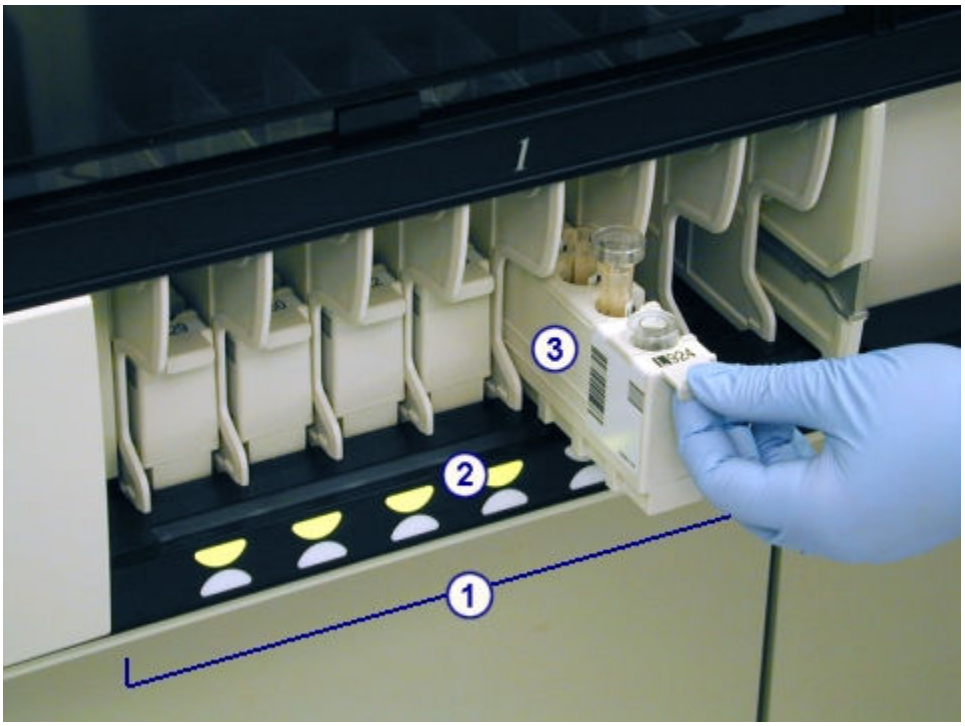
RSH - robotic sample handler (*c*8000/*c*16000/*i*2000SR) topics include:

- *Priority bay (RSH - c8000/c16000/i2000SR)*, page 1-167
- *Routine bay (RSH - c8000/c16000/i2000SR)*, page 1-168
- *Carrier transport (c8000/c16000/i2000SR)*, page 1-169
- *Carrier positioner (c8000/c16000/i2000SR)*, page 1-170
- *RSH keypad (c8000/c16000/i2000SR)*, page 1-171

Priority bay (RSH - *c*8000/*c*16000/*i*2000SR)

The priority bay is a holding area that positions samples for priority processing. You place samples in sample carriers and load them into the priority bay. The carrier transport picks up each carrier and moves it past the bar code reader. The bar code reader identifies the samples, the carrier transport moves the carriers back to the priority bays, and then the carrier transport moves the carriers to the appropriate processing module for sample aspiration.

Figure 1.183: Priority bay (c8000/c 16000/i2000SR)



Legend:

1. Priority bay: Holds carriers and positions samples for priority processing.
2. Status indicator: Indicates the status of sample processing and when you can access samples:
   - Indicators off - no samples are loaded in the position.
   - Green (steady) - samples are loaded, but processing has not begun. You can access the samples.
   - Amber (steady) - samples are processing and you cannot access them.
   - Green (blinking) - processing is complete and you can access the samples.

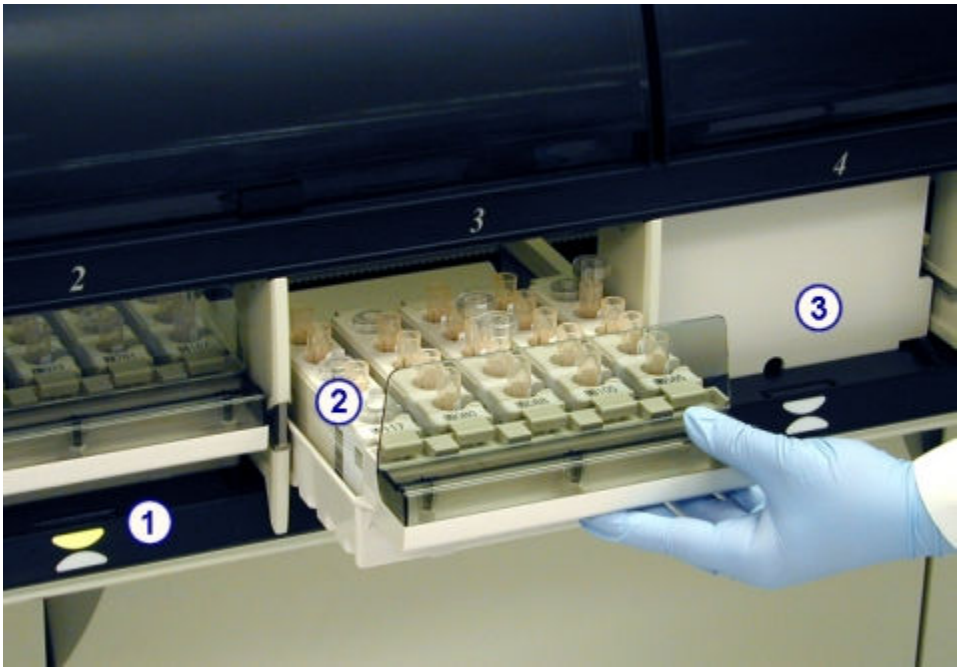
     NOTE: If you add or rerun tests for a sample before it is unloaded, the indicator for the bay or section changes back to amber while the sample is re-aspirated.
   - Amber and green (alternating) - bar code scan or other error occurred. You can access the samples.
3. Sample carrier: Holds five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.

Routine bay (RSH - *c*8000/*c*16000/*i*2000SR)

The routine bay is a holding area that positions samples for routine processing. You place samples in sample carriers, load the carriers onto carrier trays, and then slide the trays into a routine bay. The carrier transport picks up each carrier and moves it past the bar code reader. The bar code reader identifies the samples, the carrier transport moves the carriers back to the routine bay,

and then the carrier transport moves the carriers to the appropriate processing module for sample aspiration.

Figure 1.184: Routine bay (c8000/c 16000/i2000SR)



Legend:

1. Status indicator: Indicates the status of sample processing and when you can access samples:
   - Indicators off - no samples are loaded in the position.
   - Green (steady) - samples are loaded, but processing has not begun. You can access the samples.
   - Amber (steady) - samples are processing and you cannot access them.
   - Green (blinking) - processing is complete and you can access the samples.

     NOTE: If you add or rerun tests for a sample before it is unloaded, the indicator for the bay or section changes back to amber while the sample is re-aspirated.
   - Amber and green (alternating) - bar code scan or other error occurred. You can access the samples.
2. Carrier tray: Holds up to five sample carriers.
3. Bay door: Provides access to the routine bay.

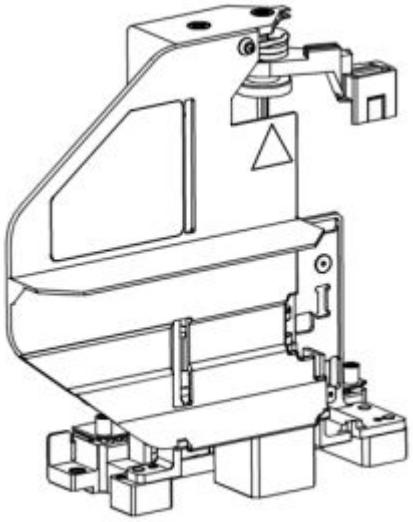
Carrier transport (*c*8000/*c*16000/*i*2000SR)

The carrier transport is a mechanism used to transport sample carriers from:

- A bay on the RSH (robotic sample handler) to the RSH bar code reader
- The RSH bar code reader to a carrier positioner or back to the bay

- The carrier positioner back to the bay

Figure 1.185: Carrier transport (c8000/c 16000/i2000SR)



Carrier positioner (*c*8000/*c*16000/*i*2000SR)

The carrier positioner is a mechanism on the RSH (robotic sample handler) that positions sample carriers at the appropriate processing module sample aspiration position.

Each processing module has a carrier positioner with four positions:

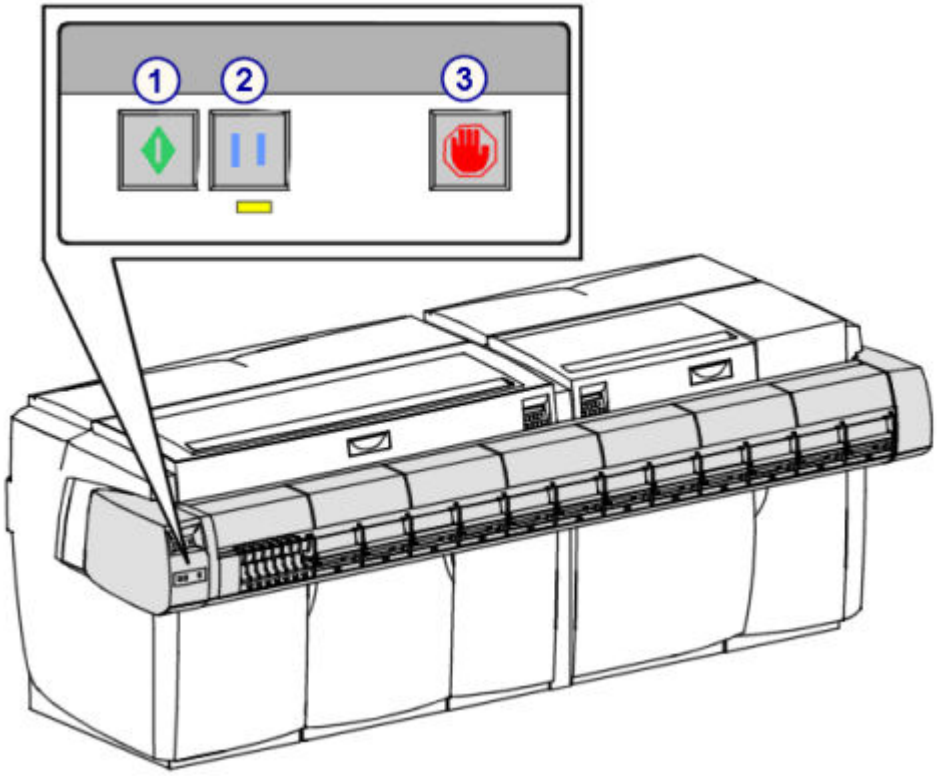
- On a *c*8000/c16000 positions 1 and 2 are designated for sample carriers from routine bays, position 3 is for sample carriers from priority bays, and position 4 is not used.
- On an *i*2000SR positions 1 and 2 are designated for sample carriers accessed by the routine sample pipettor and positions 3 and 4 are for sample carriers accessed by the STAT sample pipettor.

Figure 1.186: Carrier positioner (c8000/c 16000/i2000SR)

RSH keypad (*c*8000/*c*16000/*i*2000SR)

The RSH (robotic sample handler) keypad is an input device used by the operator to control the sample handler.

Figure 1.187: Components of the RSH keypad (c8000/c16000/i2000SR)



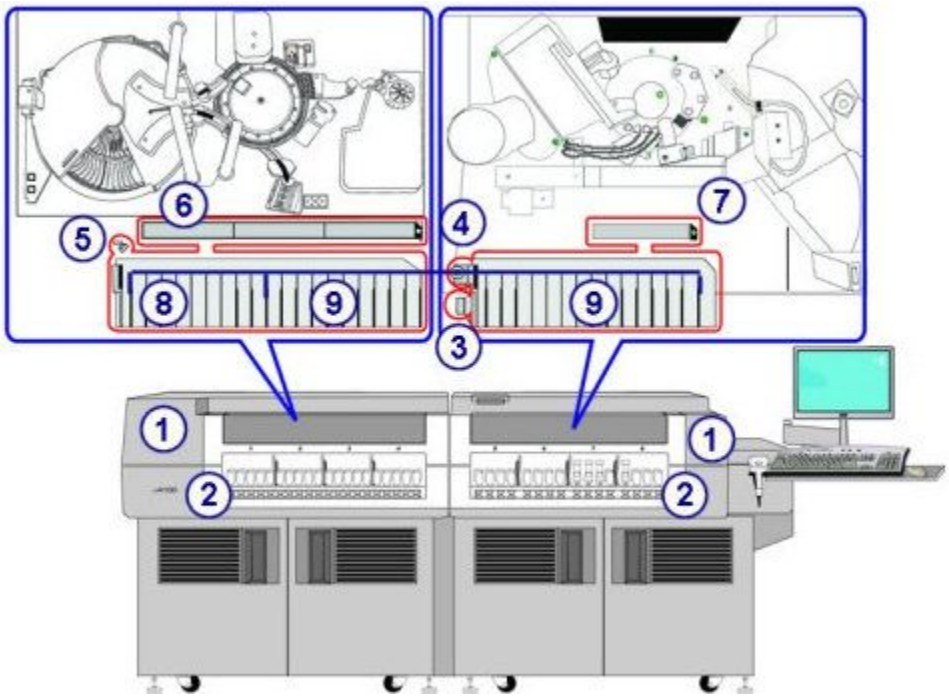
Legend:

1. Run key: Resumes or begins the transport of samples that are located in the bays.
2. Pause key: Pauses the sample handler.
3. Stop key: Stops the sample handler, but does not shut down power to the sample handler.

RSH - robotic sample handler (*c*4000/*i*1000SR/*ci*4100)

The RSH (robotic sample handler) is a transport system used for loading calibrators, controls, patient samples, and reagents. The design of the RSH allows random and continuous access for loading/unloading samples and reagents. Two types of sections position samples for either routine or priority processing. Sample carriers can be loaded in any RSH section. Reagent carriers can only be loaded in an *i*1000SR section.

Figure 1.188: Robotic sample handler components (c4000/i1000SR/ci4100)



Legend:

1. Processing center cover: Provides access to the RSH components.
2. Load/Unload area: Positions sample and reagent carriers (*i*1000SR) for loading and unloading.
3. Bar code reader:
   - For sample carriers - reads the sample and sample carrier ID bar code labels
   - For reagent carriers (*i*1000SR) - reads the reagent bottle 2D bar code labels
4. Bottle rotator (*i*1000SR): Orients the pink position on the reagent carrier so the reagent bar code label can be read.
5. Carrier transport:
   - For sample carriers - transfers carriers from the sections to the aspiration area and back.
   - For reagent carriers (*i*1000SR) - transfers carriers from the sections to the reagent carousel and back
6. Carrier positioner: Positions sample carriers for sample aspiration.
7. Aspiration area: Positions sample carriers for sample aspiration.
8. Priority sections:
   - For sample carriers - positions samples for priority processing
   - For reagent carriers (*i*1000SR) - positions reagent carriers for loading on the reagent carousel
9. Routine sections:
   - For sample carriers - positions samples for routine processing

– For reagent carriers (*i*1000SR) - positions reagent carriers for loading on the reagent carousel

RSH - robotic sample handler (*c*4000/*i*1000SR/*ci*4100) topics include:

- *Priority sections (RSH - c4000/i1000SR/ci4100)*, page 1-173
- *Routine sections (RSH - c4000/i1000SR/ci4100)*, page 1-174
- *Carrier transport and carrier positioner/aspiration area (RSH - c4000/i1000SR/ci4100)*, page 1-176

Priority sections (RSH - *c*4000/*i*1000SR/*ci*4100)

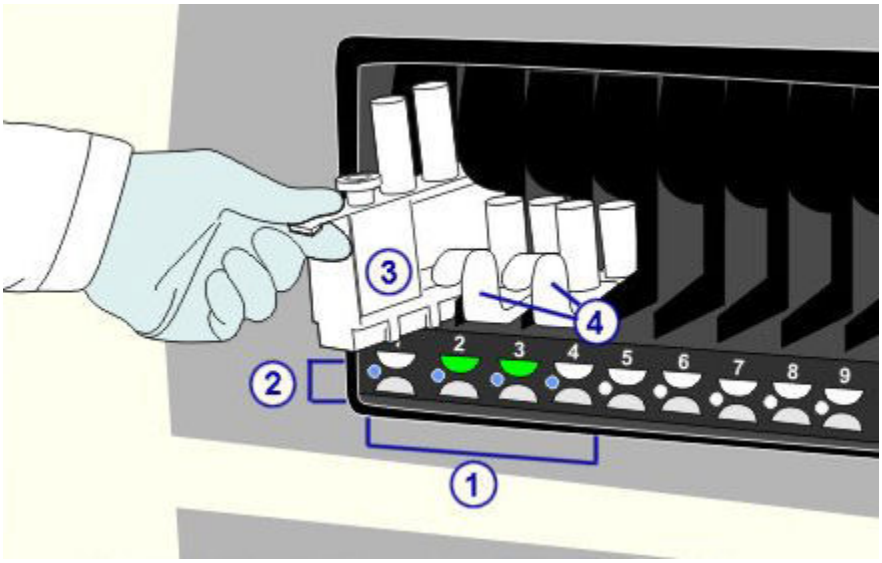
The priority section(s) is a holding area for sample or reagent carriers (*i*1000SR).

- For a sample carrier - You place samples in a sample carrier and load the carrier into the priority section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the samples, and the carrier transport moves the carrier to the carrier positioner or to the aspiration area for sample aspiration.
- For a reagent carrier (*i*1000SR) - You place reagent bottles on the reagent carrier and load them into the priority section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the reagent kit, and the carrier transport loads the carrier on the reagent carousel.

You can configure the number of priority sections:

- *c*4000 (range 0 - 7)
- *i*1000SR (range 0 - 7)
- *ci*4100 (range 0 - 10)

Figure 1.189: Priority sections (c4000/i1000SR/ci4100)



Legend:

1. Priority sections:
   - For sample carriers - positions samples for priority processing
   - For reagent carriers (i1000SR) - positions reagent carriers for loading the reagent carousel
2. Status indicator: Indicates the status of sample processing and when you can access samples:
   - Indicators off - no sample or reagent carriers are loaded in the section.
   - Green (steady) - sample or reagent carriers are loaded, but processing has not begun. You can access the samples.
   - Amber (steady) - sample or reagent carriers are processing and you cannot access them.
   - Green (blinking) - processing is complete and you can access the sample or reagent carrier.

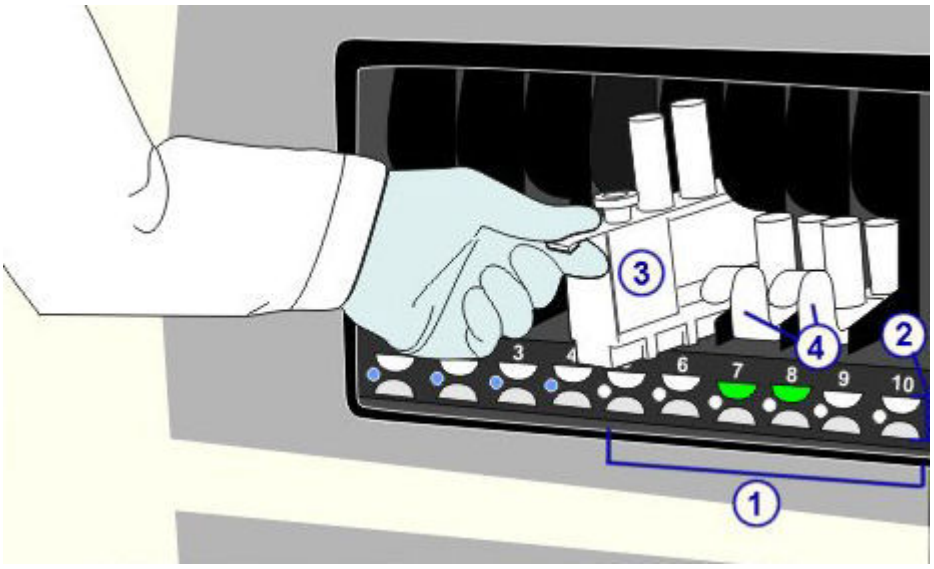
     NOTE: If you add or rerun tests for a sample before it is unloaded, the indicator for the section changes back to amber while the sample is re-aspirated.
   - Amber (blinking) - unloading a reagent carrier is in process so this section is unavailable for loading carriers.
   - Amber and green (alternating) - bar code scan or other error occurred. You can access the carriers.
3. Sample carrier: Holds five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.
4. Reagent carrier (*i*1000SR): Holds up to three reagent bottles. Two reagent carriers are required for assays that have more than three reagent bottles.

Routine sections (RSH - *c*4000/*i*1000SR/*ci*4100)

The routine sections are holding areas for sample or reagent carriers.

- For a sample carrier - You place samples in a sample carrier and load the carrier into the routine section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the samples, and the carrier transport moves the carrier to the carrier positioner or to the aspiration area for sample aspiration.
- For a reagent carrier (*i*1000SR)- You place reagent bottles on the reagent carrier and load them into the routine section. The carrier transport picks up the carrier and moves it past the bar code reader. The bar code reader identifies the reagent kit, and the carrier transport loads the carrier on the reagent carousel.

Figure 1.190: Routine sections (c4000/i1000SR/ci4100)



Legend:

1. Routine sections:
   - For sample carriers - positions samples for routine processing
   - For reagent carriers (*i*1000SR)- positions reagent carriers for loading on the reagent carousel
2. Status indicator: Indicates the status of sample processing and when you can access samples:
   - Indicators off - no sample or reagent carriers are loaded in the section.
   - Green (steady) - sample or reagent carriers are loaded, but processing has not begun. You can access the carriers.
   - Amber (steady) - sample or reagent carriers are processing and you cannot access them.
   - Green (blinking) - processing is complete and you can access the sample or reagent carrier.

     NOTE: If you add or rerun tests for a sample before it is unloaded, the indicator for the section changes back to amber while the sample is re-aspirated.
   - Amber (blinking) - unloading a reagent carrier is in process so this section is unavailable for loading carriers.
   - Amber and green (alternating) - bar code scan or other error occurred. You can access the carriers.
3. Sample carrier: Holds five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.
4. Reagent carrier (*i*1000SR): Holds up to three reagent bottles. Two reagent carriers are required for assays that have more than three reagent bottles.

Carrier transport and carrier positioner/aspiration area (RSH - *c*4000/*i*1000SR/*ci*4100)

The carrier transport is a mechanism used to transport carriers from:

For sample carriers

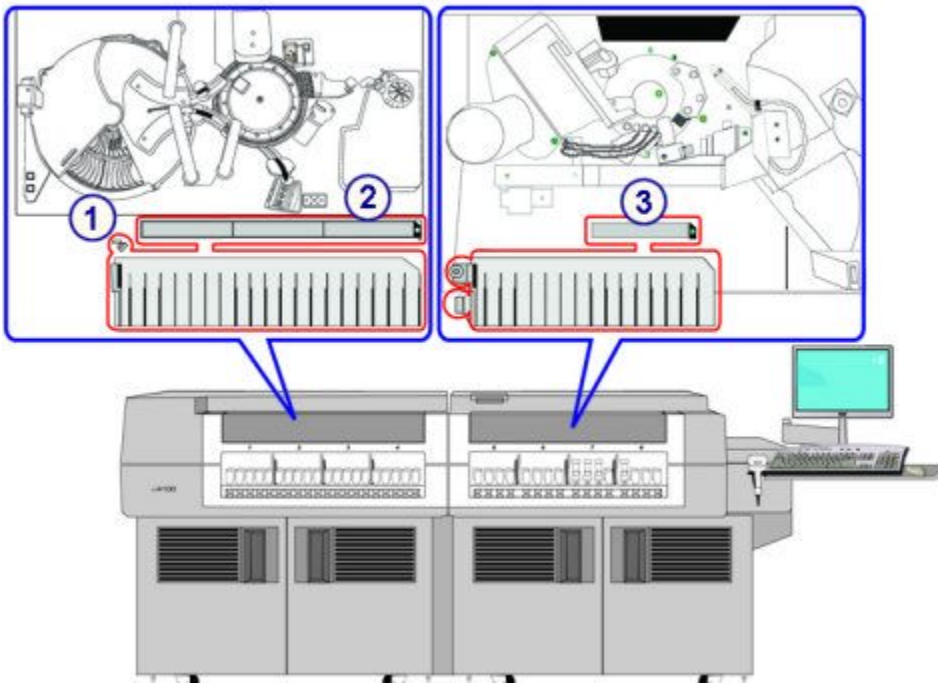
- A section on the RSH to the bar code reader
- The bar code reader to the carrier positioner/aspiration area or back to the section
- The carrier positioner/aspiration area back to the section

For reagent carriers (*i*1000SR)

- A section on the RSH to the bar code reader and bottle rotator
- The bar code reader and bottle rotator to the reagent carousel or back to the section
- The reagent carousel back to the section

The carrier positioner and aspiration area are locations on the RSH that assist in positioning sample carriers at the appropriate aspiration position.

Figure 1.191: Carrier transport and aspiration area (c 4000/i1000SR/ci 4100)



Legend:

1. Carrier transport:
   - For sample carriers - transfers carriers from the sections to the aspiration area and back

- For reagent carriers (*i*1000SR) - transfers carriers from the sections to the reagent carousel and back

2. Carrier positioner: Positions sample carriers for sample aspiration.
3. Aspiration area: Positions sample carriers for sample aspiration.

RSH Extension (RSHx)

The RSHx is a transport system added to the RSH of a *c*8000 or *c*16000 processing module that connects them with the ACCELERATOR *p*540 module. Control and patient samples are delivered to the RSHx priority and routine bays on the RSH for sampling by the ARCHITECT System. To maintain the correct processing order of calibrator samples, do not use the RSHx for calibrator samples.

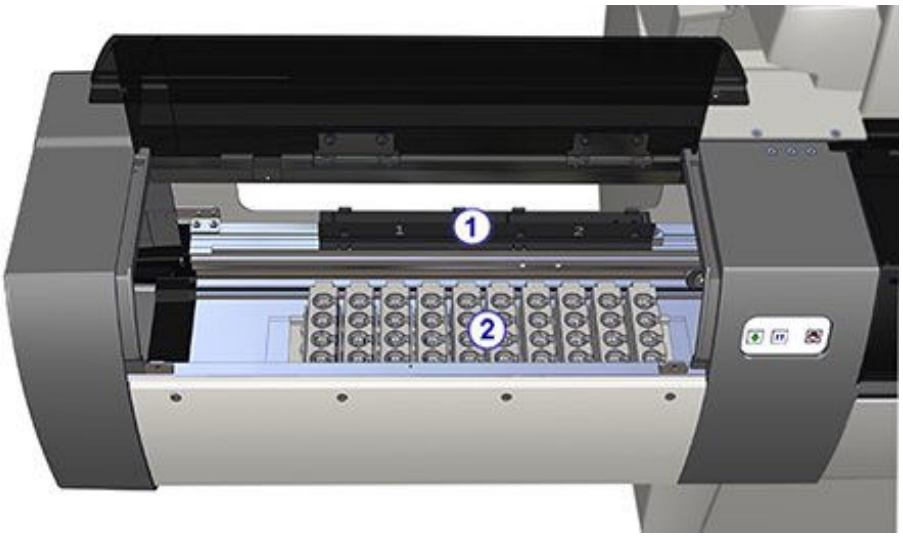
The RSHx attaches to a *c*8000 or *c*16000 processing module which may be integrated with an *i*2000SR processing module.

Figure 1.192: RSH Extension (RSHx)

Legend:

1. RSH Extension (RSHx).
2. *RSH keypad (c8000/c16000/i2000SR)*, page 1-171: Provides a local user interface for controlling the sample handler.
3. *RSHx priority bay*, page 1-178: RSH Priority bay designated for ACCELERATOR *p*540 use. Positions samples for priority processing.
4. *RSHx routine bay*, page 1-178: RSH routine bay designated for ACCELERATOR *p*540 use. Positions samples for routine processing.

Figure 1.193: RSHx internal view



Legend:

1. *RSHx carrier exchange area*, page 1-179: Positions sample carriers for transfer to and from the ARCHITECT RSH.
2. *RSHx empty carrier storage area*, page 1-179: Contains up to 10 additional empty sample carriers for use by the ACCELERATOR *p*540 sorter module.

RSHx topics include:

- *RSHx priority bay*, page 1-178
- *RSHx routine bay*, page 1-178
- *RSHx carrier exchange area*, page 1-179
- *RSHx empty carrier storage area*, page 1-179

RSHx priority bay

The RSHx priority bay is designated sections on the RSH priority bay reserved for samples received from the ACCELERATOR *p*540 for priority processing. Zero to seven sections are available for configuration by an Abbott representative. These sections are blocked from user access.

Status indicator:

Green (steady) - RSHx is not Running.

Amber (steady) - RSHx is Running.

RSHx routine bay

The RSHx routine bays are RSH routine bays, contain RSHx trays, and are reserved for samples received from the ACCELERATOR *p*540 for routine processing. A standalone *c*8000 or *c*16000 has three RSHx bays (RSH bays 2-4) and an integrated system has six RSHx routine bays (RSH bays 2-7). The RSHx trays are specially designed to remain in the RSHx routine bays.

Status indicator:

Green (steady) - RSHx is not Running.

Amber (steady) - RSHx is Running.

RSHx carrier exchange area

The RSHx carrier exchange area is a stationary positioner with two locations that permits transfer of sample carriers between the ACCELERATOR *p*540 and the ARCHITECT System.

RSHx empty carrier storage area

The RSHx empty carrier storage area contains up to 10 additional empty sample carriers for use by the ACCELERATOR *p*540 sorter module. The number of empty carriers in the storage area varies as the system uses them.

SSH - standard sample handler (*i*2000)

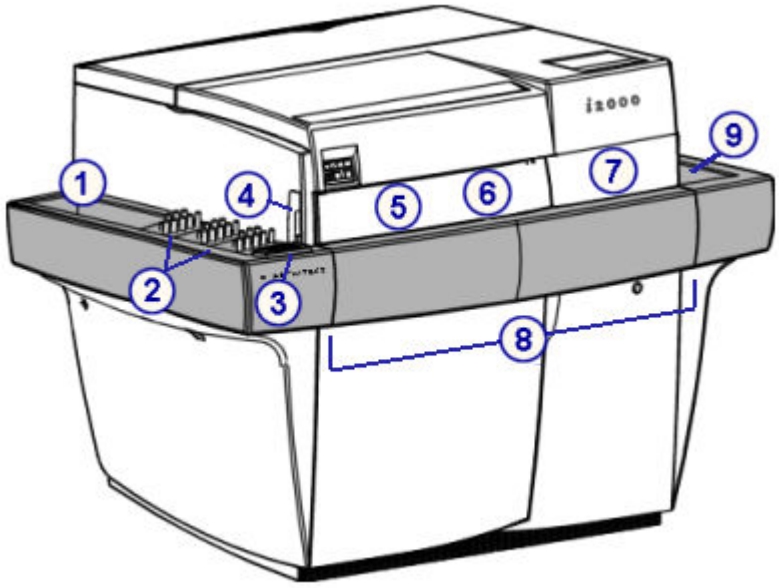
The SSH (standard sample handler) is a transport system used for loading calibrators, controls, and patient samples and presenting them to an *i*2000 processing module(s).

You place samples in sample carriers, and then load them onto the sample load queue. Bar code readers identify the samples, and then the sample handler transports the carriers to the processing queue for sample aspiration. Once aspiration is complete, the processing queue transports the carriers to the unload queue.

Depending on the number of processing modules, two SSH configurations are available:

- Single lane - provides sample handling for a single processing module. The maximum capacity is 125 samples (25 sample carriers, 5 samples per carrier).
- Double lane- provides sample handling for multi-module (up to four processing modules) systems. The maximum capacity is 250 samples (50 sample carriers, 5 samples per carrier).

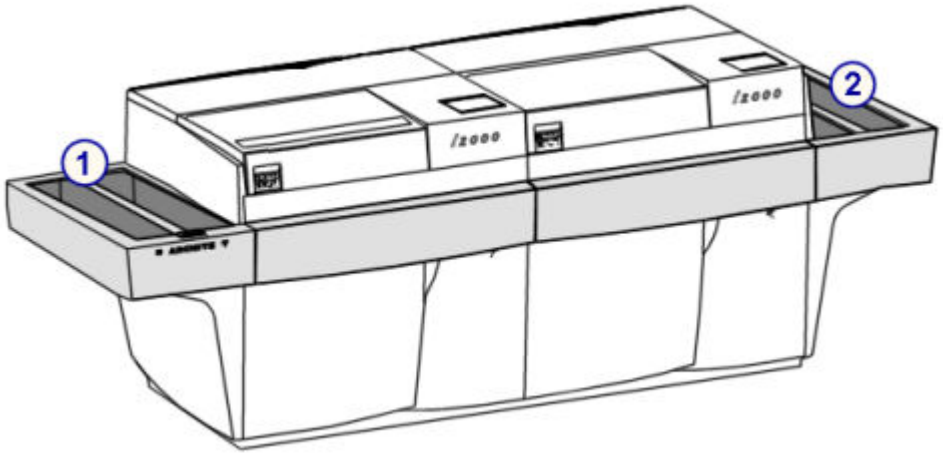
Figure 1.194: SSH components (single lane)



Legend:

1. Sample load queue (single lane): Transfers the sample carriers to the sample processing queue.
2. *Sample carriers*, page 1-209: Hold five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.
3. *SSH keypad*, page 1-181: Provides a local user interface for controlling the sample handler.
4. Sample load queue bar code reader: Reads the sample carrier ID, position, and sample ID.
5. Sample processing queue bar code reader: Reads the sample carrier ID and position. Does not read the sample ID.
6. Left processing queue access door: Provides access to the sample processing queue.
7. Right processing queue access door: Provides access to the sample processing queue.
8. Sample processing queue: Transfers the sample carrier to the sample pipettor. Once samples are aspirated, the sample carrier is transferred to another processing module or to the sample unload queue.
9. Sample unload queue (single lane): Provides the location where sample carriers are unloaded.

Figure 1.195: SSH configuration (double-lane)



Legend:

1. Sample load queue (double lane): Transfers the sample carriers to the sample processing queue.
2. Sample unload queue (double lane): Provides the location where sample carriers are unloaded.

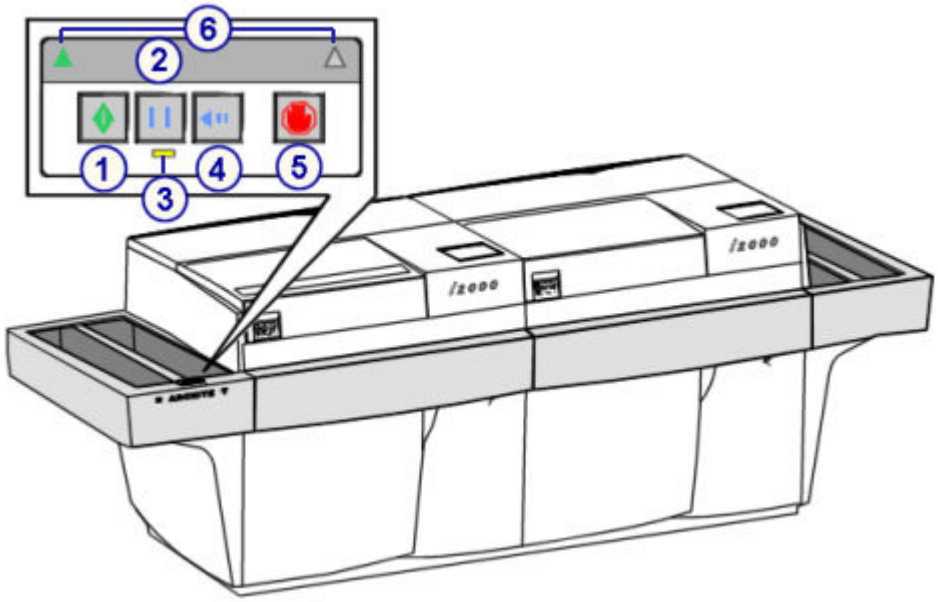
SSH - standard sample handler (*i*2000) topics include:

- *SSH keypad*, page 1-181

SSH keypad

The SSH (standard sample handler) keypad is an input device used by the operator to control the sample handler.

Figure 1.196: Components of the SSH keypad



Legend:

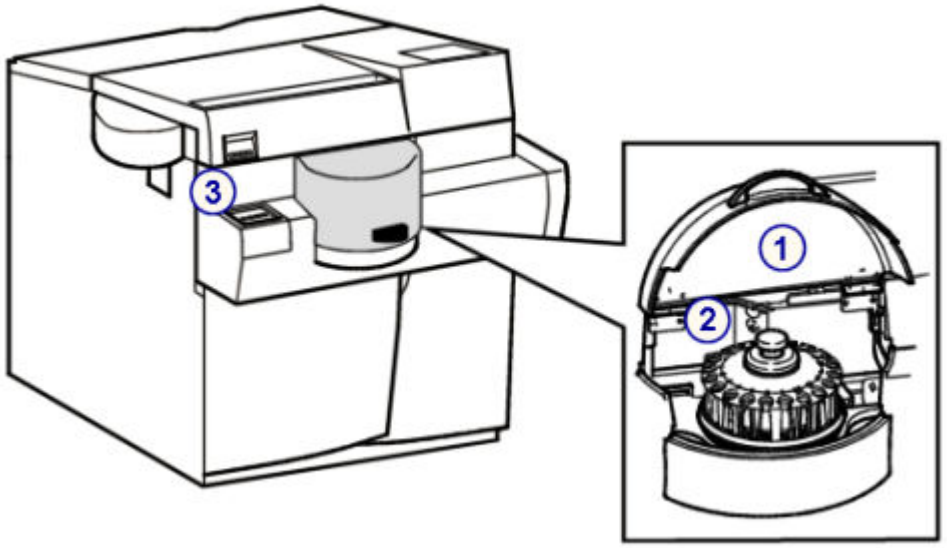
1. Run key: Resumes or begins the transport of samples that are located on the sample load queue.
2. Pause key: Pauses the sample load queue so you can load sample carriers or perform priority loading.
3. Pause indicator (yellow): Illuminates to indicate that the sample load queue is paused and ready for loading of sample carriers.
4. Reverse key: Reverses the sample load queue direction for ease of loading priority sample carriers. Functional only when the pause indicator is illuminated.
5. Stop key: Stops the sample handler, but does not shut down power to the sample handler.
6. Active lane indicators (green; active on double load queues only): Indicate the currently active lane. The lane indicator is used to facilitate priority loading on multi-module systems.

LAS carousel sample handler (*i*2000)

The LAS (laboratory automation system) carousel sample handler is a transport system used for loading calibrators, controls, and patient samples and presenting them to an *i*2000 processing module that is integrated with an LAS track system.

In the event of a track failure, the LAS carousel can be used as the primary area for loading samples. Under normal operating conditions when both the LAS track and LAS carousel are functional, samples on the carousel take priority over those on the LAS track.

Figure 1.197: LAS carousel sample handler (i2000)



Legend:

1. LAS carousel cover: Provides access to the LAS sample carousel.
2. *LAS sample carousel (i2000)*, page 1-211: Holds 20 primary tubes, aliquot tubes, or sample cups, which you may mix within the carousel.
3. *LAS carousel sample handler keypad (i2000)*, page 1-183: Provides a local user interface for the control of the LAS carousel.

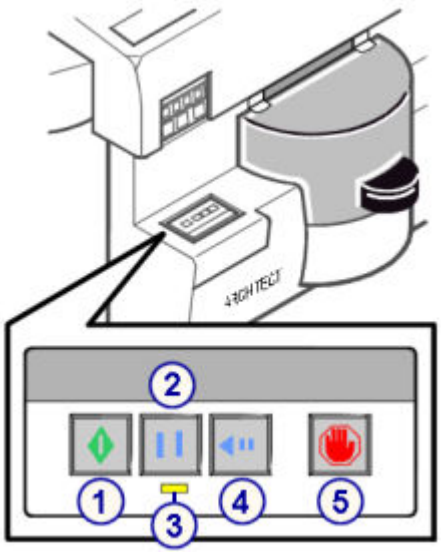
LAS carousel sample handler (*i*2000) topics include:

- *LAS carousel sample handler keypad (i2000)*, page 1-183

LAS carousel sample handler keypad (*i*2000)

The LAS (laboratory automation system) carousel sample handler keypad is an input device used by the operator to control the sample handler.

Figure 1.198: Components of the LAS carousel sample handler keypad (i2000)



Legend:

1. Run key: Resumes or begins the processing of samples located on the LAS carousel.
2. Pause key: Pauses the LAS carousel after completing aspiration of the current sample or current group of calibrators.
3. Pause indicator (yellow): Illuminates to indicate that the LAS carousel is paused and ready for loading or unloading samples.
4. Carousel advance key: Moves the LAS carousel clockwise five positions. Functional only when the pause indicator is illuminated.
5. Stop key: Stops the LAS carousel, but does not shut down the power to the carousel.

Required consumables

Consumables are replenishable items required to run assays on an ARCHITECT System. It is important to maintain adequate inventory of these consumables.

CAUTION: Many of the consumables used with the ARCHITECT System are mixtures of chemical and/or biological substances. Some of these mixtures may be hazardous to the user under certain conditions. Refer to warnings and/or instructions provided on product-specific labels, in the assay- or reagent-specific documentation (such as a package insert or reagent application sheet), and in product-specific Safety Data Sheets. For general information, see *Biological hazards*, page 8-5 and *Chemical hazards*, page 8-7.

Required consumables topics include:

ARCHITECT System consumables

Sample cups are used on every ARCHITECT System.

The sample cup is a 1400 µL disposable container that holds patient samples, calibrators, or controls. Volume graduation lines at 125 µL, 500 µL, and 1400 µL help you fill sample cups, eliminating the need for precision pipetting.

You can use sample cups in conjunction with sample tubes with bar code labels to facilitate positive sample identification.

Figure 1.199: Sample cups

ARCHITECT *c* System consumables

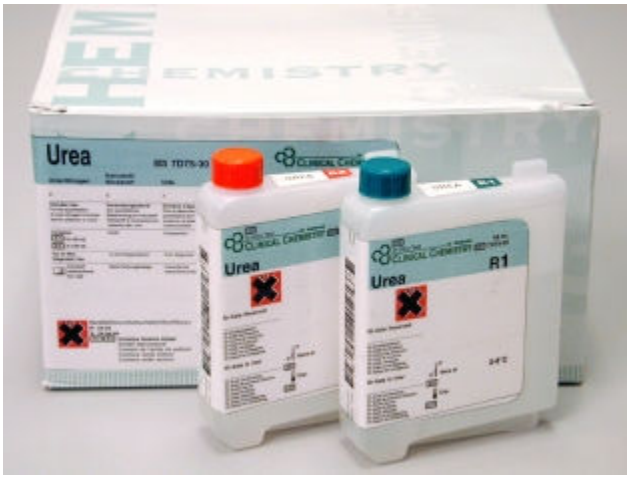
ARCHITECT *c* System consumable topics include:

Reagent kits and components (*c* System)

Reagent kits are one or more cartridges that contain all the necessary reagent components for an ARCHITECT *c* System photometric or potentiometric assay.

Reagent kits can be stored on board the system in accordance with assay-specific instructions. For details about onboard storage, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Figure 1.200: Reagent kits and components



Related information...

- *Reagent labels (c System)*, page 1-187

Reagent labels (*c* System)

Reagent labels are unique identifiers on Abbott pre-packaged reagents that contain a 2D (two-dimensional) bar code. Bar code information includes:

- Reagent name
- Reagent serial number
- Lot number
- Cartridge size
- Expiration date
- Onboard stability time

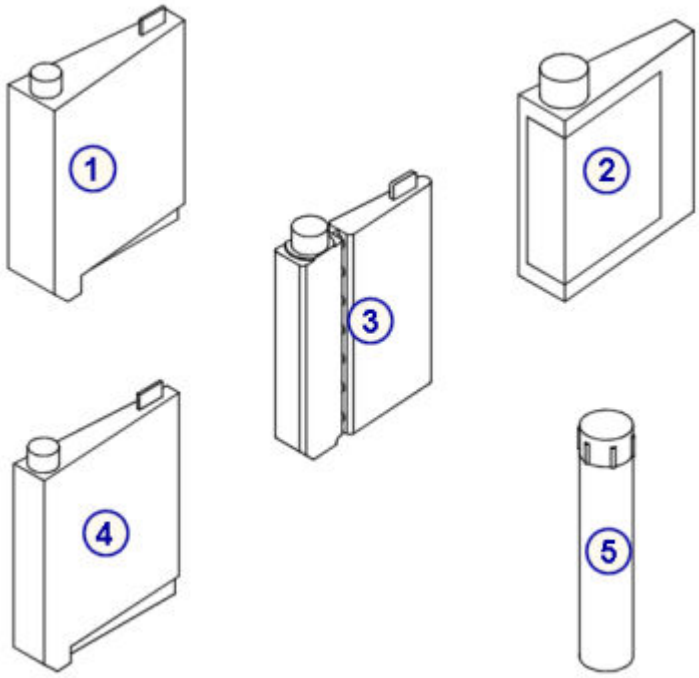
A reagent supply center indicator (R1 or R2) is at the top of the reagent label to aid in loading reagents.

Figure 1.201: Reagent labels

Reagent cartridges (*c* System)

Reagent cartridges are containers used in the reagent supply centers to hold the reagents used during operation. They may also hold supplies of diluted wash solutions, diluents, and Water Bath Additive.

Figure 1.202: Reagent cartridges



Legend:

1. Large, 90 mL cartridge: White or natural.
2. 100 mL cartridge: Brown (only available with some prepackaged reagents and cannot be ordered separately).
3. 20 mL cartridge: White
4. Small, 55 mL cartridge: White or natural.
5. 20 mL bottle: Brown (only available with some prepackaged reagents and cannot be ordered separately).

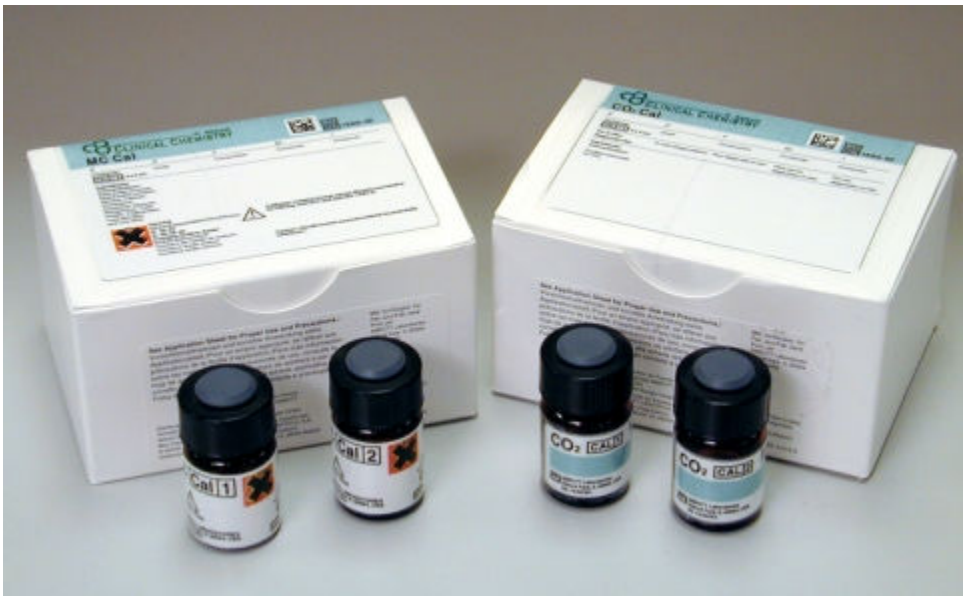
Related information...

- *Reagent cartridge adapter (c4000)*, page 1-212
- *Reagent cartridge adapters (c8000)*, page 1-215
- *Reagent cartridge adapters (c16000)*, page 1-217

Calibrators (*c* System)

Calibrators are samples that contain known concentrations of analyte. A variety of calibrators (single and multiconstituent) are used on the system. See the Abbott Clinical Chemistry package insert or reagent application sheet to identify the calibrators used for each assay.

Figure 1.203: Calibrators



ICT module (*c* System)

The ICT module is an integrated chip located within the ICT unit that contains the Na+, K+, Cl-, and reference electrodes. The warranty for the ICT module is 20,000 samples or three months post-installation, whichever comes first.

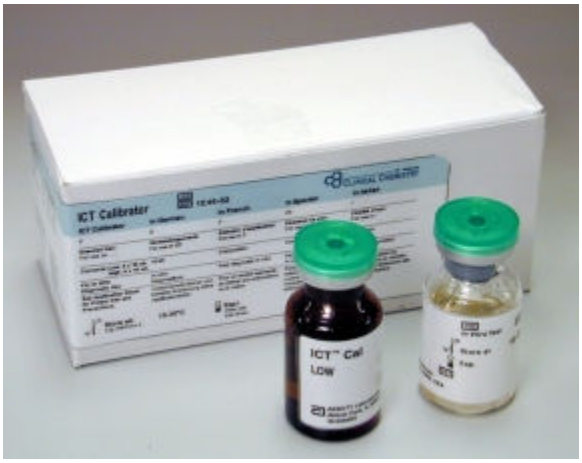
Figure 1.204: ICT module

ICT calibrators (*c* System)

ICT calibrators (7% bovine serum albumin base) and ICT urine calibrators (aqueous base) are samples with known values used to calibrate the ICT module. Each set contains a low and high level.

See the Abbott Clinical Chemistry package insert or reagent application sheet for information on calibration.

Figure 1.205: ICT calibrators



ICT cleaning fluid (*c* System)

ICT Cleaning Fluid is a cleaning agent prepared by the operator and used during daily maintenance procedures to clean the ICT module.

The ICT Cleaning Fluid is supplied as a two-part product, consisting of a liquid and a powder.

To prepare ICT cleaning fluid, see *Prepare ICT cleaning fluid (c System)*, page 9-21.

Figure 1.206: ICT cleaning fluid

Bulk solutions (*c* System)

Bulk solutions are liquid solutions provided in large quantities that are used in sample processing. Three bulk solutions are loaded onto weighted platforms behind the supply center door of the processing module. These include ICT reference solution (*c* System), Alkaline Wash (*c* System), and Acid Wash (*c* System).

NOTE: For specific information on the storage of the bulk solutions, see the labels on the bulk solution bottles.

Bulk solutions (*c* System) topics include:

- *ICT reference solution (c System)*, page 1-191
- *Alkaline wash (c System)*, page 1-192
- *Acid wash (c System)*, page 1-193

ICT reference solution (*c* System)

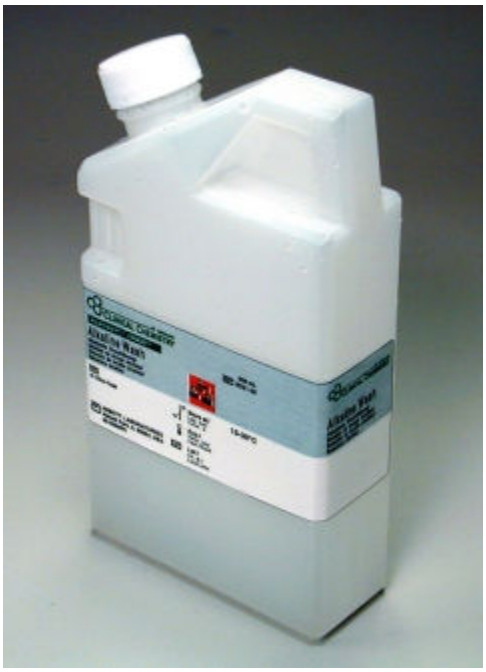
ICT Reference Solution (2000 mL bottle) is a mid-concentration standard. It is aspirated and analyzed by the ICT module before and after each sample to provide a reference potential used to calculate results.

Figure 1.207: Reference solution

Alkaline wash (*c* System)

Alkaline Wash (500 mL bottle) is an alkaline wash solution used by the cuvette washer to clean the cuvettes after sample analysis.

Figure 1.208: Alkaline wash



Acid wash (*c* System)

Acid Wash (500 mL bottle) is an acidic wash solution used by the cuvette washer to clean the cuvettes after sample analysis.

A dilution of the acid wash solution may also be used for probe washing. See *Onboard solutions (c System)*, page 1-194.

Figure 1.209: Acid wash

Onboard solutions (*c* System)

Onboard solutions are detergents used to wash the sample and reagent probes, mixers, and reaction cuvettes. These solutions are used during system operation when additional probe or cuvette washes may be required to prevent assay-to-assay interference (SmartWash feature). They may also be used during some maintenance procedures. Onboard solutions include:

- 0.5% acid wash solution (a 0.5% dilution of Acid Wash bulk solution)
- Detergent A
- 10% detergent B solution (a 10% dilution of Detergent B)

Figure 1.210: Onboard solutions

Water bath additive (*c* System)

Water Bath Additive is an antimicrobial solution used to reduce microbial contamination in the water bath. A supply of water bath additive is placed in one of the reagent supply centers for the automated daily maintenance procedure. During the procedure, the solution is dispensed into the water bath.

Figure 1.211: Water bath additive

Solutions used in daily operations (*c*4000)

The following tables provide a quick reference by describing the purpose, onboard stability, placement, and preparation information for *c*4000 solutions used in daily operation.

Table 1.1: Bulk solutions (c4000)

Solution	Purpose	Onboard stability	Placement
ICT reference solution	ICT analysis and daily maintenance	Expiration date on bottle	Weight platform in the supply center
Alkaline wash	Wash cuvettes	Expiration date on bottle	Weight platform in the supply center
Acid wash	Wash cuvettes	Expiration date on bottle	Weight platform in the supply center

Table 1.2: Sample wash solutions (c4000)

Solution	Purpose	Onboard stability	Placement
0.5% Acid wash solution	Wash sample probe	1 day	Position 1 on the sample wash solution carrier
Detergent A	Wash sample probe	1 day	Position 2 on the sample wash solution carrier
ICT cleaning fluid	6070 Daily Maintenance procedure	NA	Position 3 on the sample wash solution carrier

Table 1.3: Reagent supply center solutions (c4000)

Solution	Purpose	Onboard stability	Placement
Detergent A	Wash reagent probes	Expiration date on bottle	Reagent supply center position A1 (as configured on the Supply status screen)
10% Detergent B	Wash reagent probes	14 days	Reagent supply center position A2 (as configured on the Supply status screen)
0.5% Acid wash solution	Wash reagent probes	30 days	Reagent supply center position A3 (as configured on the Supply status screen)
ICT sample diluent	ICT analysis	30 days	Reagent supply center, any position
Water bath additive	6070 Daily Maintenance procedure	Expiration date on bottle	Reagent supply center position A4 (as configured in 6070 Daily Maintenance procedure)
Saline	Sample dilution	Expiration date on bottle	Reagent supply center (as configured on the Reagent status screen)

Table 1.4: Solution preparation (c4000)

Solution	Preparation overview	Stability
0.5% Acid Wash See *Prepare 0.5% acid wash solution (c System)*, page 5-59.	Mix together: • 5 mL of Acid Wash • 995 mL of purified water • Pour into appropriate container	Same as the expiration of the Acid Wash bulk solution
10% detergent B See *Prepare 10% detergent B solution (c System)*, page 5-61.	Mix together: • 50 mL of Detergent B • 450 mL of purified water • Pour into appropriate container	14 days
ICT Cleaning Fluid See *Prepare ICT cleaning fluid (c System)*, page 9-21.	• Add 12 mL of ICT Cleaning Fluid to the ICT lyophilized cleaning solution bottle • Mix gently by inversion	14 days at 2°C to 8°C after preparation

Solutions used in daily operations (*c*8000/*c*16000)

The following tables provide a quick reference by describing the purpose, onboard stability, placement, and preparation information for *c*8000/*c*16000 solutions used in daily operation.

Table 1.5: Bulk solutions (c8000/c16000)

Solution	Purpose	Onboard stability	Placement
ICT reference solution	ICT analysis and daily maintenance	Expiration date on bottle	Weight platform in the supply center
Alkaline wash	Wash cuvettes	Expiration date on bottle	Weight platform in the supply center
Acid wash	Wash cuvettes	Expiration date on bottle	Weight platform in the supply center

Table 1.6: Sample carousel solutions (c8000/c16000)

Solution	Purpose	Onboard stability	Placement
0.5% Acid wash solution	Wash sample probe	1 day	Position 31 on the sample carousel
Detergent A	Wash sample probe	1 day	Position 32 on the sample carousel
ICT cleaning fluid	6070 Daily Maintenance procedure	NA	Position 1 on the sample carousel (as directed in 6070 Daily Maintenance procedure)

Table 1.7: Reagent supply center solutions (c8000/c16000)

Solution	Purpose	Onboard stability	Placement	
			*c*8000	*c*16000
Detergent A	Wash reagent probes	Expiration date on bottle	Reagent supply centers 1 and 2: D1, E1, or E2 (as configured on the Supply status screen)	Reagent supply centers 1 and 2 (outer and inner carousels); C1 and D1 (as configured on the Supply status screen)
10% Detergent B	Wash reagent probes	14 days	Reagent supply centers 1 and 2: D1, E1, or E2 (as configured on the Supply status screen)	Reagent supply centers 1 and 2 (outer and inner carousels); C2 and D2 (as configured on the Supply status screen)
0.5% Acid wash solution	Wash reagent probes	30 days	Reagent supply centers 1 and 2: D1, E1, or E2 (as configured on the Supply status screen)	Reagent supply centers 1 and 2 (outer and inner carousels); C3 and D3 (as configured on the Supply status screen)
ICT sample diluent	ICT analysis	30 days	Reagent supply center 1, any position	Reagent supply center 1 (outer carousel only), any position
Water bath additive	6070 Daily Maintenance procedure	Expiration date on bottle	Reagent supply center 2, position A1 (as directed in 6070 Daily Maintenance procedure)	Reagent supply center 1, position A1 (as directed in 6070 Daily Maintenance procedure)
Saline	Sample dilution	Expiration date on bottle	Reagent supply center (as configured on Reagent status screen)	Reagent supply center 1 (outer and inner carousels; as configured on Reagent status screen)

Table 1.8: Solution preparation (c8000/c16000)

Solution	Preparation overview	Stability
0.5% Acid Wash See *Prepare 0.5% acid wash solution (c System)*, page 5-59.	Mix together: • 5 mL of Acid Wash • 995 mL of purified water • Pour into appropriate container	Same as the expiration of the Acid Wash bulk solution

Solution	Preparation overview	Stability
10% detergent B See *Prepare 10% detergent B solution (c System)*, page 5-61.	Mix together: • 50 mL of Detergent B • 450 mL of purified water • Pour into appropriate container	14 days
ICT Cleaning Fluid See *Prepare ICT cleaning fluid (c System)*, page 9-21.	• Add 12 mL of ICT Cleaning Fluid to the ICT lyophilized cleaning solution bottle • Mix gently by inversion	14 days at 2°C to 8°C after preparation

ARCHITECT *i* System consumables

ARCHITECT *i* System consumables topics include:

- *Reagent kits and components (i System)*, page 1-199
- *Septums and replacement caps (i System)*, page 1-201
- *Single constituent controls (i System)*, page 1-202
- *Multiconstituent controls (i System)*, page 1-202
- *Calibrators (i System)*, page 1-203
- *Bulk solutions (i System)*, page 1-203
- *Probe conditioning solution (i System)*, page 1-207
- *Reaction vessels (i System)*, page 1-207

Reagent kits and components (*i* System)

Reagent kits are two or more bottles that contain all the necessary reagent components for an ARCHITECT *i* System assay. Based on the size, reagent kits include:

- 100 test kits
- 500 test kits

NOTE: 500 test reagent kits can only be used on the *i*2000/*i*2000SR systems.

Reagent kits can be stored on board the system in accordance with assay-specific instructions. For details about onboard storage, see the assay-specific package insert.

Figure 1.212: Reagent kit and components

Related information…

- *Reagent labels (i System)*, page 1-200

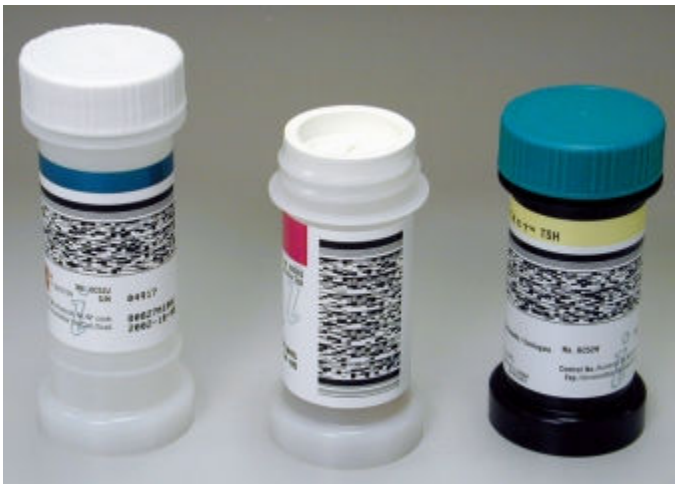
Reagent labels (*i* System)

Reagent labels are unique identifiers on Abbott pre-packaged reagents that contain 2D (two-dimensional) bar codes. Bar code information includes:

- Assay name
- Reagent serial number
- Lot number
- Test size (number of tests per kit)
- Expiration date
- Onboard stability time
- Master calibration curve information for assays that use the 2-point adjustment calibration method

Color bands, which match the reagent carousel position, are located at the top of the reagent label to aid in loading reagents.

Figure 1.213: Reagent labels

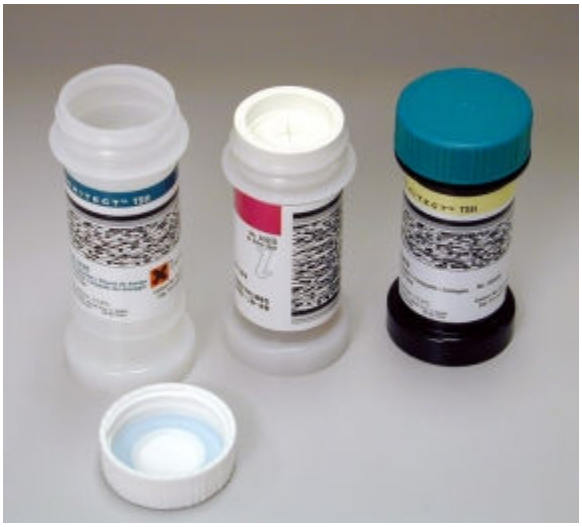


Septums and replacement caps (*i* System)

Septums are membranes with slits that are used to prevent reagent evaporation and contamination, and to ensure reagent integrity. You place septums on all open reagent bottles prior to loading the bottle into the processing module.

Replacement caps are teal-colored caps used to visually indicate that reagent bottles have been opened. You place replacement caps on open reagent bottles with the septums in place when you remove reagent bottles from the processing module. You can then store the bottles upright in refrigerated storage off the system.

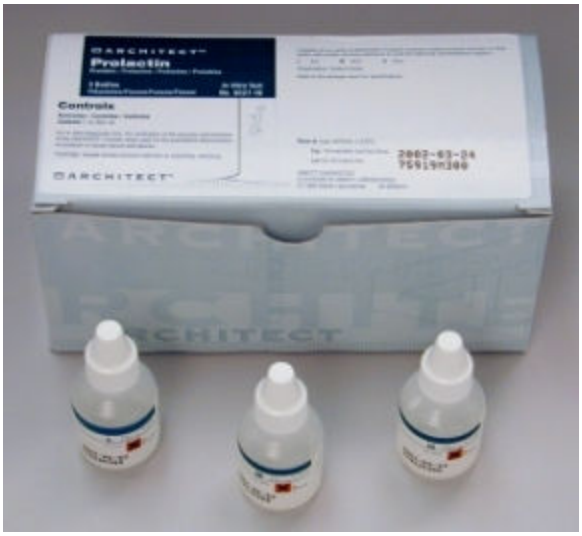
Figure 1.214: Septums and replacement caps



Single constituent controls (*i* System)

Single constituent controls are assay-specific samples that contain known concentrations of analyte. They are typically labeled L, M, and H, or Pos and Neg.

Figure 1.215: Single constituent controls

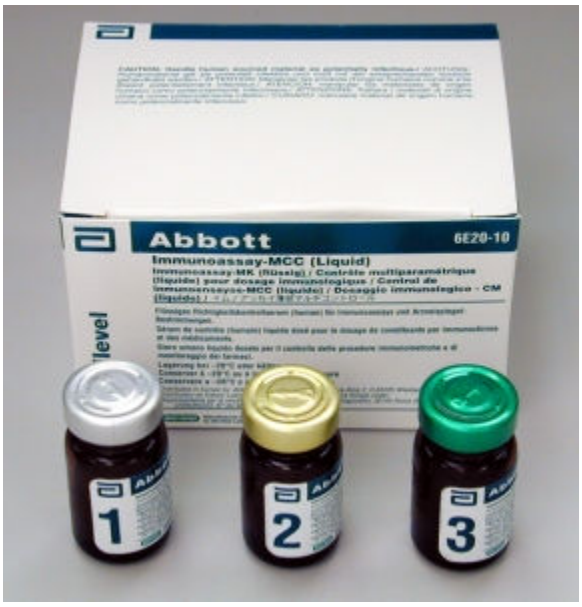


Multiconstituent controls (*i* System)

Abbott multiconstituent controls are samples that contain multiple analytes. Two or three levels of control are available to allow performance monitoring within a clinical range:

- Immunoassay-MCC (Liquid) - contains immunoassay markers (including some cancer assay markers)
- Tumor Marker-MCC (Lyophilized) - contains all the cancer markers available to an ARCHITECT *i* System

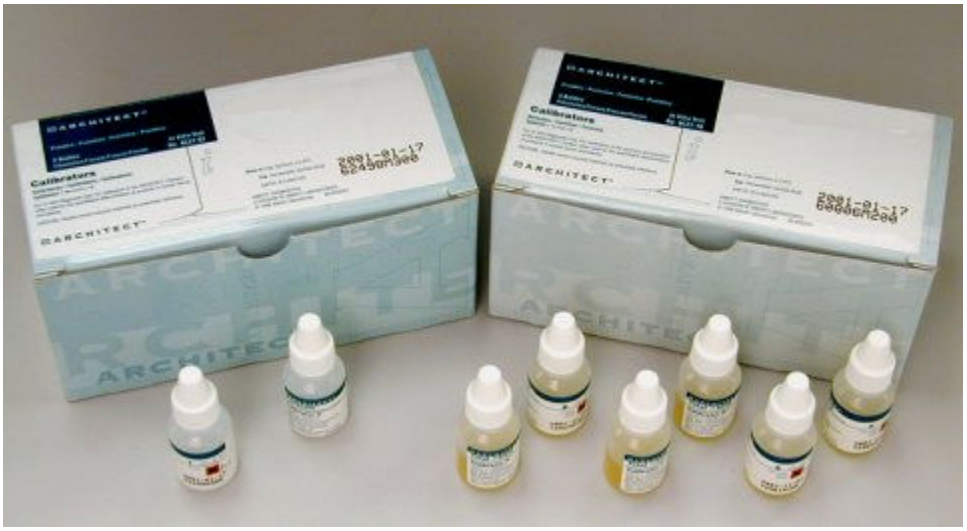
Figure 1.216: Multiconstituent controls



Calibrators (*i* System)

Calibrators are samples that contain known concentrations of analyte. Single analyte calibrators are used on an *i* System. See the assay-specific package insert to identify the calibrators used for each assay.

Figure 1.217: Calibrators



Bulk solutions (*i* System)

Bulk solutions are liquid solutions provided in large quantities that are used in sample processing. Three bulk solutions are loaded into the supply and waste center of an ARCHITECT *i* System processing module.

NOTE: For information specific to storing bulk solutions, see the labels on the bulk solution bottles.

Bulk solutions (*i* System) topics include:

- *Pre-trigger solution (i System)*, page 1-204
- *Trigger solution (i System)*, page 1-204
- *Concentrated wash buffer (i System)*, page 1-205

Pre-trigger solution (*i* System)

Pre-Trigger Solution is a hydrogen peroxide solution used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of Trigger Solution. The pre-trigger bottle is black.

IMPORTANT: Onboard stability is ≤ 28 days. Remove the solution and discard once onboard stability is exceeded.

Figure 1.218: Pre-trigger solution

Trigger solution (*i* System)

Trigger Solution is a sodium hydroxide solution used to produce the chemiluminescent reaction that provides the final read. The trigger bottle is natural.

IMPORTANT: Onboard stability is ≤ 28 days. Some assays require a shorter stability period. Refer to your *i* System assay package inserts for more information. Remove the solution and discard once onboard stability is exceeded.

Figure 1.219: Trigger solution

Concentrated wash buffer (*i* System)

Concentrated Wash Buffer is a solution containing phosphate buffered saline. Wash buffer is used throughout assay processing and is pumped to the sample and reagent pipetting assemblies and the two wash zones.

A reservoir is kept on board the system in the supply and waste center and can be replenished while the system is running.

Concentrated wash buffer is supplied in a 1 L bottle that must be diluted prior to use or in a 10 L cubitainer for use with the ARCHITECT ARM (Automatic Reconstitution Module) accessory.

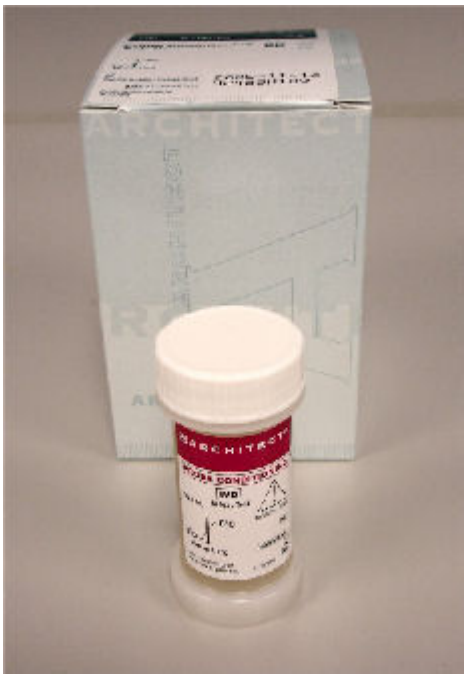
Figure 1.220: Concentrated wash buffer (1 L bottle)

Figure 1.221: Concentrated wash buffer (10 L cubitainer)

Probe conditioning solution (*i* System)

Probe conditioning solution is a solution containing recalcified human plasma. Some maintenance procedures require this solution to condition the sample pipettor probe after cleaning to prevent non-specific binding of analytes in the probe.

Figure 1.222: Probe conditioning solution



Reaction vessels (*i* System)

RVs (reaction vessels) are disposable containers in which the CMIA reaction takes place. RVs are stored in bulk in the RV hopper and are automatically loaded into the process path as needed. You can add RVs to the hopper at any time.

Figure 1.223: Reaction vessel

Required accessories

Accessories are components that are required for sample processing on an ARCHITECT System. It is important to maintain a sufficient supply of these accessories.

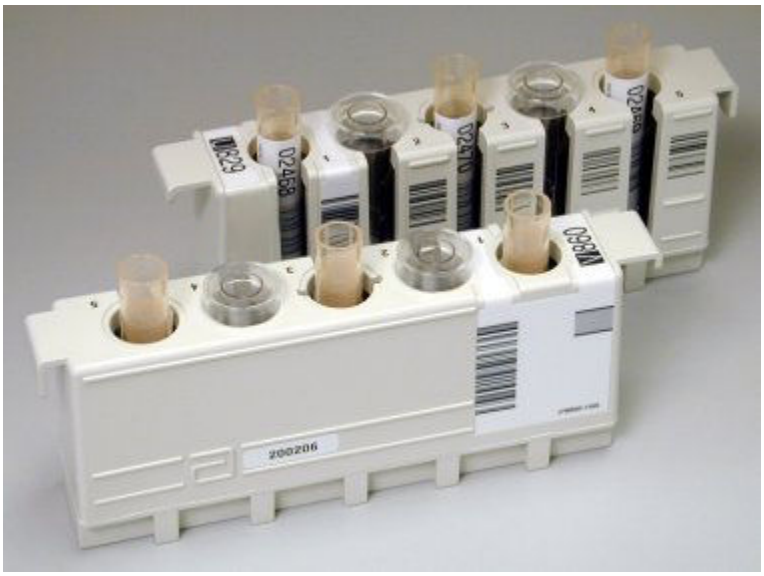
Required accessory topics include:

Sample carriers

Sample carriers are racks used on the RSH (robotic sample handler) or SSH (standard sample handler) to transport patient samples, calibrators, or controls to the sample pipettor(s). Sample carriers are bar coded for identification and hold five primary tubes, aliquot tubes, or sample cups, which you may mix within a sample carrier.

Sample carriers have a sample gauge label to verify the sample volume in a primary or aliquot tube. See *Sample gauge label*, page 5-244.

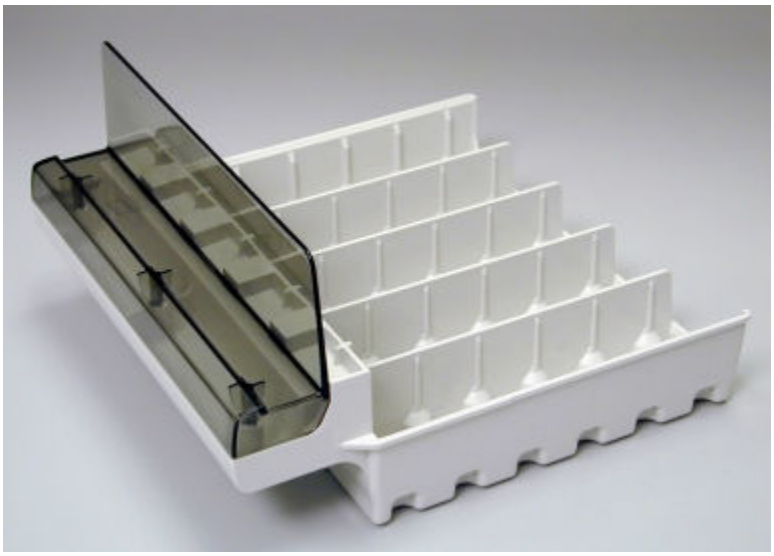
Figure 1.224: Sample carriers



Carrier trays (RSH - except for *c*4000/*i*1000SR/*ci*4100)

Carrier trays are accessories used to hold sample carriers for loading on the RSH (robotic sample handler). Each tray holds up to five sample carriers.

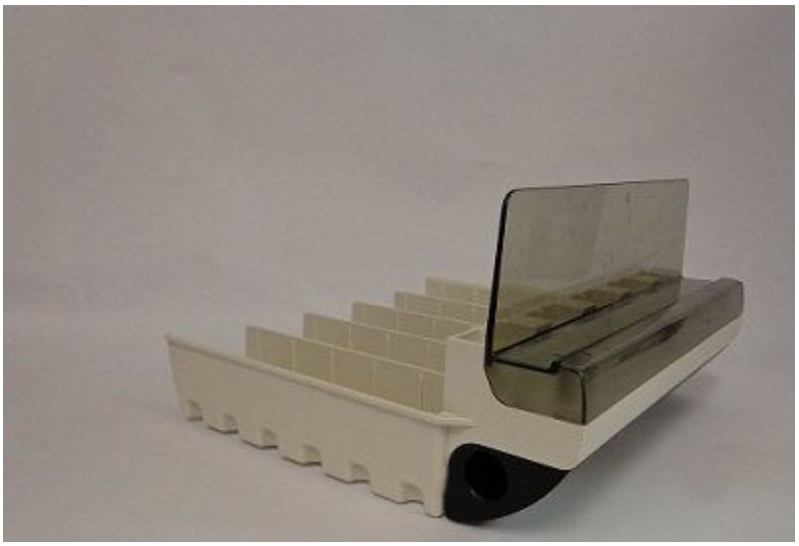
Figure 1.225: Carrier trays (RSH - except for c4000/i1000SR/ci4100)



RSHx trays

RSHx trays are accessories used to hold sample carriers in the RSH routine bays reserved for use by the RSH Extension (*c*8000, *c*16000, *ci*8200, and *ci*16200). The trays are specially designed to remain in the designated RSH routine bays.

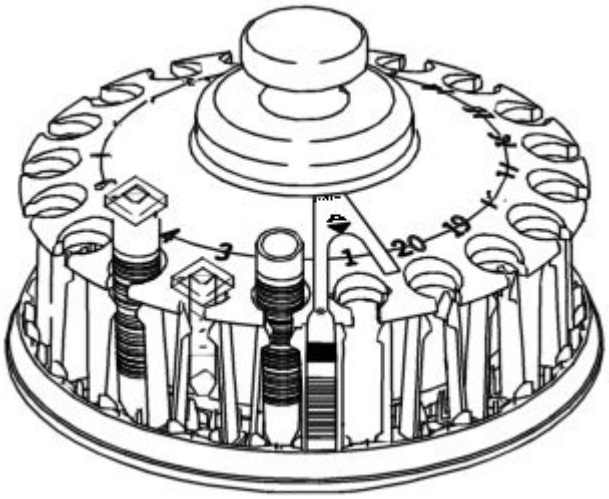
Figure 1.226: RSHx tray



LAS sample carousel (*i*2000)

LAS sample carousels are carousels used on the LAS (laboratory automation system) carousel sample handler to transport patient samples, calibrators, or controls to the sample pipettor. LAS sample carousels are bar coded for identification and hold 20 primary tubes, aliquot tubes, or sample cups, which you may mix within the carousel.

Figure 1.227: LAS sample carousel



Reagent segments (*c*4000)

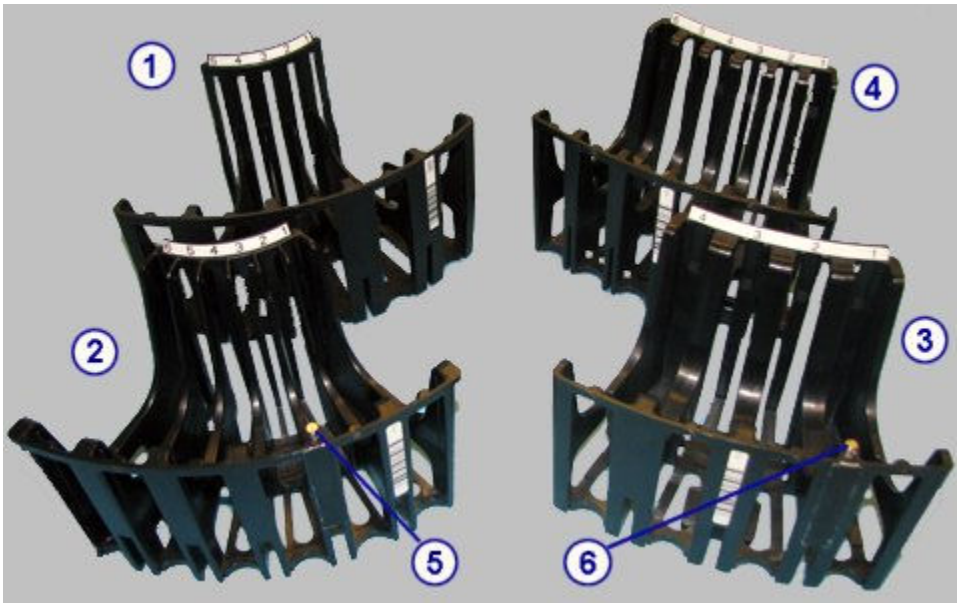
Reagent segments are sections of each reagent supply center that hold reagents and diluents.

Some segments have a target for pipettor calibration used for aligning sample or reagent pipettors when necessary.

Reagent segments are configured as follows:

- Inner carousel consists of 5 segments. Each segment may be inserted in any location in the inner reagent carousel.
- Outer carousel consists of 10 segments. Each segment may be inserted in any location in the outer reagent carousel.

Figure 1.228: Reagent segments (c4000)



Legend:

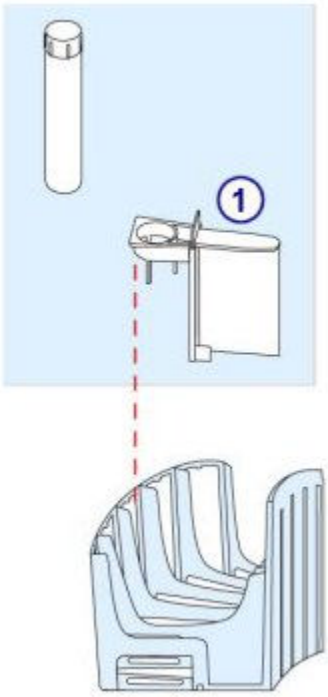
1. Inner reagent segment, 5 positions.
2. Inner reagent segment, 6 positions.
3. Outer reagent segment, 4 positions.
4. Outer reagent segment, 6 positions.
5. Inner reagent segment calibration target.
6. Outer reagent segment calibration target.

Reagent cartridge adapter (*c*4000)

The 20 mL reagent cartridge adapters are positioners used to ensure correct alignment of the 20 mL (bottle) reagent cartridges placed in the reagent supply center outer carousel.

NOTE: The 20 mL (bottle) reagent cartridge adapter is placed in the outer carousel only.

Figure 1.229: Reagent cartridge adapter (c4000)



Legend:

1. 20 mL reagent cartridge adapter: Used with bottle (20 mL) reagent cartridges (outer carousel)

Reagent segments (*c*8000)

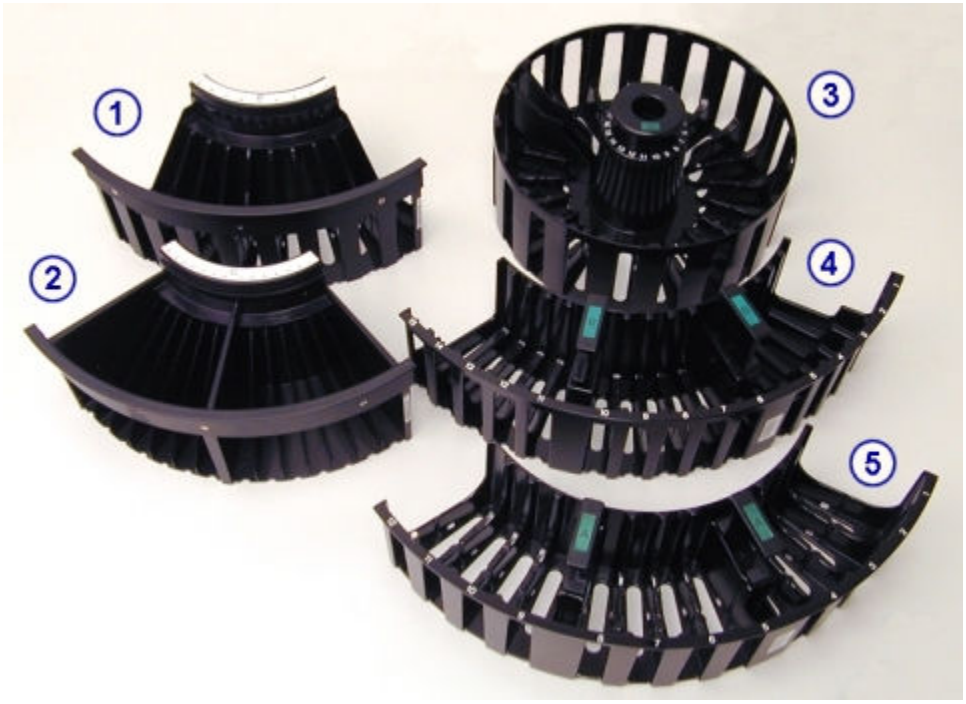
Reagent segments are sections of each reagent supply center that hold reagents and diluents.

Some segments have a target for pipettor calibration used for aligning sample or reagent pipettors when necessary.

Reagent segments are configured for reagent supply centers 1 and 2 as follows:

- Reagent supply center 1 consists of three outer segments and one inner segment.
- Reagent supply center 2 consists of four outer segments.

Figure 1.230: Reagent segments (c8000)



Legend:

1. R2 segment, 9 position: May be used in segments B, C, or D of reagent supply center 2.
2. R2 segment, 14 position:
   - With pipettor calibration target: May be used only in segment A of reagent supply center 2.
   - Without pipettor calibration target: May be used in segments B, C, or D of reagent supply center 2.
3. R1 inner segment, 20 position, with pipettor calibration target: May be used only in segment D of reagent supply center 1.
4. R1 outer segment, 15 position: May be used in segments A, B, or C of reagent supply center 1.
5. R1 outer segment, 12 position:
   - With pipettor calibration target: May be used only in segment A of reagent supply center 1.
   - Without pipettor calibration target: May be used in segments B or C of reagent supply center 1.

Related information…

- *Reagent cartridge adapters (c8000)*, page 1-215

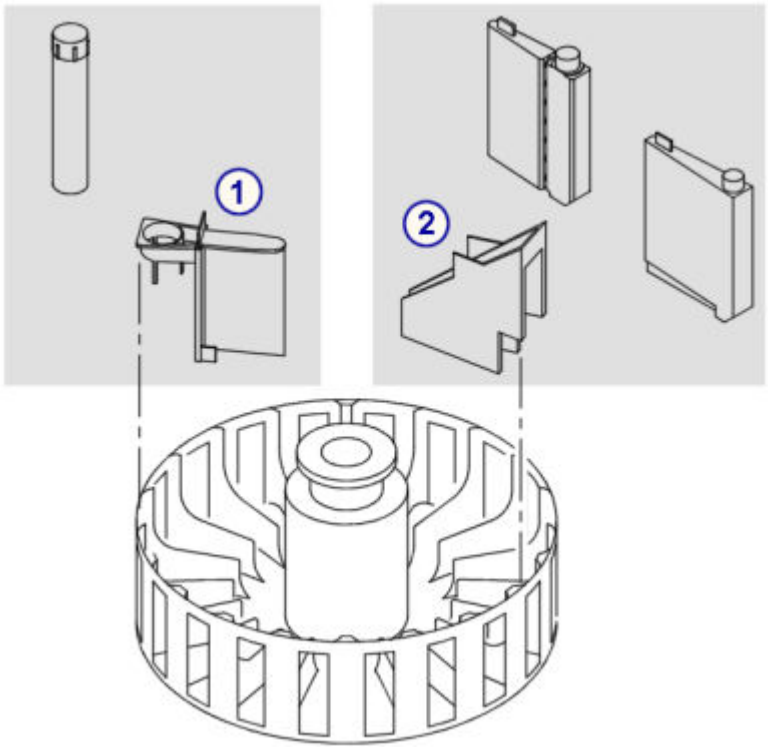
Reagent cartridge adapters (*c*8000)

Reagent cartridge adapters are positioners used to ensure correct alignment of the small (55 mL cartridge), 20 mL (cartridge), and 20 mL (bottle) reagent cartridges placed in reagent supply centers 1 and 2.

Reagent cartridge adapters come in two sizes and are configured for the following reagent cartridges:

- Small reagent cartridge adapter - used with small (55 mL cartridge) and 20 mL (cartridge) reagent cartridge
- 20 mL reagent cartridge adapter - used with the 20 mL (bottle) reagent cartridge

Figure 1.231: Reagent cartridge adapters (c8000)



Legend:

1. 20 mL reagent adapter: Used with bottle (20 mL) reagent cartridges
2. Small reagent cartridge adapter: Used with small (55 mL) and (20 mL) reagent cartridges

The following tables show possible configurations of segments, cartridges, and adapters in R1 and R2 reagent supply centers.

Table 1.9: Reagent supply center 1 (R1) reagent cartridge configurations (c8000)

Segments	Positions	Cartridges	Adapters
A (outer with pipettor calibration target)	12 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No
A, B, and C (outer)	12 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No
	15 positions (17 mm)	Small (55 mL cartridge)	No
		20 mL (cartridge)	No
D (inner with pipettor calibration target)	20 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No

Table 1.10: Reagent supply center 2 (R2) reagent cartridge configurations (c8000)

Segments	Positions	Cartridges	Adapters
A (with pipettor calibration target)	14 positions (17 mm)	Small (55 mL cartridge)	No
		20 mL (cartridge)	No
B, C, and D	9 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No
	14 positions (17 mm)	Small (55 mL cartridge)	No
		20 mL (cartridge)	No

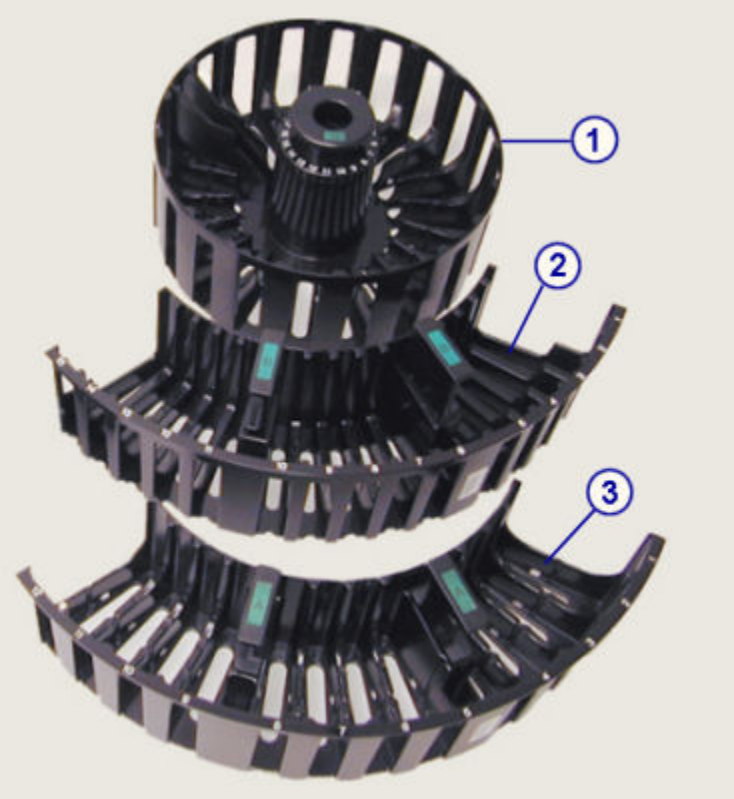
Reagent segments (*c*16000)

Reagent segments are sections of each reagent supply center that hold reagents and diluents.

Some segments have a target for pipettor calibration used for aligning sample or reagent pipettors when necessary.

Reagent supply centers consist of three outer segments and one inner segment.

Figure 1.232: Reagent segments (c16000)



Legend:

1. Inner segment, 20 position, with pipettor calibration target: May be used only in segment D of reagent supply centers 1 and 2.
2. Outer segment, 15 position: May be used in segments A, B, or C of reagent supply centers 1 and 2.
3. Outer segment, 12 position:
   - With pipettor calibration target: May be used only in segment A of reagent supply centers 1 and 2.
   - Without pipettor calibration target: May be used in segments A, B or C of reagent supply centers 1 and 2.

Related information...

- *Reagent cartridge adapters (c16000)*, page 1-217

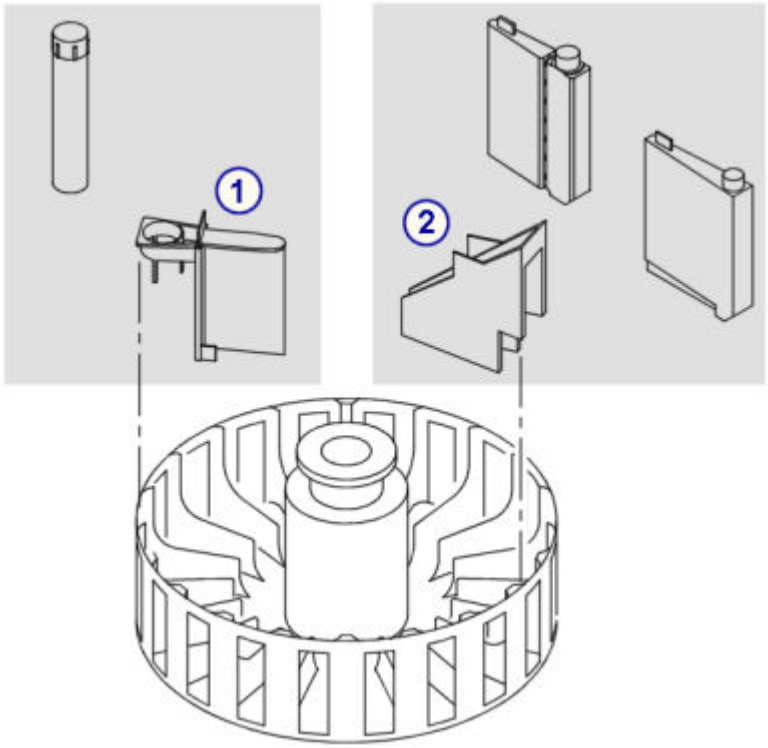
Reagent cartridge adapters (*c*16000)

Reagent cartridge adapters are positioners used to ensure correct alignment of the small (55 mL cartridge), 20 mL (cartridge), and 20 mL (bottle) reagent cartridges placed in reagent supply centers 1 and 2.

Reagent cartridge adapters come in two sizes and are configured for the following reagent cartridges:

- Small reagent cartridge adapter - used with small (55 mL cartridge) and 20 mL (cartridge) reagent cartridge
- 20 mL reagent cartridge adapter - used with the 20 mL (bottle) reagent cartridge

Figure 1.233: Reagent cartridge adapters (c16000)



Legend:

1. 20 mL reagent adapter: Used with bottle (20 mL) reagent cartridges
2. Small reagent cartridge adapter: Used with small (55 mL) and (20 mL) reagent cartridges

The following table shows possible configurations of segments, cartridges, and adapters in R1 and R2 reagent supply centers.

Table 1.11: Reagent cartridge configurations (c16000)

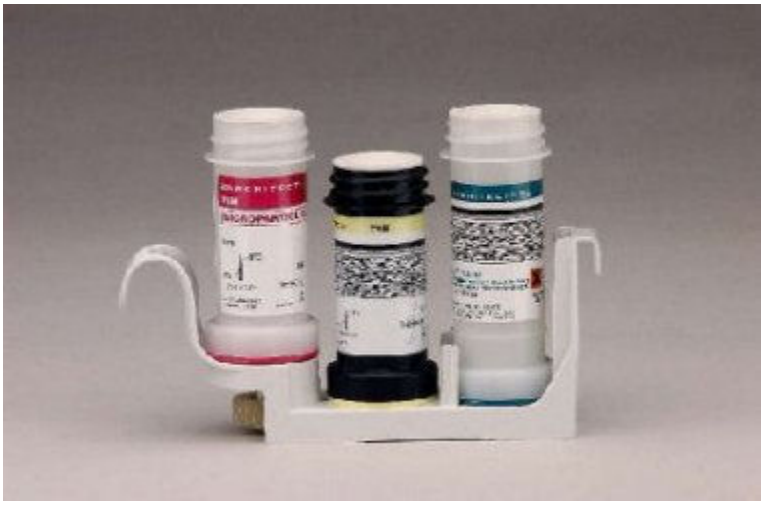
Segments	Positions	Cartridges	Adapters
A (outer with pipettor calibration target)	12 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter

Segments	Positions	Cartridges	Adapters
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No
B and C (outer)	12 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No
	15 positions (17 mm)	Small (55 mL cartridge)	No
		20 mL (cartridge)	No
D (inner with pipettor calibration target)	20 positions (25 mm)	Large (90 mL cartridge)	No
		Small (55 mL cartridge)	Small reagent cartridge adapter
		20 mL (cartridge)	Small reagent cartridge adapter
		20 mL (bottle)	20 mL reagent cartridge adapter
		100 mL (cartridge)	No

Reagent carriers (*i*1000SR)

Reagent carriers are racks used on the RSH (robotic sample handler) to transport reagent kits from the RSH section to the reagent carousel. The reagent carriers hold up to three reagent bottles. Two reagent carriers are required for assays that have more than three reagent bottles.

Figure 1.234: Reagent carrier (i1000SR)



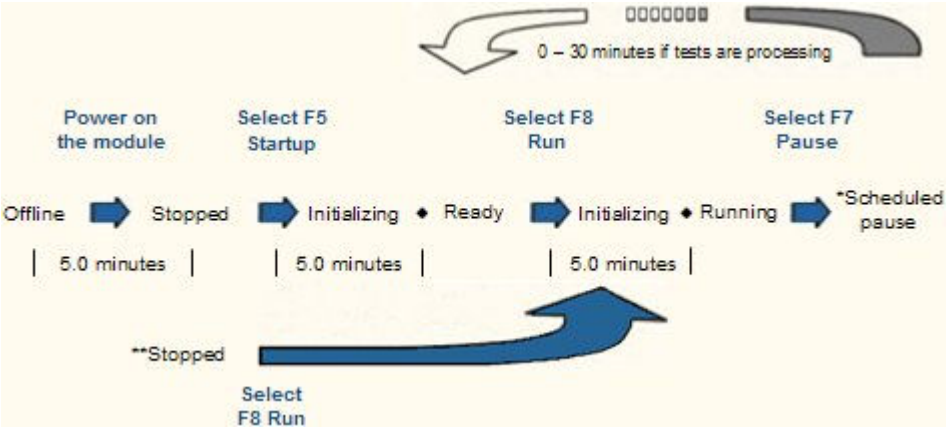
System statuses

System status refers to the operational modes of the ARCHITECT System. Key information displays on the Snapshot screen, providing an immediate overview of your system.

The processing modules and sample handlers have several status types. The transition times are approximate and may vary between the processing module and sample handler.

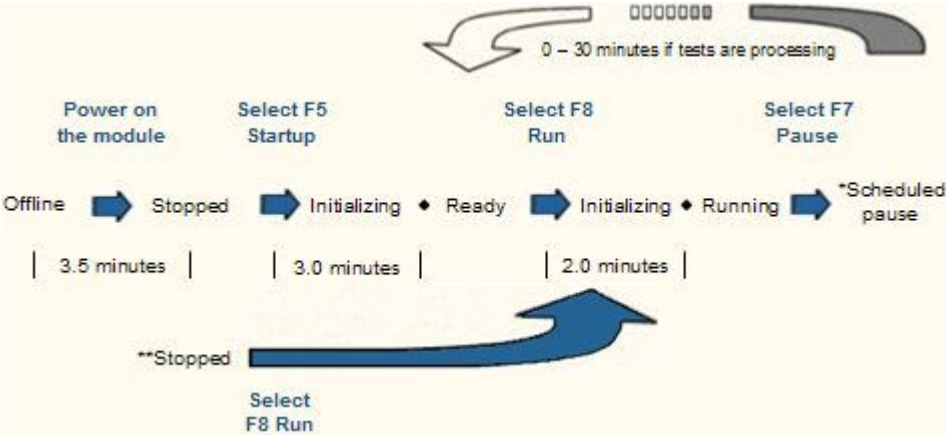
The following diagram illustrates the progression of statuses from Offline to Running (all except *c*4000/*i*1000SR/*ci*4100).

Figure 1.235: Processing module and sample handler status sequence (all except c4000/i1000SR/ci4100)



The following diagram illustrates the progression of statuses from Offline to Running (*c*4000/*i*1000SR/*ci*4100).

Figure 1.236: Processing module and sample handler status sequence (c4000/i1000SR/ci4100)



*The Scheduled pause status applies to all processing modules, the RSH (robotic sample handler) and the LAS (laboratory automation system) carousel sample handler. For the SSH (standard sample handler) this status is Load queue paused.

If your module is powered on and in Stopped status, select **F8 - Run to initiate the Running state.

System status topics include:

- *Sample handler status*, page 1-221
- *Processing module status*, page 1-224

Sample handler status

The sample handler graphic on the Snapshot screen indicates the status of the sample handler.

Figure 1.237: An example of a sample handler graphic

Sample handler status types depend on your sample handler configuration. For a description of the various statuses, see:

- *RSH status types*, page 1-221
- *SSH status types*, page 1-222
- *LAS carousel sample handler status types (i2000)*, page 1-223

RSH status types

The RSH (robotic sample handler) has seven possible status types. The following table provides a description of each.

Table 1.12: RSH status types

Status	Indicates
Offline	One of the following exists: • Power to the sample handler is off. • Power has been turned on, but communication between the sample handler and SCC (system control center) has not been re-established. • Communication between the sample handler and the SCC has been lost due to a software or system error.
Stopped	One of the following exists: • Power to the sample handler is on, but F5 - Start-up on the Snapshot screen has not been selected.

Status	Indicates
	• F6 - Stop on the Snapshot screen was selected. • Stop key on the sample handler keypad was selected (except for *c*4000/*i*1000SR/*ci*4100). • A sample handler diagnostic procedure has completed. • One of the RSH covers was opened while the sample handler was running (RSH - except for *c*4000/*i*1000SR/*ci*4100). • The processing center cover was opened while the sample handler was running (RSH - *c*4000/*i*1000SR/*ci*4100). • Sample handler detected a fatal error while processing.
Ready	One of the following exists: • Startup is complete. • Scheduled pause status is complete.
Running	One of the following exists: • F8 - Run on the Snapshot screen was selected. • Run key on the sample handler keypad was selected (except for *c*4000/*i*1000SR/*ci*4100).
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Pause key on the sample handler keypad was selected (except for *c*4000/*i*1000SR/*ci*4100). • All processing modules are unavailable for sample processing.
Initializing	Either the run key, F8 - Run, or F5 - Start-up was selected. This status is a temporary status during which the system performs the following initialization functions: • Homes all moving parts on the sample handler • Checks the bar code reader Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.
Maintenance	A maintenance procedure requiring use of the RSH is in process on a module.

SSH status types

The SSH (standard sample handler) has seven possible status types. The following table provides a description of each.

Table 1.13: SSH status types

Status	Indicates
Offline	One of the following exists: • Power to the sample handler is off. • Power has been turned on, but communication between the sample handler and SCC (system control center) has not been re-established. • Communication between the sample handler and the SCC has been lost due to a software or system error.
Stopped	One of the following exists: • Power to the sample handler is on, but F5 - Start-up on the Snapshot screen has not been selected.

Status	Indicates
	• F6 - Stop on the Snapshot screen was selected. • Stop key on the sample handler keypad was selected. • A sample handler diagnostic procedure has completed. • One of the processing queue access doors was opened while the sample handler was running. • Sample handler detected a fatal error while processing.
Ready	Startup is complete.
Running	One of the following exists: • F8 - Run on the Snapshot screen was selected. • Run key on the sample handler keypad was selected.
Load queue paused	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Pause key on the sample handler keypad was selected. • 60 seconds have elapsed without samples being loaded and a run initiated. • The sample unload queue is full. • All processing modules are unavailable for sample processing.
Initializing	Either the run key, F8 - Run, or F5 - Start-up was selected. This status is a temporary status during which the system performs the following initialization functions: • Checks the load and processing queue bar code readers • Homes all moving parts on the sample handler • Starts the load and processing queue Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.
Maintenance	A maintenance procedure requiring use of the SSH is in process on a module.

LAS carousel sample handler status types (*i*2000)

The LAS (laboratory automation system) carousel sample handler has seven possible status types. The following table provides a description of each.

Table 1.14: LAS carousel sample handler status types (i2000)

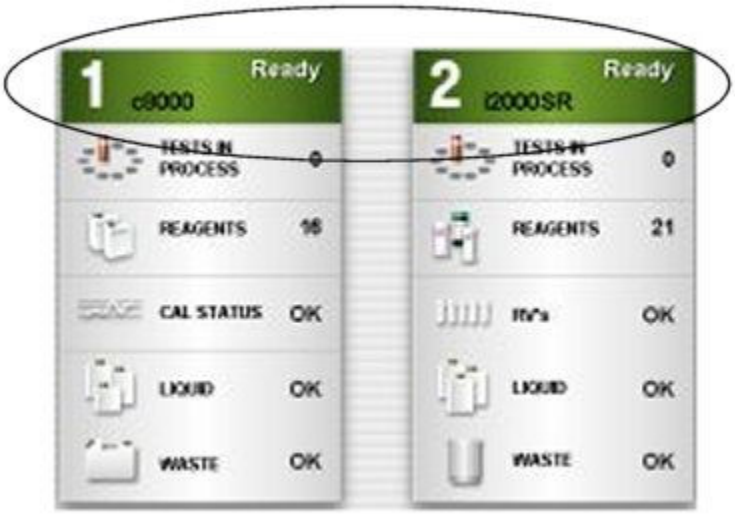
Status	Indicates
Offline	One of the following exists: • Power to the LAS carousel is off. • Power has been turned on, but communication between the LAS carousel and SCC (system control center) has not been re-established. • Communication between the sample handler and the SCC has been lost due to a software or system error.
Stopped	One of the following exists: • Power to the LAS carousel is on, but F5 - Start-up on the Snapshot screen has not been selected. • F6 - Stop on the Snapshot screen was selected. • Stop key on the LAS carousel sample handler keypad was selected. • A sample handler diagnostic procedure has completed. • The LAS carousel cover was opened while the LAS carousel was running. • Sample handler detected a fatal error while processing.

Status	Indicates
Ready	One of the following exists: • Startup is complete. • All samples on the LAS carousel have completed. • Scheduled pause status is complete. **NOTE:** The pause indicator illuminates.
Running	One of the following exists: • F8 - Run on the Snapshot screen was selected. • Run key on the LAS carousel sample handler keypad was selected.
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Pause key on the LAS carousel sample handler keypad was selected. • All processing modules are unavailable for sample processing.
Initializing	Either the run key, F8 - Run, or F5 - Start-up was selected. This status is a temporary status during which the system performs the following initialization functions: • Homes the LAS carousel sample handler • Checks the processing queue bar code reader Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.
Maintenance	A maintenance procedure requiring use of the LAS carousel is in process on a module.

Processing module status

The processing module graphic(s) on the Snapshot screen indicates the status of the processing module and displays other key system information.

Figure 1.238: Processing module status



Processing module status types depend on the configuration of your system. For a description of the various statuses, see:

- *Processing module status types (c System)*, page 1-225
- *Processing module status types (i2000/i2000SR)*, page 1-227
- *Processing module status types (i1000SR)*, page 1-229

Processing module status types (*c* System)

The *c* System processing modules have eight possible status types. The following table provides a description of each.

See *c System processing module status and associated tasks*, page 1-226, for a list of tasks that can be performed in each status.

Table 1.15: c System processing module status types

Status	Indicates	Prohibited activities
Offline	One of the following exists: • Power to the processing module is off. • Power has been turned on, but communication between the processing module and SCC (system control center) has not been re-established. • Communication between the processing module and the SCC has been lost due to a software or system error.	You cannot run samples on the module. You cannot load or unload reagents because the reagent supply center is not aligned correctly.
Stopped	One of the following exists: • Power to the processing module is on, but F5 - Start-up on the Snapshot screen has not been selected. • F6 - Stop on the Snapshot screen was selected. • Stop key on the processing module keypad was selected (*c*8000/*c*16000). • A processing module diagnostic procedure has completed. • Processing module detected a fatal error while processing.	You cannot run samples on the module. You cannot load or unload reagents because the reagent supply center is not aligned correctly.
Ready	One of the following exists: • Startup is complete (including temperature initialization). • Scheduled Pause status is complete.	
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Supplies ran out. • Processing module detected an error while processing.	

Status	Indicates	Prohibited activities
Running	One of the following exists: • F8 - Run on the Snapshot screen was selected. • Run key on the processing module keypad was selected.	You cannot open the reagent supply center covers.
Initializing*	A temporary status that occurs when the run key, F8 - Run, or F5 - Start-up is selected. The following initialization functions are performed by the system: • Initialization after F5 - Start-up is selected: – Homes motors – Initializes the reagent bar code reader • Initialization after the run key or F8 - Run is selected: – Checks cover sensors – Scans reagents – Washes probes – Checks inventory Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.	You cannot run samples on the module. You cannot load or unload reagents because the reagent supply center is not aligned correctly.
Scanning	A temporary status that occurs when F5 - Scan on the Reagent status screen is selected. Once the scan is complete, the status changes to Ready.	You cannot run samples on the module.
Maintenance	A maintenance procedure is in process on the module.	You cannot run samples on the module.

*When **F8 - Run** is selected from the Stopped status the system will perform the initialization activities described for both **F5 - Start-up** and **F8 - Run**.

Table 1.16: c System processing module status and associated tasks

	Offline	Stopped	Ready	Scheduled pause	Running	Initializing
Initiate a run	No	Yes	Yes	Yes*	Yes	No
Load reagents	No	No	Yes	Yes**	No	No
Load samples on sample carousel (*c*8000/*c*16000)	No	Yes	Yes	Yes	No	No
Load bulk solutions	Yes	Yes	Yes	No	No	No
Load onboard solutions	Yes	Yes	Yes	No	No	No
Empty waste	Yes	Yes	Yes	No	No	No

Order patient samples in any status.

Order QC and calibrations in the Running status only to ensure the system calculates the required sample volume.

*In the Running status you do not need to initiate the run when samples are added.

**Check the processing module keypad to ensure access is permitted before this task (*c*8000/*c*16000).

**Check the reagent supply center access button to ensure access is permitted before this task (*c*4000).

Processing module status types (*i*2000/*i*2000SR)

The *i*2000/*i*2000SR processing modules have nine possible status types. The following table provides a description of each.

See ***i2000/i2000SR processing module status and associated tasks***, page 1-229, for a list of tasks that can be performed in each status.

Table 1.17: i2000/i2000SR processing module status types

Status	Indicates	Prohibited activities
Offline	One of the following exists: • Power to the processing module is off. • Power has been turned on, but communication between the processing module and SCC (system control center) has not been re-established. • Communication between the processing module and the SCC has been lost due to a software or system error.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly.
Stopped	One of the following exists: • Power to the processing module is on but F5 - Start-up on the Snapshot screen has not been selected. • F6 - Stop on the Snapshot screen was selected. • Stop key on the processing module keypad was selected. • Processing module diagnostic procedure has completed. • Processing module detected a fatal error while processing.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly.
Warming	Startup is complete, but temperature initialization is not.	You cannot run samples on the module.
Ready	One of the following exists: • Startup is complete (including temperature initialization). • Scheduled Pause status is complete.	

Status	Indicates	Prohibited activities
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Supplies ran out. • Processing module detected an error while processing.	You cannot open the processing center covers.
Running	One of the following exists: • F8 - Run on the Snapshot screen was selected. • Run key on the processing module keypad was selected.	You cannot open the processing center covers.
Initializing*	A temporary status that occurs when the run key, F8 - Run, or F5 - Start-up is selected. The following initialization functions are performed by the system: • Initialization after F5 - Start-up is selected: – Homes motors – Initializes the reagent bar code reader – Fills the inner ring in the process path with RVs (reaction vessels) – Clears RVs from the outer ring of the process path • Initialization after the run key or F8 - Run is selected: – Checks door sensors – Scans reagents and starts microparticle dispersion – Washes probes – Checks inventory – Performs a background read Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly. You cannot load wash buffer.
Scanning	A temporary status that occurs when F5 - Scan on the Reagent status screen is selected. Once the scan is complete, the status changes to Ready.	You cannot run samples on the module.
Maintenance	A maintenance procedure is in process on the module.	You cannot run samples on the module.

***When **F8 - Run** is selected from the Stopped status the system will perform the initialization activities described for both **F5 - Start-up** and **F8 - Run**.

Table 1.18: i2000/i2000SR processing module status and associated tasks

	Offline	Stopped/ Scanning	Warming/ Ready	Scheduled pause/ Running	Initializing	Maintenance
Initiate a run	No	Yes	Yes*	Yes*	No	No
Raise the processing center cover	Yes	Yes	Yes	No	No	Yes
Load reagents	No	No	Yes	No	No	No
Load pre-trigger and trigger	Yes	Yes	Yes	No	No	No
Load wash buffer	No	Yes	Yes	Yes	No	No
Load RVs	Yes	Yes	Yes	Yes	Yes	Yes
Empty waste	Yes	Yes	Yes	Yes	Yes	Yes

Order patient samples in any status.

Order QC and calibrations in the Running status only to ensure the system calculates the required sample volume.

*You cannot initiate a run in the Warming or Running status.

Processing module status types (*i*1000SR)

The *i*1000SR processing module has eight possible status types. The following table provides a description of each.

See *i1000SR processing module status types by task*, page 1-231 for a list of tasks that can be performed in each status.

Table 1.19: i1000SR processing module status types

Status	Indicates	Prohibited activities
Offline	One of the following exists: • Power to the processing module is off. • Power has been turned on, but communication between the processing module and SCC (system control center) has not been re-established. • Communication between the processing module and the SCC has been lost due to a software or system error.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly.
Stopped	One of the following exists: • Power to the processing module is on but F5 - Start-up on the Snapshot screen has not been selected. • F6 - Stop on the Snapshot screen was selected.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly.

Status	Indicates	Prohibited activities
	• Processing module diagnostic procedure has completed. • Processing module detected a fatal error while processing.	
Warming	Startup is complete, but temperature initialization is not.	You cannot run samples on the module.
Ready	One of the following exists: • Startup is complete (including temperature initialization). • Scheduled Pause status is complete.	
Scheduled pause	One of the following exists: • F7 - Pause on the Snapshot screen was selected. • Supplies ran out. • Processing module detected an error while processing.	You cannot open the processing center cover.
Running	F8 - Run on the Snapshot screen was selected.	You cannot open the processing center cover.
Initializing*	A temporary status that occurs when F8 - Run, or F5 - Start-up is selected. The following initialization functions are performed by the system: • Initialization after F5 - Start-up is selected: – Checks processing center and reagent carousel cover sensors – Homes motors – Clears RVs from the process path and adds clean RVs to all 23 positions – Initializes the wash zone mechanism – Starts microparticle dispersion • Initialization after F8 - Run is selected: – Checks processing center and reagent carousel cover sensors – Checks presence of solid waste container – Homes motors – Washes probes – Initializes wash zone mechanism – Performs a background read Once initialization is complete, the status changes to Running or Ready depending on whether run or startup was selected.	You cannot run samples on the module. You cannot load or unload reagents because the reagent carousel is not aligned correctly. You cannot load wash buffer.
Maintenance	A maintenance procedure is in process on the module.	You cannot run samples on the module.

*When **F8 - Run** is selected from the Stopped status the system will perform the initialization activities described for both **F5 - Start-up** and **F8 - Run**.

Table 1.20: i1000SR processing module status types by task

	Offline	Stopped	Warming/ Ready	Scheduled pause/ Running	Initializing	Maintenance
Initiate a run	No	Yes	Yes*	Yes*	No	No
Raise the processing center cover	Yes	Yes	Yes	No	No	Yes
Load reagent kits on RSH	Yes	Yes	Yes**	Yes**	Yes	No
Unload reagent kits from reagent carousel	No	No	Yes**	Yes**	No	No
Load pre-trigger and trigger	Yes	Yes	Yes	No	No	No
Load wash buffer	No	Yes	Yes	Yes	No	No
Load RVs	Yes	Yes	Yes	Yes	Yes	Yes
Empty waste	Yes	Yes	Yes	Yes	Yes	Yes

Order patient samples in any status.

Order QC and calibrations in the Running status only to ensure the system calculates the required sample volume.

*You cannot initiate a run in the Warming or Running status.

**The system loads or unloads reagent carriers when the processing module status is Warming, Ready, Scheduled Pause or Running and the RSH status is Running.

Automatic processing module activities

Periodically, fluids are pumped through various processing module components to remove air or bubbles. It is important to ensure that enough onboard inventory to perform these automatic flushes and primes is available.

Automatic processing module activity topics include:

System flush (*c* System)

A system flush is an automated process used to remove bubbles that may be present. Periodic flushes are performed at the beginning of a run on all pipettors by pumping purified water through the probes into the wash cups.

ICT Reference Solution, Alkaline Wash, and Acid Wash are used to perform the automatic flushes that occur when you initiate a run after replacing a bulk solution(s).

Each *c*4000 flush requires:

- 2750 µL of reference solution
- 60 µL of alkaline wash solution
- 40 µL of acid wash solution

Each *c*8000 flush requires:

- 2750 µL of reference solution
- 60 µL of alkaline wash solution
- 40 µL of acid wash solution

Each *c*16000 flush requires:

- 2750 µL of reference solution
- 120 µL of alkaline wash solution
- 80 µL of acid wash solution

NOTE: Performing the 2155 Flush Bulk Solution maintenance procedure does not reset the clock for the automatic flush.

Related information...

- *ICT reference solution (c System)*, page 1-191
- *Alkaline wash (c System)*, page 1-192
- *Acid wash (c System)*, page 1-193

System flush (*i* System)

A system flush is an automated process used to remove bubbles that may be present. Periodic flushes are performed on all pipettors by pumping wash buffer through the pipettor probes into the wash stations. The wash zones and the pre-trigger/trigger manifold are flushed by pumping fluid through a bypass valve and into the waste line.

Wash buffer, Pre-Trigger Solution, and Trigger Solution are used to perform the automatic flushes that occur:

- When you start up the system after powering on
- Every eight hours when the processing module status is:
  - Ready and the processing module covers are closed, or
  - Running and no tests are in process

  NOTE: Performing the 2130 Flush Fluids (*i*2000/*i*2000SR) maintenance procedure does not reset the clock for the automatic flush.

  Performing the 2137 Flush Fluids (*i*1000SR) maintenance procedure does not reset the clock for the automatic flush.
- When you initiate a run after replacing a solution(s)

If the system is idle for an extended period of time, for example over a weekend (48 hours), you need to ensure there is enough inventory for all flushes that will take place. Each flush requires:

- 460 mL of wash buffer (*i*2000)
- 522 mL of wash buffer (*i*2000SR)
- 75 mL of wash buffer (*i*1000SR)
- 14 mL of pre-trigger
- 14 mL of trigger
- Additional 10 mL of trigger if AWDS hardware installed (*i*1000SR)

In a 48 hour period, for example, there are six flushes. Therefore, the required inventory is:

- 2.76 L of wash buffer (*i*2000)
- 3.13 L of wash buffer (*i*2000SR)

- 450 mL of wash buffer (*i*1000SR)
- 84 mL of pre-trigger
- 84 mL of trigger
- Additional 60 mL of trigger if AWDS hardware installed (*i*1000SR)

System prime (*i* System)

A prime is the process the system uses to dispense solutions into RVs (reaction vessels) to ensure the fluidics system is primed. The system periodically primes to remove air from the wash zone, pre-trigger, and trigger delivery nozzles. Priming pumps fluid through the delivery nozzles and into an RV. The RV is then automatically discarded.

Prime occurs automatically when you initiate a run.

Processing module wash (*c* System)

Processing module wash is the process that cleans hardware components that come into contact with reagents and samples.

The following table describes the wash solutions used for each hardware component.

Component	Wash
Reagents and sample probes	• Washed with purified water during analysis • Additional washes with alkaline, acid, or detergent wash solutions may be performed if SmartWash is required per assay setting definition • Washed with Detergent A automatically at regular intervals
Cuvette segments	• Washed with purified water and alkaline and acid wash solutions before and after each use • Additional washes with alkaline, acid, or detergent wash solutions may be performed if SmartWash is required per assay setting definition
Mixers	• Washed with purified water during analysis • Additional washes with alkaline, acid, or detergent wash solutions may be performed if SmartWash is required per assay setting definition • Washed with detergent A automatically at regular intervals

Automatic rotation of reagent supply center(s) (*c* System)

Automatic rotation of reagent supply center 2 for the *c*8000 and reagent supply centers 1 and 2 for the *c*16000 is a programmed rotation used to stabilize the carousel temperature. The reagent supply center automatically rotates 1/2 turn every 10 minutes when the cover is closed and the processing module is in Ready or Running (idle) status.

Automatic rotation of the reagent supply center for the *c*4000 is a programmed rotation used to stabilize the carousel temperature. The reagent supply center automatically rotates 1 segment every 12 minutes when the cover is closed and the processing module is in Ready or Running (idle) status.

NOTES

Introduction

To ensure accurate results and maximum performance, your ARCHITECT System must be properly installed. After the system has been installed, you must configure it to meet your site's specific requirements.

Installation procedures and special requirements topics include:

- *System installation or relocation*, page 2-2
  Describes the steps for installing or relocating the system.
- *System configuration*, page 2-4
  Provides a description of all configuration screens and windows, and step-by-step instructions for performing configuration procedures.
- *Software installation and backup*, page 2-195
  Provides a description of all software installation and backup screens and windows, and step-by-step instructions for performing installation and backup procedures.
- *Abbott mail*, page 2-204
  Provides a description of all Abbott mail screens and windows, and step-by-step instructions for managing Abbott mail files which include assay disk customer information, assay inserts, and *c* System calibrator value assignment customer information.
- *Assay file management*, page 2-211
  Describes how to install new assay files.
- *Maintenance and diagnostic file management*, page 2-215
  Describes how to install new maintenance and diagnostic procedure files.

System installation or relocation

Installation of the ARCHITECT System is a team effort involving Abbott customer support and the Abbott field service representative.

System installation or relocation topics include:

System installation

Prior to installation the Abbott field service representative ensures the site is prepared.

The location must meet environmental specifications and electrical requirements before the system can be installed. For additional information, see *Specifications and requirements*, page 4-3.

IMPORTANT: The Abbott field service representative unpacks, positions, and installs the ARCHITECT System, and unpacks the accessory kits that accompany the system. Do not attempt to unpack or install the ARCHITECT System.

For additional information on items included in the accessory kit, see *Accessory kit list numbers (c4000)*, page D-4.

For additional information on items included in the accessory kit, see *Accessory kit list numbers (c8000)*, page D-7.

For additional information on items included in the accessory kit, see *Accessory kit list numbers (c16000)*, page D-10.

For additional information on items included in the accessory kit, see *Accessory kit list numbers (i System)*, page D-13.

During installation, the Abbott field service representative performs system preparation and checkout.

System checkout

After you position and install the ARCHITECT System, you should perform the following to ensure that the system operates properly:

- *Install or delete an assay file*, page 2-211
- *Configuring system settings*, page 2-6
- *Configuring Abbott assays*, page 2-72
- *Configuring user-defined assays*, page 2-83

- *Configuring QC - Cal settings*, page 2-149
- Order and calibrate assays
- Order and run controls
- Perform testing specific to your site requirements

System relocation

For information on relocating your ARCHITECT System, contact your Abbott field service representative. The Abbott field service representative will prepare the system for shipment and install it at the new destination.

System configuration

Configuration settings define the information the ARCHITECT System needs to meet your site's specific requirements. You perform system configuration at installation and may reconfigure the system at any time, if necessary.

You access windows to configure system, assay, and QC - Cal settings from the Configuration screen. Access to these windows is controlled by logon. The system administrator logon allows you to access configuration windows to change most configurable items. The general operator logon allows you to:

- View configured settings
- Configure host-release mode options
- Re-initialize communication with the standard LAS sample handler

For more information on logons, see *User logon*, page 1-25.

System configuration topics include:

- *Configuration screen - System settings view*, page 2-4
- *Configuration screen - Assay settings view*, page 2-67
- *Configuration screen - QC - Cal settings view*, page 2-147

Configuration screen - System settings view

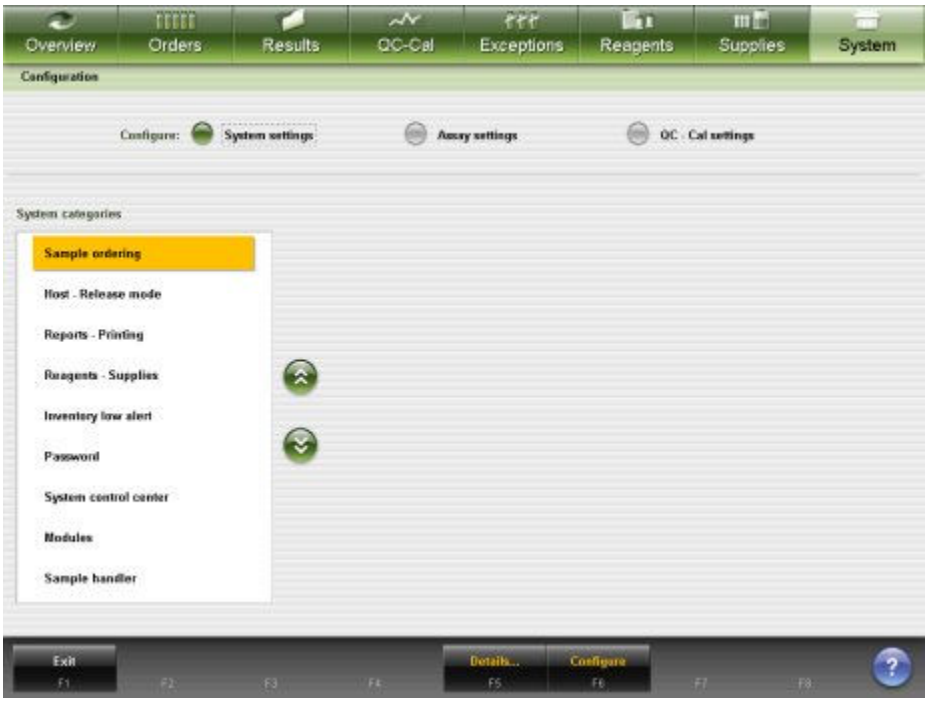
From the System settings view of the Configuration screen the general operator can access windows to view detailed information for configured system settings.

The system administrator can access windows to configure these settings, which include:

- Sample ordering
- Host - Release mode
- Reports - Printing
- Reagents - Supplies
- Inventory low alert
- Password
- System control center
- Modules
- Sample handler
- Sample bar code reader
- Serial ports
- TCP/IP ports

- Premium features
- ARCHITECT Advisor

Figure 2.1: Configuration screen - System settings view



For descriptions of these fields, see *Configuration screen - System settings view field descriptions*, page E-153.

To display this view of the screen, see *Access the Configuration screen - System settings view*, page 2-5.

Related procedures…

- *Configuring system settings*, page 2-6
- *Viewing system settings*, page 2-13
- *Changing system settings*, page 2-13

Access the Configuration screen - System settings view

Perform this procedure to display the System settings view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - System settings view:

Select **System** from the menu bar, and then select **Configuration**.

The Configuration screen - System settings view displays.

Related information...

- *Configuration screen - System settings view*, page 2-4

Procedures - Configuration screen - System settings view

Procedures you can perform from the Configuration screen - System settings view and its related windows are grouped by task:

- *Configuring system settings*, page 2-6
- *Viewing system settings*, page 2-13
- *Changing system settings*, page 2-13

Configuring system settings

Procedures for configuring system settings include:

- *Configure host interface settings*, page 2-6
- *Configure report settings*, page 2-7
- *Configure user name and password (premium feature)*, page 2-9
- *Configure a QC run definition*, page 2-9
- *Configure sample carousel auto scan (c8000/c16000)*, page 2-10
- *Configure the TCP/IP port settings*, page 2-11
- *Configure premium features*, page 2-12

Configure host interface settings

Perform this procedure to configure the host interface settings for release mode, communications, and transmitting results to the host.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready (Exceptions are noted)
User access level	General operator
Supplies	NA

To configure host interface settings:

1. Select **Host - Release mode** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure host-release mode window (Options - Communication view) displays.
3. Select the desired **Host type** option.

   NOTE: You can configure this value in any status.

Changing **Host type** to None allows you to clear all results waiting to be sent to the host.

4. Select the desired **Query mode**.
5. Enter the timeout interval (in seconds) in the **Host query timeout** data entry box. ***(optional)***

   NOTE: You can configure this value in any system status. System throughput may be degraded if the time interval is greater than 10 seconds.
6. Select the desired **Transmit data rich messages** option. (*only required for HL7-TCP/IP communication*)
7. Select the desired **Error code number and text** option. (*only required for ASTM communication*)
8. Select the desired **Transmission code page** option. (*only required for ASTM communication*)
9. Select the desired **Doctor**, **location**, and **draw date/time** option. (*only required for ASTM communication*)
10. Select the desired **Secondary HL7 interface** option. (*only required for ASTM communication*)
11. Select the desired **Release and Transmit options** for patient and QC results.
12. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure host - release mode window (Options - Communication view)*, page 2-42

Configure report settings

Perform this procedure to configure the settings for printing flags on reports and automatic report printing, and to specify the text to print in the report header for the Sample Report and Patient Report.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator, General operator (automatic report printing settings)
Supplies	NA

To configure report settings:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.

2. Select **F6 - Configure**.

   The Configure reports-printing window displays.

3. Select the **Off** option for the Print flags on reports setting. ***(optional)***

   NOTE: The CNTL (control), EXP (expired), EXPC (expired calibration curve or calibrators), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.

4. Select the **On** option for the following automatic report printing settings ***(optional)***:

   NOTE: The General operator can configure automatic report printing settings.

   - Maintenance - A Procedure report prints after a maintenance procedure completes, if a report is available.
   - Sample - The Sample Report prints after all tests for a sample complete and the results are released.
   - Sample laboratory - The Sample Laboratory Report prints after all tests for a sample complete and the results are released.
   - Results list - The Results List Report prints after 24 results complete and are released or 10 minutes have elapsed.
   - Calibration curve results - A Cal Curve Detail report prints after a calibration completes.

5. Enter the desired report header information in the **Header for sample and patient reports** data entry boxes. ***(optional)***

6. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-44
- *Cal Curve Details Report - Potentiometric (c System)*, page A-20
- *Cal Curve Details Report - Linear (c System)*, page A-23
- *Cal Curve Details Report - Use Cal Factor/Blank (c System)*, page A-26
- *Cal Curve Details Report - Adjust (i System)*, page A-29
- *Cal Curve Details Report - Full (i System)*, page A-32
- *Cal Curve Details Report - Index (i System)*, page A-35
- *Patient Report*, page A-58
- *Procedure Report, Basic*, page A-64
- *Procedure Report, Columnar*, page A-66
- *Results List Report*, page A-91

- *Sample Laboratory Report*, page A-95
- *Sample Report*, page A-93

Configure user name and password (premium feature)

Unique user names and passwords can be configured when your system is configured for password-controlled log on. See *Change the requirement for password-controlled log on (premium feature)*, page 2-23.

Perform this procedure to configure a user name and password.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	System administrator
Supplies	N/A

To configure user name and password:

1. Select **Password** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure password window displays.
3. Select the **User level** list box, and then select a user level.
4. Enter a user name in the **User name** data entry box (maximum of 12 alphanumeric characters, case sensitive).
5. Enter a password in the **Password** data entry box (maximum of 20 alphanumeric characters, case sensitive).
6. Re-enter the password in the **Password** data entry box.
7. Select **Save User** to add the new user.
8. Repeat steps 4 - 7 to enter an additional user name and password.
9. Select **Done** to exit the window.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure user window (premium feature)*, page 2-50

Configure a QC run definition

Perform this procedure to define a run period for the evaluation of Westgard rules. The run definition should be configured when you enable Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, or 4-1s xM.

To configure Westgard rules, see *Configure a Westgard rule*, page 2-157.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a QC run definition:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Enter the start time in the **QC run definition Start time** data entry box.
4. Enter the number of hours per run in the **QC run definition No. of hours per run** data entry box.
5. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure system control center window*, page 2-50

Configure sample carousel auto scan (*c*8000/*c*16000)

Perform this procedure to configure the automatic scan and scan interval for the sample carousel. You configure this option to allow scanning of the carousel at a predefined interval to check for bar coded calibrators and controls.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure the sample carousel auto scan:

1. Select **Modules** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure modules window displays.
3. Select the On **Scanning** option.
4. Enter a value in the **Scan interval** data entry box.

5. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure modules window (c8000/c16000)*, page 2-53

Configure the TCP/IP port settings

Perform this procedure to configure the TCP/IP port settings when your host type is configured as HL7-TCP/IP. See *Configure host interface settings*, page 2-6.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	System administrator
Supplies	NA

To change the TCP/IP port settings:

1. Select **TCP/IP ports** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure TCP/IP ports window displays.
3. Enter the **MSH-3 sending application** value. ***(optional)***
4. Enter the **MSH-4 sending facility** value. ***(optional)***
5. Enter the **MSH-5 receiving application** value. ***(optional)***
6. Enter the **MSH-6 receiving facility** value. ***(optional)***
7. Select the desired **Port connection** for the HL7 channels (sender) and (receiver).
8. Enter the **Port number** for the HL7 channels (sender) and (receiver).
9. Enter the **IP address** for the HL7 channels (sender) and (receiver).
10. Select **Save/Test** to save the settings and test the connection.

    The Test connection window displays.
11. Select the channel(s) to be tested.
12. Select the **Test** button.

    The connection test results are displayed.
13. Select **Done** to return to the Configure TCP/IP window.

NOTE: If the connection tests pass, no further action is required. If the connection tests fail, verify the correct port numbers and IP addresses for the channels are entered.

14. Select **Done** to save the changes and return to the Configuration screen.

The TCP/IP changes take effect the next time the SCC (system control center) power is cycled.

See *Cycle power to the SCC*, page 5-5.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure TCP/IP ports window*, page 2-64

Configure premium features

Premium features are activated by entering an activation key. You can evaluate these features for 30 days by entering a temporary activation key. Contact your local sales representative for more information regarding the premium features.

Perform this procedure to configure premium features.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Offline, Stopped, or Ready
User access level	System administrator
Supplies	NA

To configure premium features:

1. Select **Premium features** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure premium features window displays.
3. Enter the key in the **Activation key** data entry box.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure premium features window*, page 2-65

Viewing system settings

From the System settings view of the Configuration screen the general operator can access windows to view detailed information for configured system settings.

The general operator logon allows you to view:

- Sample ordering
- Host - Release mode
- Reports - Printing
- Reagents - Supplies
- Inventory low alert
- System control center
- Modules
- Sample handler
- Sample bar code reader
- Serial ports
- TCP/IP ports
- Premium features
- ARCHITECT Advisor

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - System settings details view:

1. Select the desired category from the **System categories** list.
2. Select **F5 - Details**.

   The Details window displays.
3. Select **Done** to return to the Configuration screen.

Changing system settings

Procedures for changing system settings include:

- *Change the batch sample ordering type*, page 2-15
- *Change the option to disable a reagent kit on a control failure (premium feature)*, page 2-15
- *Change the option to require a control after a calibration (premium feature)*, page 2-16

Change the batch sample ordering type

Perform this procedure to change the batch sample ordering type for bar coded or non-bar coded samples. The batch ordering type determines the fields that display on the Patient order screen - Batch view.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5 No batch orders pending
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the batch sample ordering type:

1. Select **F6 - Configure** on the Configuration screen.

   The Configure sample ordering window displays.

2. Select the desired **Batch ordering** option.
3. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure sample ordering window*, page 2-41

Change the option to disable a reagent kit on a control failure (premium feature)

Perform this procedure to change the option to disable a reagent kit on a control failure.

NOTE: When this option is configured On, if one level of a control fails, the reagent kit is disabled. Depending on the system configuration, controls may be run on an assay either per reagent lot or per reagent kit. When the system runs the control per reagent kit and the control level fails the individual reagent kit is disabled. When the system runs the control per reagent lot and the control level fails all reagent kits for that lot are disabled. The system enables the reagent kit once the failed quality control result is rerun and the result is within acceptable limits.

For information on configuring the option for running controls, see *Change the option for running controls for onboard reagent kits*, page 2-38.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready

User access level	System administrator
Supplies	N/A

To change the option to disable a reagent kit on a control failure:

1. Select **Sample ordering** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample ordering window displays.
3. Select the desired **Disable reagent kit on control failure** option.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure sample ordering window*, page 2-41

Change the option to require a control after a calibration (premium feature)

Perform this procedure to change the option to require a control after a calibration.

NOTE: When this option is configured On, at least one control must complete before patient tests are processed. A completed control does not require the control result to be within configured specifications.

For *c* System urine assays using the Use Cal factor/Blank method, the serum control must complete before the urine control, to prevent an error condition.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	N/A

To change the option to require a control after a calibration:

1. Select **Sample ordering** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample ordering window displays.
3. Select the desired **Control required after calibration** option.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure sample ordering window*, page 2-41

Change the option to track control and calibrator lot expiration (premium feature)

Perform this procedure to change the option to track control and calibrator lot expiration.

NOTE: When this option is configured On, entry of control and calibrator lot number and expiration date entry are required. The ARCHITECT software verifies that the calibrator and control lot is not expired prior to allowing the order to be added.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	N/A

To change the option to track control and calibrator lot expiration:

1. Select **Sample ordering** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample ordering window displays.
3. Select the desired **Lot no./Expiration date entry required** option.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure sample ordering window*, page 2-41

Change the automatic report printing settings

Perform this procedure to enable or disable automatic printing of the Procedure, Sample, Sample Laboratory, Results List, and Cal Curve Details reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, Ready, or Running
User access level	General operator
Supplies	NA

To change the automatic report printing settings:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports printing window displays.
3. Select the desired **Automatic report printing** option(s) for:
   - Maintenance - A Procedure report prints after a maintenance procedure completes, if a report is available.
   - Sample - The Sample Report prints after all tests for a sample complete and the results are released.
   - Sample laboratory - The Sample Laboratory Report prints after all tests for a sample complete and the results are released.
   - Results list - The Results List Report prints after 24 results complete and are released or 10 minutes have elapsed.
   - Calibration curve results - A Cal Curve Detail report prints after a calibration completes.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-44
- *Cal Curve Details Report - Potentiometric (c System)*, page A-20
- *Cal Curve Details Report - Linear (c System)*, page A-23
- *Cal Curve Details Report - Use Cal Factor/Blank (c System)*, page A-26
- *Cal Curve Details Report - Adjust (i System)*, page A-29
- *Cal Curve Details Report - Full (i System)*, page A-32
- *Cal Curve Details Report - Index (i System)*, page A-35
- *Procedure Report, Basic*, page A-64
- *Procedure Report, Columnar*, page A-66
- *Results List Report*, page A-91
- *Sample Laboratory Report*, page A-95
- *Sample Report*, page A-93

Change the option for printing flags

Perform this procedure to enable or disable the printing of flags on the Sample and Patient reports.

NOTE: The CNTL (control), EXP (expired), EXPC (expired calibration curve or calibrators), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the options for printing flags:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports printing window displays.
3. Select the desired **Print flags on reports** option.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-44
- *Patient Report*, page A-58
- *Sample Report*, page A-93

Change the report header text

Perform this procedure to change the text that displays in the report header on the Sample and Patient reports.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the report header text:

1. Select **Reports - Printing** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reports printing window displays.
3. Enter the desired report header information in the **Header for sample and patient reports** data entry boxes.

NOTE: Each field on the screen represents one line of the report header (approximately 50 characters per line).

4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reports printing window*, page 2-44
- *Patient Report*, page A-58
- *Sample Report*, page A-93

Change the system low alert setting for reagent kits

Perform this procedure to change the level at which the system low alert notification occurs.

To change the level at which the low alert notification occurs for a specific reagent, see *Change the reagent-specific low alert setting*, page 2-111.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the system low alert setting for reagent kits:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Enter the desired alert level (number of tests left) in the **Default reagent low alert** data entry box.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window (ci4100)*, page 2-45
- *Configure reagents - supplies window (c8000/c16000/i2000/i2000SR)*, page 2-46

Change the inventory low alert setting for bulk and onboard solutions (premium feature)

Perform this procedure to change the level at which the system low alert notification occurs for each bulk and onboard solution.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	N/A

To change the inventory low alert setting for bulk and onboard solutions:

1. Select **Inventory low alert** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure inventory low alert window displays.
3. Enter the desired alert level (1-50%) in the data entry box next to the desired solution.

   NOTE: The default inventory low alert level is 20%.
4. Select **Done** to save changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure inventory low alert window (premium feature)*, page 2-48
- *Estimation of supply inventory low alert*, page 5-99

Change the system language setting

Perform this procedure to change the language for the system.

NOTE: Messages in the Temporary message, Message history, and Inventory logs remain in the language in which they were generated. If you change the system language to or from Japanese, previously generated messages may display □□□ for some characters.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To change the system language setting:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Select the **System language** list button, and then select the desired language.
4. Select **Done**.

   A prompt displays to notify you that the SCC will shut down and restart to change the language.
5. Select **OK** to shut down the SCC.
6. Wait for the SCC to cycle through shutdown.
7. *Power on the processing module and/or sample handler*, page 5-7.

   NOTE: If your system is configured with the bar code scanner, you must modify the keyboard language to match the system language. See the *ARCHITECT Bar Code Scanner User's Guide* or the *ARCHITECT and AxSYM Bar Code Scanner User's Guide* for instructions.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure system control center window*, page 2-50

Change the screen timeout setting

Perform this procedure to change the setting for the screen timeout.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the screen timeout setting:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Enter the desired screen timeout in the **Screen timeout** data entry box.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure system control center window*, page 2-50

Change the requirement for password-controlled log on (premium feature)

Perform this procedure to require a password-controlled log on. When this selection is activated a user must be logged on to access the SCC. Each user requires a unique password.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	N/A

To change the requirement for password-controlled log on:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Select the **Require password controlled logon** check box.
4. Select **Done** to save changes.

To configure a new user name and password, see *Configure user name and password (premium feature)*, page 2-9.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure system control center window*, page 2-50

Change the date and time settings

Perform this procedure to change the date and time settings.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5 Remove reagents
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the date and time settings:

1. Select **System control center** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure system control center window displays.
3. Enter the date using the current format in the **System date** data entry box.
4. Enter the time in the **System time** data entry box.

   The system time displays in a 24-hour format.
5. Select the desired **Date format** option.

   NOTE: When you edit this field, the new format does not display in the System date field until you select **Done** and access the window again.
6. Select the **Time zone** list button, and then select the desired time zone.
7. Select the **Automatically adjust clock for daylight savings** check box. ***(optional)***
8. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure system control center window*, page 2-50

Change liquid waste container settings (*i*1000SR)

Perform this procedure to change the liquid waste container settings when you want to use an external floor drain instead of the liquid waste container.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure liquid waste container settings (*i*1000SR):

1. Select **Modules** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure modules window displays.
3. Select the desired **Liquid waste container** option.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure modules window (i1000SR)*, page 2-55

Change the system administrator password (password control not required)

Perform this procedure to configure a new system administrator password, when password control is not required.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	System administrator
Supplies	NA

To change the system administrator password:

1. Select **Password** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.
3. The Configure password window displays.
4. Enter the new password in the **System administrator password** data entry box.
5. Enter the new password in the **System administrator password confirm** data entry box to confirm the new password.
6. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure password window*, page 2-49

Change user level and password (premium feature)

General operators can change their own password. System administrators can change any user level and password.

Perform this procedure to change a user level and password.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	General operator (own password) or System administrator (any password)
Supplies	N/A

To change user level and password:

1. Select **Password** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure password window displays.
3. Select the user name from the **User names** list.
4. Select the **User level** list box and then select a user level. ***(optional)***
5. Enter a new password in the **Password** data entry box (maximum of 20 alphanumeric characters, case sensitive). ***(optional)***
6. Re-enter the new password in the **Password** data entry box. ***(optional)***
7. Select **Save User** to save the new password.
8. Repeat steps 3 - 7 to change additional users (System administrator only).
9. Select **Done** to exit the window.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure user window (premium feature)*, page 2-50

Delete a user name (premium feature)

Perform this procedure to delete a user name.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	System administrator
Supplies	N/A

To delete user name:

1. Select **Password** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure password window displays.
3. Select the user name from the **User names** list.
4. Select **Delete user**.

   A confirmation message displays.
5. Select **OK** to delete the user.

   The user name no longer displays in the User names list.

6. Repeat steps 3 - 5 to delete additional users.
7. Select **Done** to exit the window.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure user window (premium feature)*, page 2-50

Change the system inactivity timeout (premium feature)

Perform this procedure to change the system inactivity timeout. The system logs off the current operator when the SCC is inactive for a configured length of time.

When the inactivity time expires and a different user logs on to the system, the software returns to the Snapshot screen. If the ARCHITECT System Operations Manual OLH (online help) or a PDF file is open, the file closes.

NOTE: If samples are processing when the system inactivity time expires, the ID of the previously logged on operator is used until a different operator logs on.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Any
User access level	System administrator
Supplies	N/A

To change system inactivity timeout:

1. Select **Password** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure password window displays.
3. Enter the desired system inactivity timeout in the **System inactivity timeout** data entry box.

   NOTE: If the system inactivity timer is configured to zero, the system does not log off. System inactivity timeout is not configured per user name.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure user window (premium feature)*, page 2-50

Change automatic repositioning for retest setting (RSH)

Perform this procedure to change the settings that determine whether the RSH (robotic sample handler) automatically repositions patient samples for retest.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change automatic repositioning for retest setting:

1. Select **Sample handler** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample handler window displays.
3. Select the desired **Retest option**.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure sample handler window (RSH - except c4000/i1000SR/ci4100)*, page 2-56
- *Configure sample handler window (RSH - c4000/i1000SR/ci4100)*, page 2-57

Change the number of priority sections on the RSH (*c*4000/*i*1000SR/*ci*4100)

Perform this procedure to change the number of priority sections to be used on the RSH (robotic sample handler) when the default setting for the number of priority sections does not reflect your laboratory requirements.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure the number of priority sections on the RSH (*c*4000/*i*1000SR/*ci*4100):

1. Select **Sample handler** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample handler window displays.

3. Enter the desired **Number of priority sections**.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure sample handler window (RSH - c4000/i1000SR/ci4100)*, page 2-57

Change the sample bar code settings for codabar

Perform this procedure to change the sample bar code settings for codabar.

To change bar code settings for code 39, see *Change the sample bar code settings for code 39*, page 2-30.

To change bar code settings for I 2 of 5, see *Change the sample bar code settings for I 2 of 5*, page 2-30.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the sample bar code settings for codabar:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure bar codes window displays.
3. Select the **Bar code type** list button, and then select **Codabar**.
4. Select the desired **Bar code type** option to either enable or disable the bar code type.
5. Select the desired **Checksums** option.
6. Select the **Send checksum digits to the SCC** check box, if you enabled Checksums. ***(optional)***
7. Select the **Send the start / stop characters to the SCC** check box, if you enabled Checksums. ***(optional)***
8. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4

- *Configure bar codes window*, page 2-62

Change the sample bar code settings for code 39

Perform this procedure to change the sample bar code settings for code 39.

To change bar code settings for I 2 of 5, see *Change the sample bar code settings for I 2 of 5*, page 2-30.

To change bar code settings for codabar, see *Change the sample bar code settings for codabar*, page 2-29.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the sample bar code settings for code 39:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure bar codes window displays.
3. Select the desired **Bar code type** option to either enable or disable the bar code type.
4. Select the desired **Checksums** option.
5. Select the **Send checksum digits to the SCC** check box, if you enabled Checksums. ***(optional)***
6. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure bar codes window*, page 2-62

Change the sample bar code settings for I 2 of 5

Perform this procedure to change the sample bar code settings for I 2 of 5.

To change bar code settings for code 39, *Change the sample bar code settings for code 39*, page 2-30.

To change bar code settings for codabar, see *Change the sample bar code settings for codabar*, page 2-29.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the sample bar code settings for I 2 of 5:

1. Select **Sample bar code reader** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure bar codes window displays.
3. Select the **Bar code type** list button, and then select **I 2 of 5**.
4. Select the desired **Bar code type** option to either enable or disable the bar code type.
5. Select the desired **Checksums** option.
6. Select the **Send checksum digits to the SCC** check box, if you enabled Checksums. ***(optional)***
7. Enter a value in the **Code length #1** data entry box.
8. Enter a value in the **Code length #2** data entry box. ***(optional)***
9. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure bar codes window*, page 2-62

Change the LIS serial port settings

Perform this procedure to change the LIS (laboratory information system) serial port settings.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the LIS serial port settings:

1. Select **Serial ports** from the **System categories** list on the Configuration screen.

2. Select **F6 - Configure**.

   The Configure serial ports window displays.

3. Select the **Port type** list button, and then select **LIS**.
4. Select the **Baud rate** list button, and then select the desired value.
5. Select the desired **Parity** option.
6. Select the desired **Data bits** option.
7. Select the desired **Stop bits** option.
8. Select **Done**.

   A confirmation message displays.

9. Select **OK** to save your changes.

   The serial port changes take effect the next time the system control center power is cycled.

To cycle power to the system control center, see *Cycle power to the SCC*, page 5-5.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure serial ports window*, page 2-63

Change the LAS serial port settings

Perform this procedure to change the LAS (laboratory automation system) serial port settings.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the LAS serial port settings:

1. Select **Serial ports** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure serial ports window displays.

3. Select the **Port type** list button, and then select **LAS**.
4. Select the **Baud rate** list button, and then select the desired value.
5. Select the desired **Parity** option.

6. Select the desired **Data bits** option.
7. Select the desired **Stop bits** option.
8. Select **Done**.

   A confirmation message displays.
9. Select **OK** to save your changes.

   The serial port changes take effect the next time the system control center power is cycled.

To cycle power to the system control center, see *Cycle power to the SCC*, page 5-5.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure serial ports window*, page 2-63

Change the onboard solution options (*c*4000)

Perform this procedure to change the segment, position, and cartridge size for onboard solutions located in the reagent carousel.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the onboard solution options:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Select the desired onboard solution segment list button, and then select the segment.
4. Select the desired onboard solution position list button, and then select the position.
5. Select the desired onboard solution size list button, and then select the cartridge size.
6. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window (ci4100)*, page 2-45
- *Onboard solutions (c System)*, page 1-194

Change the onboard solution options (*c*8000)

Perform this procedure to change the position and cartridge size for onboard solutions located in the reagent onboard solutions area.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the onboard solution options:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Select the **Position (R1 & R2) E1 solution** list button, and then select the desired solution.

   NOTE: You cannot select the same solution in more than one position.
4. Select the **Position (R1 & R2) E2 solution** list button, and then select the desired solution.
5. Select the **Position (R1) D1 solution** list button, and then select the desired solution.

   NOTE: When selected, the same solution name appears for position (R2) D1 solution.
6. Select the **Position (R1) D1 size** list button, and then select the desired cartridge size.
7. Select the **Position (R2) D1 size** list button, and then select the desired cartridge size.
8. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window (c8000/c16000/i2000/i2000SR)*, page 2-46

- *Onboard solutions (c System)*, page 1-194
- *Onboard solution areas (c8000)*, page 1-65

Change the onboard solution options (*c*16000)

Perform this procedure to change the position and cartridge size for onboard solutions located in the reagent onboard solutions area.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the onboard solution options:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Select the **Position (R1 & R2) C1,D1 solution** list button, select the desired solution, and then select the desired cartridge size.

   NOTE: You cannot select the same solution in more than one position.
4. Select the **Position (R1 & R2) C2,D2 solution** list button, select the desired solution, and then select the desired cartridge size.

   NOTE: You cannot select the same solution in more than one position.
5. Select the **Position (R1 & R2) C3 solution** list button, select the desired solution, and then select the desired cartridge size.
6. Select the **Position (R1 & R2) D3 solution** list button, select the desired solution, and then select the desired cartridge size.
7. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window (c8000/c16000/i2000/i2000SR)*, page 2-46
- *Onboard solutions (c System)*, page 1-194
- *Onboard solution areas (c16000)*, page 1-84

Optimize throughput on a multi-module *i* System

Perform this procedure to change the configured setting for average number of tests per sample.

NOTE: If the default setting for Average number of tests per sample does not reflect actual laboratory conditions, editing this setting can improve throughput.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To optimize throughput on a multi-module *i* System:

1. Select **F6 - Configure** from the Configuration screen.

   The Configure sample ordering window displays.

2. Enter the number of tests per sample in the **Average number of tests** data entry box.
3. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure sample ordering window*, page 2-41

Change the LAS timeout settings and reinitialize communications

Perform this procedure to change the LAS (laboratory automation system) timeout settings and reinitialize communications when you are setting up a standard LAS interface or when one of the following error codes occurs:

- 8263 - Invalid recovery type
- 8359 - Time out exceeded on message sent to LAS
- 8360 - Maximum number of consecutive LAS message timeouts and/or LAS <NAK> messages exceeded
- 8361 - LAS message communication error
- 8464 - LAS initialization communication failed

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To change the LAS timeout settings and reinitialize communications:

1. Select **Sample handler** from the **System categories** list on the Configuration screen.

2. Select **F6 - Configure**.

   The Configure sample handler window displays.

3. Enter the desired value in the **Initialization timeout** data entry box.
4. Enter the desired value in the **Response timeout** data entry box.
5. Select the **Send communications message to LAS** checkbox to send a reinitialize communications message to the LAS. ***(optional)***
6. Select **Done** to send a communications message to the LAS.

   A confirmation message displays.

7. Select **OK** to save your changes and send a communications message to the LAS.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure sample handler window (LAS - standard)*, page 2-59

Change the LAS Pipettor bypass option (FSE)

Perform this procedure to change the LAS (Laboratory Automation System) Pipettor bypass option when you are setting up a standard LAS interface.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	FSE
Supplies	NA

To change the LAS Pipettor bypass option:

1. Select **Sample handler** from the **System categories** list on the Configuration screen.
2. Select F6 - **Configure**.

   The Configure sample handler window displays.

3. Select the desired **Pipettor bypass** option.
4. Select **Done**.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure sample handler window (LAS - standard)*, page 2-59

Change the STAT protocol percentage (*i*2000SR)

Perform this procedure to change the percentage of STAT protocols for the ARCHITECT *i*2000SR System. This option defines the number of reaction vessel positions allocated for STAT assay protocols. If this percentage does not reflect the actual number of STAT protocols run, throughput may be decreased.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the STAT protocol percentage:

1. Select **Modules** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure modules window displays.
3. Select the **Module** list button, and then select the *i*2000SR module.
4. Select the desired **STAT protocol percentage** option.
5. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure modules window (i2000SR)*, page 2-54

Change the option for running controls for onboard reagent kits

Perform this procedure to change the option for running controls for onboard reagents.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the option for running controls for onboard reagents:

1. Select **Reagents-Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents-supplies window displays.

3. Select the desired **Run controls for onboard reagents by** option for:
   - Lot: Run QC on only one kit per lot
   - Kit: Run QC for every kit in a lot

   NOTE: Controls for constituents of calculated assays are automatically run on one kit on one module (selected by the system software) regardless of the option selected.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window (ci4100)*, page 2-45
- *Configure reagents - supplies window (c8000/c16000/i2000/i2000SR)*, page 2-46

Deactivate premium features

Perform this procedure to deactivate the premium features.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Offline, Stopped, or Ready
User access level	System administrator
Supplies	NA

To deactivate the premium features:

1. Select **Premium features** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure premium features window displays.
3. Select **Deactivate** to remove the premium features.
4. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure premium features window*, page 2-65

Change the ARCHITECT Advisor alert options

Perform this procedure to change the ARCHITECT Advisor alert options. The ARCHITECT Advisor alert tower is an optional component for the processing module.

If configured On, the yellow light on the alert tower blinks when:

- A caution message is displayed
- The Reagent icon is blinking
- The Supply icon is blinking
- The Exceptions icon is blinking (Exceptions notification configured On)

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the ARCHITECT Advisor alert options:

1. Select **ARCHITECT Advisor** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure ARCHITECT Advisor window displays.
3. Select the desired **ARCHITECT Advisor** option.
4. Select the desired **Exceptions notification** option. ***(optional)***
5. Select **Done** to save your changes.

To view the current settings, see *Viewing system settings*, page 2-13.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure ARCHITECT Advisor window*, page 2-66

Windows - Configuration screen - System settings view

Windows you can access from the Configuration screen - System settings view include:

- *Configure sample ordering window*, page 2-41
- *Configure host - release mode window (Options - Communication view)*, page 2-42
- *Configure host - release mode window (Options - Release/Transmit view)*, page 2-43

Configure sample ordering window

From the Configure sample ordering window the system administrator can configure settings for batch ordering, calibration and control ordering options, and average tests per sample (multi-module *i* System).

NOTE: From the Details window you can view the current settings.

Figure 2.2: Configure sample ordering window

For descriptions of these fields, see *Configure sample ordering window field descriptions*, page E-153.

Related procedures…

- *Change the batch sample ordering type*, page 2-15
- *Change the option to disable a reagent kit on a control failure (premium feature)*, page 2-15
- *Change the option to require a control after a calibration (premium feature)*, page 2-16
- *Change the option to track control and calibrator lot expiration (premium feature)*, page 2-17
- *Optimize throughput on a multi-module i System*, page 2-35

Configure host - release mode window (Options - Communication view)

From the Configure host - release mode window (Options - Communication view) the system administrator can configure the settings for release mode and communication type.

NOTE: From the Details window you can view the current settings.

Figure 2.3: Configure host - release mode window (Options - Communication view)

For descriptions of these fields, see *Configure host - release mode window (Options - Communication view) field descriptions*, page E-155.

Related procedures…

- *Configure host interface settings*, page 2-6

Configure host - release mode window (Options - Release/Transmit view)

From the Configure host - release mode window (Options - Release/Transmit view), the general operator can configure the settings for result reporting to a host computer.

NOTE: From the Details window you can view the current settings.

Figure 2.4: Configure host - release mode window (Options - Release/ Transmit view)

For descriptions of these fields, see *Configure host - release mode window (Options - Release/Transmit view) field descriptions*, page E-157.

Related procedures…

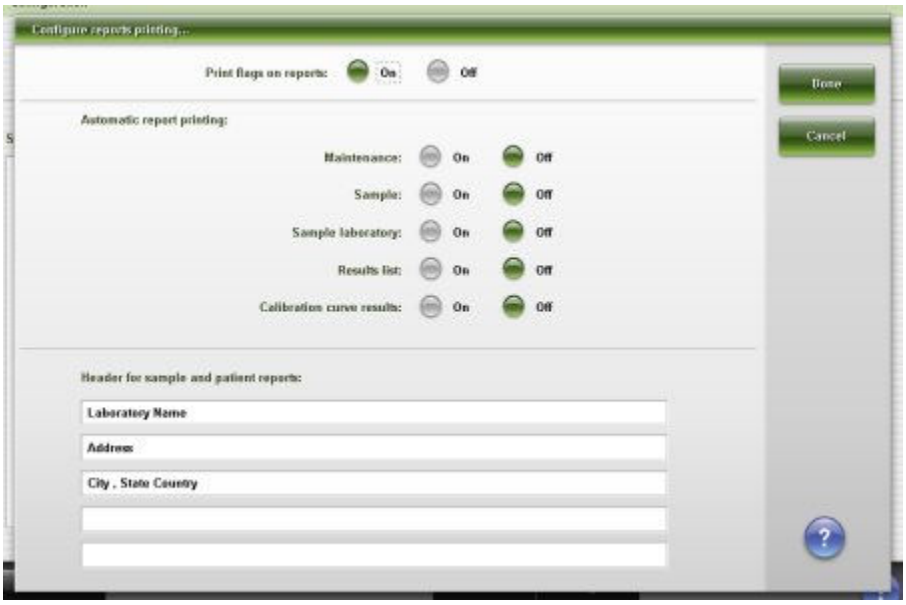
- *Configure host interface settings*, page 2-6

Configure reports printing window

From the Configure reports printing window, the general operator can configure the settings for automatic report printing. The system administrator can configure the settings for printing flags on reports and specify the text to print in the report header.

NOTE: From the Details window you can view the current settings.

Figure 2.5: Configure reports printing window



For descriptions of these fields, see *Configure reports printing window field descriptions*, page E-158.

Related procedures...

- *Configure report settings*, page 2-7
- *Change the option for printing flags*, page 2-18
- *Change the automatic report printing settings*, page 2-17
- *Change the report header text*, page 2-19

Configure reagents - supplies window (*ci*4100)

From the Configure reagents - supplies window (*ci*4100) the system administrator can configure the settings for:

- Reagent options
  - Default reagent low alert
  - Reagent expiration and stability override
  - Run controls by reagent lot or reagent kit
- Supply options
  - On-board solution stability and expiration override
  - ICT Module expiration override
  - Wash and detergent solutions location and cartridge size (*c*4000)
  - Pre-Trigger and Trigger expiration and stability override (*i*1000SR)

NOTE: From the Details window you can view the current settings.

Figure 2.6: Configure reagents - supplies window (ci4100)

For descriptions of these fields, see *Configure reagents - supplies window (ci4100) field descriptions*, page E-159.

Related procedures...

- *Change the system low alert setting for reagent kits*, page 2-20
- *Change the option for running controls for onboard reagent kits*, page 2-38
- *Change the onboard solution options (c4000)*, page 2-33

Configure reagents - supplies window (*c*8000/*c*16000/*i*2000/*i*2000SR)

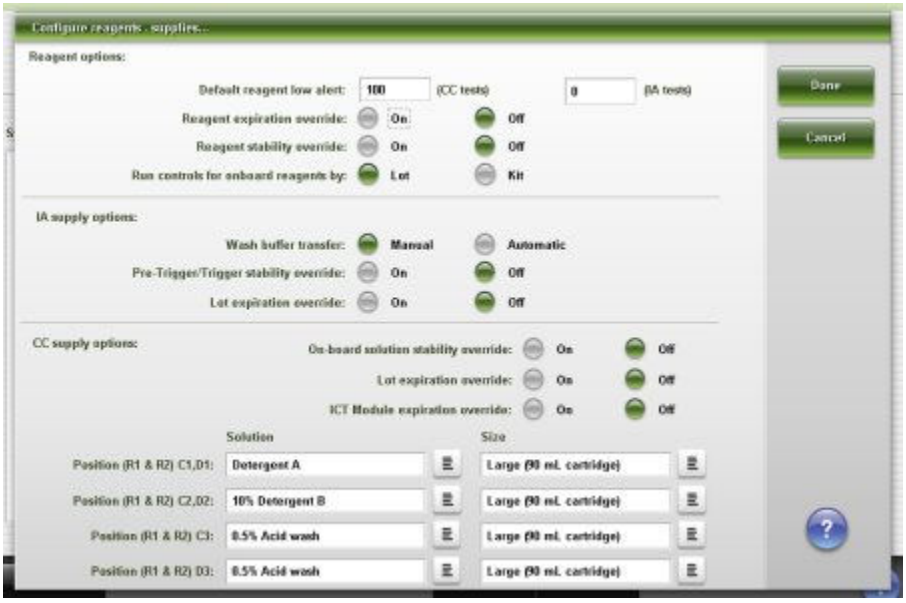
From the Configure reagents - supplies window the system administrator can configure the settings for:

- Reagent options
  - Default reagent low alert
  - Reagent expiration and stability override
  - Run controls by reagent lot or reagent kit
- Supply options
  - On-board solution stability and expiration override
  - ICT Module expiration override
  - Wash and detergent solutions (*c* System)
  - Cartridge size (*c* System)
  - Wash buffer transfer (*i* System)
  - Pre-Trigger and Trigger expiration and stability override (*i* System)

NOTE: From the Details window you can view the current settings.

Figure 2.7: Configure reagents - supplies window (c8000/i2000/i2000SR)

Figure 2.8: Configure reagents - supplies window (c16000/i2000/i2000SR)



For descriptions of these fields, see *Configure reagents - supplies window (c8000/c16000/i2000/i2000SR) field descriptions*, page E-162.

Related procedures…

- *Change the system low alert setting for reagent kits*, page 2-20
- *Change the option for running controls for onboard reagent kits*, page 2-38
- *Change the wash buffer transfer option*, page 10-722

- *Change the onboard solution options (c8000)*, page 2-34
- *Change the onboard solution options (c16000)*, page 2-35

Configure inventory low alert window (premium feature)

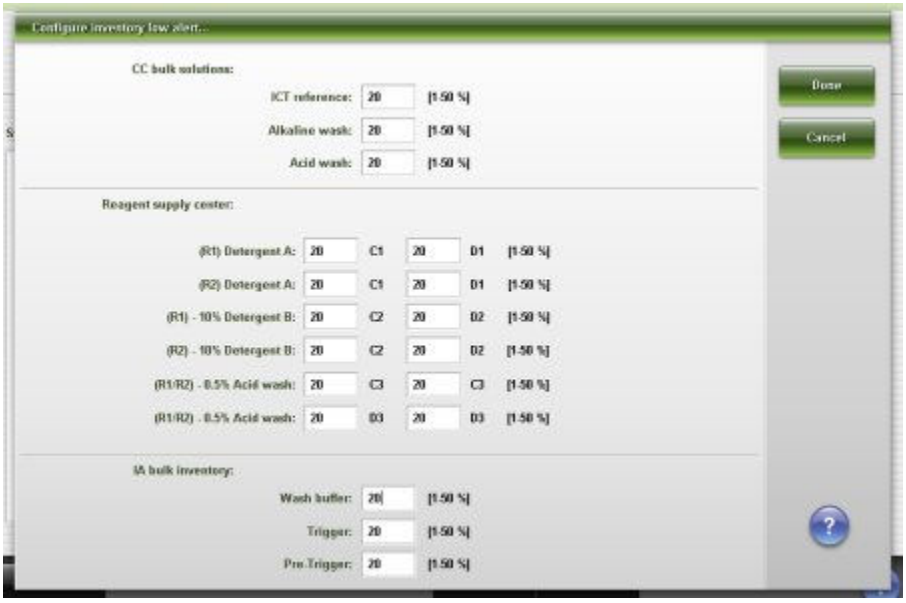
From the Configure inventory low alert window, the system administrator can configure the low alert settings for:

- CC bulk solutions
  - ICT reference
  - Alkaline Wash
  - Acid Wash
- Reagent supply center
  - Detergent A
  - 10% Detergent B
  - 0.5% Acid Wash
- IA bulk inventory
  - Wash buffer
  - Trigger
  - Pre-Trigger

NOTE: From the Details window you can view the current settings.

Figure 2.9: Configure inventory low alert window (c4000/c8000/i1000SR/i2000/i2000SR)

Figure 2.10: Configure inventory low alert window (c16000/i2000/i2000SR)



For a description of these fields, see *Configure inventory low alert window (premium feature) field descriptions*, page E-165.

Related procedures...

- *Change the inventory low alert setting for bulk and onboard solutions (premium feature)*, page 2-21

Configure password window

From the Configure password window the system administrator can configure the system administrator password.

NOTE: From the Details window you can view the current settings.

Figure 2.11: Configure password window

For descriptions of these fields, see *Configure password window field descriptions*, page E-168.

Related procedures…

- *Change the system administrator password (password control not required)*, page 2-25

Configure user window (premium feature)

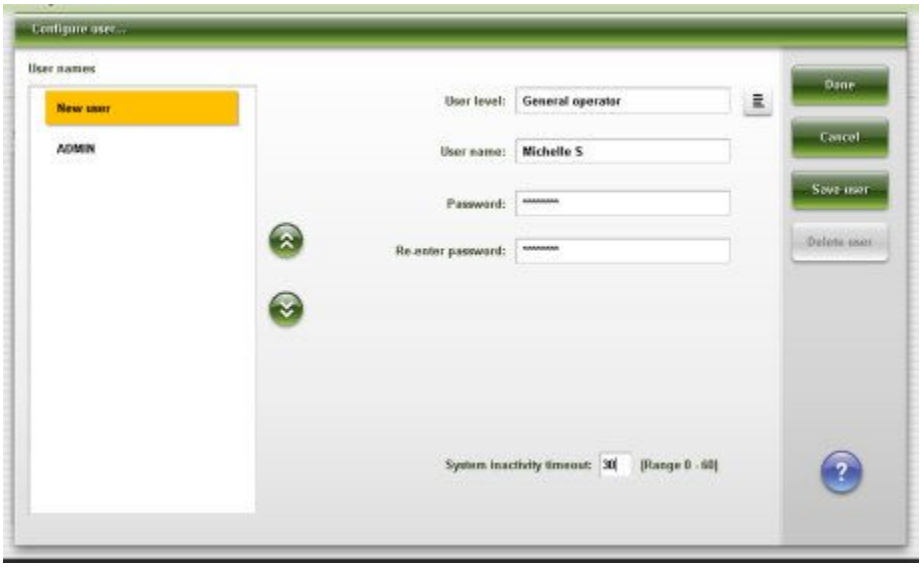
From the Configure user window the system administrator can:

- Configure new user names and passwords
- Change user passwords and user levels
- Set the inactivity timer

A general operator can edit their password.

NOTE: From the Details window you can view the current settings.

Figure 2.12: Configure user window



For a description of these fields, see *Configure user window (premium feature) field descriptions*, page E-168.

Related information…

- *Configure user name and password (premium feature)*, page 2-9
- *Change the system inactivity timeout (premium feature)*, page 2-27
- *Delete a user name (premium feature)*, page 2-26
- *Change user level and password (premium feature)*, page 2-25

Configure system control center window

From the Configure system control center window the system administrator can configure the settings for the SCC (system control center), which include:

- System date, date format, time, time zone, and automatic adjustment for daylight savings time
- Number format for thousands separator
- System language
- Require password-controlled logon (premium feature)
- Unicode input
- Screen timeout
- QC run definition
- Beep volume

From this window the Abbott service representative can configure:

- ARCHITECT System number
- SCC serial number

NOTE: From the Details window you can view the current settings.

Figure 2.13: Configure system control center window

For descriptions of these fields, see *Configure system control center window field descriptions*, page E-169.

Related procedures...

- *Change the date and time settings*, page 2-23
- *Change the system language setting*, page 2-21
- *Configure a QC run definition*, page 2-9
- *Change the screen timeout setting*, page 2-22

- *Change the requirement for password-controlled log on (premium feature)*, page 2-23

Configure modules window (*c*4000)

From the Configure modules window (*c*4000) the system administrator can:

- Enable / disable the sample saving mode
- Configure the module to run with an ICT module
- Configure the module to run with the high concentration waste bottle

From this window the Abbott service representative can configure:

- Processing module type
- Serial number of the processing module
- Setting for overriding the cover interlocks
- Setting for installation of modified optics
- Enabling of the modified optics feature

NOTE: From the Details window you can view the current settings.

Figure 2.14: Configure modules window (c4000)

For descriptions of these fields, see *Configure modules window (c4000) field descriptions*, page E-171.

Related procedures...

- *Enable or disable the ICT module (c System)*, page 10-704

Configure modules window (*c*8000/*c*16000)

From the Configure modules window the system administrator can:

- Enable / disable the sample saving mode
- Configure the module to run with an ICT module
- Configure the module to run with the high concentration waste bottle
- Configure sample carousel auto scan

From this window the Abbott service representative can configure:

- Processing module type
- Serial number of the processing module
- Setting for overriding the cover interlocks
- Setting for installation of modified optics (*c*8000)
- Enabling of the modified optics feature
- Enter the number of RSH Extension priority sections

NOTE: From the Details window you can view the current settings.

Figure 2.15: Configure modules window (c8000/c16000)

For descriptions of these fields, see *Configure modules window (c8000/c16000) field descriptions*, page E-172.

Related procedures…

- *Enable or disable the ICT module (c System)*, page 10-704
- *Configure sample carousel auto scan (c8000/c16000)*, page 2-10

Configure modules window (*i*2000)

From the Configure modules window the system administrator can enter the:

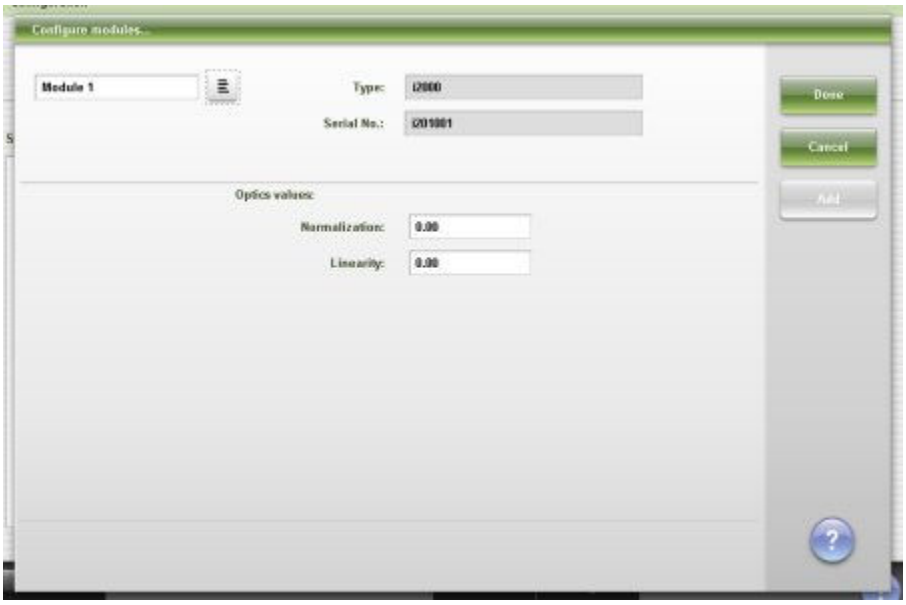
- Optics normalization value
- Linearity value

From this window, the Abbott service representative can configure:

- Module type
- Serial number for the processing module
- Setting for overriding the cover interlocks

NOTE: From the Details window you can view the current settings.

Figure 2.16: Configure modules window (i2000)



For descriptions of these fields, see *Configure modules window (i2000) field descriptions*, page E-173.

Configure modules window (*i*2000SR)

From the Configure modules window the system administrator can:

- Enter the optics normalization and linearity values
- Select the STAT protocol percentage

From this window the Abbott service representative can configure:

- Module type
- Serial number of the processing module

- Setting for overriding the cover interlocks
- Induction heating, when installed

NOTE: From the Details window you can view the current settings.

Figure 2.17: Configure modules window (i2000SR)

For descriptions of these fields, see *Configure modules window (i2000SR) field descriptions*, page E-173.

Related procedures...

- *Change the STAT protocol percentage (i2000SR)*, page 2-38

Configure modules window (*i*1000SR)

From the Configure modules window, the system administrator can:

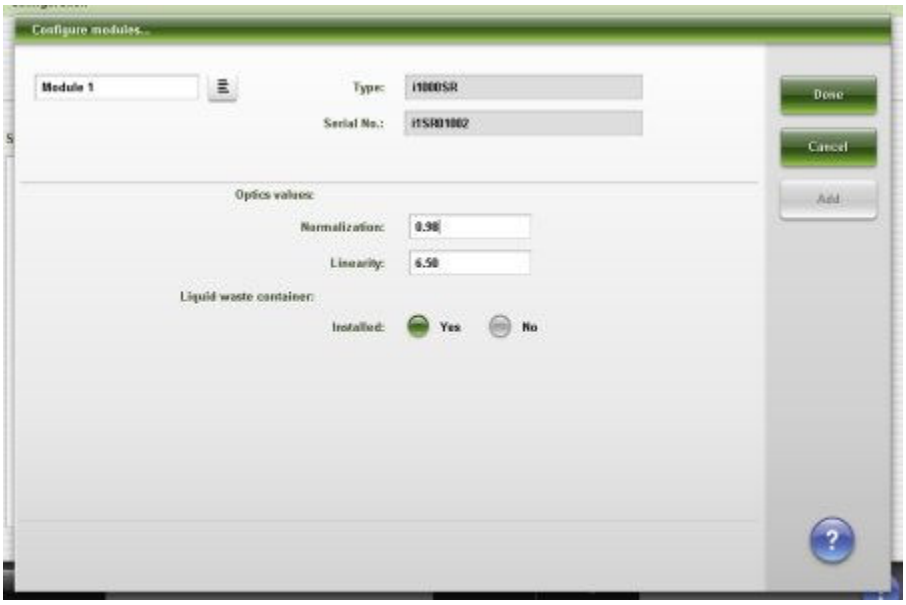
- Enter the optics normalization and linearity values
- Change the liquid waste container option

From this window, the Abbott service representative can configure:

- Module type
- Serial number of the processing module
- Setting for overriding the cover interlocks

NOTE: From the Details window you can view the current settings.

Figure 2.18: Configure modules window (i1000SR)



For descriptions of these fields, see *Configure modules window (i1000SR) field descriptions*, page E-174.

Configure sample handler window (RSH - except *c*4000/*i*1000SR/*ci*4100)

From the Configure sample handler window the system administrator can enable or disable the sample handler to automatically reposition samples for retest.

From this window the Abbott service representative can select the sample handler type and enter the sample handler serial number.

NOTE: From the Details window you can view the current settings.

Figure 2.19: Configure sample handler window (RSH - except for c4000/i1000SR/ci4100)

For descriptions of these fields, see *Configure sample handler window (RSH - except for c4000/i1000SR/ci4100) field descriptions*, page E-175.

Related procedures…

- *Change automatic repositioning for retest setting (RSH)*, page 2-28

Configure sample handler window (RSH - *c*4000/*i*1000SR/*ci*4100)

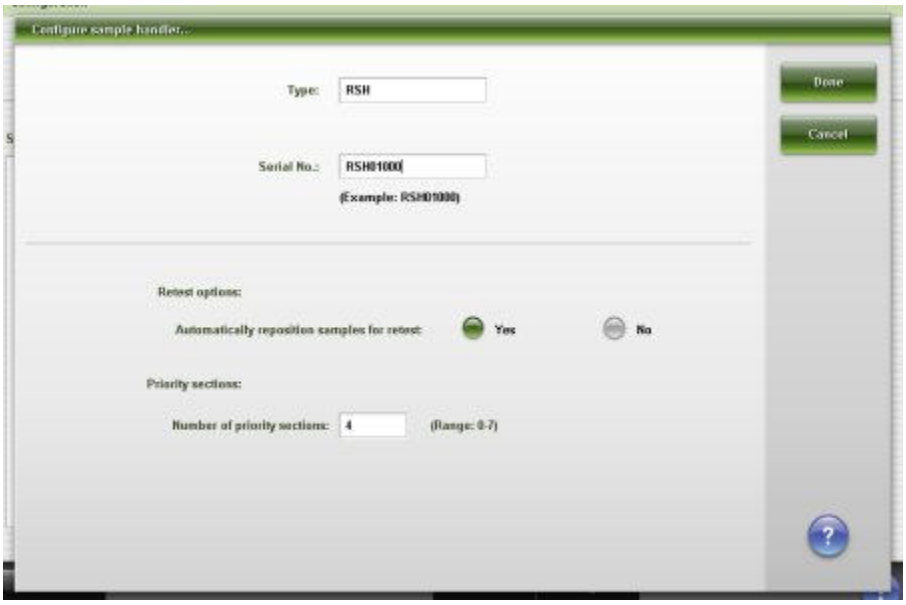
From the configure sample handler window, the system administrator can:

- Enable or disable the sample handler to automatically reposition samples for retest
- Change the number of priority sections

From this window, the Abbott service representative can enter the sample handler serial number.

NOTE: From the Details window you can view the current settings.

Figure 2.20: Configure sample handler window (RSH - c4000/i 1000SR/ci 4100)



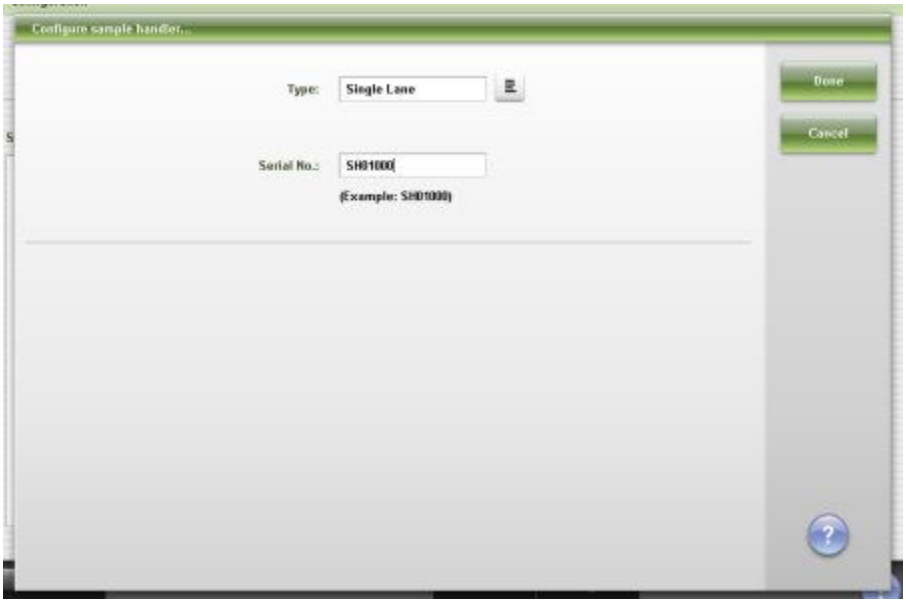
For descriptions of these fields, see *Configure sample handler window (RSH - c4000/i1000SR/ci4100) field descriptions*, page E-176.

Configure sample handler window (SSH- FSE logon)

From the Configure sample handler window the Abbott service representative can select the sample handler type and enter the sample handler serial number.

NOTE: From the Details window you can view the current settings.

Figure 2.21: Configure sample handler window (SSH - FSE logon)

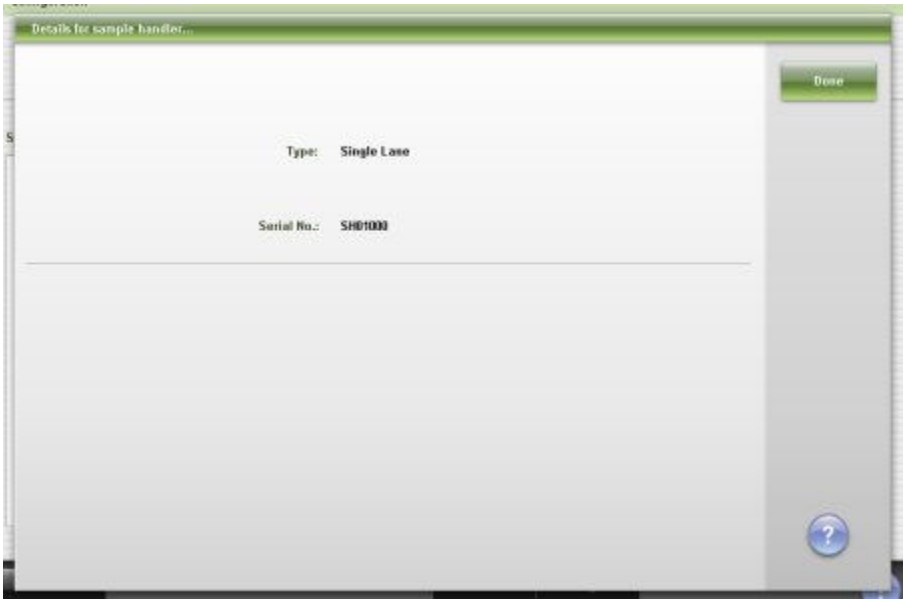


For descriptions of these fields, see *Configure sample handler window (SSH - FSE logon) field descriptions*, page E-176.

Details for sample handler window (SSH)

From the Details for sample handler window you can view the current settings for the sample handler type and sample handler serial number.

Figure 2.22: Details for sample handler window (SSH)



For descriptions of these fields, see *Details for sample handler window (SSH) field descriptions*, page E-177.

Configure sample handler window (LAS - standard)

From the Configure sample handler window you can:

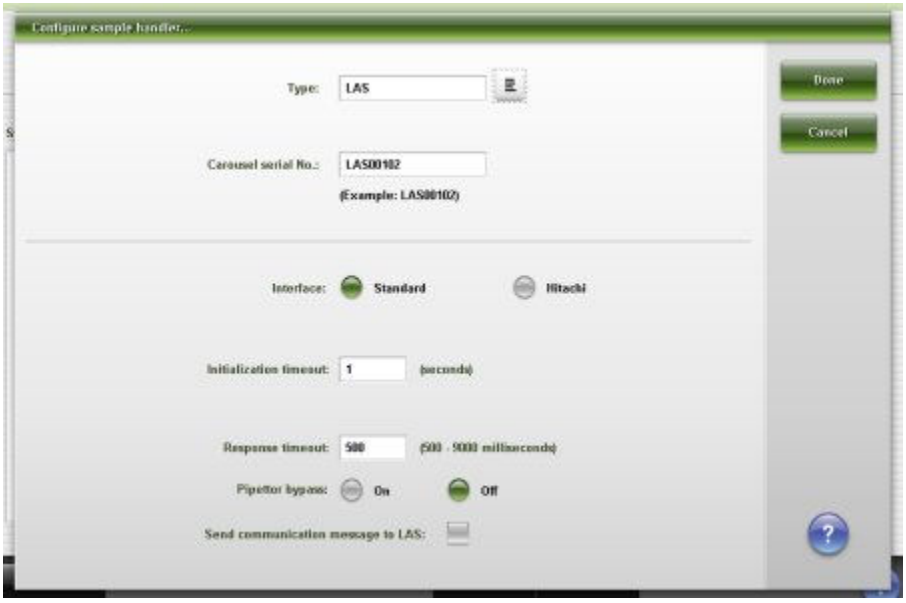
- Edit the value for initialization timeout
- Edit the value for response timeout
- Send a communication message to the LAS (laboratory automation system) to re-initialize communication

From this window the Abbott service representative can:

- Select the sample handler type
- Enter the carousel serial number
- Select the LAS interface type
- Edit the pipettor bypass option

NOTE: From the Details window you can view the current settings.

Figure 2.23: Configure sample handler window (LAS - standard)



For descriptions of these fields, see *Configure sample handler window (LAS - standard) field descriptions*, page E-177.

Related procedures…

- *Change the LAS timeout settings and reinitialize communications*, page 2-36
- *Change the LAS Pipettor bypass option (FSE)*, page 2-37

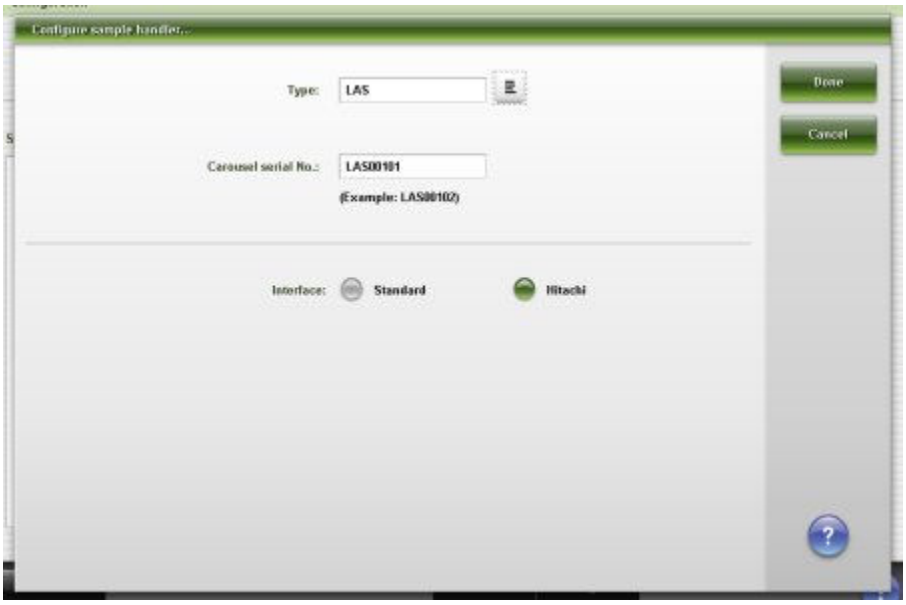
Configure sample handler window (LAS - Hitachi - FSE logon)

From the Configure sample handler window the Abbott service representative can:

- Select the sample handler type
- Enter the carousel serial number
- Select the LAS (laboratory automation system) interface type

NOTE: From the Details window you can view the current settings.

Figure 2.24: Configure sample handler window (LAS - Hitachi - FSE logon)



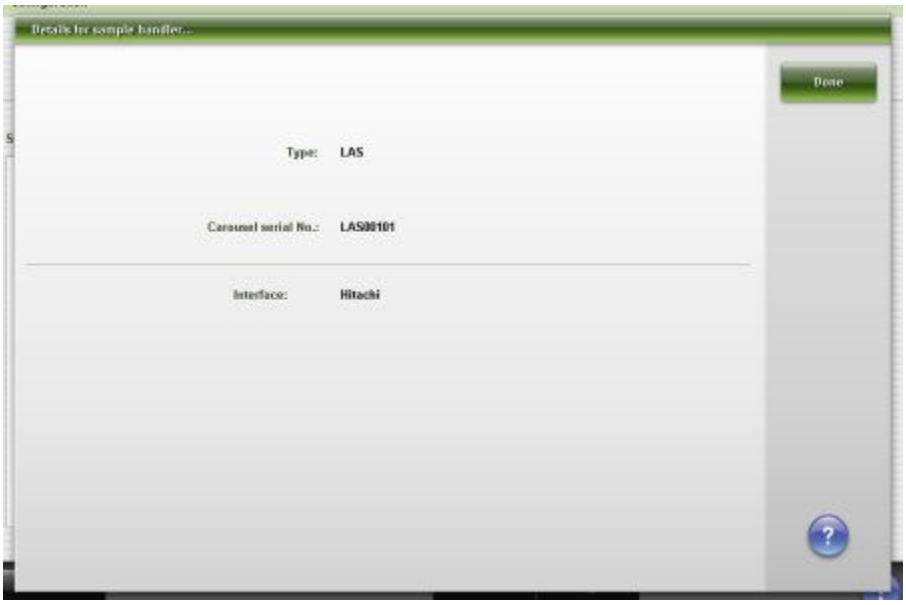
For descriptions of these fields, see *Configure sample handler window (LAS - Hitachi - FSE logon) field descriptions*, page E-178.

Details for sample handler window (LAS - Hitachi)

From the Details for sample handler window you can view the current settings for:

- Sample handler type
- Carousel serial number
- LAS (laboratory automation system) interface type

Figure 2.25: Details for sample handler window (LAS - Hitachi)



For descriptions of these fields, see *Details for sample handler window (LAS - Hitachi) field descriptions*, page E-178.

Configure bar codes window

From the Configure bar codes window the system administrator can enable or disable bar code types and, depending on the type, can configure:

- Checksums
- Send checksum digits to the SCC (system control center)
- Send the start / stop characters to the SCC
- Code length #1
- Code length #2

NOTE: From the Details window you can view the current settings.

Figure 2.26: Configure bar codes window

For descriptions of these fields, see *Configure bar codes window field descriptions*, page E-179.

Related procedures…

- *Change the sample bar code settings for codabar*, page 2-29
- *Change the sample bar code settings for code 39*, page 2-30
- *Change the sample bar code settings for I 2 of 5*, page 2-30

Configure serial ports window

From the Configure serial ports window the system administrator can configure communication settings for the serial ports.

NOTE: From the Details window you can view the current settings.

Figure 2.27: Configure serial ports window

For descriptions of these fields, see *Configure serial ports window field descriptions*, page E-181.

Related procedures…

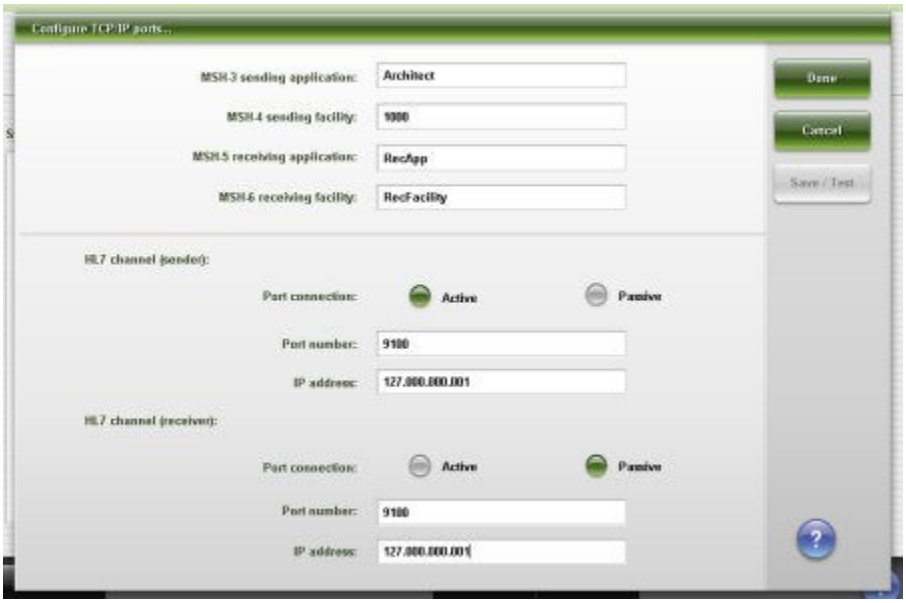
- *Change the LIS serial port settings*, page 2-31
- *Change the LAS serial port settings*, page 2-32

Configure TCP/IP ports window

From the Configure TCP/IP ports window, the system administrator can configure communication settings for the TCP/IP ports and IP addresses.

NOTE: From the Details window you can view the current settings.

Figure 2.28: Configure TCP/IP ports window



For descriptions of these fields, see *Configure TCP/IP ports window field descriptions*, page E-182.

Related procedures…

- *Configure the TCP/IP port settings*, page 2-11

Test connection window

From the Test connection window, the general operator can test the communications for the serial or TCP/IP connections.

NOTE: From the Details window, you can view the current settings.

Figure 2.29: Test connection window

For a description of these fields, see *Test connection window field descriptions*, page E-183.

Related procedures…

- *Verify ASTM/serial communications*, page 10-726
- *Verify HL7-TCP/IP communications*, page 10-727

Configure premium features window

From the Configure premium features window, the system administrator can activate or deactivate the premium features.

NOTE: From the Details window you can view the current settings.

Figure 2.30: Configure premium features window

Figure 2.31: Details for premium features window

For descriptions of these fields, see *Configure premium features window field descriptions*, page E-184.

Related procedures...

- *Configure premium features*, page 2-12
- *Deactivate premium features*, page 2-39

Configure ARCHITECT Advisor window

From the Configure ARCHITECT Advisor window the system administrator can configure the use of an ARCHITECT Advisor alert tower.

NOTE: From the Details window you can view the current settings.

Figure 2.32: Configure ARCHITECT Advisor window

For descriptions of these fields, see *Configure ARCHITECT Advisor window field descriptions*, page E-184.

Related procedures...

- *Change the ARCHITECT Advisor alert options*, page 2-40

Configuration screen - Assay settings view

From the Assay settings view of the Configuration screen you can configure settings associated with assays. The display of this view is dependent on your selection from the Assay categories list.

Configuration screen - Assay settings view topics include:

Configuration screen - Assay settings - Assay parameters view

From the Assay settings - Assay parameters view of the Configuration screen the general operator can access windows to view detailed information for configured assay settings.

The system administrator can access windows to configure these settings, which include:

- Assay parameters
- Reagent settings
- New assay
- Result units
- Panel definitions
- Retest rules
- Assay display order

Figure 2.33: Configuration screen - Assay settings - Assay parameters view

For descriptions of these fields, see *Configuration screen - Assay settings - Assay parameters view field descriptions*, page E-184.

To display this view of the screen, see *Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68.

Related procedures...

- *Configuring Abbott assays*, page 2-72
- *Configuring user-defined assays*, page 2-83
- *Configure assay display order*, page 2-95
- *Changing assay configuration settings*, page 2-97
- *Change the result units setting*, page 2-115
- *Printing assay parameter reports*, page 2-118

Access the Configuration screen - Assay settings - Assay parameters view

Perform this procedure to display the Assay settings - Assay parameters view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - Assay settings - Assay Parameters view:

1. Select **System** from the menu bar, and then select **Configuration**.

   The Configuration screen - System settings view displays.

2. Select the **Assay settings** option.

   The Configuration screen - Assay settings - Assay Parameters view displays.

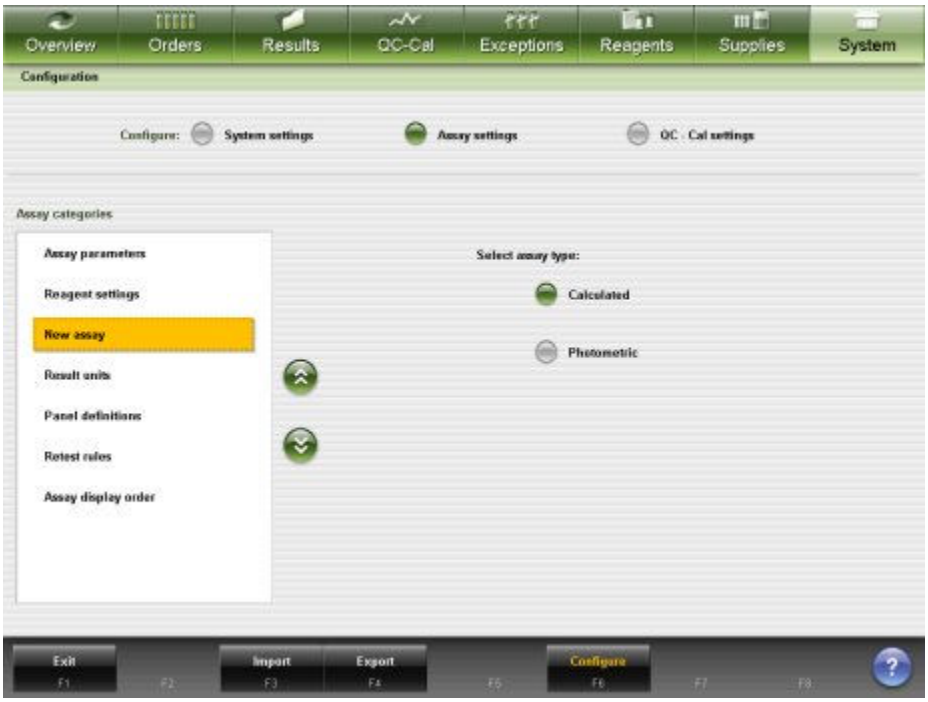
Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67

Configuration screen - Assay settings - New assay view

From the Assay settings - New assay view of the Configuration screen the system administrator can select an assay file type and access windows to configure. Assay file types include calculated and photometric.

Figure 2.34: Configuration screen - Assay settings - New assay view



For descriptions of these fields, see *Configuration screen - Assay settings - New assay view field descriptions*, page E-185.

To display this view of the screen, see *Access the Configuration screen - Assay settings - New assay view*, page 2-70.

Related procedures...

- *Configure a photometric assay (c System)*, page 2-87
- *Configure a calculated assay*, page 2-83

Access the Configuration screen - Assay settings - New assay view

Perform this procedure to display the Assay settings - New assay view of the Configuration screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - Assay settings - New assay view:

1. Select **System** from the menu bar, and then select **Configuration**.

   The Configuration screen - System settings view displays.

2. Select the **Assay settings** option.

   The Configuration screen - Assay settings - Assay parameters view displays.

3. Select **New assay** from the **Assay categories** list.

   The Configuration screen - Assay settings - New assay view displays.

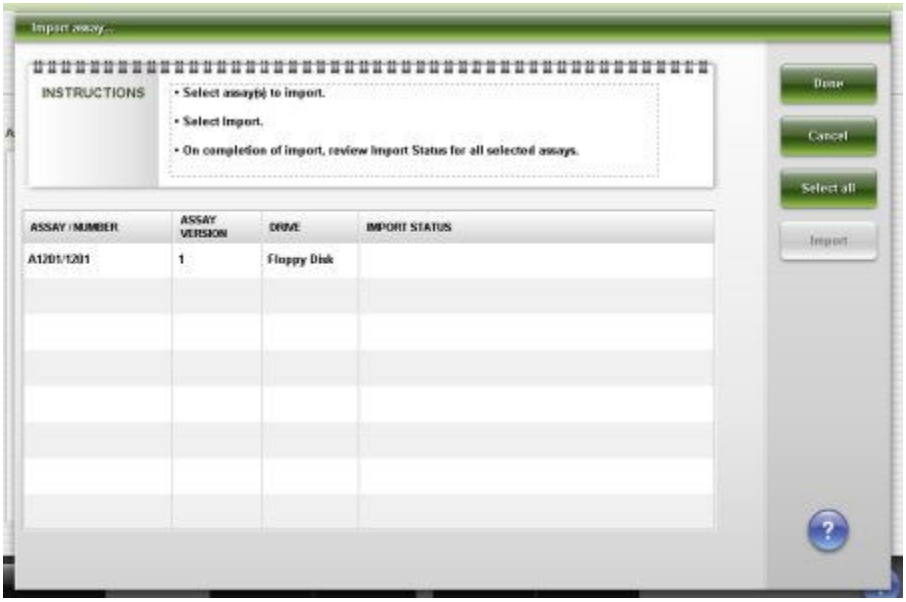
Related information…

- *Configuration screen - Assay settings - New assay view*, page 2-69

Import assay window

From the Assay settings view of the Configuration screen the system administrator can import an assay file from another ARCHITECT *c* System.

Figure 2.35: Import assay window



For descriptions of these fields, see *Import assay window field descriptions*, page E-186.

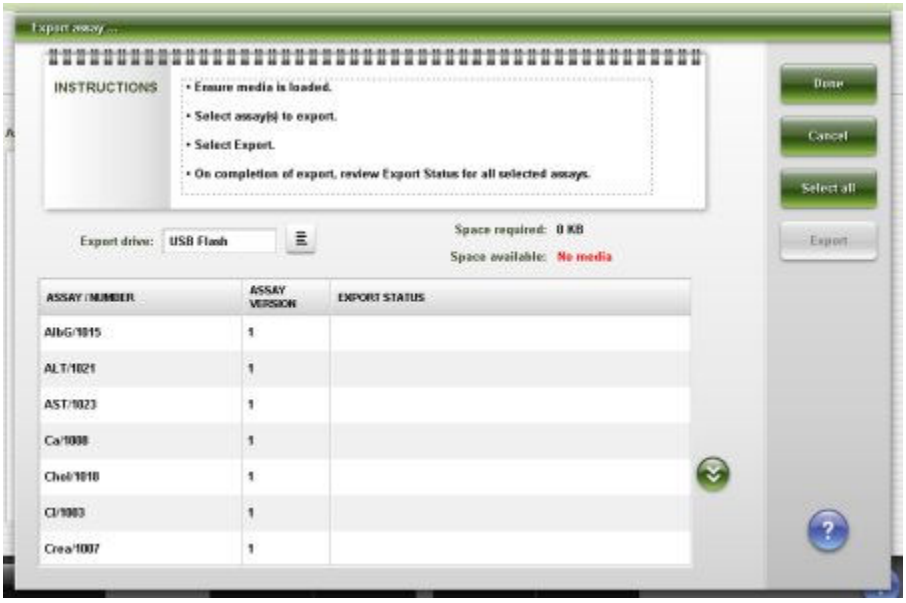
Related procedures…

- *Import an assay file (c System)*, page 2-212

Export assay window

From the Assay settings view of the Configuration screen you can export an assay file to another ARCHITECT *c* System.

Figure 2.36: Export assay window



For descriptions of these fields, see *Export assay window field descriptions*, page E-188.

Related procedures…

- *Export an assay file (c System)*, page 2-213

Procedures - Configuration screen - Assay settings view

Procedures you can perform from the Configuration screen - Assay settings view and its related windows are listed below.

Procedures not in this sub-section include:

- *Printing assay parameter reports*, page 2-118

Procedures in this sub-section include:

- *Configuring Abbott assays*, page 2-72
- *Configuring user-defined assays*, page 2-83
- *Configure assay display order*, page 2-95

Configuring Abbott assays

Procedures for configuring Abbott assay settings include:

Configure normal and extreme ranges

Perform this procedure to configure normal and extreme result ranges for an assay.

NOTE: Ranges are evaluated in the order defined.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure normal and extreme ranges:

1. Select the desired assay(s) from the **Assays** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Results** option.

   The Configure assay parameters window - Results view displays.

3. Select **Add**.

   The Configure results parameters window displays.

4. Select the desired **Gender** option.

5. Select the **Age** list button, and then select the desired age format.

   NOTE: If you do not enter an age when creating a patient order, the age is assumed to be 0.

6. Enter a value in the **Minimum** and **Maximum** data entry boxes.
7. Enter a value in the **Normal range** data entry boxes.
8. Enter a value in the **Extreme range** data entry boxes. ***(optional)***
9. Select **Done** to return to the Results view of the Configure assay parameters window.

   Your values display in the Gender and age specific ranges table.
10. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***
11. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Results view*, page 2-137
- *Configure results parameters window*, page 2-138

Configure patient, QC, and calibration panels

Perform this procedure to create a panel(s) that may be used when ordering patient or control samples, and calibrations.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Any
User access level	System administrator
Supplies	NA

To configure patient, QC, and calibration panels:

1. Select **Panel definitions** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure panel definitions window displays.
3. Enter a unique name (maximum of 10 alphanumeric characters) in the **New panel name** data entry box.
4. Select the desired **Panel type** check box(es).
5. Select the desired assay(s) from the **Assays** list.
6. Select **Add** to create the panel.

   The panel name displays in the Panels list.
7. Repeat steps 3 through 6 to add another panel. ***(optional)***

8. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure panel definitions window*, page 2-143

Configure a retest rule

Perform this procedure to configure a retest rule(s), which provides automatic patient sample reordering for those samples that meet specified retest rules on an assay-by-assay basis.

IMPORTANT: If you configure a calculated assay as your retest assay the system will use existing valid constituent results to perform the calculation.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select **Add rule**.

   The Add / edit assay retest rules window displays.
4. Enter a name in the **Rule name** data entry box.
5. Enter the number of replicates in the **Replicates** data entry box.

   NOTE: The system runs the number of replicates entered for all retest assays.
6. Select the desired **Retest indicator** option to determine the retest criteria, result range, or error code.

   NOTE: If you selected the error code option and one of the following error codes occurs, the assay is retested.

   – 1005 - Result cannot be calculated, final RLU read is outside the specification of the lowest calibrator.

   – 1007 - Unable to process test, activated read failure.

- 1008 - Unable to process test, final read failure.
- 1051 - Unable to calculate result, absorbance exceeded optical limits.
- 1053 - Unable to calculate result, rate reaction linearity failure.
- 1054 - Unable to calculate result, Reaction check failure.
- 1232 - Result cannot be calculated, final RLU read is outside the specification of the highest calibrator.
- 1350 - Unable to calculate result, no absorbance reads within absorbance range.
- 1351 - Unable to calculate result, insufficient absorbance reads within absorbance range.
- 1603 - Unable to calculate result, ICT reference solution voltage drift exceeds 3mV.
- 1700 - Unable to process test, due to interference from Assay number (x).

7. Enter a value(s) in the **Result range** data entry box(es), if displayed.
   - To automatically retest all samples when the original results are within a specific range, enter values in both data entry boxes.
   - To automatically retest all samples when the original results are less than or equal to a specific value, leave the first data entry box blank and enter the value in the second data entry box.
   - To automatically retest all samples when the original results are greater than or equal to a specific value, enter the value in the first data entry box and leave the second data entry box blank.
8. Select **Select assay**. ***(optional)***

   The Select assay window displays.

   a. Select the desired assay(s) from the **Assays** list.

   b. Deselect the original assay if you do not want to include it as a retest assay. ***(optional)***

   c. Select **Done** to return to the Add / edit assay retest rules window.

   The selected assay(s) displays in the Selected retest assays list.
9. Select the desired **Original dilution** option for the original assay. ***(optional)***
10. Select a retest assay from the **Selected retest assays** list. ***(optional)***
11. Select the desired **Retest dilution** option. ***(optional)***
12. Repeat steps 10 and 11 for each retest assay.
13. Select **Done** to return to the Configure assay retest rules window.

    The retest rule displays.

14. Repeat steps 3 through 13 to configure additional rules for this assay. ***(optional)***
15. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 14 for each. ***(optional)***
16. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay retest rules window*, page 2-144
- *Add / edit assay retest rules window*, page 2-145
- *Select assay window*, page 2-146

Configure result units and decimal places

Perform this procedure to configure alternate result units and decimal places for an assay.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure result units and decimal places:

1. Select **Result units** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure result units window displays.
3. Enter the result units by performing one of the following:
   - Select the **Result units** list button, and then select the desired unit (*i* System assays).
   - Enter the unit in the **Result units** data entry box (*c* System and calculated assays).
4. Enter the desired value in the **Decimal places** data entry box.
5. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 and 4 for each. ***(optional)***
6. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure result units window*, page 2-143

Configure the default dilution setting (photometric - *c* System)

Perform this procedure to configure the dilution option to use if a dilution is not specified when a test is ordered.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General - Reaction definition view displays.

2. Select the **Reagent** / **Sample** option.

   The Configure assay parameters window - General - Reagent / Sample view displays.

3. Select the **Default dilution** option.

4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then select a default dilution for each. ***(optional)***

5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General - Reagent / Sample view (photometric - c System)*, page 2-123

Configure a calibration adjustment type and interval (photometric - *c* System)

Perform this procedure to define the adjustment type and level of a full calibration curve. You can configure the calibration adjustment to occur at scheduled intervals or to be ordered at non-scheduled intervals.

NOTE: If you modify the calibration adjustment type and/or interval for an assay an asterisk displays next to the assay number to indicate the assay was modified.

If you configure a factor calibration method, you cannot configure adjustment settings.

To specify an adjustment when ordering, see *Create a calibration order*, page 6-12.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To Configure a calibration adjustment type and interval:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Calibration** option.

   The Configure assay parameters window - Calibration- Calibrators view displays.

3. Select the **Intervals** option.

   The Configure assay parameters window - Calibration- Intervals view displays.

4. Select the **Adjust type** list button, and then select an adjustment type.

   NOTE: If you select the 1-point or 2-point adjustment type, you must also configure the Adjust level setting.

5. Select the **Adjust level** list button, if available, and then select the calibrator level to use for adjustment. ***(optional)***

6. Enter the expiration interval for the adjustment calibration in the **Adjust interval** data entry box. ***(optional)***

7. Select the **Default ordering type** list button, and then select the desired default ordering type.

8. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 4 - 7 for each. ***(optional)***

9. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Calibration - Intervals view (photometric - c System)*, page 2-130

Configure interpretation options (*c* System and calculated)

Perform this procedure to include the interpretation with the test result and to determine whether results are held for review.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

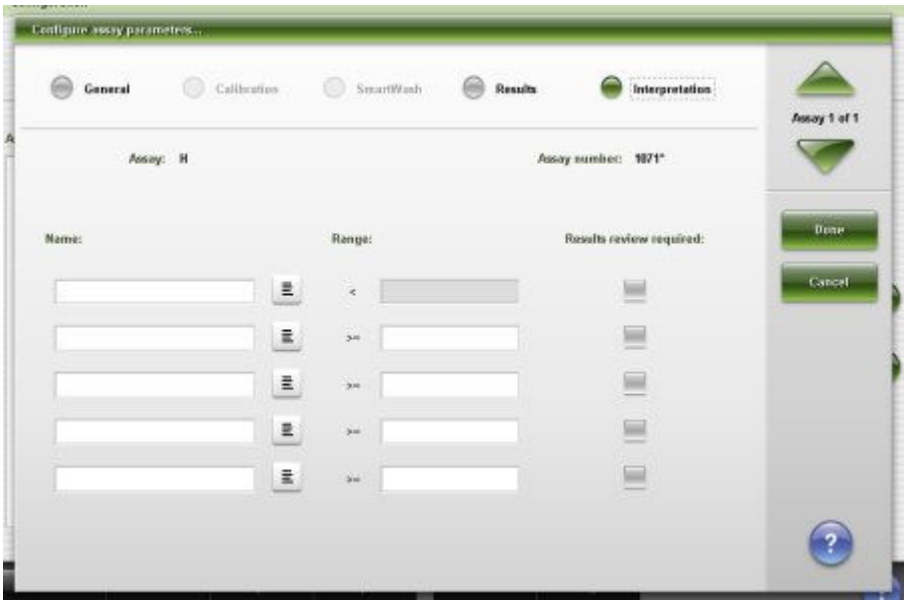
To configure interpretation options:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

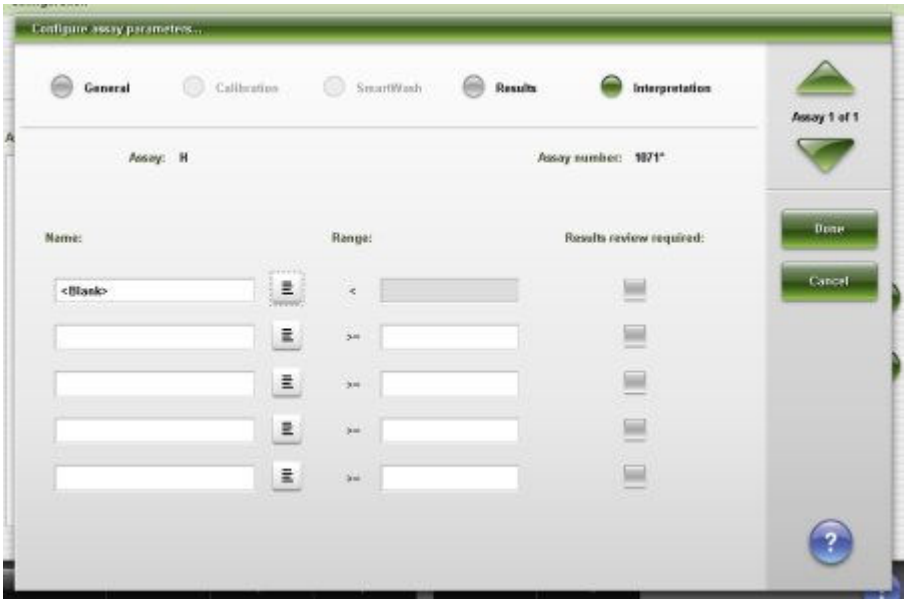
2. Select the **Interpretation** option.

   The Configure assay parameters window - Interpretation view displays.



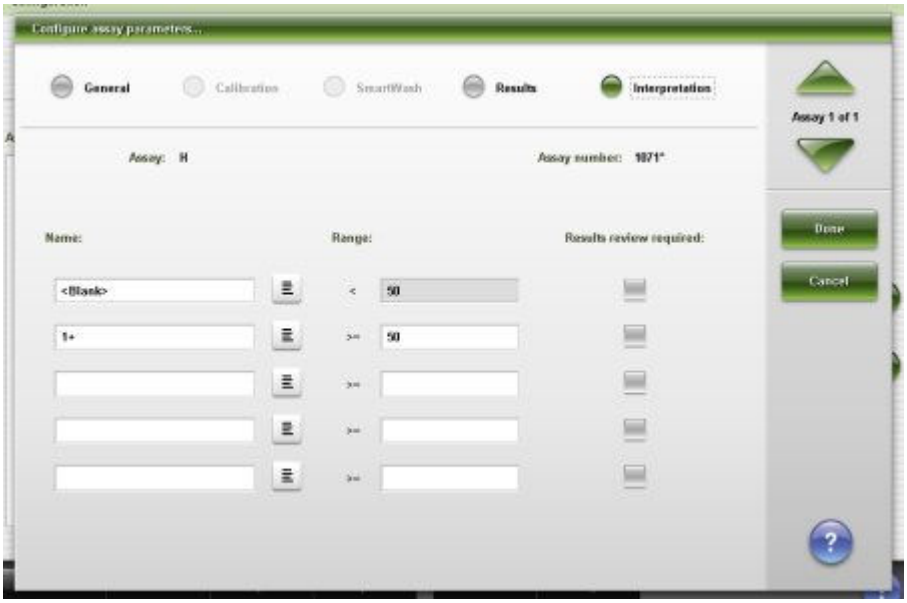
3. Select the **Name** list button, and then select the desired name for the interpretation.

   NOTE: If the desired name is not listed, select **User defined** and enter the name.



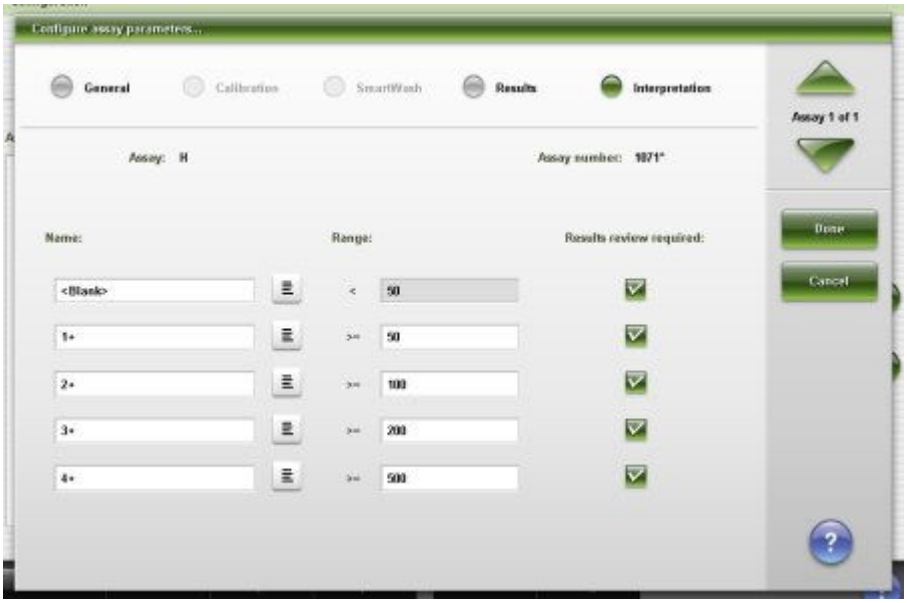
4. Repeat step 3 to select another interpretation name.
5. Enter a value(s) in the **Range** data entry box(es).

   NOTE: The first Range data entry must be ≥ the low-linearity value. The last Range data entry must be ≤ the high-linearity value.



6. Select the **Results review required** check box(es) for the desired interpretation(s). ***(optional)***

   NOTE: If the checkbox is selected the results are held for manual release only when the Release Mode is configured for the Hold option and the results are within the specified interpretation range.



7. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Interpretation view*, page 2-139

Configure the default dilution setting (*i* System)

Perform this procedure to configure the dilution option to use if a dilution is not specified when you order a test.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.
2. Select the **Dilution** option.

3. Select the desired **Default dilution** option.
4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then select a default dilution for each. ***(optional)***
5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General view (i System)*, page 2-120

Configure the option for running calibrations by kit (*c* System)

Perform this procedure to configure the option for running calibrations on all reagent kits onboard the system for a specified reagent. This option is only available for photometric assays installed with an Abbott assay disk.

When this option is configured the following will occur for the reagent selected:

- All calibration data is deleted.
- Active calibration curve statuses change to Inactive.
- The assay number is marked with an asterisk to indicate it has been modified.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure the option for running calibrations by kit:

1. Select **Reagent settings** from the **Assays categories** list on the Configuration screen.
2. Select the desired reagent from the **Reagents** list, and then select **F6 - Configure**.

   The Configure reagent window displays.
3. Select the desired **Run calibrations for reagents by Kit** option.
4. Select **Done**.

   A prompt displays to notify you that all calibration data will be deleted, all Active and Pending QC calibrations will become Inactive, and the assay file will be marked as modified.
5. Select **OK** to save your changes.

To recalibrate the assay see *Create a calibration order*, page 6-12.

To view the current settings see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System)*, page 2-141

Configuring user-defined assays

Procedures for configuring user-defined assays include:

- *Configure a calculated assay*, page 2-83
- *Configure a photometric assay (c System)*, page 2-87
- *Configure the SmartWash settings (c System)*, page 2-90
- *Configure a user-defined sample diluent (photometric - c System)*, page 2-91
- *Configure a user-defined reagent (photometric - c System)*, page 2-92
- *Configure a user-defined reagent kit (photometric - c System)*, page 2-93
- *Configure a reagent kit for a user-defined sample diluent (photometric - c16000)*, page 2-94

Configure a calculated assay

Perform this procedure to create an assay with a mathematical formula for deriving a calculated (ratio) result.

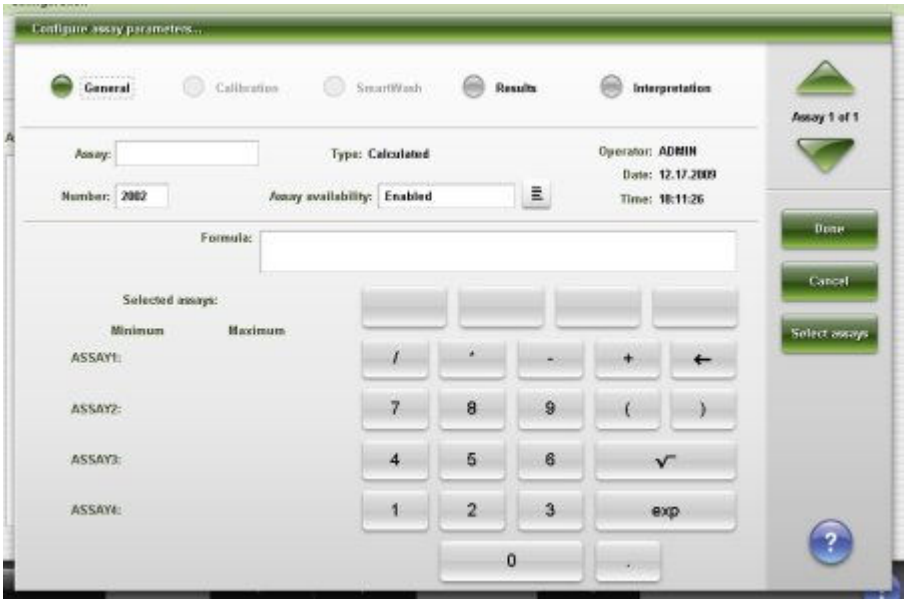
To edit a user-defined calculated assay see *Change a calculated assay*, page 2-116.

Prerequisite	*Access the Configuration screen - Assay settings - New assay view*, page 2-70
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a calculated assay:

1. Select **F6 - Configure**.

   The Configure assay parameters window - General view (calculated) displays.



2. Enter the desired name in the **Assay** data entry box.
3. Enter the desired assay number in the **Number** data entry box.

   NOTE: The next available assay number displays in the number field, but may be edited. The user-defined assay number range is 2000-2999.

   A calculated assay installed from an assay disk has an assay number ranging from 3000-3999 which cannot be edited.
4. Select the **Assay availability** list button, and then select the desired option.
5. Select **Select assays**.

   The Select assay window displays.

   a. Select the assay(s) to be included in the formula from the **Assays** list. The assays are assigned to calculator buttons in the order you select them.

      For example: For an LDL calculation you would select Cholesterol, HDL, and Triglyceride.

   b. Select **Done** to return to the Configure assay parameters window - General view (calculated).

      The selected assay(s) display in the Selected assays area and the appropriate ASSAY buttons display above the calculator keypad.

6. Enter the formula for the calculation by selecting the desired constituent assay(s) and calculator buttons.

   NOTE: You must include all of the selected constituent assay(s) in the formula.

   For example: To enter the formula for an LDL calculation Cholesterol - HDL - (Triglyceride /5), you would perform the following steps:

   a. Select the **ASSAY1** (cholesterol) button [ASSAY1], and then select the minus button [-].

   b. Select the **ASSAY2** (HDL) button [ASSAY2], and then select the minus button [-].

   c. Select the open parenthesis button [(], and then select the **ASSAY3** (Triglyceride) button [ASSAY3].

   d. Select the divide button [/], then select **5**, and then select the close parenthesis button [)].

      The formula for the calculation displays in the **Formula** data entry box.

7. Enter a result range for the assay(s) in the **Minimum** and **Maximum** value data entry box(es).

   NOTE: If the constituent test result(s) is outside the defined range, the calculated test becomes an exception and a result is not reported.

8. Select the Results option to configure ranges.

   See *Configure normal and extreme ranges*, page 2-72.

9. Select the Interpretation option to configure interpretations.

   See *Configure interpretation options (c System and calculated)*, page 2-79.

10. Select **Done** to create the calculated assay and return to the Configuration screen.

The calculated assay displays in the Assays list.

To configure result units and decimal places for the calculated assay, see *Configure result units and decimal places*, page 2-76.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - New assay view*, page 2-69
- *Configure assay parameters window - General view (calculated)*, page 2-121
- *Select assay window*, page 2-146

Configure a photometric assay (*c* System)

Use the following order to configure *c* System photometric user-defined assays.

Table 2.1: Configuring c System photometric assays

Procedure	Description
Configure a new calibrator set (c System), page 2-158	Perform this procedure if a calibrator set is not defined for the assay.
Configure a user-defined reagent (photometric - c System), page 2-92	Perform this procedure to define the reagent and to link to the procedure to define the reagent kit if the assay uses non-bar coded reagents.
Configure a user-defined sample diluent (photometric - c System), page 2-91	Perform this procedure if the assay uses a non-bar coded sample diluent not previously configured.
Configure a reagent kit for a user-defined sample diluent (photometric - c16000), page 2-94	Perform this procedure to create a reagent kit with a unique identifier for a non-bar code labeled sample diluent (*c*16000).
Configure a photometric assay, page 2-88	Perform this procedure to configure the assay parameters. If you followed the recommended order your calibrator, reagent, and sample diluent (if required) information is available.
Change photometric assay calibrator settings (c System), page 2-173	Perform this procedure to configure the calibrator concentrations for a user-defined assay.
Configure result units and decimal places, page 2-76	Perform this procedure to configure result units and number of decimal places desired.

The following procedures are optional once the photometric assay is configured.

Table 2.2: Configuring optional items for photometric assays

Procedure	Description
Configure patient, QC, and calibration panels, page 2-73	Perform this procedure to create a panel(s) to use when ordering patient, control, or calibration samples.
Configure a retest rule, page 2-74	Perform this procedure to configure a retest rule(s) to provide automatic patient sample reordering for those samples that meet specified retest rules on an assay-by-assay basis.
Prepare reagent bar code labels.	See *1D reagent bar code label data format*, page 4-33

Configure a photometric assay

Perform this procedure to configure the assay parameters.

Prerequisite	See table above, *Configuring c System photometric assays*, page 2-87.
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure a photometric assay:

1. Select the **Photometric** option on the Configuration screen, and then select **F6 - Configure**.

   The Configure assay parameters - General - Reaction definition view displays.

2. Configure the settings for the General option.

   a. Enter the desired name in the **Assay** data entry box.

   b. Enter the desired assay number in the **Number** data entry box.

      NOTE: The next available assay number displays in the number field, but may be edited. The user-defined assay number range is 2000-2999.

   c. Select the **Assay availability** list button, and then select the desired availability option.

   d. Configure the settings for the **Reaction definition, Reagent / Sample**, and **Validity checks** options.

3. Configure the settings for the Calibration option.

   a. Select the **Calibration** option.

      The Configure assay parameters - Calibration - Calibrators view displays.

   b. Select the **Calibration method** list button, and then select the desired method.

c. Configure the settings for the Calibrators, Volumes, Intervals, and Validity checks options.

NOTE: Ensure the blank calibrator concentration is defined on the Configure assay parameters window - Calibration - Calibrators view (photometric *c* System).

4. Select the SmartWash option to configure washes. ***(optional)***

See *Configure the SmartWash settings (c System)*, page 2-90.

5. Select the Results option to configure ranges.

See *Configure normal and extreme ranges*, page 2-72.

6. Select the Interpretation option to configure interpretations. ***(optional)***

See *Configure interpretation options (c System and calculated)*, page 2-79.

7. Select **Done** to create the photometric assay.

The assay now displays in the Assays list.

8. Enter calibrator concentrations for the calibrator set configured in step 3c. See *Change photometric assay calibrator settings (c System)*, page 2-173.

NOTE: To enable this assay, calibrator concentrations must first be entered for every level of the calibrator set.

To save your configuration information to an alternative location, see *Create a system software backup*, page 2-200.

To save assay files to a floppy disk or USB flash drive, see *Export an assay file (c System)*, page 2-213.

To configure result units and decimal places for the photometric assay, see *Configure result units and decimal places*, page 2-76.

For additional information see the ARCHITECT *c* System Assay Application Guide.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - New assay view*, page 2-69
- *Configure assay parameters window - General - Reaction definition view (photometric - c System)*, page 2-122
- *Configure assay parameters window - General - Reagent / Sample view (photometric - c System)*, page 2-123
- *Configure assay parameters window - General - Validity checks view (photometric - c System)*, page 2-124
- *Configure assay parameters window - Calibration - Calibrators view (photometric - c System)*, page 2-128
- *Configure assay parameters window - Calibration - Volumes view (photometric - c System)*, page 2-129
- *Configure assay parameters window - Calibration - Intervals view (photometric - c System)*, page 2-130

- *Configure assay parameters window - Calibration - Validity checks view (photometric - c System)*, page 2-131

Configure the SmartWash settings (*c* System)

Perform this procedure to configure SmartWash settings. The SmartWash feature provides an additional wash for the reagent probes, sample probe, and cuvette to prevent assay-to-assay interference.

NOTE: Do not configure more than one wash type for each component. Only one wash solution configured for each component is used by the system.

SmartWash protocols are performed in the order configured. Reagent probe protocols using the All option should be configured last.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure the SmartWash settings:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **SmartWash** option.

   The Configure assay parameters window - SmartWash view displays.

3. Select **Add**.

   The Add / edit SmartWash - Rgt 1 probe view displays.

4. Configure the settings for the **Rgt 1 probe** options. ***(optional)***

   a. Select the desired reagent(s) from the **Reagents** list.

   b. Select the **Wash** list button, and then select the desired wash type.

   c. Enter the volume (20 - 345 µL) of the wash type in the **Volume** data entry box.

   d. Enter the number of replicates in the **Replicates** data entry box.

5. Select the **Rgt 2 probe** option, and then repeat steps 4a through 4d. ***(optional)***

6. Configure settings for the **Sample probe** options. ***(optional)***

   a. Select the **Sample probe** option.

      The Add / edit SmartWash window - Sample probe view displays.

b. Select the **Wash** list button, and then select the desired wash type.

c. Select the desired **Sample wash protocol** option.

7. Configure the settings for the **Cuvette** options. ***(optional)***

   a. Select the **Cuvette** option.

      The Add / edit SmartWash window - Cuvette view displays.

   b. Select the desired assay(s) from the **Assays** list.

   c. Select the **Wash** list button, and then select the desired wash type.

8. Select **Done**.

   A confirmation message displays.

9. Select **OK** to save your changes.

   The Configure assay parameters window displays.

10. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***

11. Select **Done** to return to the Configuration screen - Assay settings view.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - SmartWash view (c System)*, page 2-135
- *Add / edit SmartWash window - Rgt 1 probe view (c System)*, page 2-135
- *Add / edit SmartWash window - Sample probe view (c System)*, page 2-136
- *Add / edit SmartWash window - Cuvette view (c System)*, page 2-137

Configure a user-defined sample diluent (photometric - *c* System)

Perform this procedure to configure an onboard sample diluent.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a user-defined sample diluent:

1. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.

2. Select **NEW** from the **Reagents** list, and then select **F6 - Configure**.

   The Configure reagent (Reagent settings) window displays.

3. Enter a unique name for the sample diluent (maximum of 7 alphanumeric characters) in the **Reagent name** data entry box.
4. Select the **Reagent type** list button, and then select **Sample diluent**.
5. Enter a value in the **Reagent low alert** data entry box. ***(optional)***
6. Select **Done** to save your changes.

To configure the kit for the sample diluent on the *c*8000 processing module see *Configure a user-defined reagent kit (photometric - c System)*, page 2-93.

To configure the kits for the sample diluent on the *c*16000 processing module see *Configure a reagent kit for a user-defined sample diluent (photometric - c16000)*, page 2-94.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - user-defined assay view (photometric - c System)*, page 2-142

Configure a user-defined reagent (photometric - *c* System)

Perform this procedure to configure a reagent when using non-bar coded reagents or reagents not supplied by Abbott Laboratories.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a user-defined reagent:

1. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.
2. Select **NEW** from the **Reagents** list, and then select **F6 - Configure**.

   The Configure reagent (Reagent settings) window displays.
3. Enter a unique name (maximum of 7 alphanumeric characters) in the **Reagent name** data entry box.

   NOTE: When you are configuring bar coded reagents not supplied by Abbott Laboratories, the reagent name must match the name (including capitalization) encoded in the bar code.

   When you are configuring reagents that use 1D (one dimensional) bar code labels, the reagent name must be identical to digits 1 - 5 of the bar code. See *1D reagent bar code label data format*, page 4-33.

4. Select the **Reagent type** list button, and then select **R1 only** or **R1 and R2**.
5. Enter a value in the **Reagent low alert** data entry box. ***(optional)***
6. Enter a value in the **Onboard stability** data entry box. ***(optional)***
7. *Configure a user-defined reagent kit (photometric - c System)*, page 2-93 for non-bar coded reagents. ***(optional)***
8. Select **Done** to save your changes.

To configure a non-bar coded sample diluent, see *Configure a user-defined sample diluent (photometric - c System)*, page 2-91.

To configure the assay parameters, see *Configure a photometric assay (c System)*, page 2-87.

To load a non-bar coded reagent, see *Load non-bar coded reagents (c8000/c16000)*, page 5-155.

To load a 1D (one-dimensional) bar code labeled reagent, see *Load bar coded reagents (c8000/c16000)*, page 5-150.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - user-defined assay view (photometric - c System)*, page 2-142

Configure a user-defined reagent kit (photometric - *c* System)

Perform this procedure to create a reagent kit with a unique identifier for non-bar coded reagents. This identifier allows the system to track the onboard stability and remaining tests for a kit even if it is moved. It also allows the system to perform reagent changeover when a cartridge is empty.

NOTE: You must define at least one reagent kit before you can load the reagent in the reagent supply centers.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a user-defined reagent kit:

1. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.
2. Select the desired reagent from the **Reagents** list, and then select **F6 - Configure**.

The Configure reagent (Reagent settings) window displays. The information is dependent on the reagent you selected.

3. Select the **Lot number** list button, and then perform one of the following:
   - Select the desired lot from the list.
   - Select **New lot**, and then enter a lot number (maximum of eight alphanumeric characters) in the **Lot number** data entry box.
4. Enter a unique number in the **Serial number** data entry box.

   NOTE: You can define multiple serial numbers for each lot number to allow you to load multiple kits of the same reagent. Each kit defined for a single lot number must have a unique numeric identifier (serial number).
5. Enter a date in the **Expiration date** data entry box. ***(optional)***
6. Select the **R1 cartridge size** list button, and then select the cartridge size.
7. Select the **R2 cartridge size list button**, and then select the cartridge size. ***(optional)***
8. Select **Add kit** to create the kit.

   The new kit displays in the **Configured kits** list.
9. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System)*, page 2-141

Configure a reagent kit for a user-defined sample diluent (photometric - *c*16000)

Perform this procedure to create a reagent kit with a unique identifier for non-bar coded sample diluent. This identifier allows the system to track the onboard stability and remaining tests for a kit even if it is moved. It also allows the system to perform reagent changeover when a cartridge is empty.

NOTE: You must define two reagent kits for the sample diluent before you can load the diluent in the reagent supply centers. The *c*16000 processing module requires sample diluent loaded in both the outer (segment A, B, or C) and inner (segment D) carousels.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a reagent kit for a user-defined sample diluent:

1. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.
2. Select the desired diluent from the **Reagents** list, and then select **F6 - Configure**.

   The Configure reagent (Reagent settings) window displays. The information is dependent on the reagent you selected.
3. Select the **Lot number** list button, and then select **New lot** from the list.
4. Enter a lot number (maximum of eight alphanumeric characters) in the **Lot number** data entry box.
5. Enter a unique number in the **Serial number** data entry box to identify the diluent cartridge for loading in the outer carousel.

   NOTE: You can define multiple serial numbers for each lot number of diluent thereby allowing you to load one cartridge in the outer (segment A, B, or C) carousel and another in the inner (segment D) carousel.
6. Select the **R1 cartridge size** list button, and then select the cartridge size.
7. Select **Add kit** to create the kit.

   The new kit displays in the **Configured kits** list.
8. Select the **Lot number** list button, and then select the lot number created in step 4.
9. Enter a unique number in the **Serial number** data entry box to identify the diluent cartridge for loading in the inner carousel.
10. Select the **R1 cartridge size** list button, and then select the cartridge size. ***(optional)***
11. Select **Add kit** to create the kit.

    The new kit displays in the **Configured kits** list.
12. Select **Done** to save your changes.

To assign the location of the sample diluent see *Load non-bar coded reagents (c8000/c16000)*, page 5-155.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System)*, page 2-141

Configure assay display order

Perform this procedure to configure the order assays display on:

- Screens and windows with an assay list box
- Sample status screen
- Patient, Sample, Sample Laboratory, Sample Status, and QC Summary reports

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Ready or Running
User access level	System administrator
Supplies	NA

To configure assay display order:

1. Select **Assay display order** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure assay display order window displays. Assays are listed in alphanumeric order in the Assays list until they are added to the Display order list.

   NOTE: When you install a new assay it will also display in alphanumerical order in the Assays list until it is added to the Display order list.
3. Select one of the following options:
   - Reports only
   - Displays and reports
4. To add or move an assay(s) in the display order perform one of the following options:

   NOTE: When more than one assay is selected, they move to the Display order list in the order they were selected from the Assays list.

   a. To add assay(s) to the end of the Display order list, select the desired assay(s) from the **Assays** list and then select the **Add**> button.

   b. To insert assay(s) in the Display order list, select the desired assay(s) from the **Assays** list. Select the assay in the **Display order** list where you want to add the assay(s) and then select the **Insert before** or **Insert after** button. The assay(s) move to the selected insertion point.

   c. To change the assay order in the Display order list you must move the assay(s) back to the Assays list. Select the desired assay(s) in the **Display order** list and then select the <**Reset** button. The assay(s) move to the Assays list. Perform step a or b to move the assay(s) to the desired location.

   d. To move all of the assay(s) from the **Display order** list back to the Assays list, select the <<**Reset all** button.

5. Select **Done** to save your changes.

   Assay(s) that remain in the Assays list will display at the end.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay display order window*, page 2-147

Viewing assay settings

From the Assay settings view of the Configuration screen the general operator can access windows to view detailed information for configured assay settings.

The general operator logon allows you to view:

- Assay parameters
- Reagent settings
- Result units
- Panel definitions
- Retest rules
- Assay display order

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - Assay settings details view:

1. Select a category from the **Assay categories** list.
2. Select the desired item(s) from the list box, if displayed.
3. Select **F5 - Details**.

   The Details window displays.
4. Select the appropriate options to view additional parameters.
5. Use the **previous**/**next** buttons to display each assay if you selected more than one. ***(optional)***
6. Select **Done** to return to the Configuration screen.

Changing assay configuration settings

Procedures for changing assay settings include:

- *Change the name of an assay*, page 2-98
- *Change the availability of an assay*, page 2-99

Change the name of an assay

Perform this procedure to change the assay name that displays on all screens and windows.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the name of an assay:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Enter a unique name (maximum of 10 alphanumeric characters) in the **Assay** data entry box.

3. Use the **previous**/**next** buttons to display each assay if you selected more than one, and enter a unique name for each. ***(optional)***
4. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General - Reaction definition view (photometric - c System)*, page 2-122
- *Configure assay parameters window - General view (i System)*, page 2-120
- *Configure assay parameters window - General - ICT view*, page 2-125

Change the availability of an assay

Perform this procedure to change assay availability, which determines whether an assay(s) is available for ordering on the order screens.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the availability of an assay:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.
2. Select the **Assay availability** list button, and then select the desired assay availability.
   - Enabled - Indicates the assay is available for ordering.
   - Disabled - Indicates the assay name is grayed out on the patient, control, and calibration order screens.
   - Patient disabled - Indicates the assay name is grayed out on the Patient order screen.
3. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then enable or disable each. ***(optional)***
4. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General - Reaction definition view (photometric - c System)*, page 2-122
- *Configure assay parameters window - General view (i System)*, page 2-120
- *Configure assay parameters window - General - ICT view*, page 2-125

Change the assay-specific option for running controls for onboard reagent kits

Perform this procedure to change the option for running controls for onboard reagents for a specific assay.

To change the option for which the system runs controls for onboard reagents, see *Change the option for running controls for onboard reagent kits*, page 2-38.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the assay-specific option for running controls for onboard reagent kits:

1. Select an assay(s) from the **Assays** list on the Configuration screen.
2. Select **F6-Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.
3. Select the **Run controls for onboard reagents by** list button, and then select the desired option.
   - Lot: Run QC on only one kit per lot
   - Kit: Run QC for every kit in a lot
4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then select the desired option for each. ***(optional)***
5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General view (i System)*, page 2-120
- *Configure assay parameters window - General - Reaction definition view (photometric - c System)*, page 2-122

- *Configure assay parameters window - General - Reagent / Sample view (photometric - c System)*, page 2-123
- *Configure assay parameters window - General - Validity checks view (photometric - c System)*, page 2-124
- *Configure assay parameters window - General - ICT view*, page 2-125

Change normal and extreme ranges

Perform this procedure to edit normal and extreme ranges.

NOTE: Ranges are evaluated in the order defined.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change normal and extreme ranges:

1. Select the desired assay(s) from the **Assays** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Results** option.

   The Configure assay parameters window - Results view displays.

3. Select the desired range from the **Gender and age specific ranges** table, and then select **Edit**.

   The Configure results parameters window displays.

4. Select the **Age** list button, and then select the desired age format.
5. Enter a value in the **Minimum** and **Maximum** data entry boxes.
6. Enter a value in the **Normal range** data entry boxes.
7. Enter a value in the **Extreme range** data entry boxes. ***(optional)***
8. Select **Done** to return to the Results view of the Configure assay parameters window.

   Your edits display in the Gender and age specific ranges table.

9. Select another range, and then repeat steps 3 through 8. ***(optional)***
10. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***
11. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Results view*, page 2-137
- *Configure results parameters window*, page 2-138

Change a patient, QC, or calibration panel

Perform this procedure to add or remove assays from a previously defined panel or to change the panel type.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Any
User access level	System administrator
Supplies	NA

To change a patient, QC, or calibration panel:

1. Select **Panel definitions** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure panel definitions window displays.
3. Select the desired panel from the **Panels** list.
4. Select or deselect the **Panel type** check box(es).
5. Select or deselect an assay(s) from the **Assays** list.
6. Select **Add** to add your changes.
7. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure panel definitions window*, page 2-143

Delete a patient, QC, or calibration panel

Perform this procedure to delete a patient, QC, or calibration panel when the panel is no longer in use.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Any
User access level	System administrator
Supplies	NA

To delete a patient, QC, or calibration panel:

1. Select **Panel definitions** from the **Assay categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure panel definitions window displays.
3. Select the panel to delete from the **Panels** list, and then select **Delete**.

   A confirmation message displays.
4. Select **OK** to delete the panel.

   The panel name no longer displays in the Panels list.
5. Select **Done** to return to the Configuration screen.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure panel definitions window*, page 2-143

Add an assay to a retest rule

Perform this procedure to add an assay(s) to a retest rule(s).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add an assay to a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select an assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select the desired rule from the **Assay retest rules** list, and then select **Edit rule**.

   The Add / edit assay retest rules window displays.
4. Select **Select assay**.

   The Select assay window displays.

   a. Select the desired assay(s).

   b. Select **Done** to return to the Add / edit assay retest rules window.

      The selected assay(s) display in the Selected retest assays list.

5. Select an assay from the **Selected retest assays** list.
6. Select the desired **Retest dilution** option.
7. Repeat steps 5 and 6 for each assay.
8. Select **Done** to return to the Configure assay retest rules window.
9. Repeat steps 3 through 8 to add a retest assay(s) to another rule. ***(optional)***
10. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***
11. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay retest rules window*, page 2-144
- *Add / edit assay retest rules window*, page 2-145
- *Select assay window*, page 2-146

Remove an assay from a retest rule

Perform this procedure to remove an assay from a retest rule(s).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To remove an assay from a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select an assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select the desired rule from the **Assay retest rules** list, and then select **Edit rule**.

   The Add / edit assay retest rules window displays.
4. Select **Select assay**.

   The Select assay window displays.

   a. Deselect the desired assay(s).

   b. Select **Done** to return to the Add / edit assay retest rules window.

The updated Selected retest assays list displays.

5. Repeat steps 3 and 4 to remove a retest assay(s) from another rule. ***(optional)***
6. Select **Done** to return to the Configure assay retest rules window.
7. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay retest rules window*, page 2-144
- *Add / edit assay retest rules window*, page 2-145
- *Select assay window*, page 2-146

Delete a retest rule

Perform this procedure to delete a retest rule(s).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a retest rule:

1. Select **Retest rules** from the **Assay categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay retest rules window displays.
3. Select the desired rule, and then select **Delete rule**.
4. Use the **previous**/**next** buttons to display each assay, if you selected more than one, and then repeat step 3 for each. ***(optional)***
5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67

- *Configure assay retest rules window*, page 2-144

Change a linearity range

Perform this procedure to change the linearity range for an assay(s) when your laboratory determines the linearity range has changed.

For *i* System assays, the Low-Linearity and High-Linearity fields must contain a value.

For *c* System assays, both the Low-Linearity and High-Linearity fields may be empty or contain values. If only one field contains a value, an error message is generated.

NOTE: If you modify the linearity range for an assay an asterisk displays next to the assay number to indicate the assay was modified.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change a linearity range:

1. Select an assay(s) from the **Assays** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.
3. Select the **Results** option.

   The Configure assay parameters window - Results view displays.
4. Edit the value in the **Low-Linearity** data entry box.

   NOTE: For *i* System assays this field can only be edited when the first default dilution option is configured. This value cannot be edited below zero.
5. Edit the value in the **High-Linearity** data entry box.

   NOTE: For *i* System assays this field can only be edited when the first default dilution option is configured. This value cannot be edited above the assay default high-linearity.
6. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 4 and 5 for each. ***(optional)***
7. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Results view*, page 2-137

Change the last required read setting (photometric - *c* System)

Perform this procedure to specify the last read that is required for result calculation. The result calculates as soon as the last defined read is measured rather than waiting for all 33 reads to complete.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the last required read setting:

1. Select the desired assay(s) from the **Assays** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure assay parameters window - General - Reaction definition view displays.
3. Select the **Last required read** data entry box, and then enter the read time (1-33).

   NOTE: This read time cannot occur before the last read time defined for Main, Flex, Blank, Color correction, or Reaction check.
4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then enter the read time for each. ***(optional)***
5. Select **Done** to save your changes.

For additional information see the ARCHITECT *c* System Assay Application Guide.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General - Reaction definition view (photometric - c System)*, page 2-122

Change the default dilution setting (photometric - *c* System)

Perform this procedure to select the dilution option to use if a dilution is not specified when the test is ordered.

To specify a dilution for a specific sample when ordering, see *Create a patient order (single order)*, page 5-192, *Create a control order (single analyte)*, page 5-211, or *Create a control order (multiconstituent)*, page 5-215.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Reagent / Sample** option.

   The Configure assay parameters window - Reagent / Sample view displays.

3. Select the desired **Default dilution** option.

4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then select a default dilution for each. ***(optional)***

5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General - Reagent / Sample view (photometric - c System)*, page 2-123

Change default calibration type (photometric - *c* System)

Perform this procedure to change the setting for the default calibration type. This setting is used if the type is not specified when you order a calibration.

NOTE: The Default calibration type setting is only available if you have configured an adjustment type.

To specify a calibration type when ordering a calibration, see *Create a calibration order*, page 6-12.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped or Ready

User access level	System administrator
Supplies	NA

To change the default calibration type:

1. Select an assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Calibration** option.

   The Configure assay parameters window - Calibration - Calibrators view displays.

3. Select the **Intervals** option.

   The Configure assay parameters window - Calibration - Intervals view displays.

4. Select the **Default ordering type** list button, and then select the desired calibration type.

5. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then select a calibration type for each. ***(optional)***

6. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Calibration - Intervals view (photometric - c System)*, page 2-130

Change the correlation factor and intercept settings (*c* System)

Perform this procedure to edit the correlation factor and intercept when correlating assay results to another system.

NOTE: If you modify the correlation factor and/or intercept for an assay an asterisk displays next to the assay number to indicate the assay was modified.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the correlation factor and intercept settings:

1. Select **Result units** from the **Assay categories** list on the Configuration screen.

2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure result units window displays.

3. Edit the value in the **Correlation factor** data entry box.
4. Edit the value in the **Intercept** data entry box.
5. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 and 4 for each. ***(optional)***
6. Select **Done** to save your changes.

For additional information see the ARCHITECT *c* System Assay Application Guide.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure result units window*, page 2-143

Change a potentiometric assay calibrator concentration (*c* System)

Perform this procedure to change a calibrator concentration(s) for a potentiometric assay.

NOTE: Changing the calibrator concentration(s) will change the assay calibration status to No Cal. A full calibration must be performed. See *Descriptions of calibration statuses*, page 6-18.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	Calibrator value sheet

To change a potentiometric assay calibrator concentration:

1. Select the desired potentiometric assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays.

2. Select the **Calibration** option.

   The Configure assay parameters window - Calibration view displays.

3. Enter a value in the **Low concentration** and **High concentration** data entry boxes.
4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then enter the concentrations for each. *(optional)*

5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Calibration - ICT view (c System)*, page 2-132

Change the reagent-specific low alert setting

Perform this procedure to change the level at which the low alert notification occurs for a specific reagent.

To change the level at which the system low alert notification occurs, see *Change the system low alert setting for reagent kits*, page 2-20.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To change the reagent-specific low alert setting:

1. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.
2. Select the desired reagent from the **Reagents** list on the Configuration screen.
3. Select **F6 - Configure**.

   The Configure reagent (Reagent settings) window displays.
4. Enter the desired alert level (number of tests) in the **Reagent low alert** data entry box.
5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - Abbott assay view (i System)*, page 2-140
- *Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System)*, page 2-141
- *Configure reagent (Reagent settings) window - user-defined assay view (photometric - c System)*, page 2-142

Delete a reagent (*c* System)

Perform this procedure to delete a user-defined reagent when it is no longer in use.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 All reagent kits using the reagent must be deleted. See *Delete a reagent kit (c System)*, page 2-113
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To delete a reagent:

NOTE: If a reagent is defined for use in any assay parameter file, you must perform step 1 or 2 prior to deleting the reagent.

1. Change the reagent parameter in the assay to use a different reagent. ***(optional)***
   a. Select the desired assay(s) from the **Assays** list, on the Configuration screen.
   b. Select **F6 - Configure**

      The Configure assay parameters window - General - Reaction definition view displays.
   c. Select the **Reagent** / **Sample** option.

      The Configure assay parameters window - General - Reagent / Sample view displays.
   d. Select the **Reagent** list button, and then select a different reagent.
   e. Use the **previous**/**next** buttons if you selected more than one assay, and then repeat step 1d for each. ***(optional)***
   f. Select **Done** to save your changes.
2. Delete the assay that uses the reagent if the assay file is no longer needed. See *Install or delete an assay file*, page 2-211. ***(optional)***
3. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.
4. Select the desired reagent from the **Reagents** list, and then select **F7 - Delete**.

   A confirmation message displays.
5. Select **OK** to delete the reagent.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General - Reagent / Sample view (photometric - c System)*, page 2-123
- *Configure reagent (Reagent settings) window - user-defined assay view (photometric - c System)*, page 2-142

Delete a reagent kit (*c* System)

Perform this procedure to delete a reagent kit when it is no longer in use.

NOTE: Performing this procedure does not delete the defined reagent. To delete the reagent and the associated kits, see *Delete a reagent (c System)*, page 2-112.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To delete a reagent kit:

1. Select **Reagent settings** from the **Assay categories** list on the Configuration screen.
2. Select the reagent associated with the kit from the **Reagents** list, and then select **F6 - Configure**.

   The Configure reagent (Reagent settings) window displays.
3. Select the desired kit from the **Configured kits** list, and then select **Delete kit**.
4. Select **Done** to delete the kit.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System)*, page 2-141
- *Configure reagent (Reagent settings) window - user-defined assay view (photometric - c System)*, page 2-142

Change the default dilution setting (*i* System)

Perform this procedure to select the dilution option to use if a dilution is not specified when the test is ordered.

To specify a dilution for a specific sample when ordering, see *Create a patient order (single order)*, page 5-192, *Create a control order (single analyte)*, page 5-211, or *Create a control order (multiconstituent)*, page 5-215.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68 No orders pending for the assay being changed
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the default dilution setting:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays. The information is dependent on the assay(s) you selected.

2. Select the **Dilution** option.
3. Select the desired **Default dilution** option.
4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then select a default dilution for each. ***(optional)***
5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - Dilution view (i System)*, page 2-133

Change interpretation settings (*i* System)

Perform this procedure to change the settings that determine whether the interpretation is included with the test result and results are held for review. The interpretation option is available for specific ARCHITECT *i* System assays.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change interpretation settings:

1. Select **Assay parameters** from the **Assay categories** list on the Configuration screen.
2. Select the desired *i* System assay(s) from the **Assay** list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays.

3. Select the **Interpretation** option.

   The Configure assay parameters window - Interpretation view displays.

4. Select the **Name** list button, and then select the desired name for the interpretation. ***(optional)***

5. Repeat step 4 to select another interpretation name. ***(optional)***

6. Enter the desired value(s) in the **Range** data entry box(es), if available. ***(optional)***

   NOTE: The first Range data entry must be ≥ the low-linearity value. The last Range data entry must be ≤ the high-linearity value.

7. Select the **Results review required** checkbox(es) for the desired interpretation(s). ***(optional)***

   NOTE: If the checkbox is selected the results are held for manual release only when the Release Mode is configured for the Hold option and the results are within the specified interpretation range.

8. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 4 through 7 for each. ***(optional)***

9. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information...

- *Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
- *Configure assay parameters window - Interpretation view*, page 2-139

Change the result units setting

Perform this procedure to change the result units for an assay.

IMPORTANT: When you edit the result concentration unit, all previous Levey-Jennings and QC summary information is deleted.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the result units setting:

1. Select **Result units** from the **Assay categories** list on the Configuration screen.

2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

The Configure result units window displays.

3. Enter the result units by performing one of the following:
   - Select the **Result units** list button, and then select the desired unit (*i* System assays).
   - Enter the unit in the **Result units** data entry box (*c* System assays).

   NOTE: For *c* System assays, the system changes the result unit name displayed but it does not automatically adjust any values. You must enter the following parameters, if applicable, using the appropriate conversion factor.
   - Calibrator concentrations
   - Gender and age specific ranges (normal and extreme)
   - Linearity ranges
   - Interpretation ranges
   - Control means
   - Retest rules result ranges
   - Constituent assay ranges for calculated assays
4. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat step 3 for each. ***(optional)***
5. Select **Done** to save your changes.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure result units window*, page 2-143

Change a calculated assay

Perform this procedure to edit an assay with a mathematical formula for deriving a calculated (ratio) result.

To configure a user-defined calculated assay see *Configure a calculated assay*, page 2-83.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change a calculated assay:

1. Select the desired calculated assay(s) from the **Assays** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure assay parameters window - General view (calculated) displays.

2. Edit the desired name in the **Assay** data entry box.
3. Select the **Assay availability** list button, and then select the desired option.
4. Select **Select assays** to add additional assays. ***(optional)***

   NOTE: This button is not available for a calculated assay installed from an assay disk (assay numbers 3000-3999).

   The Select assay window displays.

   a. Select the assay(s) to be included in the formula from the **Assays** list. The assays are assigned to calculator buttons in the order you select them.

      For example: For an LDL calculation you would select Cholesterol, HDL, and Triglyceride.

   b. Select **Done** to return to the Configure assay parameters window - General view (calculated).

      The selected assay(s) display in the Selected assays area and the appropriate ASSAY buttons display above the calculator keypad.

5. Delete the existing formula by selecting the arrow button ⬅. Once deleted enter the formula for the calculation by selecting the desired constituent assay(s) and calculator buttons.

   NOTE: You can not edit the formula for a calculated assay installed from an assay disk (assay numbers 3000-3999).

You must include all of the selected constituent assay(s) in the formula.

For example: To enter a new formula for an LDL calculation Cholesterol - HDL - (Triglyceride /5), you would perform the following steps:

a. Select the **ASSAY1** (cholesterol) button [ASSAY1], and then select the minus button [-].

b. Select the **ASSAY2** (HDL) button [ASSAY2], and then select the minus button [-].

c. Select the open parenthesis button [(], and then select the **ASSAY3** (Triglyceride) button [ASSAY3].

d. Select the divide button [/], then select 5, and then select the close parenthesis button [)].

The formula for the calculation displays in the **Formula** data entry box.

6. Enter or edit a result range for the assay(s) in the **Minimum** and **Maximum** value data entry box(es).

   NOTE: If the constituent test result(s) is outside the defined range, the calculated test becomes an exception and a result is not reported.

7. Select the Results option to configure ranges.

   See *Configure normal and extreme ranges*, page 2-72.

8. Select the Interpretation option to configure interpretations.

   See *Configure interpretation options (c System and calculated)*, page 2-79.

9. Select **Done** to return to the Configuration screen.

To configure result units and decimal places for the calculated assay, see *Configure result units and decimal places*, page 2-76.

To view the current settings, see *Viewing assay settings*, page 2-97.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Configure assay parameters window - General view (calculated)*, page 2-121
- *Select assay window*, page 2-146

Printing assay parameter reports

Procedures for printing reports include:

- *Print an Assay Parameter report for specified assays*, page 5-412
- *Print an Assay Parameter report for all assays*, page 5-412

Windows - Configuration screen - Assay settings view

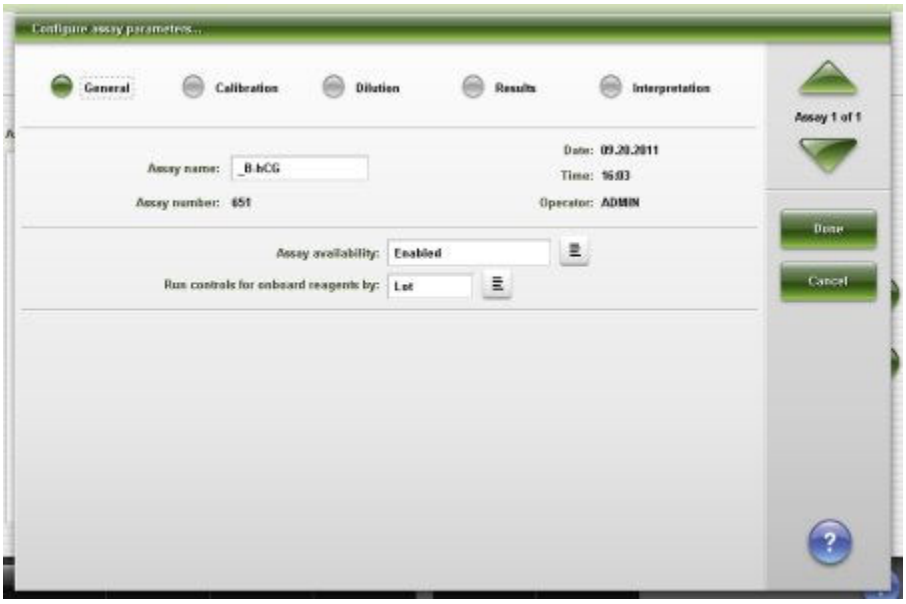
Windows you can access from the Configuration screen - Assay settings view include:

- *Configure assay retest rules window*, page 2-144
- *Add / edit assay retest rules window*, page 2-145
- *Select assay window*, page 2-146
- *Configure assay display order window*, page 2-147

Configure assay parameters window - General view (*i* System)

From the General view of the Configure assay parameters window, the system administrator can configure general assay settings such as assay name and assay availability as well as run controls by reagent lot or reagent kit.

Figure 2.37: Configure assay parameters window - General view (i System)

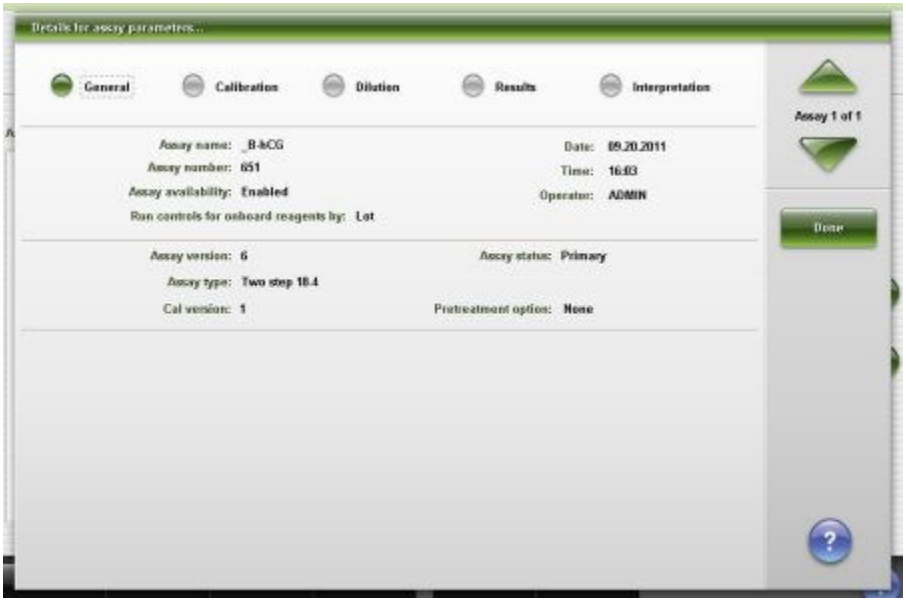


For descriptions of these fields, see *Configure assay parameters window - General view (i System) field descriptions*, page E-189.

From the General view of the Details for assay parameters window you can view the current general assay settings, such as:

- Assay name, number, and availability
- Assay type and pretreatment option
- Assay and calibration version
- Run controls by reagent lot or reagent kit

Figure 2.38: Details for assay parameters window - General view (i System)



Related procedures…

- *Change the name of an assay*, page 2-98
- *Change the availability of an assay*, page 2-99
- *Change the assay-specific option for running controls for onboard reagent kits*, page 2-100

Configure assay parameters window - General view (calculated)

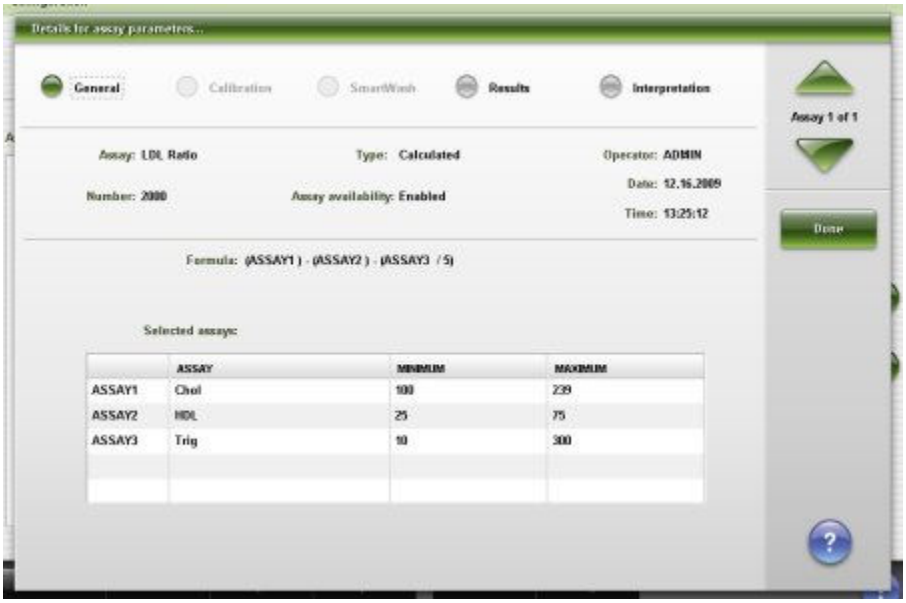
From the General view of the Configure assay parameters window the system administrator can configure the settings used to calculate the assay.

Figure 2.39: Configure assay parameters window - General view (calculated)

For descriptions of these fields, see *Configure assay parameters window - General view (calculated) field descriptions*, page E-190.

From the General calculated view of the Details for assay parameters window you can view the current settings used to calculate an assay.

Figure 2.40: Details for assay parameters window - General view (calculated)



For descriptions of these fields, see *Configure assay parameters window - General view (calculated) field descriptions*, page E-190.

Related procedures...

- *Configure a calculated assay*, page 2-83

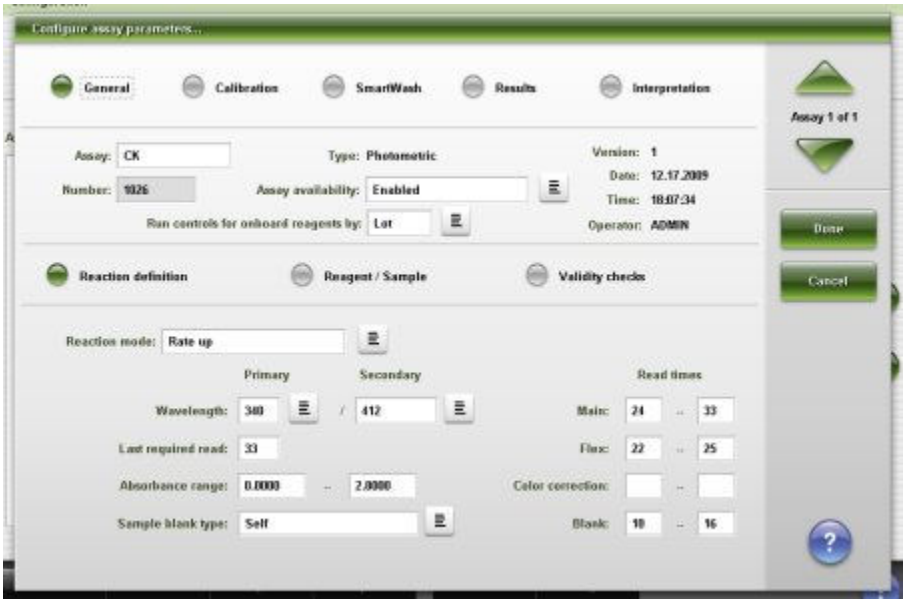
Configure assay parameters window - General - Reaction definition view (photometric - *c* System)

From the General - Reaction definition view of the Configure assay parameters window the system administrator can configure:

- General assay settings, which include the assay name, number, type, availability, and version
- Reaction definition settings, which include the reaction mode, wave lengths, read times, last required read, as well as run controls by reagent lot or reagent kit

NOTE: From the Details window you can view the current settings.

Figure 2.41: Configure assay parameters window - General - Reaction definition view (photometric - c System)



For descriptions of these fields, see *Configure assay parameters window - General - Reaction definition view (photometric - c System) field descriptions*, page E-191.

Related procedures...

- *Configure a photometric assay (c System)*, page 2-87
- *Change the name of an assay*, page 2-98
- *Change the availability of an assay*, page 2-99
- *Change the assay-specific option for running controls for onboard reagent kits*, page 2-100
- *Change the last required read setting (photometric - c System)*, page 2-107

Configure assay parameters window - General - Reagent / Sample view (photometric - *c* System)

From the General - Reagent / Sample view of the Configure assay parameters window the system administrator can configure the settings for reagent(s) and sample, such as:

- Reagent and sample diluent definition
- Reagent and water volumes
- Dilution volumes
- Run controls for reagents by lot or kit

NOTE: From the Details window you can view the current settings.

Figure 2.42: Configure assay parameters window -General - Reagent / Sample view (photometric - c System)

For descriptions of these fields, see *Configure assay parameters window - General - Reagent / Sample view (photometric - c System) field descriptions*, page E-195

Related procedures…

- *Configure a photometric assay (c System)*, page 2-87
- *Change the default dilution setting (photometric - c System)*, page 2-107
- *Configure the default dilution setting (photometric - c System)*, page 2-77

Configure assay parameters window - General - Validity checks view (photometric - *c* System)

From the General - Validity checks view of the Configure assay parameters window the system administrator can configure the settings for validity checks used in result calculation.

NOTE: From the Details window you can view the current settings.

Figure 2.43: Configure assay parameters window - General - Validity checks view (photometric - c System)

For descriptions of these fields, see *Configure assay parameters window - General - Validity checks view (photometric - c System) field descriptions*, page E-197.

Related procedures...

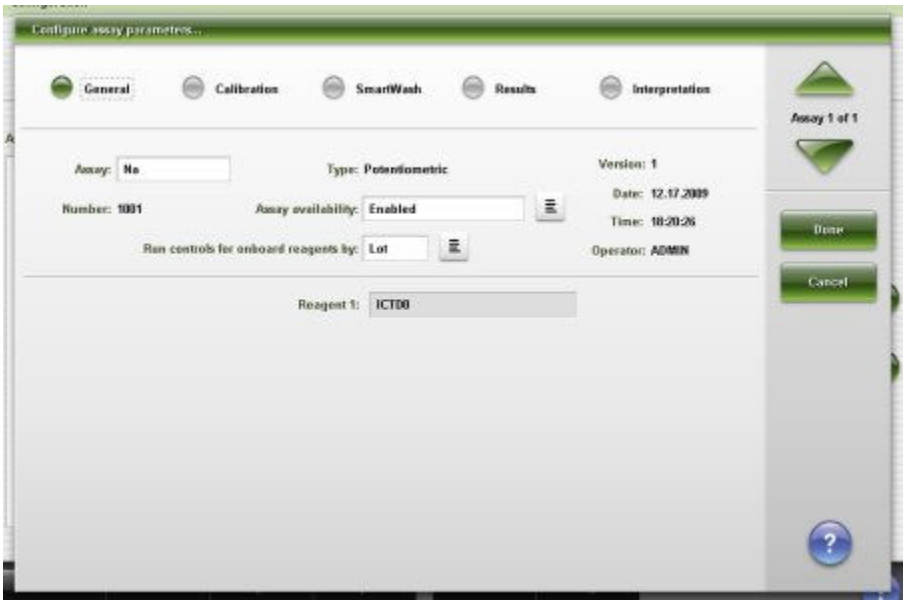
- *Configure a photometric assay (c System)*, page 2-87
- *Change the assay-specific option for running controls for onboard reagent kits*, page 2-100

Configure assay parameters window - General - ICT view

From the General view of the Configure assay parameters window, the system administrator can configure general assay settings such as the assay name, availability, reagent used for the assay, as well as run controls by reagent lot or reagent kit.

NOTE: From the Details window you can view the current settings.

Figure 2.44: Configure assay parameters window - General - ICT view



For descriptions of these fields, see *Configure assay parameters window - General - ICT view field descriptions*, page E-199.

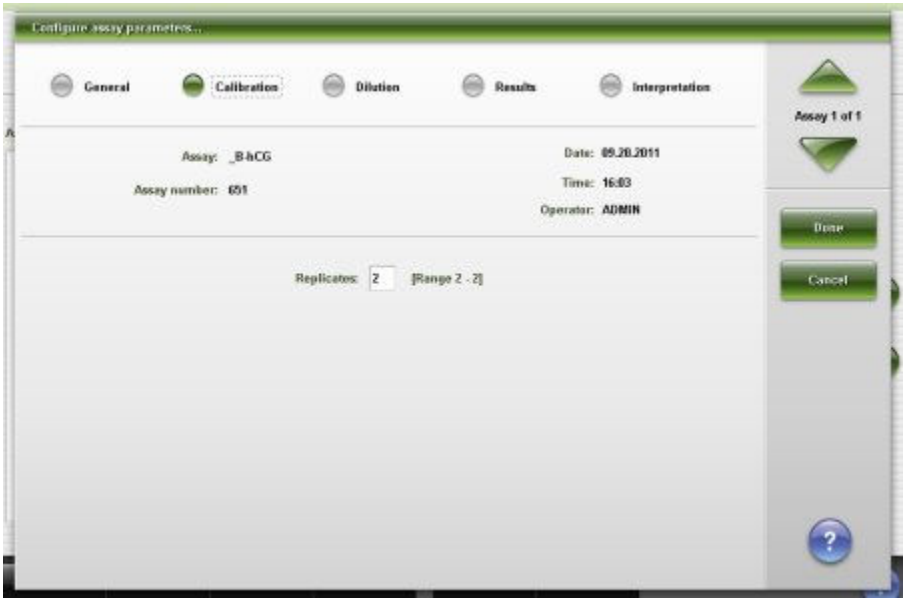
Related procedures...

- *Change the name of an assay*, page 2-98
- *Change the availability of an assay*, page 2-99
- *Change the assay-specific option for running controls for onboard reagent kits*, page 2-100

Configure assay parameters window - Calibration view (*i* System)

From the Calibration view of the Configure assay parameters window the system administrator can configure the setting for calibrator replicates.

Figure 2.45: Configure assay parameters window - Calibration view (i System)



For descriptions of these fields, see *Configure assay parameters window - Calibration view (i System) field descriptions*, page E-200.

From the Calibration view of the Details for assay parameters window you can view the current calibration settings, such as:

- Method for calibration, data reduction, and calibration adjustment
- Calibrator replicates
- Calibrator names and concentrations
- Calibration interval

  NOTE: This parameter is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

Figure 2.46: Details for assay parameters window - Calibration view (i System)

For descriptions of these fields, see *Configure assay parameters window - Calibration view (i System) field descriptions*, page E-200.

Configure assay parameters window - Calibration - Calibrators view (photometric - *c* System)

From the Calibration - Calibrators view of the Configure assay parameters window the system administrator can configure the settings for the calibration method and calibrator names, replicates, and the Blank concentration.

NOTE: From the Details window you can view the current settings.

Figure 2.47: Configure assay parameters window - Calibration - Calibrators view (photometric - c System)

For descriptions of these fields, see *Configure assay parameters window - Calibration - Calibrators view (photometric - c System) field descriptions*, page E-201.

Related procedures...

- *Configure a photometric assay (c System)*, page 2-87

Configure assay parameters window - Calibration - Volumes view (photometric - *c* System)

From the Calibration - Volumes view of the Configure assay parameters window the system administrator can configure the settings for calibrator volumes.

NOTE: From the Details window you can view the current settings.

Figure 2.48: Configure assay parameters window - Calibration - Volumes view (photometric - c System)

For descriptions of these fields, see *Configure assay parameters window - Calibration - Volumes view (photometric - c System) field descriptions*, page E-202.

Related procedures...

- *Configure a photometric assay (c System)*, page 2-87

Configure assay parameters window - Calibration - Intervals view (photometric - *c* System)

From the Calibration - Intervals view of the Configure assay parameters window the system administrator can configure the settings for calibration type and intervals.

NOTE: From the Details window you can view the current settings.

Figure 2.49: Configure assay parameters window - Calibration - Intervals view (photometric - c System)

For descriptions of these fields, see *Configure assay parameters window - Calibration - Intervals view (photometric - c System) field descriptions*, page E-203.

Related procedures...

- *Configure a photometric assay (c System)*, page 2-87
- *Configure a calibration adjustment type and interval (photometric - c System)*, page 2-77
- *Change default calibration type (photometric - c System)*, page 2-108

Configure assay parameters window - Calibration - Validity checks view (photometric - *c* System)

From the Calibration - Validity checks view of the Configure assay parameters window the system administrator can configure the settings for validity checks used to calculate the calibration curve.

NOTE: From the Details window you can view the current settings.

Figure 2.50: Configure assay parameters window - Calibration - Validity checks view (photometric - c System)

For descriptions of these fields, see *Configure assay parameters window - Calibration - Validity checks view (photometric - c System) field descriptions*, page E-205.

Related procedures…

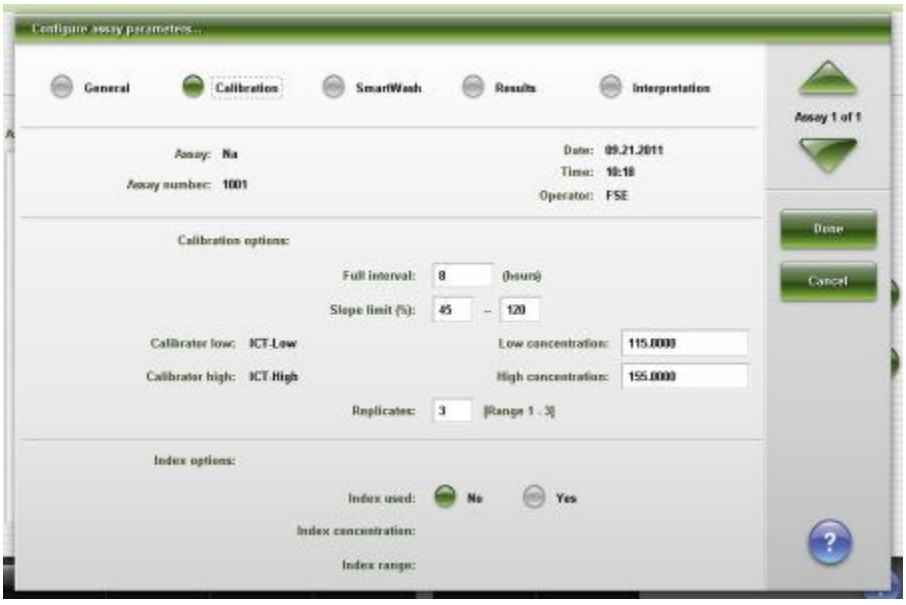
- *Configure a photometric assay (c System)*, page 2-87

Configure assay parameters window - Calibration - ICT view (*c* System)

From the Calibration view of the Configure assay parameters window the system administrator can configure the settings for calibration and index options.

NOTE: From the Details window you can view the current settings.

Figure 2.51: Configure assay parameters window - Calibration - ICT view (c System)



For descriptions of these fields, see *Configure assay parameters window - Calibration - ICT view (c System) field descriptions*, page E-206.

Related procedures…

- *Change a potentiometric assay calibrator concentration (c System)*, page 2-110

Configure assay parameters window - Dilution view (*i* System)

From the Dilution view of the Configure assay parameters window the system administrator can configure the default dilution for an ARCHITECT *i* System assay.

Figure 2.52: Configure assay parameters window - Dilution view (i System)

For descriptions of these fields, see *Configure assay parameters window - Dilution view (i System) field descriptions*, page E-207.

From the Dilution view of the Details for assay parameters window you can view the current settings for the default dilution and dilution ranges for an ARCHITECT *i* System assay.

Figure 2.53: Details for assay parameters window - Dilution view (i System)

For descriptions of these fields, see *Configure assay parameters window - Dilution view (i System) field descriptions*, page E-207.

Related procedures…

- *Change the default dilution setting (i System)*, page 2-113

Configure assay parameters window - SmartWash view (*c* System)

From the SmartWash view of the Configure assay parameters window the system administrator can configure and delete the SmartWash settings for the sample probe, reagent probe(s), and the cuvette.

NOTE: From the Details window you can view the current settings.

Figure 2.54: Configure assay parameters window - SmartWash view (c System)

For descriptions of these fields, see *Configure assay parameters window - SmartWash view (c System) field descriptions*, page E-208.

Related procedures…

- *Configure the SmartWash settings (c System)*, page 2-90

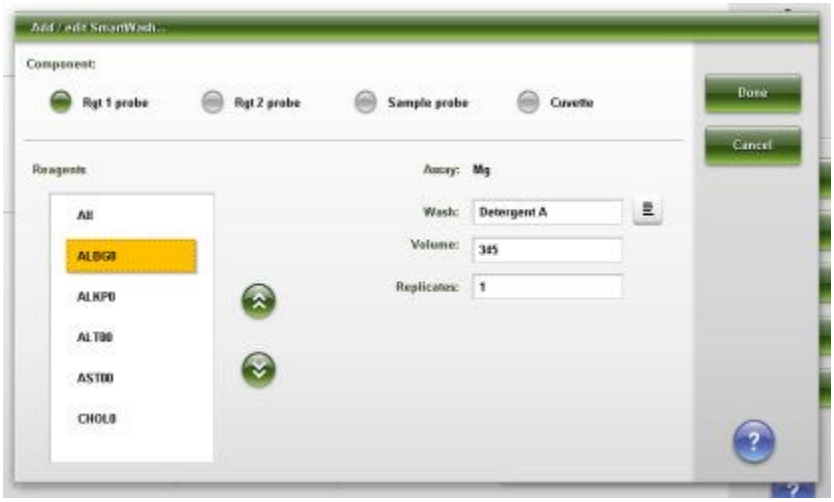
Add / edit SmartWash window - Rgt 1 probe view (*c* System)

From the Rgt 1 and Rgt 2 probe views of the Add / edit SmartWash window the system administrator can add or edit SmartWash settings, which include:

- Wash type to use on the reagent probe
- Wash type volume
- Wash type replicates

The SmartWash settings can be configured for both reagent probes.

Figure 2.55: Add / edit SmartWash window - Rgt 1 probe view (c System)



For descriptions of these fields, see *Add / edit SmartWash window - Rgt 1 and Rgt 2 probe view (c System) field descriptions*, page E-210.

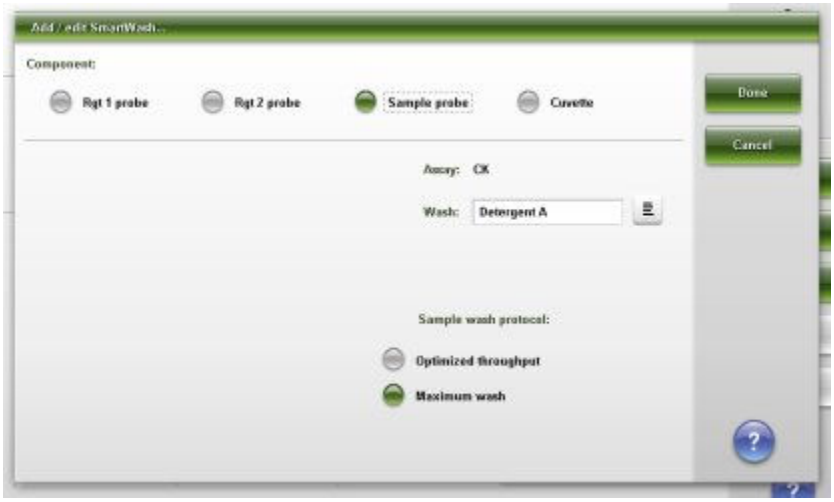
Related procedures…

- *Configure the SmartWash settings (c System)*, page 2-90

Add / edit SmartWash window - Sample probe view (*c* System)

From the Sample probe view of the Add / edit SmartWash window the system administrator can add or edit SmartWash settings, which include the wash type and sample wash protocol used for each assay.

Figure 2.56: Add / edit SmartWash window - Sample probe view (c System)



For descriptions of these fields, see *Add / edit SmartWash window - Sample probe view (c System) field descriptions*, page E-210.

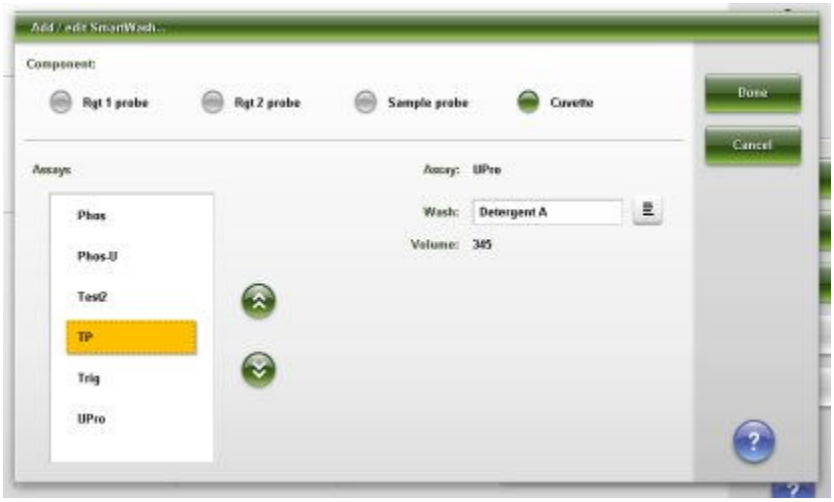
Related procedures...

- *Configure the SmartWash settings (c System)*, page 2-90

Add / edit SmartWash window - Cuvette view (*c* System)

From the Cuvette view of the Add / edit SmartWash window the system administrator can add or edit the wash type settings used for each assay.

Figure 2.57: Add / edit SmartWash window - Cuvette view (c System)



For descriptions of these fields, see *Add / edit SmartWash window - Cuvette view (c System) field descriptions*, page E-211.

Related procedures...

- *Configure the SmartWash settings (c System)*, page 2-90

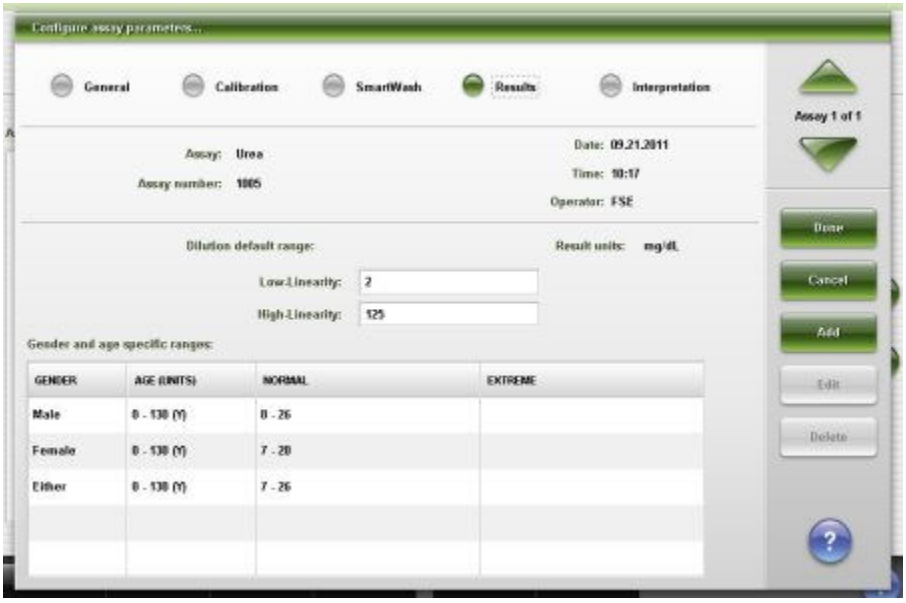
Configure assay parameters window - Results view

From the Results view of the Configure assay parameters window the system administrator can:

- Configure age and gender specific ranges
- Change normal and extreme ranges
- Edit or delete ranges
- Change a linearity range

NOTE: From the Details window you can view the current settings.

Figure 2.58: Configure assay parameters window - Results view



For descriptions of these fields, see *Configure assay parameters window - Results view field descriptions*, page E-212.

Related procedures…

- *Configure normal and extreme ranges*, page 2-72
- *Configure a photometric assay (c System)*, page 2-87
- *Change normal and extreme ranges*, page 2-101
- *Change a linearity range*, page 2-106
- *Change the default dilution setting (i System)*, page 2-113

Configure results parameters window

From the Configure results parameters window the system administrator can configure normal and extreme ranges.

Figure 2.59: Configure results parameters window

For descriptions of these fields, see *Configure results parameters window field descriptions*, page E-213.

Related procedures...

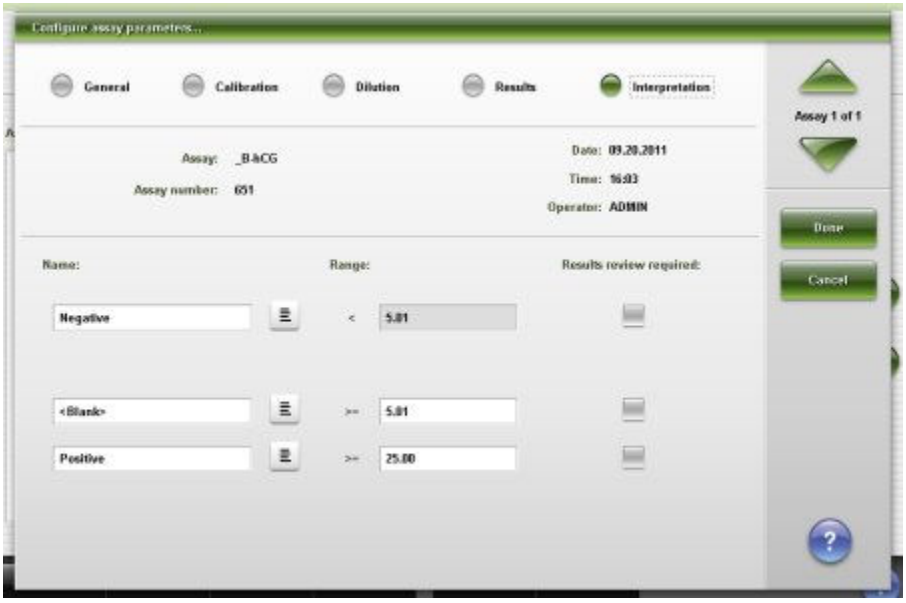
- *Configure normal and extreme ranges*, page 2-72
- *Change normal and extreme ranges*, page 2-101

Configure assay parameters window - Interpretation view

From the Interpretation view of the Configure assay parameters window the system administrator can configure the settings for interpretation name, range, and the requirement to review the result.

NOTE: From the Details window you can view the current settings.

Figure 2.60: Configure assay parameters window - Interpretation view



For descriptions of these fields, see *Configure assay parameters window - Interpretation view field descriptions*, page E-213.

Related procedures…

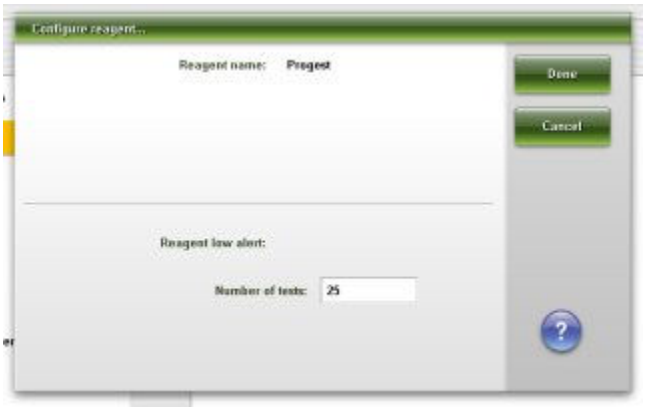
- *Configure a photometric assay (c System)*, page 2-87
- *Configure interpretation options (c System and calculated)*, page 2-79
- *Change interpretation settings (i System)*, page 2-114

Configure reagent (Reagent settings) window - Abbott assay view (*i* System)

From the Abbott Assay view of the Configure reagent (Reagent settings) window the system administrator can configure the number of tests for the reagent-specific low alert setting.

NOTE: From the Details window you can view the current settings.

Figure 2.61: Configure reagent (Reagent settings) window - Abbott assay view (i System)



For descriptions of these fields, see *Configure reagent (Reagent settings) window - Abbott assay view (i System) field descriptions*, page E-214.

Related procedures...

- *Change the reagent-specific low alert setting*, page 2-111

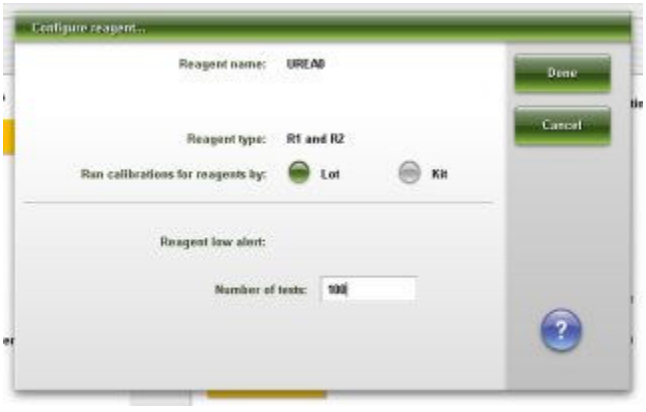
Configure reagent (Reagent settings) window - Abbott assay view (photometric - *c* System)

From the Abbott assay view of the Configure reagent (Reagent settings) window the system administrator can:

- run calibrations for reagents by Lot or Kit
- configure the number of tests for the reagent-specific low alert setting

NOTE: From the Details window you can view the current settings.

Figure 2.62: Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System)



For descriptions of these fields, see *Configure reagent (Reagent settings) window - Abbott assay view (photometric - c System) field descriptions*, page E-214.

Related procedures...

- *Configuring Abbott assays*, page 2-72
- *Configure the option for running calibrations by kit (c System)*, page 2-82
- *Change the reagent-specific low alert setting*, page 2-111

Configure reagent (Reagent settings) window - user-defined assay view (photometric - *c* System)

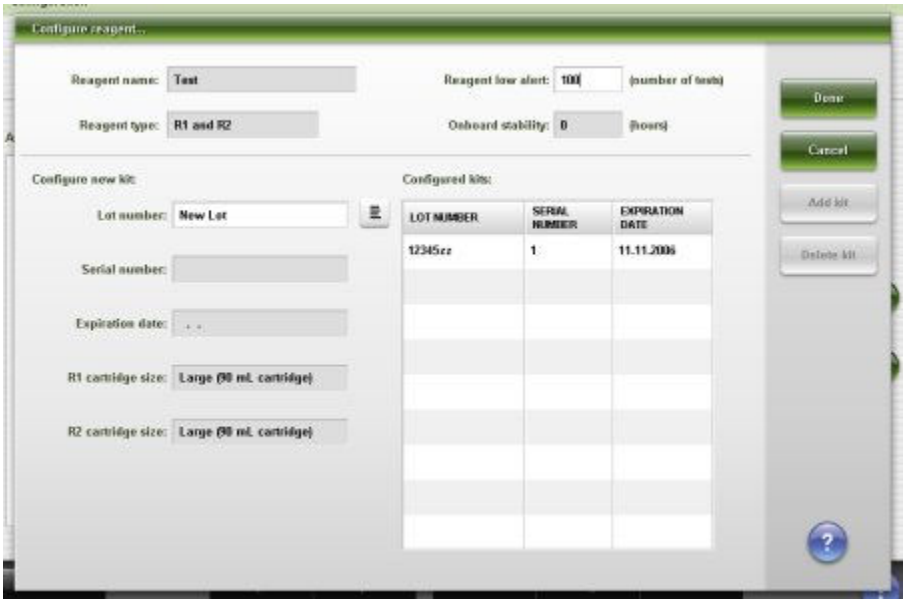
From the user-defined assay view of the Configure reagent (Reagent settings) window the system administrator can configure the settings for:

- Reagent name and type
- Reagent low alert and onboard stability
- Reagent kit lot number, serial number, expiration date, and cartridge size

The system administrator can also delete reagent kits and access a window to add a new kit.

NOTE: From the Details window you can view the current settings.

Figure 2.63: Configure reagent (Reagent settings) window - user-defined assay view (photometric - c System)



For descriptions of these fields, see *Configure reagent (Reagent settings) window - User-defined assay view (photometric - c System) field descriptions*, page E-215.

Related procedures...

- *Configure a user-defined reagent (photometric - c System)*, page 2-92
- *Configure a user-defined sample diluent (photometric - c System)*, page 2-91

- *Change the reagent-specific low alert setting*, page 2-111
- *Delete a reagent kit (c System)*, page 2-113

Configure result units window

From the Configure result units window the system administrator can configure the settings for:

- Result units and decimal places
- Correlation factor and intercept (*c* System)

NOTE: From the Details window you can view the current settings.

Figure 2.64: Configure result units window

For descriptions of these fields, see *Configure result units window field descriptions*, page E-216.

Related procedures...

- *Configure a photometric assay (c System)*, page 2-87
- *Configure result units and decimal places*, page 2-76
- *Change the correlation factor and intercept settings (c System)*, page 2-109
- *Change the result units setting*, page 2-115

Configure panel definitions window

From the Configure panel definitions window the system administrator can configure patient, QC, and calibration panels.

NOTE: From the Details window you can view the current settings.

Figure 2.65: Configure panel definitions window

For descriptions of these fields, see *Configure panel definitions window field descriptions*, page E-217.

Related procedures…

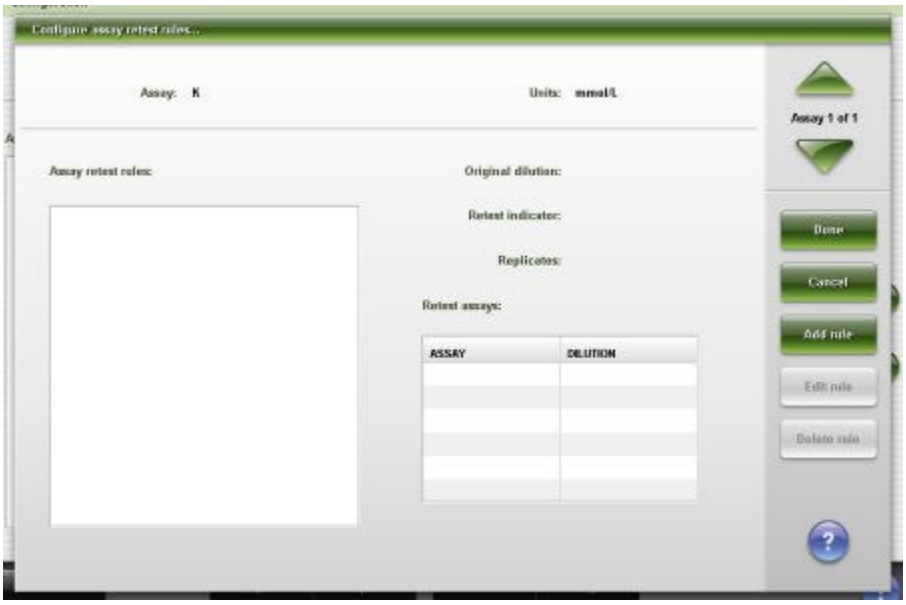
- *Configure patient, QC, and calibration panels*, page 2-73
- *Change a patient, QC, or calibration panel*, page 2-102
- *Delete a patient, QC, or calibration panel*, page 2-102

Configure assay retest rules window

From the Configure assay retest rules window the system administrator can add, change, or delete retest rules.

NOTE: From the Details window you can view the current settings.

Figure 2.66: Configure assay retest rules window



For descriptions of these fields, see *Configure assay retest rules window field descriptions*, page E-218.

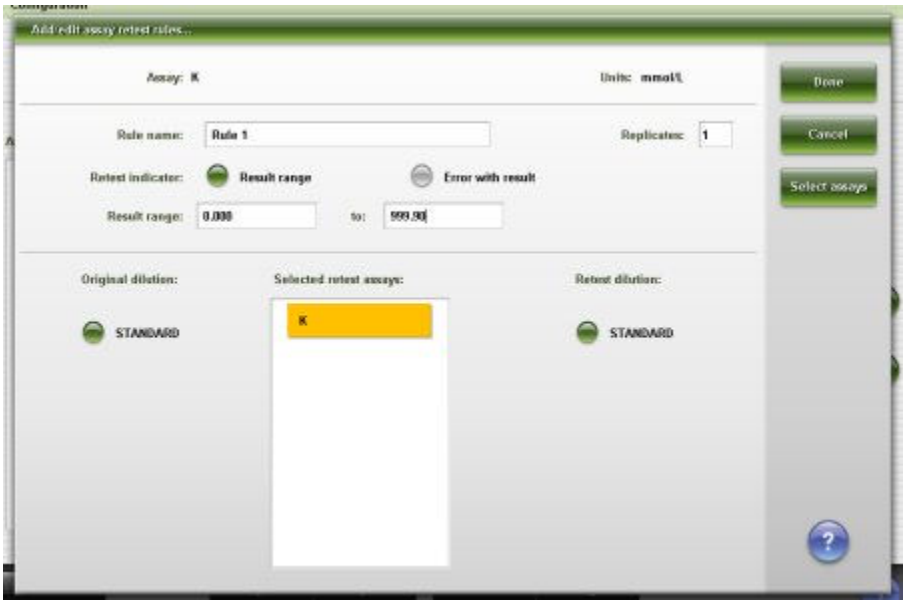
Related procedures...

- *Configure a retest rule*, page 2-74
- *Add an assay to a retest rule*, page 2-103
- *Remove an assay from a retest rule*, page 2-104
- *Delete a retest rule*, page 2-105
- *Change automatic repositioning for retest setting (RSH)*, page 2-28

Add / edit assay retest rules window

From the Add / edit assay retest rules window the system administrator can add or edit assay retest rules.

Figure 2.67: Add / edit assay retest rules window



For descriptions of these fields, see *Add / edit assay retest rules window field descriptions*, page E-219.

Related procedures...

- *Configure a retest rule*, page 2-74
- *Add an assay to a retest rule*, page 2-103
- *Remove an assay from a retest rule*, page 2-104
- *Delete a retest rule*, page 2-105

Select assay window

From the Select assay window the system administrator can select or deselect assay(s) for assay retest rules, multiconstituent controls, and calculated assays.

Figure 2.68: Select assay window

For descriptions of these fields, see *Select assay window field descriptions*, page E-220.

Related procedures…

- *Configure a retest rule*, page 2-74
- *Add an assay to a retest rule*, page 2-103
- *Remove an assay from a retest rule*, page 2-104
- *Configure a new multiconstituent control*, page 2-153
- *Add an assay to a multiconstituent control*, page 2-166
- *Configure a calculated assay*, page 2-83

Configure assay display order window

From the Configure assay display order window the system administrator can configure the order assays display on screens and reports.

NOTE: From the Details window you can view the current settings.

Figure 2.69: Configure assay display order window

For descriptions of these fields, see *Configure assay display order window field descriptions*, page E-220.

Related procedures…

- *Configure assay display order*, page 2-95

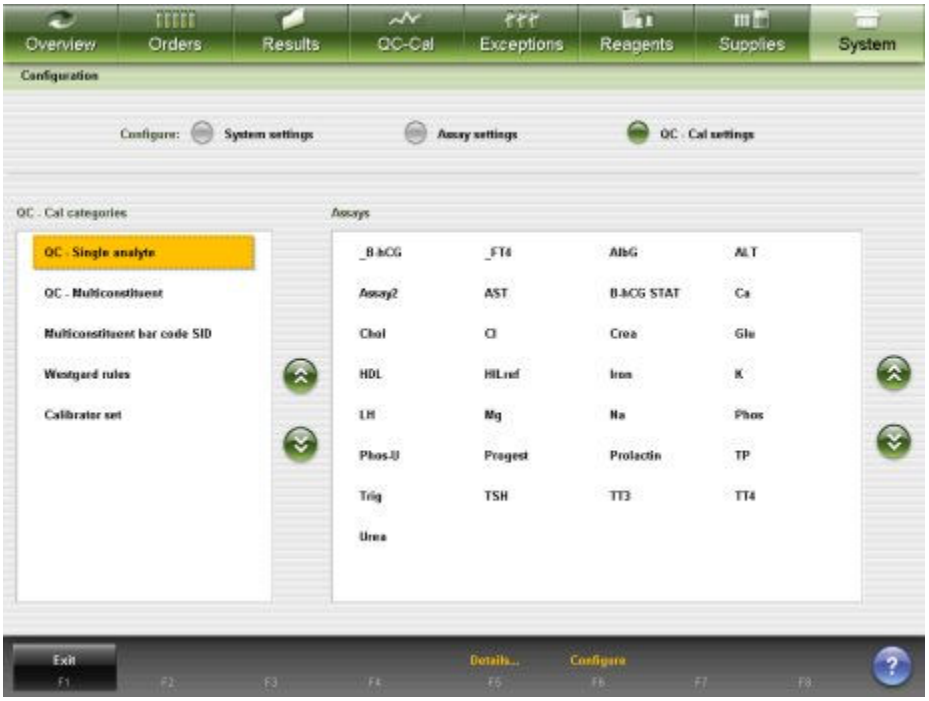
Configuration screen - QC - Cal settings view

From the QC - Cal settings view of the Configuration screen the general operator can access windows to view detailed information for configured QC Cal settings.

The system administrator can access windows to configure these settings, which include:

- QC - Single analyte
- QC - Multiconstituent
- Multiconstituent bar code SID
- Westgard rules
- Calibrator set

Figure 2.70: Configuration screen - QC - Cal settings view



For descriptions of these fields, see *Configuration screen - QC-Cal settings view field descriptions*, page E-221.

To display this view of the screen, see *Access the Configuration screen - QC - Cal settings view*, page 2-148.

Related procedures…

- *Configuring QC - Cal settings*, page 2-149
- *Viewing QC - Cal settings*, page 2-160
- *Changing QC - Cal settings*, page 2-160

Access the Configuration screen - QC - Cal settings view

Perform this procedure to display the QC - Cal view of the Configuration screen.

Prerequisite	NA

Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - QC - Cal settings view:

1. Select **System** from the menu bar, and then select **Configuration**.

   The Configuration screen displays.

2. Select the **QC - Cal settings** option.

   The Configuration screen - QC - Cal settings view displays.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147

Procedures - Configuration screen - QC - Cal settings view

Procedures you can perform from the Configuration screen - QC - Cal settings view and its related windows are grouped by task:

- *Configuring QC - Cal settings*, page 2-149
- *Viewing QC - Cal settings*, page 2-160
- *Changing QC - Cal settings*, page 2-160
- *Importing QC - Cal data*, page 2-176

Configuring QC - Cal settings

Procedures for configuring QC - Cal settings include:

- *Configure a single analyte control*, page 2-149
- *Configure a bar code for a single analyte control level*, page 2-151
- *Configure intervals for automated single analyte control ordering*, page 2-152
- *Configure a new multiconstituent control*, page 2-153
- *Configure a multiconstituent bar code SID*, page 2-155
- *Configure intervals for automated multiconstituent control ordering*, page 2-156
- *Configure a Westgard rule*, page 2-157
- *Configure a new calibrator set (c System)*, page 2-158

Configure a single analyte control

Perform this procedure to configure control information for each level of a single analyte control set.

NOTE: To change or add a level to a single analyte control, see *Change single analyte control settings*, page 2-162.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a single analyte control:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select one of the following:

   - **New Lot**
   - **New Lot - Copy Data** - used to add a new lot and use the same data as the default lot

3. Enter the lot number for the control in the **Lot no.** data entry box.

   NOTE: The first configured lot number is automatically designated as the default lot for single analyte control orders for the selected assay. To change the default lot, at least one additional control lot number must be configured. See *Change single analyte control settings*, page 2-162.

4. Enter the expiration date for the control in the **Exp. date** data entry box. ***(optional)***

   NOTE: If your system is configured to require lot number and expiration date (premium feature), an expiration date must be entered to order the control. For additional information see *Change the option to track control and calibrator lot expiration (premium feature)*, page 2-17.

5. Enter level name (maximum of 10 alphanumeric characters and name is case sensitive).

   NOTE: The level name can not be edited when the New Lot - Copy Data option is selected.

6. Enter **Manufacturer mean** and **1 SD** (standard deviation). ***(optional)***

7. Enter **Expected mean** and **1 SD** (standard deviation) by performing one of the following: ***(optional)***

   - Enter values in the **Expected mean** and **Expected 1 SD** data entry boxes.
   - Enter values in both **Control range** data entry boxes (see step 8 below) and select **Calculate mean / SD** button.

     The entered control ranges are converted to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4.

NOTE: QC reports, Levey-Jennings graphs, and QC summary review data are not generated if expected mean and SD are not defined.

8. Enter values in the **Control range** data entry box(es). ***(optional)***
   - To automatically flag all controls when the control results are outside a specific range, enter values in both data entry boxes.
   - To automatically flag all controls when the results are less than a specific value, enter the value in the first data entry box and leave the second data entry box blank.
   - To automatically flag all controls when the results are greater than a specific value, leave the first data entry box blank and enter a value in the second data entry box.
9. Select the **Default dilution** list button, and then select the desired dilution for the control level.
10. Enter the ID for the control level bar code in the **Bar code SID** data entry box. ***(optional)***

    NOTE: The Bar code SID must be unique for each control level within a lot.
11. Select the **Display order** list button, and then select the desired display order for the control level.
12. Enter a value in the **QC time interval** data entry box. ***(optional)***
13. Enter a value in the **QC test count interval** data entry box. ***(optional)***
14. Select **Add level** to add the control.

    The control level name displays in the **Level** list.

    NOTE: If the **New Lot - Copy Data** option is selected the **Add level** button will not become active. All levels from the default lot are preconfigured. You may edit the levels, add a new level, or continue to step 17.
15. Select the **Level** list button, select **New Level** to add another level, and then repeat steps 5 through 14. ***(optional)***
16. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 14 for each. ***(optional)***
17. Select **Done** to save your changes.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184

Configure a bar code for a single analyte control level

Perform this procedure to define a bar code for a single analyte control level.

NOTE: You cannot configure single analyte controls for calculated assays. Calculated assay controls must be configured as multiconstituent controls. See *Configure a new multiconstituent control*, page 2-153.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a bar code for a single analyte control level:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Level** list button, and then select the desired level.
4. Enter the ID to be used for the control level bar code in the **Bar code SID** data entry box.

   NOTE: The Bar code SID must be unique for each control level within a lot.

5. Select the **Level** list button, select another level, and then enter a bar code SID. ***(optional)***
6. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 5 for each. ***(optional)***
7. Select **Done** to save your changes.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184

Configure intervals for automated single analyte control ordering

Perform this procedure to define intervals for automated control ordering of single analyte controls.

For automated control ordering you must configure an SID for the control level. See *Configure a bar code for a single analyte control level*, page 2-151.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure intervals:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.
2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Level** list button, and then select the desired level.
4. Enter a value in the **QC time interval** data entry box. ***(optional)***
5. Enter a value in the **QC test count interval** data entry box. ***(optional)***
6. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 5 for each. ***(optional)***
7. Select **Done** to save your changes.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184
- *Automated control ordering*, page 5-185

Configure a new multiconstituent control

Perform this procedure to configure control information for each level of a multiconstituent control set.

To change a multiconstituent control, see *Add an assay to a multiconstituent control*, page 2-166 or *Change multiconstituent control settings*, page 2-167.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a new multiconstituent control:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select **NEW** from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Enter the control name in the **Control** data entry box.
4. Select the **Lot number** list button, and then select **New Lot**.
5. Enter the lot number for the control in the **Lot number** data entry box.

   NOTE: The first configured lot number is automatically designated as the default lot for multiconstituent control orders. To change the default lot, at

least one additional control lot number must be configured. See *Change multiconstituent control settings*, page 2-167.

6. Select the **Level** list button, and then select the desired level.
7. Enter the expiration date for the control in the **Expiration date** data entry box. ***(optional)***

   NOTE: If your system is configured to require lot number and expiration date (premium feature) an expiration date must be entered to order the control. For additional information see *Change the option to track control and calibrator lot expiration (premium feature)*, page 2-17.
8. Select **Select assays**.

   The Select assay window displays.

   a. Select the desired assay(s) from the list.

   b. Select **Done** to return to the Configure multiconstituent control window.

      The assay(s) display in the table.
9. Select the assay(s) from the table, and then select **Define data**.

   The Define control data window displays.

   NOTE: You must define the Default dilution data for each assay before you can add the level.

   a. Enter **Manufacturer mean** and **1 SD** (standard deviation). ***(optional)***

   b. Enter **Expected mean** and **1 SD** (standard deviation) by performing one of the following: ***(optional)***

      - Enter values in the **Expected mean** and **Expected 1 SD** data entry boxes.
      - Enter values in both **Control range** data entry boxes (see step c below) and select **Calculate mean** / **SD** button.

        The entered control ranges are converted to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4

        NOTE: QC reports, Levey-Jennings graphs, and QC summary review data are not generated if expected mean and SD are not defined.

   c. Enter values in the **Control range** data entry box(es). ***(optional)***

      - To automatically flag all controls when the control results are outside a specific range, enter values in both data entry boxes.
      - To automatically flag all controls when the results are less than a specific value, enter the value in the first data entry box and leave the second data entry box blank.

- To automatically flag all controls when the results are greater than a specific value, leave the first data entry box blank and enter a value in the second data entry box.

d. Select the **Default dilution** list button, and then select the desired dilution for the control level.

e. Enter a value in the **QC time interval** data entry box. ***(optional)***

f. Enter a value in the **QC test count interval** data entry box. ***(optional)***

g. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 9a through 9f for each. ***(optional)***

h. Select **Done** to return to the Configure multiconstituent control window.

The assay-specific data displays in the table.

10. Select **Add level** to add the level.
11. Select the **Level** list button, select another level, and then repeat steps 8 through 10. ***(optional)***
12. Select **Done** to save your changes.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Select assay window*, page 2-146
- *Define control data window*, page 2-186

Configure a multiconstituent bar code SID

Perform this procedure to assign a bar code SID for a configured multiconstituent control.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To configure a multiconstituent bar code SID:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen, and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.

2. Enter the ID to be used for the multiconstituent control level bar code in the **New bar code SID** data entry box.

NOTE: The bar code SID must be unique for each control level within a lot.

3. Select the **Control** list button, and then select the desired control.
4. Select the **Lot** list button, and then select the desired lot.
5. Select the **Level** list button, and then select the desired level.
6. Select the desired assay(s) from the **Assays** list, and then select **Add**.
7. Repeat steps 2 through 6 to configure additional bar code SIDs. ***(optional)***
8. Select **Done** to save your changes.

   NOTE: New bar code assignments are implemented on control orders created after the change was saved.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent bar code SID window*, page 2-187

Configure intervals for automated multiconstituent control ordering

Perform this procedure to define intervals for automated control ordering of multiconstituent controls.

For automated control ordering you must configure an SID for the control. See *Configure a multiconstituent bar code SID*, page 2-155.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure intervals:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Select the **Lot** list button, and then select the desired lot.
4. Select the **Level** list button, and then select the desired level.
5. Select the desired assay(s) from the **Assays** list, and then select **Define data**.

   The Define control data window displays.

6. Enter a value in the **QC time interval** data entry box. ***(optional)***
7. Enter a value in the **QC test count interval** data entry box. ***(optional)***
8. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 6 and 7 for each. ***(optional)***
9. Select **Done** to return to the Configure multiconstituent control window.
10. Select the **Add level** button to save your changes.
11. Select the **Level** list button, select another level, and then repeat steps 5 - 10. ***(optional)***
12. Select **Done** to save your changes.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Define control data window*, page 2-186
- *Automated control ordering*, page 5-185

Configure a Westgard rule

Perform this procedure to configure Westgard rules, which are used to assess quality control results.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To configure a Westgard rule:

1. Select **Westgard rules** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure Westgard window displays.
3. Select the desired rule from the **Rules** list.
4. Select the desired **Status** option.

   NOTE: If you selected Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, or 4-1s xM, you must configure a run definition.
5. Select the desired **Flag type** option.

NOTE: Westgard rules configured as a warning do not produce a flag for patient results. Westgard rules configured as a failure produce a CNTL flag for a patient result.

6. Repeat Steps 3 through 5 to configure another rule for the displayed assay. ***(optional)***
7. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

To define a run, see *Configure a QC run definition*, page 2-9.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure Westgard window*, page 2-188
- *Westgard rule application*, page 5-383

Configure a new calibrator set (*c* System)

Perform this procedure to create a calibrator set.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure a calibrator set:

1. Select **Calibrator set** from the **QC - Cal categories** list on the Configuration screen.
2. Select **NEW** from the **Calibrator sets** list, and then select **F6 - Configure**.

   The Configure calibrator set window displays.
3. Enter a unique name (maximum of 10 alphanumeric characters) in the **Calibrator set** data entry box.
4. Select the **Lot number** list button and then select **New Lot**.
5. Enter the calibrator lot number in the **Lot number** data entry box.

   NOTE: The first configured lot number is automatically designated as the default for calibration orders for assays in this calibrator set. To change the default lot, at least one additional calibrator lot number must be configured. See *Change photometric assay calibrator settings (c System)*, page 2-173.
6. Enter a value (1 - 6) in the **Number of levels** data entry box.

7. Enter a value in the **Expiration date** data entry box. ***(optional)***

   NOTE: If your system is configured to require lot number and expiration date (premium feature), an expiration date must be entered to order the calibration. For additional information see *Change the option to track control and calibrator lot expiration (premium feature)*, page 2-17.

8. Select **Select assays**. ***(optional)***

   The Select assay window displays.

   NOTE: If a user-defined assay has not been configured the assay name will not be available for selection. To add the user-defined assay to the calibrator set you must return to this window after configuring the assay.

   a. Select the desired assay(s) from the list.

   b. Select **Done** to return to the Configure calibrator set window.

      The assay(s) display in the table.

9. Select the assay(s) from the table, and then select **Define data**.

   The Define calibrator data window displays.

10. Enter a value in the **Concentration** data entry box for each calibrator level.

    NOTE: A concentration must be entered for each calibrator level regardless of whether the level is used for the assay calibration. The blank calibrator concentration must be defined in the Configure assay parameters window - Calibration - Calibrators view (photometric *c* System).

11. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat step 10 for each.

12. Select **Done** to return to the Configure calibrator set window.

    The assay-specific data displays in the table.

13. Select **Done** to create the calibrator set.

    NOTE: If assays assigned to the new calibrator set are assigned to an existing calibrator set, a message displays to notify you the assay will be removed from the previous calibrator set, Active and Pending QC calibrations will become Invalid, and recalibration is required.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure calibrator set window (c System)*, page 2-189
- *Select assay window*, page 2-146
- *Define calibrator data window (c System)*, page 2-190

Viewing QC - Cal settings

From the QC - Cal settings view of the Configuration screen the general operator can access windows to view detailed information for configured QC - Cal settings.

The general operator logon allows you to view:

- QC - Single analyte
- QC - Multiconstituent
- Multiconstituent bar code SID
- Westgard rules
- Calibrator set

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Any
User access level	General operator
Supplies	NA

To access the Configuration screen - QC - Cal settings details view:

1. Select a category from the **QC-Cal categories** list.
2. Select the desired item(s) from the list box, if displayed.
3. Select **F5 - Details**.

   The Details window displays.
4. Select the **Lot no.:** list button, and then select the desired level, if required.
5. Use the **previous**/**next** buttons to display each assay if you selected more than one. ***(optional)***
6. Select **Done** to return to the Configuration screen.

Changing QC - Cal settings

Procedures for changing QC - Cal settings include:

- *Add a lot to a single analyte control*, page 2-161
- *Change single analyte control settings*, page 2-162
- *Delete a single analyte control level*, page 2-164
- *Change the default dilution for a single analyte control level*, page 2-165
- *Add an assay to a multiconstituent control*, page 2-166
- *Change multiconstituent control settings*, page 2-167
- *Add an assay to a multiconstituent bar code SID*, page 2-169
- *Change multiconstituent bar code SID settings*, page 2-170

- *Delete a multiconstituent bar code SID*, page 2-171
- *Delete a multiconstituent control and/or level*, page 2-171
- *Change Westgard rule settings*, page 2-172
- *Change photometric assay calibrator settings (c System)*, page 2-173
- *Delete a calibrator set (photometric - c System)*, page 2-175

Add a lot to a single analyte control

Perform this procedure to add a lot to an existing single analyte control.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add a lot to a single analyte control:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select **New Lot**.
3. Enter the lot number for the control in the **Lot no.** data entry box.
4. Enter the expiration date for the control in the **Exp. date** data entry box. ***(optional)***

   NOTE: If your system is configured to require lot number and expiration date (premium feature) an expiration date must be entered to order the control. For additional information, see *Change the option to track control and calibrator lot expiration (premium feature)*, page 2-17.

5. Enter **Level name** (maximum of 10 alphanumeric characters and name is case sensitive).

   NOTE: The level name can not be edited when the New Lot - Copy Data option is selected.

6. Enter **Manufacturer mean** and **1 SD** (standard deviation). ***(optional)***
7. Enter **Expected mean** and **1 SD** (standard deviation) by performing one of the following: ***(optional)***

   – Enter values in the **Expected mean** and **Expected 1 SD** data entry boxes.

   – Enter values in both **Control range** data entry boxes (see step 8 below) and select **Calculate mean / SD button**.

   The entered control ranges are converted to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low

values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4.

NOTE: QC reports, Levey-Jennings graphs, and QC summary review data are not generated if expected mean and SD are not defined.

8. Enter values in the **Control range** data entry box(es). ***(optional)***
   - To automatically flag all controls when the control results are outside a specific range, enter values in both data entry boxes.
   - To automatically flag all controls when the results are less than a specific value, enter the value in the first data entry box and leave the second data entry box blank.
   - To automatically flag all controls when the results are greater than a specific value, leave the first data entry box blank and enter a value in the second data entry box.
9. Select the **Default dilution** list button, and then select the dilution for the control level.
10. Enter the ID for the control level bar code in the **Bar code SID** data entry box. ***(optional)***

    NOTE: The bar code SID must be unique for each control level within a lot.
11. Select the **Display order** list button, and then select a display order for the control level.
12. Enter a value in the **QC time interval** data entry box. ***(optional)***
13. Enter a value in the **QC test count interval** data entry box. ***(optional)***
14. Select **Add level** to add the lot.

    The lot number displays in the Lot no. list.
15. Select the **Level** list button, select **New Level** to add another level, and then repeat steps 5 through 14. ***(optional)***
16. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 15 for each. ***(optional)***
17. Select **Done** to save your changes.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184

Change single analyte control settings

Perform this procedure to change control information for each level of a single analyte control set.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change single analyte control settings:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.

2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Default check box** to use this lot as the default lot for single analyte control orders. ***(optional)***
4. Select the **Level list** button, and then select the desired level.
5. Enter **Manufacturer mean** and **1 SD** (standard deviation). ***(optional)***
6. Enter **Expected mean** and **1 SD** (standard deviation) by performing one of the following: ***(optional)***
   - Enter values in the **Expected mean** and **Expected 1 SD** data entry boxes.
   - Enter values in both **Control range** data entry boxes (see step 7 below) and select **Calculate mean / SD** button.

     The entered control ranges are converted to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4.

   NOTE: QC reports, Levey-Jennings graphs, and QC summary review data are not generated if expected mean and SD are not defined.
7. Enter values in the **Control range** data entry box(es). ***(optional)***
   - To automatically flag all controls when the control results are outside a specific range, enter values in both data entry boxes.
   - To automatically flag all controls when the results are less than a specific value, enter the value in the first data entry box and leave the second data entry box blank.
   - To automatically flag all controls when the results are greater than a specific value, leave the first data entry box blank and enter a value in the second data entry box.
8. Select the **Default dilution** list button, and then select the desired dilution.
9. Enter the ID for the control level bar code in the **Bar code SID** data entry box. ***(optional)***

10. Select the **Display order** list button, and then select the desired order.
11. Enter a value in the **QC time interval** data entry box. ***(optional)***
12. Enter a value in the **QC test count interval** data entry box. ***(optional)***
13. Select the **Level** list button, select another level, and then repeat steps 5 - 12. ***(optional)***
14. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 2 - 13 for each. ***(optional)***
15. Select **Done** to save your changes.

    NOTE: If a control expected mean and/or SD was previously configured and has been modified, a message is displayed giving you the option to perform Westgard re-evaluation on all affected data points.

    – Select "**OK**" to perform the Westgard re-evaluation on all affected data points. No more than 5000 data points can be re-evaluated at one time. If more than 5000 data points are affected Westgard re-evaluation will not be performed.

      OR

    – Select "**Cancel**" to continue without performing a Westgard re-evaluation.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184

Delete a single analyte control level

Perform this procedure to delete a single analyte control level.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a single analyte control level:

1. Release, archive, and delete all control results for the control level. See *Release a control result*, page 5-323 and then *Archive stored control results*, page 5-356.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.
3. Select the **Lot no.** list button, and then select the desired lot.

4. Select the **Level** list button, and then select the level to delete.
5. Select **Delete level**.
6. Select the **Level** list button, select another level, and then select **Delete**. ***(optional)***
7. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***
8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184

Change the default dilution for a single analyte control level

Perform this procedure to change the default dilution for a single analyte control level.

To specify a dilution for a specific sample when ordering, see *Create a control order (single analyte)*, page 5-211.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change the default dilution for a single analyte control level:

1. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure single analyte window displays.
2. Select the **Lot no.** list button, and then select the desired lot.
3. Select the **Level** list button, and then select the desired level.
4. Select the **Default dilution** list button, and then select the desired dilution.
5. Select the **Level** list button, and then another level. ***(optional)***
6. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 2 through 5 for each. ***(optional)***
7. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure single analyte window*, page 2-184

Add an assay to a multiconstituent control

Perform this procedure to add an assay(s) to the level(s) of a multiconstituent control.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To add an assay to a multiconstituent control:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Select the **Lot number** list button, and then select the desired lot number.
4. Select the **Level** list button, and then select the desired level.
5. Select **Select assays**.

   The Select assay window displays.

   a. Select the desired assay(s) from the **Assays** list.

   b. Select **Done** to return to the Configure multiconstituent control window.

      The selected assay(s) display in the table.
6. Select the assay(s) from the table, and then select **Define data**.

   The Define control data window displays.

   NOTE: You must define the assay-specific data for each assay before you can add the level.

   a. Enter **Manufacturer mean** and **1 SD** (standard deviation). ***(optional)***

   b. Enter **Expected mean** and **1 SD** (standard deviation) by performing one of the following: ***(optional)***

      - Enter values in the **Expected mean** and **Expected 1 SD** data entry boxes.
      - Enter values in both **Control range** data entry boxes (see step c below) and select **Calculate mean / SD** button.

        The entered control ranges are converted to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4

NOTE: QC reports, Levey-Jennings graphs, and QC summary review data are not generated if expected mean and SD are not defined.

c. Enter values in the **Control range** data entry box(es). ***(optional)***

- To automatically flag all controls when the control results are outside a specific range, enter values in both data entry boxes.
- To automatically flag all controls when the results are less than a specific value, enter the value in the first data entry box and leave the second data entry box blank.
- To automatically flag all controls when the results are greater than a specific value, leave the first data entry box blank and enter a value in the second data entry box.

d. Select the **Default dilution** list button, and then select the desired dilution for the control level.

e. Enter a value in the **QC time interval** data entry box. ***(optional)***

f. Enter a value in the **QC test count interval** data entry box. ***(optional)***

g. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 6a through 6f for each. ***(optional)***

h. Select **Done** to return to the Configure multiconstituent control window.

The assay-specific data displays in the table.

7. Select **Add level** to add the assay to the level.
8. Select the **Level** list button, select another level, and then repeat steps 5 through 7. ***(optional)***
9. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Select assay window*, page 2-146
- *Define control data window*, page 2-186

Change multiconstituent control settings

Perform this procedure to change multiconstituent control settings when you determine that the quality control values for the ranges have changed.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator

Supplies	NA

To change multiconstituent control settings:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
3. Select the **Lot number** list button, and then select the desired lot number.
4. Select the **Default check box** to use this lot as the default lot for multiconstituent control orders. ***(optional)***
5. Select the **Level** list button, and then select the desired level.
6. Select the desired assay(s) from the table, and then select **Define data**.

   The Define control data window displays.

   a. Enter **Manufacturer mean** and **1 SD** (standard deviation). ***(optional)***

   b. Enter **Expected mean** and **1 SD** (standard deviation) by performing one of the following: ***(optional)***

      - Enter values in the **Expected mean** and **Expected 1 SD** data entry boxes.
      - Enter values in both **Control range** data entry boxes (see step c below) and select **Calculate mean / SD** button.

        The entered control ranges are converted to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4

        NOTE: QC reports, Levey-Jennings graphs, and QC summary review data are not generated if expected mean and SD are not defined.

   c. Enter values in the **Control range** data entry box(es). ***(optional)***

      - To automatically flag all controls when the control results are outside a specific range, enter values in both data entry boxes.
      - To automatically flag all controls when the results are less than a specific value, enter the value in the first data entry box and leave the second data entry box blank.
      - To automatically flag all controls when the results are greater than a specific value, leave the first data entry box blank and enter a value in the second data entry box.

   d. Select the **Default dilution** list button, and then select the desired dilution for the control level.

e. Enter a value in the **QC time interval** data entry box. ***(optional)***

f. Enter a value in the **QC test count interval** data entry box. ***(optional)***

g. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 6a through 6f for each. ***(optional)***

h. Select **Done** to return to the Configure multiconstituent control window.

The assay-specific data displays in the table.

7. Select **Add level** to add the data to the level.
8. Select the **Level** list button, select another level, and then repeat steps 6 and 7. ***(optional)***
9. Select **Done** to save your changes.

NOTE: If a control expected mean and/or SD was previously configured and has been modified, a message is displayed giving you the option to perform Westgard re-evaluation on all affected data points.

– Select "**OK**" to perform the Westgard re-evaluation on all affected data points. No more than 5000 data points can be re-evaluated at one time. If more than 5000 data points are affected Westgard re-evaluation will not be performed.

OR

– Select "**Cancel**" to continue without performing a Westgard re-evaluation.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Define control data window*, page 2-186

Add an assay to a multiconstituent bar code SID

Perform this procedure to add an assay to a multiconstituent bar code SID.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To add an assay to a multiconstituent bar code SID:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen and then select **F6 - Configure**.

The Configure multiconstituent bar code SID window displays.

2. Select the desired bar code SID from the **Bar codes** list.

   NOTE: The bar code SID is unique for each control level within a lot.

3. Select the desired assay(s) from the **Assays** list, and then select **Add**.
4. Select another bar code SID from the **Bar codes** list, and then repeat step 3. ***(optional)***
5. Select **Done** to save your changes.

   NOTE: New bar code assignments are implemented on control orders created after the change was saved.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent bar code SID window*, page 2-187

Change multiconstituent bar code SID settings

Perform this procedure to change multiconstituent bar code SID settings.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To change multiconstituent bar code SID settings:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.

2. Select the desired bar code SID from the **Bar codes** list.

   NOTE: The bar code SID is unique for each control level within a lot.

3. Select the **Control** list button, and then select the desired control.
4. Select the **Lot** list button, and then select the desired lot.
5. Select the **Level** list button, and then select the desired level.
6. Select the desired assay(s) from the **Assays** list, and then select **Add**.
7. Select another bar code SID from the **Bar codes** list, and then repeat steps 3 through 6. ***(optional)***
8. Select **Done** to save your changes.

   NOTE: New bar code assignments are implemented on control orders created after the change was saved.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent bar code SID window*, page 2-187

Delete a multiconstituent bar code SID

Perform this procedure to delete a multiconstituent bar code SID.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a multiconstituent bar code SID:

1. Select **Multiconstituent bar code SID** from the **QC - Cal categories** list on the Configuration screen and then select **F6 - Configure**.

   The Configure multiconstituent bar code SID window displays.
2. Select the desired bar code SID from the **Bar codes** list.
3. Select **Delete**.
4. Select another bar code SID from the **Bar codes** list, and then repeat step 3. ***(optional)***
5. Select **Done** to save your changes.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent bar code SID window*, page 2-187

Delete a multiconstituent control and/or level

Perform this procedure to delete a level from a multiconstituent control set. Once all control levels of a multiconstituent control are deleted, the control name is also deleted.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To delete a multiconstituent control and/or level:

1. Release, archive, and delete all control results for the control level. See *Release a control result*, page 5-323 and then *Archive stored control results*, page 5-356.

2. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
3. Select the desired multiconstituent control from the **Controls** list, and then select **F6 - Configure**.

   The Configure multiconstituent control window displays.
4. Select the **Lot number** list button, and then select the desired lot number.

   NOTE: If several lot numbers are configured, you cannot delete a control level from the default lot. To delete that control level, a different control lot must be designated as the default lot.
5. Select the **Level** list button, and then select the level to delete.
6. Select **Delete level**.

   A confirmation message displays.
7. Select the **Level** list button, select another level, and then repeat step 6. ***(optional)***
8. Repeat steps 4 - 7 to delete control levels from another lot number.
9. Select **Done** to save your changes.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185

Change Westgard rule settings

Perform this procedure to change Westgard rule settings, which are used to assess quality control results.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, or Ready
User access level	System administrator
Supplies	NA

To change Westgard rule settings:

1. Select **Westgard rules** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired assay(s) from the **Assays** list, and then select **F6 - Configure**.

   The Configure Westgard window displays.
3. Select the desired rule from the **Rules** list.
4. Select the **Status** option to enable or disable the rule.

NOTE: If you selected Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, or 4-1s xM, you must configure a run definition. See *Configure a QC run definition*, page 2-9.

5. Select the **Flag type** option for the rule.

   NOTE: Westgard rules configured as a warning do not produce a flag for patient results. Westgard rules configured as a failure produce a CNTL flag for patient results.

6. Repeat steps 3 through 5 to configure another rule for the displayed assay. ***(optional)***

7. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 6 for each. ***(optional)***

8. Select **Done** to save your changes.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure Westgard window*, page 2-188
- *Westgard rule application*, page 5-383

Change photometric assay calibrator settings (*c* System)

Perform this procedure to add assays or a lot number to a configured calibrator set, delete a lot number, change the default lot, or edit calibrator values.

NOTE: Editing calibrator values or changing the calibrator set for an assay will invalidate existing calibration curves for the corresponding assays.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To change photometric assay calibrator settings:

1. Select **Calibrator set** from the **QC - Cal categories** list on the Configuration screen.

2. Select the desired calibrator set, and then select **F6 - Configure**.

   The Configure calibrator set window displays.

3. Select the **Lot number** list button, and then select one of the following:

   - **The desired lot number**
   - **New Lot**

4. Select the **Default check box** to use this lot number as the default for calibration orders for assays in this calibrator set. ***(optional)***

5. Select **Delete lot** to delete the selected calibrator lot number. ***(optional)***

   NOTE: This step cannot be performed if the system is in the Running status or if the selected lot is the default lot.

6. Enter a value in the **Lot number** data entry box.
7. Enter a value (1 - 6) in the **Number of levels** data entry box.

   NOTE: This step cannot be performed if the system is in the Running status. The number of levels cannot be decreased on a previously configured lot number.

8. Enter a value in the **Expiration date** data entry box. ***(optional)***
9. Select **Select assays**. ***(optional)***

   The Select assays window displays.

   a. Select the desired assay(s) from the list.

   b. Select **Done** to return to the Configure calibrator set window.

      The assay(s) display in the table.

10. Select the assay(s) from the table, and then select **Define data**. ***(optional)***

    The Define calibrator data window displays.

11. Enter a value in the **Concentration** data entry box for each calibrator. ***(optional)***

    NOTE: A concentration must be entered for each calibrator level regardless of whether the level is used for the assay calibration. If calibration values are edited, a message displays to notify you that active calibrations will become invalid and recalibration is required.

12. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat step 11 for each. ***(optional)***
13. Select **Done** to return to the Configure calibrator set window. ***(optional)***

    The assay-specific data displays in the table.

14. Select **Done** to save your changes.

    NOTE: If assays assigned to this calibrator set are assigned to an existing calibrator set, a message displays to notify you the assay will be removed from the previous calibrator set, Active and Pending QC calibrations will become Invalid, and recalibration is required.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure calibrator set window (c System)*, page 2-189
- *Define calibrator data window (c System)*, page 2-190

Delete a calibrator set (photometric - *c* System)

Perform this procedure to delete a calibrator set when the calibrator is no longer used.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To delete a calibrator set:

NOTE: If a calibrator set is defined for use in any assay parameter file, you must perform step 2 or step 3 prior to deleting the calibrator set.

1. Select **Calibrator set** from the **QC - Cal categories** list on the Configuration screen.
2. Delete the assay(s) that use the calibrator set if the assay file(s) are no longer needed. See *Install or delete an assay file*, page 2-211. ***(optional)***
3. Change the assay to use a different calibrator set. ***(optional)***
    a. Select the calibrator set you want to assign the assay to from the **Calibrator sets** list, and then select **F6 - Configure**.

       The Configure calibrator set window displays.
    b. Select **Select assays**.

       The Select assay window displays.
    c. Select the desired assay(s) from the list.
    d. Select **Done** to return to the Configure calibrator set window.

       The assay(s) display in the table.
    e. Select the assay(s) from the table and then select Define data.

       The Define calibrator data window displays.
    f. Enter a value in the **Concentration** data entry box for each calibrator level.
    g. Use the **previous**/**next** buttons to display each assay if you selected more than one assay, and then repeat step 3f for each.
    h. Select **Done** to return to the Configure calibrator set window.
    i. Select **Done** to save your changes.

       A message displays to notify you that the assay will be removed from the previous calibrator set, Active and Pending QC calibrations will become Invalid, and recalibration is required.

4. Select the desired calibrator set, and then select **F7 - Delete**.

   A confirmation message displays.

5. Select **OK** to delete the calibrator set.

   The calibrator set name no longer displays in the calibrator set table.

6. Select **Done** to return to the Configuration screen.

To view the current settings, see *Viewing QC - Cal settings*, page 2-160.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure calibrator set window (c System)*, page 2-189

Importing QC - Cal data

Procedures for importing QC - Cal data include:

- *Import control data (c System)*, page 2-176
- *Import control data (i System)*, page 2-178
- *Import calibrator data (c System)*, page 2-179
- *Assign an assay for import of control data (c System)*, page 2-181
- *Assign an assay for import of calibrator data (c System)*, page 2-181
- *Unassign an assay from imported control data (c System)*, page 2-182
- *Unassign an assay from imported calibrator data (c System)*, page 2-183

Import control data (*c* System)

Perform this procedure to import multiconstituent control data from a CD-ROM or USB flash drive to the SCC (system control center).

IMPORTANT: If separate *i* System and *c* System data files exist for a single control product, both data files must be imported on integrated systems (*ci*4100, *ci*8200, and *ci*16200).

NOTE: If an Expected mean and 1SD are not supplied by the .xml file, the import process converts manufacturer-provided ranges to Expected mean and 1 SD values. The mean is calculated by adding the range high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To import control data:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the control name from the **Controls** list. If this is the initial configuration for the control select **New**.
3. Select **F6 - Configure**.

   The Configure multiconstituent control window displays.
4. Select the **Lot number** list button and then select **Import**.
5. Insert the CD-ROM or USB flash drive and then select **OK**.

   The available control files display in the Import lot file selection window.
6. Select the desired data file and then select **Done**.
7. Select **OK** to acknowledge the information message.

   The Assign assays for multiconstituent control window displays.

   Data for all control levels is imported for assays with the following import statuses:

   - OK
   - Assigned - System
   - Assigned - User

   No data is imported for assays with the following import statuses which are displayed in red text:

   - No Assay
   - Previously Defined
   - Units Mismatch
   - Version Mismatch

   See *Descriptions of import statuses (c System)*, page 2-192 to resolve these statuses and import data for these assays.
8. Select **Done** to return to the Configure multiconstituent control window.
9. Edit the imported control name. ***(optional)***
10. Select **Done** to save the imported data.
11. Select **OK** if the data was imported from a USB flash drive and then remove the drive from the USB port.

    The flash drive must be removed from the port and then reinserted before another file can be imported.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147

- *Configure multiconstituent control window*, page 2-185
- *Descriptions of import statuses (c System)*, page 2-192
- *Import lot file selection window*, page 2-191

Import control data (*i* System)

Perform this procedure to import multiconstituent control data from a CD-ROM or USB flash drive to the SCC (system control center).

IMPORTANT: If separate *i* System and *c* System data files exist for a single control product, both data files must be imported on integrated systems (*ci*4100, *ci*8200, and *ci*16200).

NOTE: If an Expected mean and 1SD are not supplied by the .xml file, the import process converts manufacturer-provided ranges to Expected mean and 1 SD values. The mean is calculated by adding the range high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To import control data:

1. Select **QC - Multiconstituent** from the **QC - Cal categories** list on the Configuration screen.
2. Select the control name from the **Controls** list. If this is the initial configuration for the control select **New**.
3. Select **F6 - Configure**.

   The Configure multiconstituent control window displays.
4. Select the **Lot number** list button and then select **Import**.
5. Insert the CD-ROM or USB flash drive and then select **OK**.

   The available control files display in the Import lot file selection window.
6. Select the desired data file and then select **Done**.
7. Select **OK** to acknowledge the information message.

   The Assign assays for multiconstituent control window displays.

   Data for all control levels is imported for assays with an import status of OK.

   No data is imported for assays with the following import statuses which are displayed in red text:

- No Assay
- Previously Defined
- Units Mismatch
- Version Mismatch

See *Descriptions of import statuses (i System)*, page 2-193 to resolve these statuses and import data for these assays.

8. Select **Done** to return to the Configure multiconstituent control window.
9. Edit the imported control name. ***(optional)***
10. Select **Done** to save the imported data.
11. Select **OK** if the data was imported from a USB flash drive and then remove the drive from the USB port.

    The flash drive must be removed from the port and then reinserted before another file can be imported.

Related information...

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Descriptions of import statuses (i System)*, page 2-193
- *Import lot file selection window*, page 2-191

Import calibrator data (*c* System)

Perform this procedure to import calibrator set data from a CD-ROM or USB flash drive to the SCC (system control center).

NOTE: There is no limit to the number of calibrator lots that can be configured. To delete calibrator lot data, see *Change photometric assay calibrator settings (c System)*, page 2-173.

Prerequisite	*Access the Configuration screen - QC - Cal settings view*, page 2-148
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To import calibrator data:

1. Select **Calibrator set** from the **QC - Cal categories** list on the Configuration screen.
2. Select the desired calibrator set from the **Calibrator sets** list and then select **F6 - Configure**.

   The Configure calibrator set window displays.

3. Select the **Lot number** list button and then select **Import**.
4. Perform one of the following:
   - If using electronic media, insert the CD-ROM or USB flash drive and select **OK**.
   - For Abbott mail users, select **OK** or **Cancel**.

   The available calibrator files from Abbott mail and electronic media display in the Import lot file selection window.
5. Select the desired data file and then select **Done**.

   The Assign assays for calibrator set window displays.

   Data for all calibrator levels is imported for assays with the following import statuses:
   - OK
   - Assigned - System
   - Assigned - User

   No data is imported for assays with the following import statuses which are displayed in red text:
   - Cal Set Mismatch
   - No Assay
   - Previously Defined
   - Units Mismatch

   See *Descriptions of import statuses (c System)*, page 2-192 to resolve these statuses and import data for these assays.
6. Select **Done** to return to the Configure calibrator set window.
7. Select **Done** to save the imported data.
8. Select **OK** if the data was imported from a USB flash drive and then remove the drive from the USB port.

   The flash drive must be removed from the port and then reinserted before another file can be imported.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure calibrator set window (c System)*, page 2-189
- *Descriptions of import statuses (c System)*, page 2-192
- *Import lot file selection window*, page 2-191
- *Abbott mail*, page 2-204

Assign an assay for import of control data (*c* System)

Perform this procedure to associate a user-defined assay to assay data in a control data file. This procedure is performed when importing control data on the *c* System for assays with assay numbers between 2000 - 2999.

NOTE: Assays can not be sorted by status in the Assign assays for multiconstituent control window.

Prerequisite	Access the Assign assays for multiconstituent control window (*c* System) by performing *Import control data (c System)*, page 2-176.
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To assign an assay for import of control data:

1. Select the assay to assign.
2. Select the **Assign assay** button.

   The Select assay window displays.
3. Select the desired assay from the list. Assays available to assign display in black text.
4. Select **Done** to exit the Select assay window.
5. Repeat steps 1 - 4 for each additional assay to be assigned.
6. Select **Done** to return to the Configure multiconstituent control window.
7. Select **Done** to save the assay assignment.

   The association is retained on the system until it is unassigned. See *Unassign an assay from imported control data (c System)*, page 2-182.
8. Select **OK** if the data was imported from a USB flash drive and then remove the drive from the USB port.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Descriptions of import statuses (c System)*, page 2-192

Assign an assay for import of calibrator data (*c* System)

Perform this procedure to associate a user-defined assay to assay data in a calibrator data file. This procedure is performed when importing calibrator data on the *c* System for assays with assay numbers between 2000 - 2999.

Prerequisite	Access the Assign assays for calibrator set window (*c* System) by performing *Import calibrator data (c System)*, page 2-179.
Module status	Stopped, Ready, or Running
User access level	System administrator
Supplies	NA

To assign an assay for import of calibrator data:

1. Select the assay to assign.
2. Select the **Assign assay** button.

   The Select assay window displays.

   NOTE: Only assays with the same calibrator set as the import assay will display.
3. Select the desired assay from the list. Assays available to assign display in black text.
4. Select **Done** to exit the Select assay window.
5. Repeat steps 1 - 4 for each additional assay to be assigned.
6. Select **Done** to return to the Configure calibrator set window.
7. Select **Done** to save the assay assignment.

   The association is retained on the system until it is unassigned. See *Unassign an assay from imported calibrator data (c System)*, page 2-183.
8. Select **OK** if the data was imported from a USB flash drive and then remove the drive from the USB port.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure calibrator set window (c System)*, page 2-189
- *Descriptions of import statuses (c System)*, page 2-192

Unassign an assay from imported control data (*c* System)

Perform this procedure to disassociate a user-defined assay on the system from an imported assay data file.

Prerequisite	Assay import status must be Assigned - System or Assigned - User
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To unassign an assay from imported control data:

1. Select the assay to unassign.
2. Select the **Unassign assay** button.

   The status changes to No Assay.
3. Repeat steps 1 and 2 for additional assays as needed.
4. Select **Done** to return to the Configure multiconstituent control window.
5. Select **Done** to save your changes.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure multiconstituent control window*, page 2-185
- *Descriptions of import statuses (c System)*, page 2-192

Unassign an assay from imported calibrator data (*c* System)

Perform this procedure to disassociate a user-defined assay on the system from an imported assay data file.

Prerequisite	Assay import status must be Assigned - System or Assigned - User
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To unassign an assay from imported calibrator data:

1. Select the assay to unassign.
2. Select the **Unassign assay** button.

   The status changes to No Assay.
3. Repeat steps 1 and 2 for additional assays as needed.
4. Select **Done** to return to the Configure calibrator set window.
5. Select **Done** to save your changes.

Related information…

- *Configuration screen - QC - Cal settings view*, page 2-147
- *Configure calibrator set window (c System)*, page 2-189
- *Descriptions of import statuses (c System)*, page 2-192

Windows - Configuration screen - QC - Cal settings view

Windows you can access from the Configuration screen - QC - Cal settings view include:

- *Configure single analyte window*, page 2-184

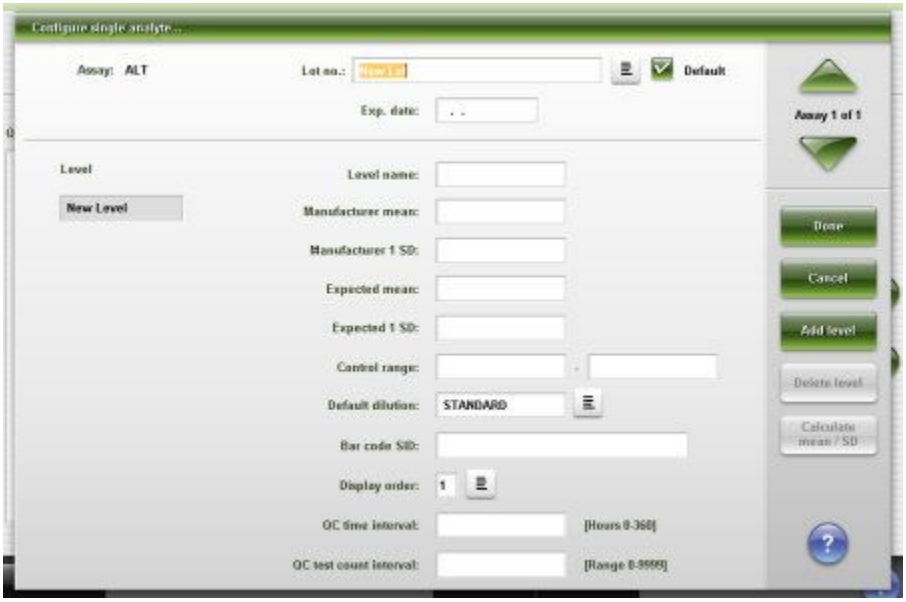
Configure single analyte window

From the Configure single analyte window the system administrator can configure single analyte control settings, which include:

- Control level name, lot number, expiration date, default dilution, bar code SID (sample identification), and display order
- Manufacturer mean and 1 SD (standard deviation)
- Expected mean and 1 SD (standard deviation)
- Control range
- QC time interval
- QC test count interval

NOTE: From the Details window you can view the current settings.

Figure 2.71: Configure single analyte window



For descriptions of these fields, see *Configure single analyte window field descriptions*, page E-221.

Related procedures…

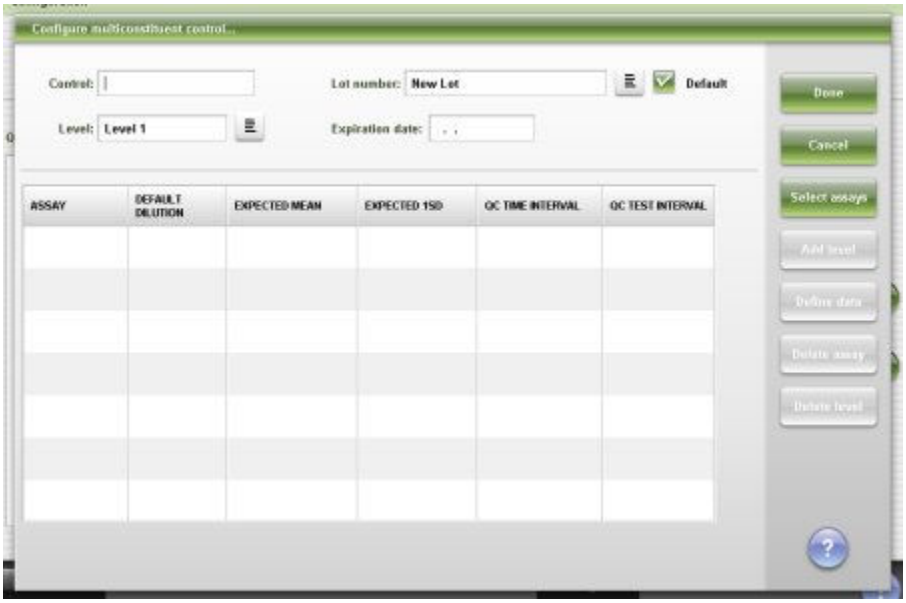
- *Configure a single analyte control*, page 2-149
- *Configure a bar code for a single analyte control level*, page 2-151
- *Configure intervals for automated single analyte control ordering*, page 2-152
- *Add a lot to a single analyte control*, page 2-161
- *Change single analyte control settings*, page 2-162
- *Delete a single analyte control level*, page 2-164
- *Change the default dilution for a single analyte control level*, page 2-165

Configure multiconstituent control window

From the Configure multiconstituent control window the system administrator can configure the settings for the control name, level name, lot number, and expiration date. Also, the system administrator can access windows to import control data from a data file, add or delete a level, define data for a level, add or delete an assay from a level, enter a QC time, and enter a QC test count interval.

NOTE: From the Details window you can view the current settings.

Figure 2.72: Configure multiconstituent control window



For descriptions of these fields, see *Configure multiconstituent control window field descriptions*, page E-222.

Related procedures…

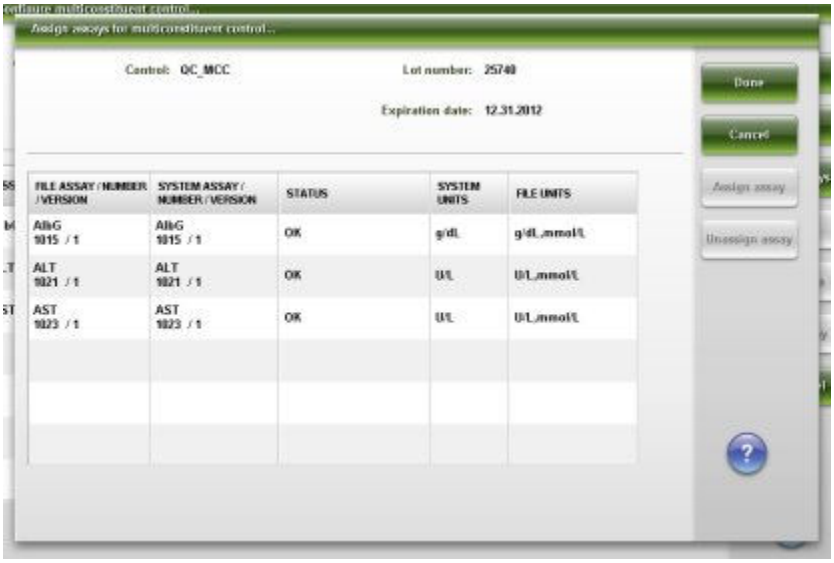
- *Configure a new multiconstituent control*, page 2-153

- *Configure intervals for automated multiconstituent control ordering*, page 2-156
- *Add an assay to a multiconstituent control*, page 2-166
- *Change multiconstituent control settings*, page 2-167
- *Delete a multiconstituent control and/or level*, page 2-171
- *Import control data (c System)*, page 2-176
- *Import control data (i System)*, page 2-178

Assign assays for multiconstituent control window

From the Assign assays for multiconstituent control window you can view imported assays assigned to system assays and the associated units. You can manually assign imported control file assay(s) with assay numbers from 2000 - 2999 to user-defined assay(s) configured on the system.

Figure 2.73: Assign assays for multiconstituent control window



For descriptions of these fields, see *Assign assays for multiconstituent control window field descriptions*, page E-223.

Related procedures...

- *Import control data (c System)*, page 2-176
- *Import control data (i System)*, page 2-178
- *Assign an assay for import of control data (c System)*, page 2-181
- *Unassign an assay from imported control data (c System)*, page 2-182

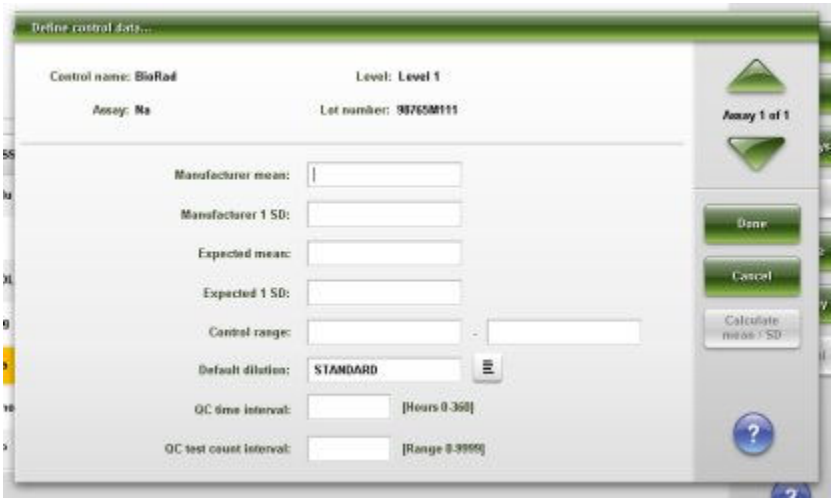
Define control data window

From the Define control data window the system administrator can configure the following settings for multiconstituent controls:

- Manufacturer mean and 1 SD (standard deviation)

- Expected mean and 1 SD (standard deviation)
- Control range
- Default dilution
- QC time interval
- QC test count interval

Figure 2.74: Define control data window



For descriptions of these fields, see *Define control data window field descriptions*, page E-224.

Related procedures…

- *Configure a new multiconstituent control*, page 2-153
- *Configure intervals for automated multiconstituent control ordering*, page 2-156
- *Change multiconstituent control settings*, page 2-167
- *Add an assay to a multiconstituent control*, page 2-166

Configure multiconstituent bar code SID window

From the Configure multiconstituent bar code SID window, the system administrator can assign the bar code SID (sample identification) for a configured multiconstituent control. Also, the system administrator can add or delete assays from a bar code SID and delete a bar code SID.

NOTE: From the Details window you can view the current settings.

Figure 2.75: Configure multiconstituent bar code SID window

For descriptions of these fields, see *Configure multiconstituent bar code SID window field descriptions*, page E-225.

Related procedures…

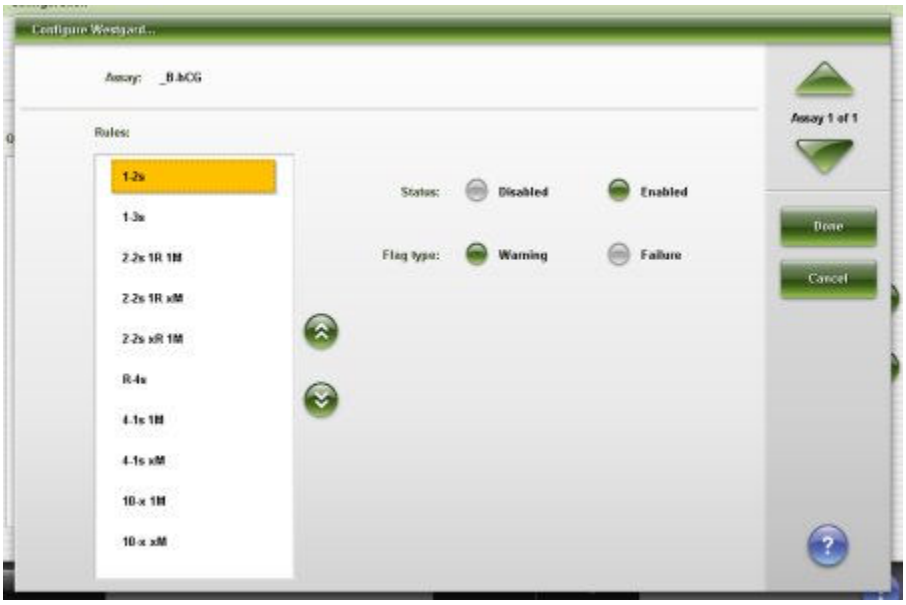
- *Configure a multiconstituent bar code SID*, page 2-155
- *Add an assay to a multiconstituent bar code SID*, page 2-169
- *Change multiconstituent bar code SID settings*, page 2-170
- *Delete a multiconstituent bar code SID*, page 2-171

Configure Westgard window

From the Configure Westgard window, the system administrator can select the Westgard rules that are enabled for an assay and determine whether the failure of the rules is flagged as a Warning or a Failure.

NOTE: From the Details window you can view the current settings.

Figure 2.76: Configure Westgard window



For descriptions of these fields, see *Configure Westgard window field descriptions*, page E-225.

Related procedures...

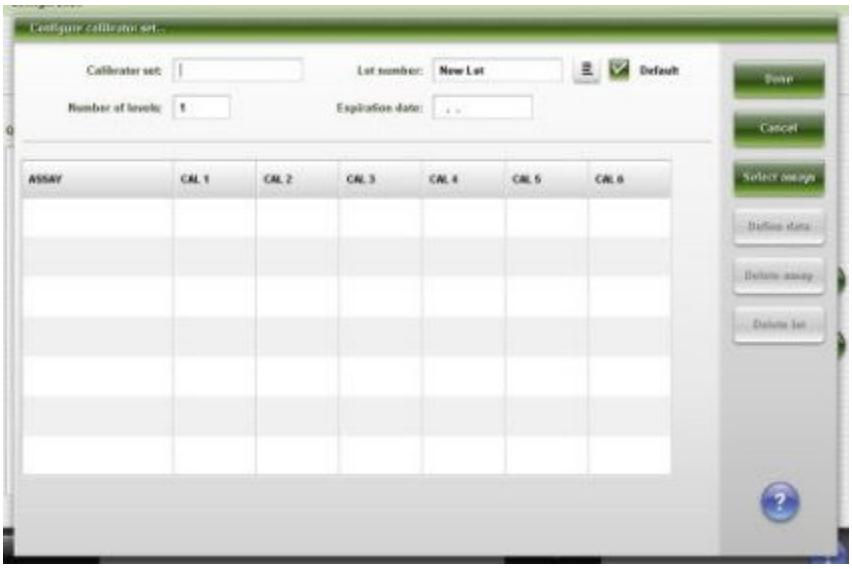
- *Configure a Westgard rule*, page 2-157
- *Change Westgard rule settings*, page 2-172

Configure calibrator set window (*c* System)

From the Configure calibrator set window the system administrator can configure the calibrator set name and number of levels, lot number, and expiration date. The system administrator can also access windows to import calibrator set data from a data file, add or delete an assay, define data for each calibrator level and assay in a lot, and delete a lot.

NOTE: From the Details window you can view the current settings.

Figure 2.77: Configure calibrator set window (c System)



For descriptions of these fields, see *Configure calibrator set window (c System) field descriptions*, page E-226.

Related procedures...

- *Configure a new calibrator set (c System)*, page 2-158
- *Delete a calibrator set (photometric - c System)*, page 2-175
- *Import calibrator data (c System)*, page 2-179

Define calibrator data window (*c* System)

From the Define calibrator data window the system administrator can configure the settings for the calibrator levels assigned to a calibrator set.

Figure 2.78: Define calibrator data window (c System)

For descriptions of these fields, see *Define calibrator data window (c System) field descriptions*, page E-227.

Related procedures...

- *Configure a new calibrator set (c System)*, page 2-158
- *Change photometric assay calibrator settings (c System)*, page 2-173

Assign assays for calibrator set window (*c* System)

From the Assign assays for calibrator set window you can view imported assays assigned to system assays and the associated units. You can manually assign imported calibrator file assay(s) with assay numbers from 2000 - 2999 to user-defined assay(s) configured on the system.

Figure 2.79: Assign assays for calibrator set window (c System)

For descriptions of these fields, see *Assign assays for calibrator set window (c System) field descriptions*, page E-227.

Related procedures...

- *Import calibrator data (c System)*, page 2-179
- *Assign an assay for import of calibrator data (c System)*, page 2-181
- *Unassign an assay from imported calibrator data (c System)*, page 2-183

Import lot file selection window

From the Import lot file selection window the system administrator can select a data file to import.

Figure 2.80: Import lot file selection window

For descriptions of these fields, see *Import lot file selection window field descriptions*, page E-228.

Related procedures...

- *Configure a new calibrator set (c System)*, page 2-158
- *Configure a new multiconstituent control*, page 2-153
- *Import calibrator data (c System)*, page 2-179
- *Import control data (c System)*, page 2-176
- *Import control data (i System)*, page 2-178

Descriptions of import statuses (*c* System)

Use the import status information to resolve issues while importing control or calibrator data. The system displays one of the following statuses for each assay.

Table 2.3: Import statuses (c System)

Status	Description
Version Mismatch	The import assay has the same assay number as the assay configured on the system, but the assay version does not match. The data is not imported.
Assigned - System	The import assay was automatically assigned to an assay on the system with the same assay number and result unit. This status is only used for assay numbers in the range of 2000 - 2999. **IMPORTANT:** The system does not compare the assay names. You must confirm the import assay is assigned to the correct system assay. The data is imported.

Status	Description
Assigned - User	The import assay was assigned by the user to an assay on the system with a different assay number but with the same result unit. This status is only used for assay numbers in the range of 2000 - 2999. The data is imported.
Cal Set Mismatch	The import assay has the same assay number as the assay configured on the system but the defined calibrator set does not match. Verify the following: • The calibrator set is configured on the system. • The assay is defined for the calibrator set. • The calibrator set is defined for the assay on the system. The data is not imported.
No Assay	There is no assay on the system with the same assay number in the import file. The data is not imported. It is possible to import data for assays with assay numbers in the range of 2000 - 2999 by assigning the file data to the corresponding user-defined assay on the system. See *Assign an assay for import of control data (c System)*, page 2-181 or *Assign an assay for import of calibrator data (c System)*, page 2-181.
OK	The import assay has the same assay number and result units as the assay configured on the system. This status is only used for assay numbers in the range of 1000 - 1999 and 5000 - 5999. The data is imported.
Previously Defined	Data has already been manually entered or imported. The data is not imported.
Units Mismatch	The import assay has different result units than the system assay with the same assay number. Result units are case sensitive. See *Change the result units setting*, page 2-115. The data is not imported.

Descriptions of import statuses (*i* System)

Use the import status information to resolve issues while importing control or calibrator data. The system displays one of the following statuses for each assay.

Table 2.4: Import statuses (i System)

Status	Description
Version Mismatch	The import assay has the same assay number as the assay configured on the system, but the assay version does not match. The data is not imported.
No Assay	There is no assay on the system with the same assay number in the import file. The data is not imported.

Status	Description
OK	The import assay has the same assay number and result units as the assay configured on the system. This status is only used for assay numbers in the range of 2000 - 2999. The data is imported.
Previously Defined	Data has already been manually entered or imported for the control lot number. The data is not imported.
Units Mismatch	The import assay has different result units than the system assay with the same assay number. Result units are case sensitive. The data is not imported.

Software installation and backup

Your Abbott field service representative (FSE) must install the ARCHITECT System Software on the SCC before you can use your system. After your system is running, you may receive occasional system software upgrades or patches that must be installed manually.

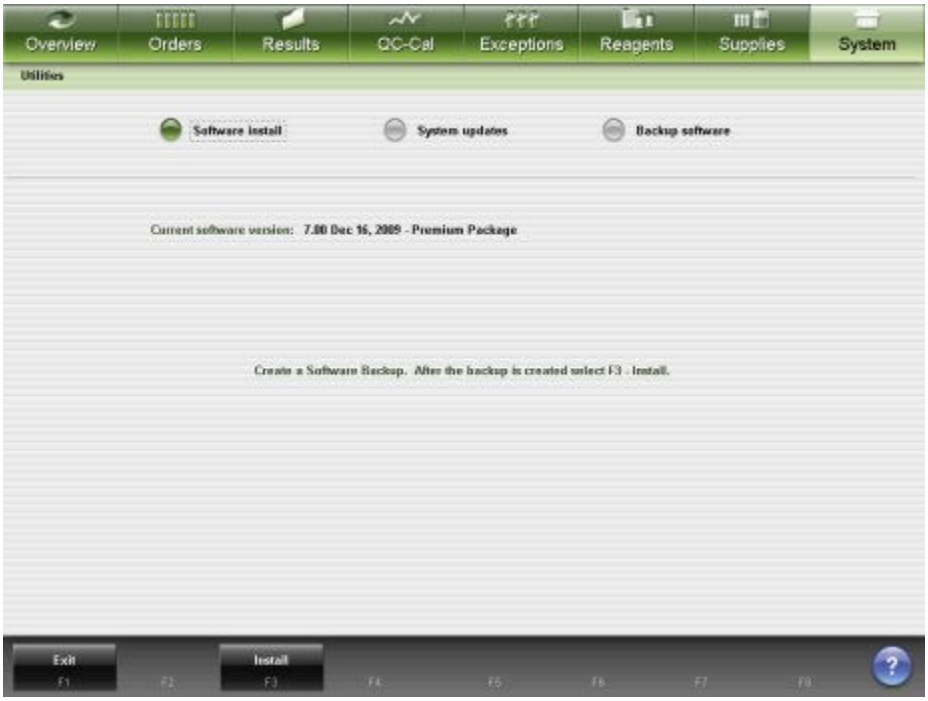
Software installation and backup topics include:

- *Utilities screen - Software install view*, page 2-195
- *Utilities screen - System updates view*, page 2-197
- *Utilities screen - Backup software view*, page 2-199

Utilities screen - Software install view

From the Software install view of the Utilities screen the general operator can view the current system software version. The system administrator can install system software.

Figure 2.81: Utilities screen - Software install view



For descriptions of these fields, see *Utilities screen - Software install view field descriptions*, page E-228.

To display this view of the screen, see *Access the Utilities screen - Software install view*, page 2-196.

Related procedures…

- *View the system software version*, page 2-196

Access the Utilities screen - Software install view

Perform this procedure to display the Software install view of the Utilities screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Utilities screen - Software install view:

1. Select **System** from the menu bar, and then select **Utilities**.

   The Utilities screen - Backup software view displays.

2. Select the **Software install** option.

   The Utilities screen - Software install view displays.

Related information…

- *Utilities screen - Software install view*, page 2-195

Procedure - Utilities screen - Software install view

The procedure you can perform from the Utilities screen - Software install view and its related window is:

- *View the system software version*, page 2-196

View the system software version

Perform this procedure to view the version information for the current system software.

Prerequisite	NA
Module status	Any
User access level	General operator / system administrator
Supplies	NA

To view the system software version:

1. Select **System** from the menu bar, and then select **Utilities**.

   The Utilities screen - Backup software view displays.

2. Select the **Software install** option.

   The current software version displays.

Related information...

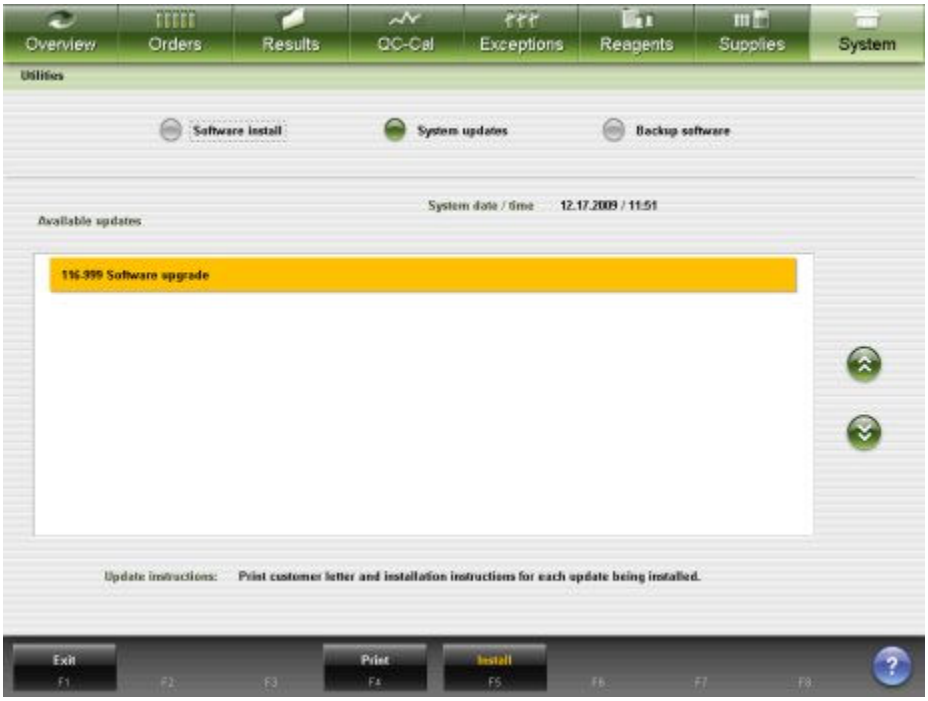
- *Utilities screen - Software install view*, page 2-195

Utilities screen - System updates view

From the System updates view of the Utilities screen, you can review and install ARCHITECT System software updates that have been downloaded to the SCC (System Control Center) via AbbottLink. When updates are available on the SCC, a button appears on the Snapshot Screen that allows the updates to be installed.

NOTE: The remote software update capability is available only if your system is connected via AbbottLink.

Figure 2.82: Utilities Screen - System updates view



For descriptions of these fields, see *Utilities screen - System updates view field descriptions*, page E-228.

To display this view of the screen, see *Access the Utilities Screen - System updates view*, page 2-198.

Related procedures...

- *Install system software updates*, page 2-198

Access the Utilities Screen - System updates view

Perform this procedure to display the System updates view of the Utilities screen.

Prerequisite	NA
Module status	Any
User access level	General operator or System administrator
Supplies	NA

To access the Utilities screen - System updates view:

1. Select **System** from the menu bar, and then select **Utilities**.

   The Utilities screen - Backup software view displays.

2. Select the **System updates** option.

   The Utilities screen - System updates view displays.

This screen lists all the updates that are ready for installation.

NOTE: Each update is assigned a log on level by Abbott. Users that do not have access at or above this level for a specific update can neither see nor install that update.

Related information...

- *Utilities screen - System updates view*, page 2-197

Procedure - Utilities screen - System updates view

Procedures you can perform from the Utilities screen - System updates view and its related windows are listed below.

Procedures not in this sub-section include:

- *Print a report*, page 5-403

Procedures in this sub-section include:

- *Install system software updates*, page 2-198

Install system software updates

Perform this procedure to install software updates that have been downloaded to your SCC via AbbottLink.

Prerequisite	Access the Utilities Screen - System updates view
Module status	Stopped, Warming, or Ready
User access level	General operator or System administrator
Supplies	NA

To install software updates:

1. Select the desired updates from the **Available updates** list on the Utilities screen.
2. Select **F4 - Print** to print the installation instructions for each update, and review these instructions before beginning installation.
3. Select **F5 Install**. Follow the on-screen instructions to complete the installation.

NOTE: If your ARCHITECT System is part of a LIS (Laboratory Information System) network, the network connection to the system will be temporarily interrupted while the software update is in progress. This connection will be automatically restored once the update has been completed.

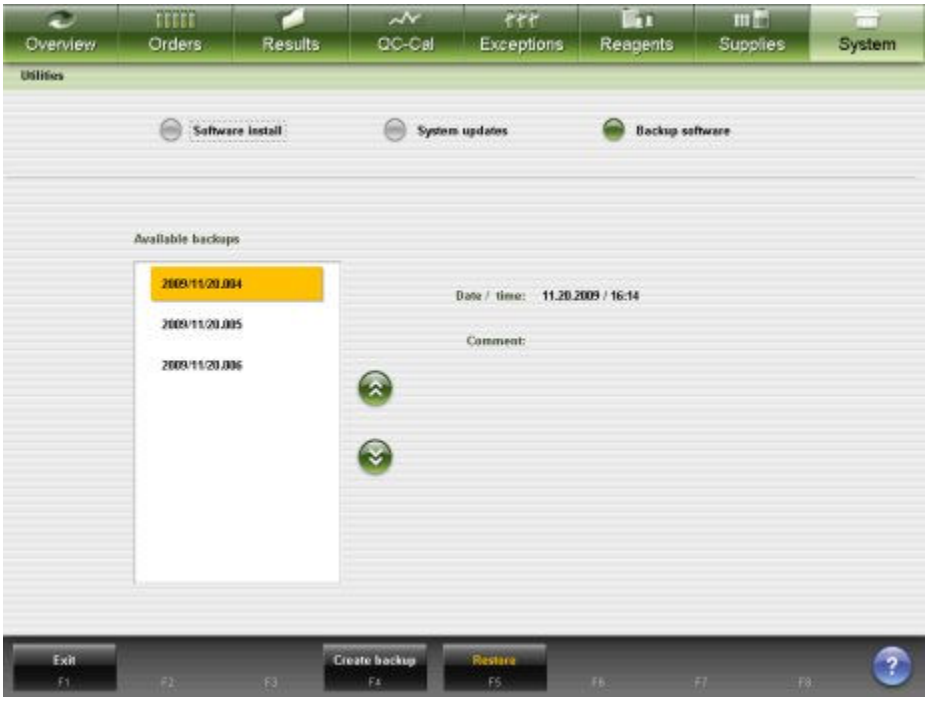
Related information...

- *System logs screen - Software update log*, page 10-11
- *TSB Installation Log Report*, page A-101

Utilities screen - Backup software view

From the Backup view of the Utilities screen you can create a software backup, access a window to add a comment for the backup, and view backups that were previously created. If necessary, Abbott service and support personnel can restore your software from a backup.

Figure 2.83: Utilities screen - Backup software view



For descriptions of these fields, see *Utilities screen - Backup software view field descriptions*, page E-229.

To display this view of the screen, see *Access the Utilities screen - Backup software view*, page 2-200.

Related procedures…

- *Create a system software backup*, page 2-200
- *Restore backup window (CSC logon)*, page 2-203

Access the Utilities screen - Backup software view

Perform this procedure to display the Backup software view of the Utilities screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Utilities screen - Backup software view:

Select **System** from the menu bar, and then select **Utilities**.

The Utilities screen - Backup software view displays.

Related information…

- *Utilities screen - Backup software view*, page 2-199
- *Create backup window*, page 2-202

Procedure - Utilities screen - Backup view

Procedures you can perform from the Utilities screen- Backup view and its related window are listed below.

An Abbott representative can restore a software backup.

Procedures in this sub-section include:

- *Create a system software backup*, page 2-200
- *Restore a software backup (CSC logon)*, page 2-201

Create a system software backup

Perform this procedure in accordance with your laboratory's data backup schedule and any time you perform module calibration procedures, edit configuration, add a new assay, or calibrate an assay. During daily maintenance the system automatically verifies a backup has been performed in the last 30 days. If it has not, the operator is instructed to perform one.

The software backup procedure allows you to transfer ARCHITECT System information, such as module calibrations, configuration, and the database, to an alternative location. Backing up system information protects against data loss.

The database integrity is checked and repaired, if required, prior to saving the database.

You can create and save a total of three software backups. Additional backups replace the existing backups starting with the oldest first.

Prerequisite	*Access the Utilities screen - Backup software view*, page 2-200
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	NA

To create a system software backup:

1. Select **F4 - Create backup** from the Utilities screen.

   The Create backup window displays.

2. Enter a comment (up to 50 characters) in the **Comment** data entry box. ***(optional)***

3. Select **Done** to create the backup.

   A progress indicator displays until the process completes.

To copy the system software backup to a CD perform *6004 Copy backup software*, page 10-696.

Related information...

- *Utilities screen - Backup software view*, page 2-199
- *Create backup window*, page 2-202

Restore a software backup (CSC logon)

Perform this procedure, as indicated during troubleshooting, to restore files from a previously created backup.

Prerequisite	Access the Utilities screen - Backup software view
Module status	Offline, Stopped, or Ready
User access level	CSC
Supplies	NA

To restore a software backup:

1. Select the desired backup from the **Available backups** list on the Utilities screen.

2. Select **F5 - Restore**.

   The Restore backup window displays.

3. Deselect the Restore check box(es). ***(optional)***

4. Select **Done**.

   A confirmation message displays.

5. Select **OK** to restore the files.

   After the process is complete, the system automatically shuts down and restarts the SCC (system control center).

To re-establish communication between the SCC, processing module, and sample handler, see *Cycle power to the processing module and/or sample handler*, page 5-14.

Related information…

- *Utilities screen - Backup software view*, page 2-199
- *Restore backup window (CSC logon)*, page 2-203

Windows - Utilities screen - Backup view

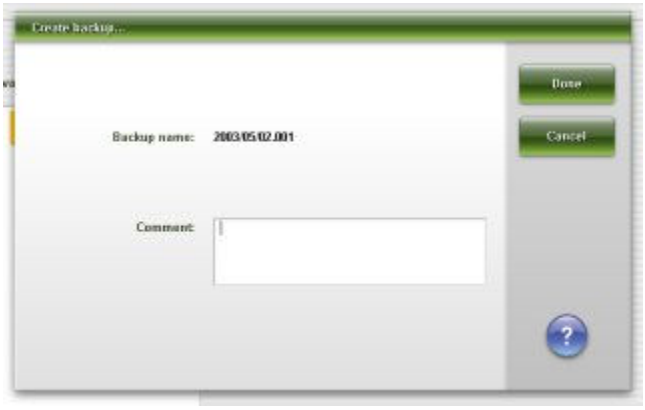
Windows you can access from the Utilities screen - Backup view include:

- *Create backup window*, page 2-202
- *Restore backup window (CSC logon)*, page 2-203

Create backup window

From the Create backup window you can enter a comment for the software backup.

Figure 2.84: Create backup window



For descriptions of these fields, see *Create backup window field descriptions*, page E-229.

Related procedures…

- *Create a system software backup*, page 2-200
- *Restore a software backup (CSC logon)*, page 2-201

Restore backup window (CSC logon)

From the Restore backup window the Abbott customer support or service representative can define what portions of the backup to restore.

Figure 2.85: Restore backup window

For descriptions of these fields, see *Restore backup window (CSC logon) field descriptions*, page E-230.

Related procedures…

- *Restore a software backup (CSC logon)*, page 2-201

Abbott mail

Currently available assay information can be sent directly to your SCC (system control center) for systems connected to AbbottLink. This information includes assay disks, assay inserts, and *c* System calibrator value assignments.

When a new reagent lot is scanned, the assay insert is automatically sent to the SCC.

Abbott mail topics include:

- *Abbott mail screen*, page 2-204

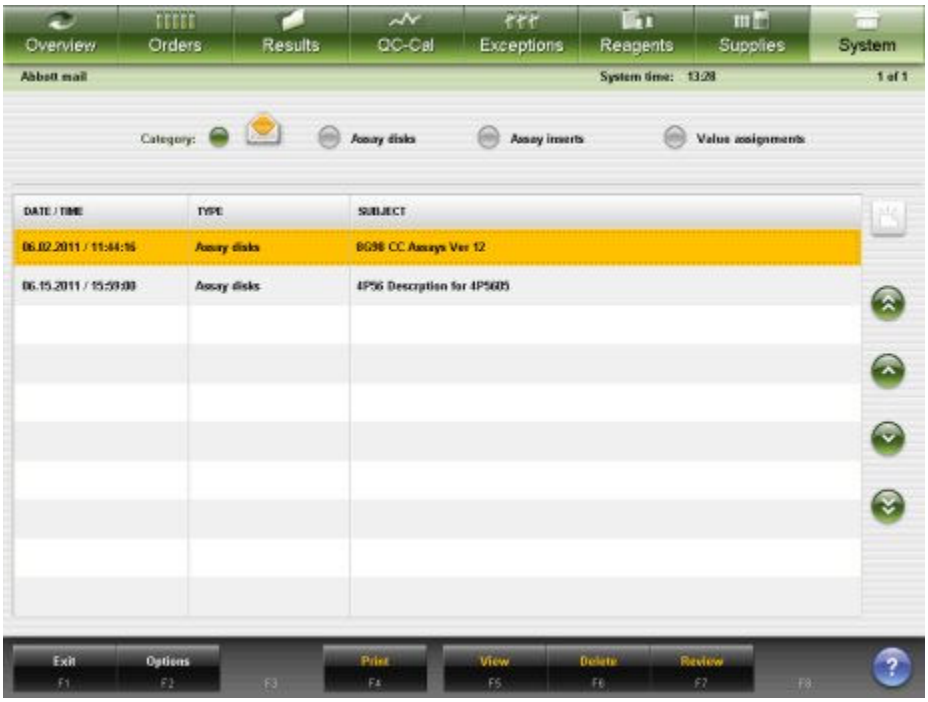
Abbott mail screen

From the Abbott mail screen the general operator can view and print the current downloads available on the system. The download capability is available only if your system is connected via AbbottLink. The system administrator has access to the Review button. Once the file is reviewed it automatically moves to the category where it can be accessed by selecting the appropriate radio button by any user level.

System removal of downloaded files depends on the file category.

- Assay disks - When a new version of an assay disk is received, it replaces any previously downloaded versions of the same disk. Disks are identified by their list number with new versions identified by their size code.
- Assay inserts are deleted when the last reagent lot linked to the insert is deleted from reagent history.
- Value assignments are deleted from the system after the system date exceeds the lot expiration date.

Figure 2.86: Abbott mail screen



For descriptions of these fields, see *Abbott mail screen field descriptions*, page E-231.

To display this view of the screen, see *Access the Abbott mail screen*, page 2-205.

Related procedures…

- *Configure download options*, page 2-207
- *Review Abbott mail*, page 2-208
- *Delete Abbott mail*, page 2-208
- *Print a report*, page 5-403
- *Install or delete an assay file*, page 2-211
- *Import calibrator data (c System)*, page 2-179

Access the Abbott mail screen

Perform this procedure to display the Abbott mail screen.

Prerequisite	N/A
Module status	Any
User access level	General operator
Supplies	N/A

To access the Abbott mail screen:

1. Select **System** from the menu bar, and then select **Abbott mail** or select the Abbott mail button from the Snapshot screen.

   The Abbott mail screen - inbox view displays.

2. Select one of the following:

   – Select the **Assay disks** option.

     The Abbott mail screen - Assay disks view displays.

   – Select the **Assay inserts** option.

     The Abbott mail screen - Assay inserts view displays.

   – Select the **Value assignments** option.

     The Abbott mail screen - Value Assignments view displays.

Related information…

- *Abbott mail screen*, page 2-204
- *Snapshot screen*, page 1-22

Procedures - Abbott mail screen

Procedures you can perform from the Abbott mail screen and its related windows are listed below. Procedures not in this sub-section include:

- *Print a report*, page 5-403

Procedures in this sub-section include:

- *View Abbott mail*, page 2-206
- *Configure download options*, page 2-207
- *Review Abbott mail*, page 2-208
- *Delete Abbott mail*, page 2-208

View Abbott mail

Perform this procedure to view the customer information associated with AbbottLink downloads available on the ARCHITECT System.

Category options include:

- Inbox (open envelope icon)
- Assay disks
- Assay inserts
- Value assignments

Prerequisite	*Access the Abbott mail screen*, page 2-205
Module status	Any
User access level	General operator

Supplies	N/A

To view the Abbott mail:

1. Select the desired category to view new or previously reviewed files.

   NOTE: The Inbox view displays new files available for review and installation.

2. Select the desired file, and then select **F5 - View** to display the associated customer information.

3. Select **X** to close the window. Repeat steps 1 through 3 to view another file.

Related information…

- *Snapshot screen*, page 1-22
- *Abbott mail screen*, page 2-204

Configure download options

Perform this procedure to configure the download selections and the language to display in the Inbox (open envelope icon) for review.

Prerequisite	*Access the Abbott mail screen*, page 2-205
Module status	Any
User access level	System administrator
Supplies	N/A

To configure download options:

1. Select **F2-Options**.

   The download options window displays.

2. Select the desired **Download selections** check box(es).

   NOTE: If the assay inserts option is not selected, the inserts can be viewed from the Details for reagent window. If the assay disks option is not selected, the information can be viewed during installation of the assay file. If the value assignments option is not selected, the *c* System calibrator value assignment customer information is not available to view on the ARCHITECT System.

3. Select the **Download language** list box, and then select the desired language to display and print the downloaded PDF.

   NOTE: Customer information is accessed by AbbottLink from abbottdiagnostics.com. For e-assay PDF files, all language files available on abbottdiagnostics.com are downloaded and the configured language displays. For *c* System value assignment PDF files, the customer information is multi-lingual therefore all available languages display. For assay insert PDF files, only the configured download language file is downloaded. For assay inserts only, if the configured language is not a

language available on abbottdiagnostics.com, the English file is downloaded.

4. Select **Done** to save your changes.

Related information…

- *Snapshot screen*, page 1-22
- *Abbott mail screen*, page 2-204
- *Download options window*, page 2-209

Review Abbott mail

Perform this procedure to review Abbott mail files in the Inbox view (open envelope icon). Once the file is reviewed by the system administrator, the file automatically moves to the associated category.

Category options include:

- Inbox (open envelope icon)
- Assay disks
- Assay inserts
- Value assignments

To delete files, see *Delete Abbott mail*, page 2-208.

Prerequisite	*Access the Abbott mail screen*, page 2-205
Module status	Any
User access level	System administrator
Supplies	N/A

To review Abbott mail:

1. Select the desired file from the Inbox category, and then select **F7-Review**. The customer information displays and the file moves to the associated category view.
2. Select **X** to close the window. Repeat steps 1 and 2 to review another file.

Related information…

- *Snapshot screen*, page 1-22
- *Abbott mail screen*, page 2-204

Delete Abbott mail

Perform this procedure to permanently delete the selected file from the Abbott mail screen.

Prerequisite	*Access the Abbott mail screen*, page 2-205

Module status	Any
User access level	System administrator
Supplies	N/A

To delete Abbott mail:

1. Perform one of the following:
   - Highlight the desired file.
   - Select the category, and then highlight the desired file.
2. Select **F6-Delete**.

   A confirmation message displays.
3. Select **OK** to delete the file.

Related information...

- *Snapshot screen*, page 1-22
- *Abbott mail screen*, page 2-204

Windows - Abbott mail screen

Windows you can access from the Abbott mail screen include:

- *Download options window*, page 2-209

Download options window

From the download options window the system administrator can configure settings for receiving assay disks, assay inserts, or value assignments.

When logged on as a general user you can view the current settings.

Figure 2.87: Download options window

For descriptions of these fields, see *Download options window field descriptions*, page E-231.

Related procedures…

- *Configure download options*, page 2-207

Assay file management

You need to install assay files when you install a new system and when new assays become available. Assay installation requires system administrator logon or higher.

Before you install assay files, read the information that accompanies the ARCHITECT System Assay CD-ROM.

Assay installation procedures include:

- *Install or delete an assay file*, page 2-211
- *Import an assay file (c System)*, page 2-212
- *Export an assay file (c System)*, page 2-213

Install or delete an assay file

Perform this SCC (system control center) diagnostic procedure to install or delete an assay file(s). The ARCHITECT System can store 200 *c* System assay files.

When installing an assay that uses data from a reference assay, the reference assay must be installed first.

When deleting an assay that is referenced in another assay file you must perform one of the following:

- Change the Use Cal Factor or Reference photometric assay parameter in the assay file to use a different assay
- Delete the assay that is using the reference data

Prerequisite	*Access the Diagnostics screen*, page 10-623
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	ARCHITECT System Assay CD-ROM or e-assay file

To install or delete an assay file(s):

1. Select the **Module 5** (SCC) option on the Diagnostics screen.
2. Select the **page down** scroll button, and then select the **Utilities** tab.

   The diagnostic procedures for the Utilities category display.
3. Select **6114 Install** / **Delete Assays** from the **DIAGNOSTICS PROCEDURES** list, and then select **F5 - Perform**.

   A confirmation message displays.
4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays.

5. Follow the onscreen instructions to install or delete an assay(s) file.

   NOTE: Prior to installing a new or updated assay file, refer to the assay CD-ROM or e-assay customer information for any special instructions. When installing an e-assay file from Abbott mail, the customer information may be viewed during the installation procedure or through Abbott mail. See *View Abbott mail*, page 2-206.

   NOTE: When handling CD-ROMs, only hold them by their edges. Avoid getting fingerprints on the CD-ROM surface. If the CD-ROM comes in contact with moisture the ink can smear or run.
6. Select **Done** to return to the Diagnostics screen.
7. Remove the CD-ROM from the drive if you installed an assay file(s). ***(optional)***

   NOTE: If you installed a new version of an existing assay file(s), see the information that accompanied the ARCHITECT System Assay CD-ROM for specific calibration and QC requirements.

   You may need to calibrate the assay(s) and run all levels of controls before reporting patient results. See *Create a calibration order*, page 6-12, *Create a control order (single analyte)*, page 5-211 or *Create a control order (multiconstituent)*, page 5-215.

Related information…

- *Diagnostics screen*, page 10-622
- *Diagnostic perform window*, page 10-627
- *SCC diagnostic categories*, page 10-695

Import an assay file (*c* System)

Perform this procedure to copy an assay file to another ARCHITECT *c* System. The ARCHITECT System can store 200 *c* System assay files.

IMPORTANT: When you copy an assay file from an ARCHITECT *c*8000 System to an ARCHITECT *c*16000 System (or visa versa), the sample probe wash protocol and/or wavelength assay parameters may change. A status message displays to indicate this change during the import process. For more information see *Descriptions of import status messages*, page E-186. For assay parameter information refer to the manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Offline, Stopped, Maintenance, Ready, or Running
User access level	System administrator
Supplies	Floppy disk or USB flash drive with exported assay files

To import an assay file:

1. Select **F3 - Import** on the Configuration screen.

   You are prompted to insert a floppy disk into the floppy drive or a flash drive into the USB port.

2. Insert a floppy disk or USB flash drive and select **OK**.

   The import assay window displays a list of the files on the storage media.

   NOTE: The software will list files from all available media (floppy disk and/or one or more USB flash drives) on the import screen.

3. Select the desired assay(s), and then select the **Import** button.

   The selected assay files are copied to the system and the Import assay window displays the status of the imported files.

   NOTE: If both a floppy disk and USB flash drive contain the same exported assay and the user selects to import both, the file on the first storage media accessed by the system is imported. The file on the second storage media will not be imported (the assay file already exists on the system).

   If there is a software version mismatch between the system you have exported the files from and the system you are importing the files to, an error message displays and the assays will not be copied.

4. Select **Done** to return to the Configuration screen.

   IMPORTANT: You MUST confirm all assay parameters are imported correctly. See *Viewing assay settings*, page 2-97.

   NOTE: When you select **Done** or **Cancel** to exit the Import assay window a popup displays indicating it is safe to remove the USB flash drive(s).

5. Remove the floppy disk or USB flash drive.

To enter the calibrator lot and concentration(s) see *Change photometric assay calibrator settings (c System)*, page 2-173.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Import assay window*, page 2-70

Export an assay file (*c* System)

Perform this procedure to save an assay file from one ARCHITECT *c* System onto a floppy disk or USB flash drive so you can copy it to another *c* System.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Offline, Stopped, Maintenance, Ready, or Running
User access level	General operator
Supplies	Floppy disk or USB flash drive

To export an assay file:

1. Insert a floppy disk into the floppy drive or a flash drive into a USB port.
2. Select **F4 - Export** on the Configuration screen.

   The Export assay window displays.
3. Select the **Export drive** list box and then select the appropriate media from the drop down menu.
4. Select the desired assay(s), and then select the **Export** button.

   The selected assay files are copied to the floppy disk or USB flash drive, and the Export assay window displays the status.
5. Select **Done** to return to the Configuration screen.

   NOTE: When you select **Done** or **Cancel** to exit the Export assay window a popup displays indicating that it is safe to remove the USB flash drive(s).
6. Remove the floppy disk or USB flash drive.

To copy the file to another system, see *Import an assay file (c System)*, page 2-212.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Export assay window*, page 2-71

Maintenance and diagnostic file management

You need to install maintenance and diagnostic files when you install a new system and when new maintenance and diagnostics files become available. Maintenance and diagnostic file installation requires system administrator logon or higher.

Before you install these files, read the information that accompanies the ARCHITECT System Maintenance and Diagnostics CD-ROM.

Maintenance and diagnostic file management topics include:

Install or delete a maintenance or diagnostic procedure file

Perform this procedure to install or delete a procedure file(s).

Prerequisite	*Access the Diagnostics screen*, page 10-623
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	NA

To install or delete a maintenance or diagnostic procedure file:

1. Select the **Module 5** (SCC) option on the Diagnostics screen.
2. Select the **page down** scroll button, and then select the **Utilities** tab.

   The diagnostic procedures for the Utilities category display.
3. Select **6115 Install / Delete Procedures** from the **DIAGNOSTICS PROCEDURES** list, and then select **F5 - Perform**.

   A confirmation message displays.
4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays.
5. Follow the onscreen instructions to install or delete a procedure file(s).
6. Select **Done** to return to the Diagnostics screen.

Related information...

- *Diagnostics screen*, page 10-622
- *Diagnostic perform window*, page 10-627
- *SCC diagnostic categories*, page 10-695

NOTES

Introduction

An ARCHITECT System uses photometric, potentiometric, and/or CMIA (chemiluminescent microparticle immunoassay) technology to measure analyte concentrations in samples.

Principles of operation topics include:

- *c System principles of operation*, page 3-2
  Provides an overview of the technology, optical measurements, and protocols used for c System assay processing.
- *i System principles of operation*, page 3-28
  Provides an overview of the technology, optical measurements, and protocols used for i System assay processing.

c System principles of operation

ARCHITECT *c* System principles of operation provides an overview of the photometric and potentiometric assay methods, assay processing, and the SmartWash feature used for analyte measurement. Information also includes an overview of sample interference indices for lipemic, hemolyzed, and icteric samples.

c System principles of operation topics include:

Photometric method

Photometric method is the process used by the *c* System to measure sample absorbance for the quantitation of analyte concentration.

Photometric method topics include:

Photometric technology

Photometric technology is the measurement of the amount of light a sample absorbs and involves passing a beam of light through a sample and measuring the intensity of light that reaches a detector. Beer's Law establishes the mathematical relationship between the absorbance of the solution and the concentration of the analyte. The absorbance of the solution changes as the reaction progresses and measurements are taken when either all reactant is depleted and the reaction is stable (end-point assays), or when the reactant reaches a stable rate (rate assays).

Photometric technology topics include:

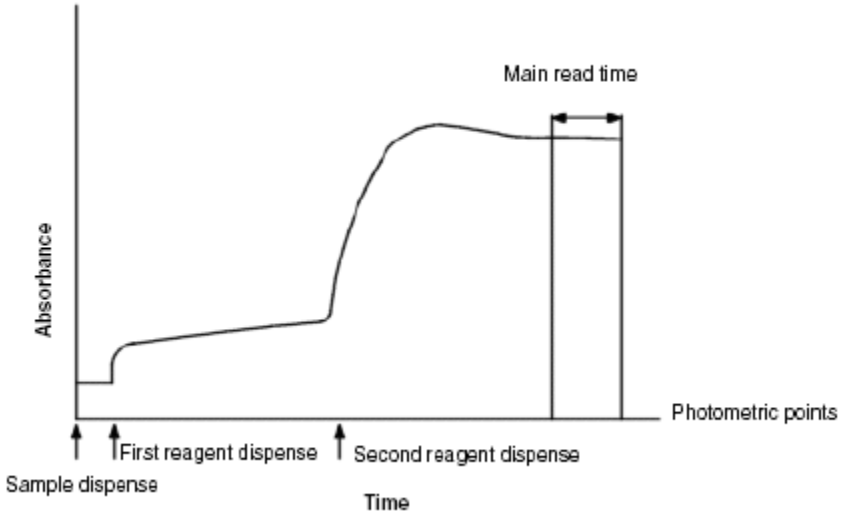
End-point assay reactions

End-point assay reactions are reactions that are allowed to react until all reactant is depleted and the absorbance is stable. When the reaction is complete, the system measures the absorbance readings used for calibration and calculating results.

For end-point assays, the system calculates the concentration using the absorbance data obtained during the main read time specified on the Configure assay parameters window - General Reaction Definition view.

The following illustration shows a typical end-point assay reaction curve.

Figure 3.1: Example of an end-point assay reaction curve



Related information...

- *Configuring user-defined assays*, page 2-83

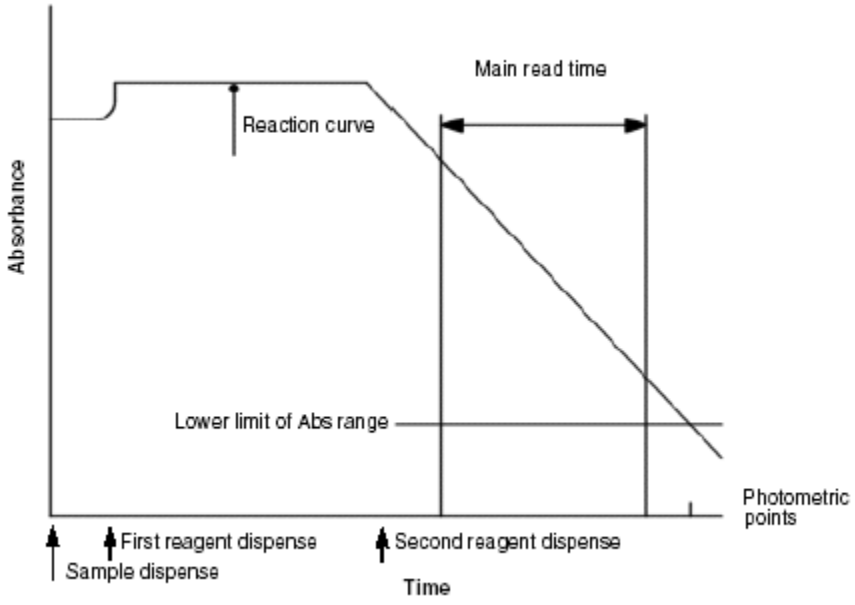
Rate assay reactions

Rate assay reactions are reactions that are allowed to reach a stable rate in which the change in absorbance between readings is constant. The system performs several readings during this time, calculates absorbance change per minute (rate), and then uses the rate to calculate results.

For rate assays, the system uses the linear least squares method to calculate the change of absorbance per minute (△Abs/min) during the main read time specified on the Configure assay parameters window - General Reaction Definition view. The calculation must include at least three photometric points to receive a result without a flag. The maximum number of photometric points is 33.

The following illustration shows a typical rate assay reaction curve.

Figure 3.2: Example of a down rate assay reaction curve



Related information...

- *Configuring user-defined assays*, page 2-83

Optical measurements (*c* System)

Optical measurement is the process the *c* System uses to obtain absorbance readings, and then convert them to assay-specific analyte concentration units or qualitative interpretations.

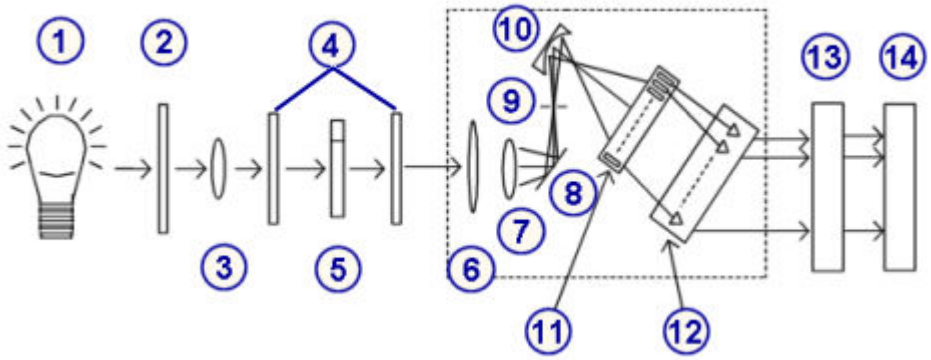
Optical measurement topics include:

- *Optical system and measurement sequence (c System)*, page 3-4
- *Data reduction calculation (photometric - c System)*, page 3-6

Optical system and measurement sequence (*c* System)

The optics system on the processing module is a direct photometry system that directs and aligns the light from the source lamp, through the water bath and reaction cuvette, and then into the optics unit. The system focuses only light that originates from the source lamp and simultaneously measures the intensity of 16 different wavelengths.

Figure 3.3: Optical system



Legend:

1. Lamp
2. Heat glass
3. Convex lens
4. Water bath lens
5. Cuvette
6. Shutter
7. Convex lens
8. Mirror
9. Entrance slit
10. Diffraction grating
11. Linear photodiode array
12. Preamp board
13. DAQ (data acquisition board)
14. CPU (central processing unit) board

Measurement occurs as the optical system performs the following:

1. A convex lens focuses light from a tungsten halogen lamp and passes the light through the reaction cuvette to allow measurement of absorbance changes as the reaction progresses.
2. A second convex lens focuses the light onto the mirror, which reflects the light through the slit onto the diffraction grating.
3. The grating breaks up the focused light beam into 16 component wavelengths (340 to 804 nm) and reflects the light spectrum to the photodiode array.
4. A photodiode array measures the light intensity at the different wavelengths.
5. The preamp board, DAQ board, and CPU board convert and amplify the signal from the photodiode array, and then communicate transmittance values to the SCC (system control center) where data reduction and result calculation occur.

Data reduction calculation (photometric - *c* System)

Data reduction calculation is the method used to calculate the final absorbance values and result concentration.

The SCC (system control center) receives the transmittance readings from the processing module for each cuvette, determines the readings required to calculate the assay, and then converts these readings to absorbance values. The system uses readings from one (monochromatic) or two (bichromatic) wavelengths to calculate assay results. Most assays are bichromatic.

Number of wavelengths measured at each read point	How the absorbance values are calculated
1 - Monochromatic	Uses the reading from a single wavelength.
2 - Bichromatic	Subtracts the readings taken at the secondary wavelength from the readings taken at the primary wavelength and uses the difference as the absorbance value.

NOTE: The system adjusts the absorbance data readings to 10 mm light path length values.

The absorbance readings are blank corrected (as specified for each test), and then converted to concentration units.

Related information...

- *Photometric data reduction methods*, page C-2

Potentiometric method

Potentiometry is a detection technology used by the *c* System to measure electrical potential in a sample. The *c* System uses an ICT (integrated chip technology) module to measure potentiometric assays (electrolytes).

Potentiometric method topics include:

- *Integrated chip technology*, page 3-6
- *ICT measurement*, page 3-7

Integrated chip technology

ICT (integrated chip technology) is the method the *c* System uses to simultaneously measure sodium, potassium, and chloride. ICT methodology uses solid state ion-selective electrodes contained in a single chip (ICT module), which reduces the maintenance required to perform electrolyte measurements.

Electrode	Description
Sodium (Na^+)	A Crown Ether ionophore incorporated into an ion-selective plastic membrane.

Electrode	Description
	(It is NOT a glass electrode, and therefore is less affected by pH changes.)
Potassium (K^+)	Valinomycin incorporated into an ion-selective plastic membrane.
Chloride (Cl^-)	A solid silver chloride (AgCl) disk.
Reference	A silver/silver chloride electrode in a potassium chloride (KCl) gel inner solution, separated from the sample by a porous ceramic tube.

ICT measurement

ICT measurement is the process the *c* System uses to obtain millivolt readings, and then convert them to assay-specific analyte conversion units. The measurements of ICT Reference Solution and ICT samples are used to calculate the assay results.

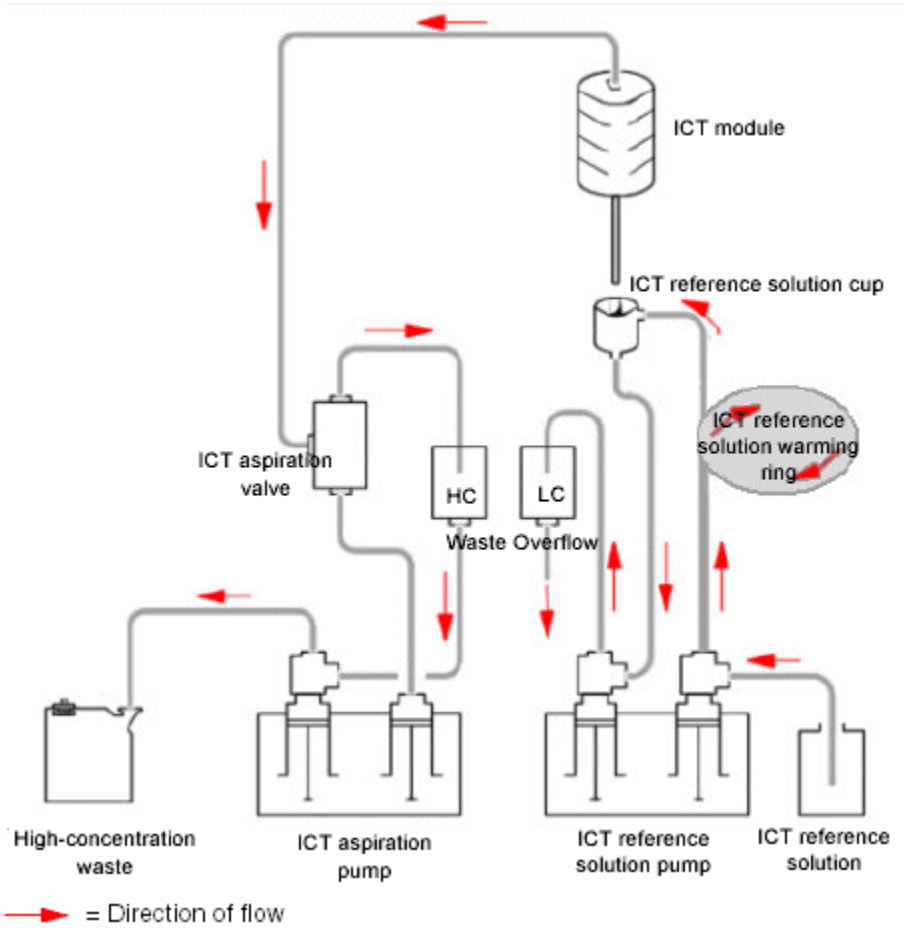
ICT measurement topics include:

- *ICT reference solution and sample delivery/processing*, page 3-7
- *Measurement by the ICT module*, page 3-10
- *Data reduction calculation (potentiometric - c System)*, page 3-11

ICT reference solution and sample delivery/processing

ICT Reference Solution and ICT samples are delivered to the ICT module where measurement takes place.

Figure 3.4: ICT Reference Solution delivery



During processing, the following events occur:

1. The ICT reference solution cup is filled with ICT Reference Solution.

   The syringe on the right side of the ICT reference solution pump moves ICT Reference Solution from the bottle, through the warming ring, and into the ICT reference solution cup.

2. The ICT Reference Solution is analyzed.

   a. The ICT unit moves down to position the ICT probe in the ICT reference solution cup.

   b. The syringe on the right side of the ICT aspiration pump aspirates ICT Reference Solution from the cup into the ICT module.

   c. The ICT module measures the ICT Reference Solution and the system converts the measurements into millivolt readings used for reference when calculating sample result concentrations. See *Measurement by the ICT module*, page 3-10.

3. Waste is removed.

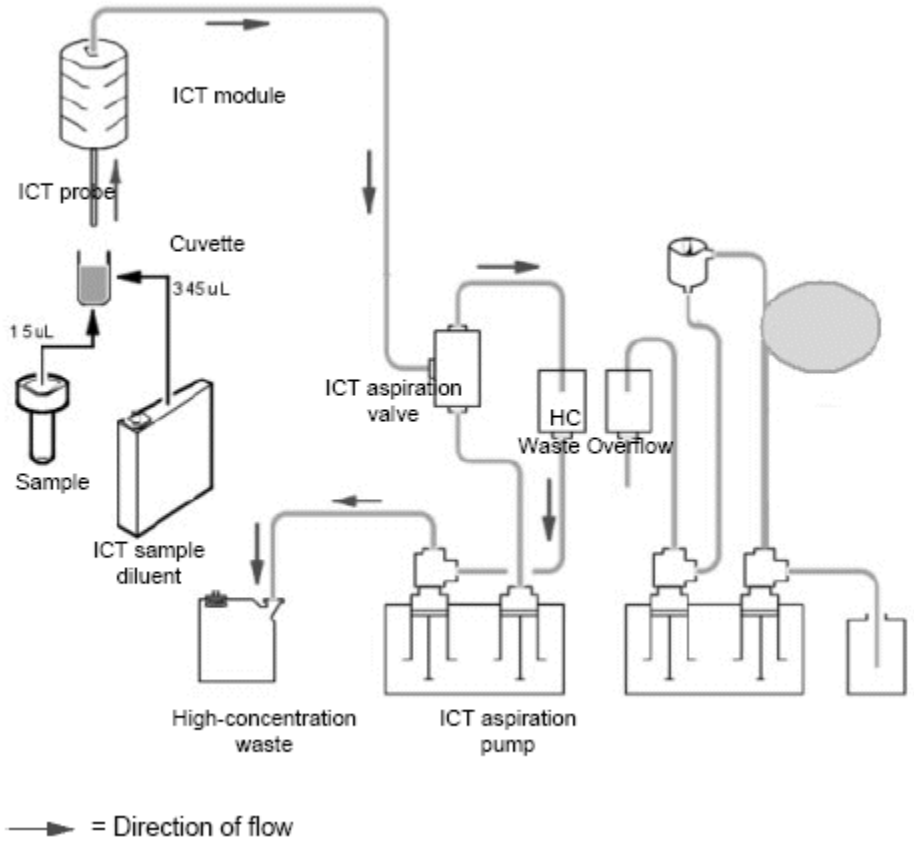
High-concentration waste

a. The syringe on the right side of the ICT aspiration pump moves the ICT Reference Solution from the ICT module to the high-concentration waste compartment.
b. The syringe on the left side of the ICT aspiration pump aspirates the liquid waste from the high-concentration waste compartment.
c. The syringe on the left side of the ICT aspiration pump moves the liquid waste to the high-concentration waste tubing.

Low-concentration waste

a. The syringe on the left side of the ICT reference solution pump moves the remaining ICT Reference Solution from the ICT reference solution cup.
b. The syringe on the left side of the ICT reference solution pump moves the solution into the low-concentration compartment in the water bath/ waste overflow area.
c. Gravity causes the liquid waste to drain from the low-concentration compartment in the water bath/waste overflow area into the low-concentration waste tubing.

Figure 3.5: ICT sample delivery



During processing, the following events occur:

1. The sample and ICT Sample Diluent are dispensed into the cuvette.
    a. The sample pipettor dispenses 15 µL of sample into the cuvette.
    b. Reagent pipettor 1 dispenses 69 µL of ICT Sample Diluent (ICTD5) and 276 µL of water into the cuvette.
    c. Mixer 1 mixes the sample and diluent.
    d. The reaction carousel continues to rotate until the cuvette aligns with the ICT unit. This occurs after:
        - 31 reaction carousel movements for *c*8000 and *c*16000
        - 22 reaction carousel movements for *c*4000
2. The sample is analyzed.
    a. The ICT unit moves out and down to position the ICT probe in the cuvette.
    b. The syringe on the right side of the ICT aspiration pump aspirates the sample from the cuvette into the ICT module.
    c. The ICT module measures the sample and the system converts the measurements into millivolt readings used when calculating sample result concentrations. See *Measurement by the ICT module*, page 3-10.
3. Waste is removed.
    a. The syringe on the right side of the ICT aspiration pump moves the sample from the ICT module to the high-concentration waste compartment.
    b. The syringe on the left side of the ICT aspiration pump aspirates the liquid waste from the high-concentration waste compartment.
    c. The syringe on the left side of the ICT aspiration pump moves the liquid waste to the high-concentration waste tubing.

Measurement by the ICT module

The ICT module measures:

- ICT Reference Solution - (once before and after each serum sample and twice before and after each urine sample) to provide a reference potential used to calculate results
- Samples - (patient, QC, and calibrators) to obtain the readings used to calculate results

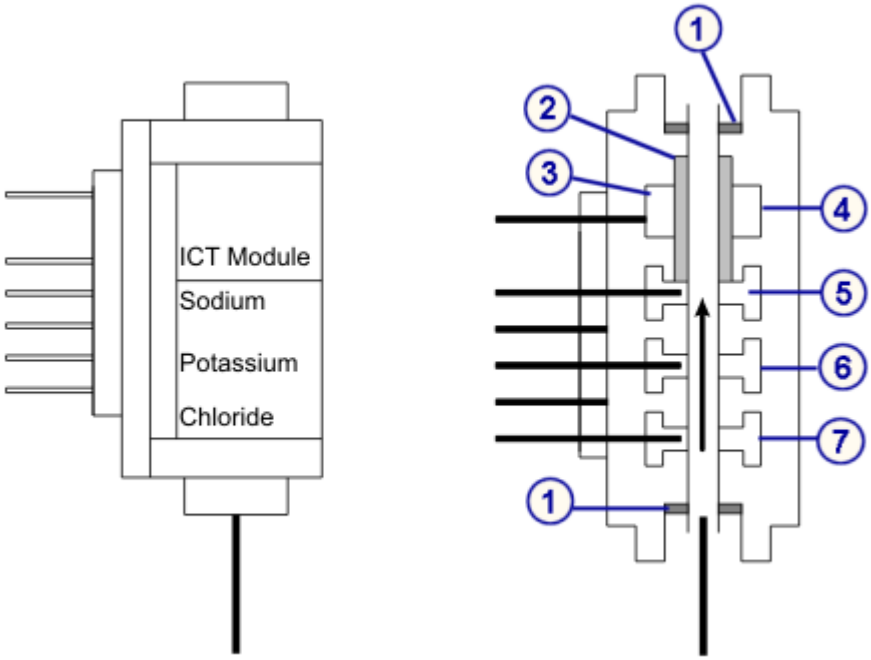
The following measurements are captured:

- Potential difference between the sample and ICT Reference Solution for each electrode

- Potential of each electrode in contact with ICT Reference Solution
- Potential of each electrode in contact with the sample

In the figure below the internal components of the ICT module are shown on the right. The direction of the sample flow is indicated by the arrow.

Figure 3.6: ICT module and internal components



Legend:

1. O-ring
2. Liquid junction ceramic tube
3. Inner solution (KCl gel)
4. Ref electrode
5. Cl- electrode
6. K+ electrode
7. Na+ electrode

Data reduction calculation (potentiometric - *c* System)

Data reduction calculation is the method used to calculate the final result concentration. For each sample, the system compares the millivolt readings from the sample to the millivolt readings from the ICT Reference Solution analyzed immediately after the sample. The difference in the millivolt readings is used to calculate the assay results.

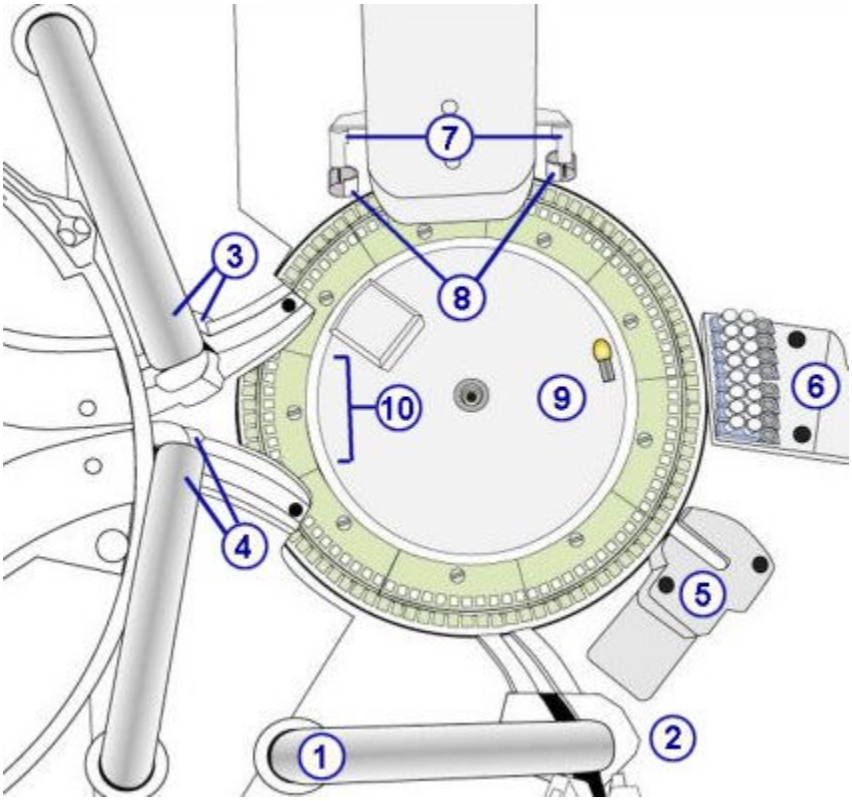
Related information…

- *Potentiometric data reduction method*, page C-8

Assay processing (*c*4000)

Many kinds of assay processing activities take place between sample aspiration and the final read. Components located around the reaction carousel perform these activities.

Figure 3.7: c4000 assay processing components



Legend:

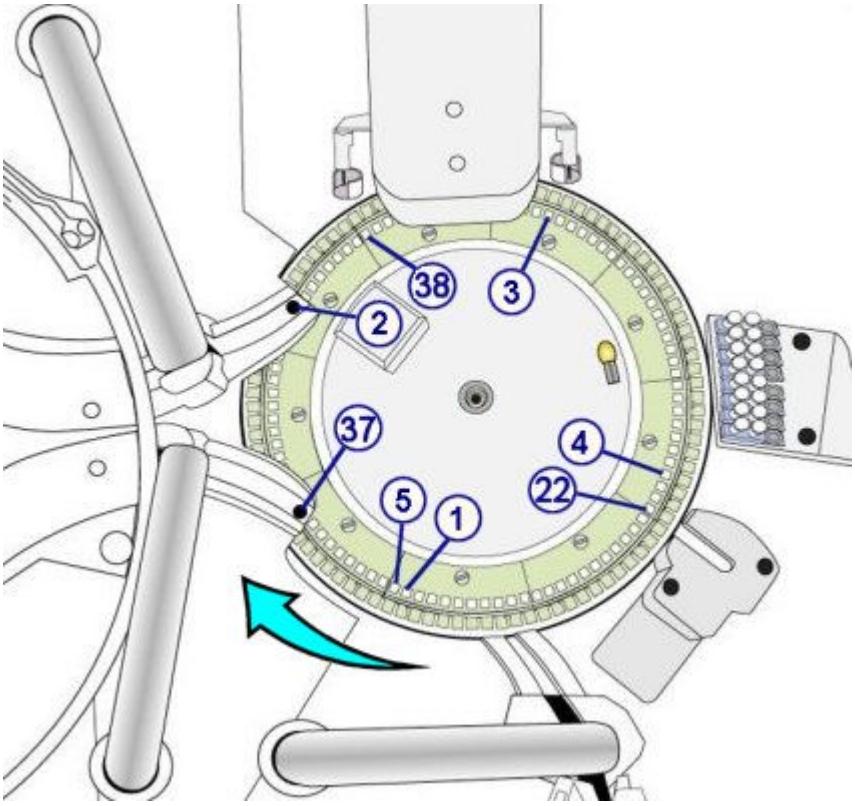
1. Sample pipettor
2. Sample probe wash cup
3. Reagent pipettor (1) and wash cup
4. Reagent pipettor (2) and wash cup
5. ICT unit
6. Cuvette washer
7. Mixers (2)
8. Mixer wash cups (2)
9. Lamp
10. Cuvette segments (11)

The movement of the reaction carousel, the timing of these movements, and the position of the components allow each reaction activity to occur at a specified time and location.

During processing, the reaction carousel rotates clockwise approximately 1 and 1/4 turns every 9 seconds to position the cuvettes at each location. Each rotation increments the carousel 124 cuvette positions. As each rotation occurs the cuvettes pass the photometric position, where the lamp is located, and the absorbance is measured in each cuvette.

The following illustration shows key positions on the reaction carousel where activities occur.

Figure 3.8: Reaction carousel positions



The following information describes the movement and timing used in all assay protocol types.

Position(s)	Description
1	The sample pipettor dispenses sample into the cuvette at the starting position.
2	The reaction carousel rotates approximately 1 and 1/4 turns (124 cuvette positions). The cuvette containing sample is now at the first reagent dispense position. Reagent pipettor 1 dispenses reagent 1 in the cuvette.

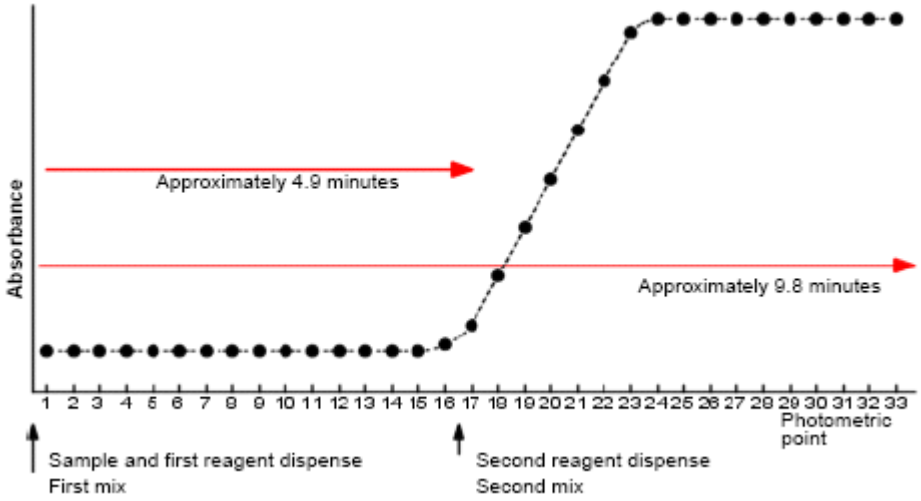
Position(s)	Description
3	The reaction carousel rotates one cycle (1 and 1/4 turns) to the first mixing position where the mixer unit (mixer 1) mixes the sample and reagent 1. **NOTE:** Each time the reaction carousel rotates, the cuvette passes the photometric position where the lamp is located and the photometer measures the absorbance.
4	The reaction carousel rotates one cycle to this position at which no activity takes place.
5	The reaction carousel has completed 4 cycles. Each cycle rotates the reaction 124 cuvette positions (approximately 1 and 1/4 turns). Since there are 99 cuvettes in the reaction carousel, each cycle indexes the carousel 25 cuvette positions (124 - 99 = 25). After 4 cycles the cuvette is now one position beyond the original starting position (4 x 25 = 100).
6 - 68	The reaction carousel continues to rotate and the reaction mixture incubates. The photometer takes absorbance readings every time the cuvette passes the photometric position. Although the cuvette passes the photometric position 68 times, the *c*4000 processing module only uses up to 33 absorbance readings for calculation of results.
69-97	The cuvette washer removes the reaction mixture to waste and cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Some assay protocols may also use the following locations.

Position(s)	Description
5	If onboard dilution is required, the sample pipettor aspirates the diluted sample and dispenses the sample into the new cuvette that is currently at position 1.
22	For an ICT sample, the ICT probe aspirates the diluted sample into the ICT unit.
37	If the reaction requires a second reagent, reagent pipettor 2 dispenses reagent 2 into the cuvette.
38	The mixer unit (mixer 2) mixes the second reagent with the sample and reagent mixture.

The following illustration shows the relationship between the timing of photometric reads and the dispense of samples and reagents.

Figure 3.9: Photometric timing (c4000)



Related information...

- *Assay processing for a one-reagent protocol (c4000)*, page 3-15
- *Assay processing for a two-reagent protocol (c4000)*, page 3-15
- *Assay processing for a dilution protocol (c4000)*, page 3-16
- *Assay processing for a pretreatment protocol (c4000)*, page 3-16
- *Assay processing for an ICT protocol (c4000)*, page 3-17

Assay processing for a one-reagent protocol (*c*4000)

The following steps describe the *c*4000 operation and photometric reaction that occurs during one-reagent assay processing.

- In position 1 the sample pipettor aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates reagent, and then dispenses it into the cuvette.
- In position 3 the mixer unit (mixer 1) mixes the sample and reagent.
- In positions 4 - 68 the reaction mixture incubates, and the photometer takes absorbance readings as the cuvette passes the photometric position.
- In positions 69-97 the cuvette washer removes the reaction mixture to waste and cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Assay processing for a two-reagent protocol (*c*4000)

The following steps describe the *c*4000 operation and photometric reaction that occurs during two-reagent assay processing.

- In position 1 the sample pipettor aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates reagent, and then dispenses it into the cuvette.
- In position 3 the mixer unit (mixer 1) mixes the sample and reagent.
- In positions 4 - 36 the reaction mixture incubates, and the photometer takes absorbance readings as the cuvette passes the photometric position.
- In position 37 reagent pipettor 2 aspirates reagent, and then dispenses the second reagent into the cuvette.
- In position 38 the mixer unit (mixer 2) mixes the second reagent with the sample and reagent mixture.
- In positions 39 - 68 the reaction mixture incubates, and the photometer takes absorbance readings as the cuvette passes the photometric position.
- In positions 69 - 97 the cuvette washer removes the reaction mixture to waste and cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Assay processing for a dilution protocol (*c*4000)

The following steps describe the *c*4000 operation that occurs when the sample is diluted prior to sample processing.

- In position 1 the sample pipettor aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates diluent, and then dispenses it into the cuvette.
- In position 3 the mixer unit (mixer 1) mixes the sample and diluent.
- In position 5 the sample pipettor aspirates diluted sample, and then dispenses it into a new cuvette. The sample then follows the one-reagent or two-reagent assay protocol, as appropriate.

Assay processing for a pretreatment protocol (*c*4000)

The following steps describe the *c*4000 operation that occurs when the sample is pretreated prior to sample processing:

- In position 1 the sample pipettor aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates the pretreatment reagent, and then dispenses it into the cuvette.
- In position 4 the mixer unit (mixer 1) mixes the sample and pretreatment reagent.

- In position 5 the sample pipettor aspirates the pretreated sample, and then dispenses it into a new cuvette. The sample then follows the one-reagent or two-reagent assay protocol, as appropriate.

Assay processing for an ICT protocol (*c*4000)

The following steps describe the *c*4000 operation and potentiometric reaction for ICT (integrated chip technology) assays.

- In position 1 the sample pipettor aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates ICT sample diluent, and then dispenses it into the cuvette.
- In position 3 the mixer unit (mixer 1) mixes the sample and ICT sample diluent.
- In position 22 the ICT probe aspirates the diluted sample, and then the ICT module analyzes the sample.

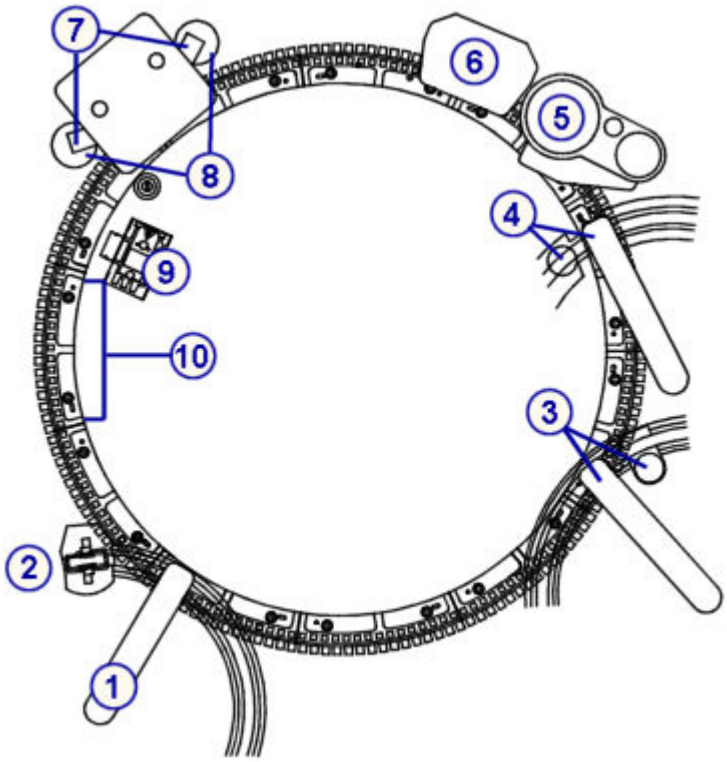
  NOTE: The ICT module analyzes the ICT Reference Solution once before and after each serum sample and twice before and after each urine sample to provide a reference potential used to calculate results.
- In positions 69 - 97 the cuvette washer removes the reaction mixture to waste, cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Assay processing (*c*8000/*c*16000)

Many kinds of assay processing activities take place between sample aspiration and the final read. Components located around the reaction carousel perform these activities.

NOTE: The *c*16000 assay processing components differ from the *c*8000 in order to accommodate the A and B lines. For more information see *Processing center (c16000)*, page 1-77.

Figure 3.10: c8000/c16000 assay processing components



Legend:

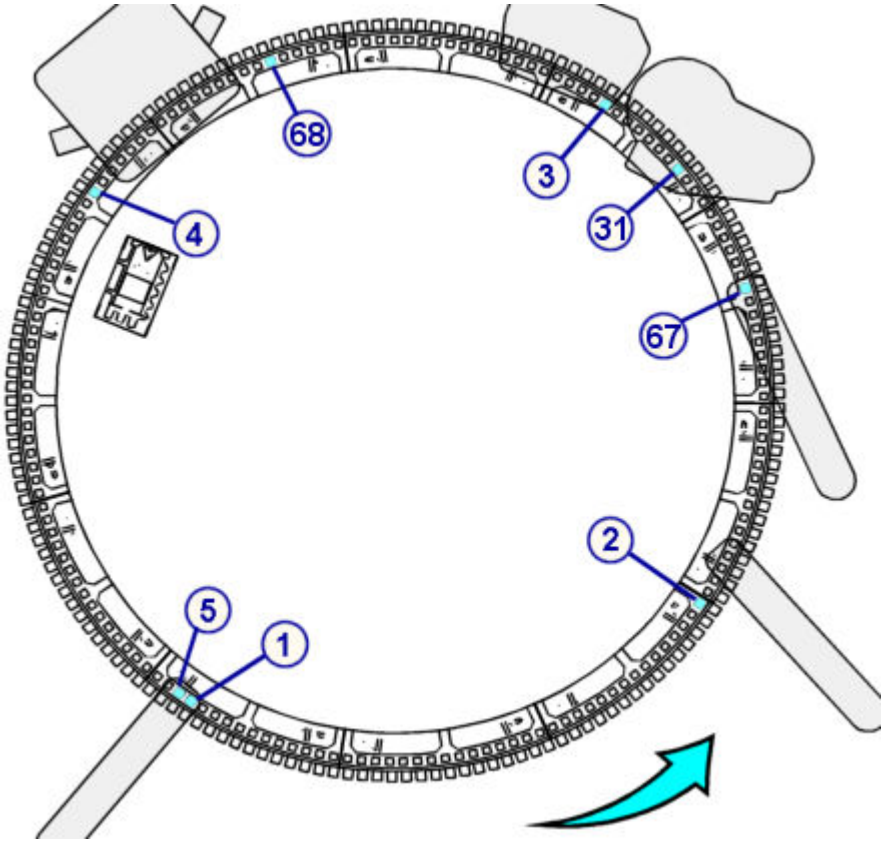
1. Sample pipettor
2. Sample probe wash cup
3. Reagent pipettor (1) and wash cup
4. Reagent pipettor (2) and wash cup
5. ICT unit
6. Cuvette washer
7. Mixers (2)
8. Mixer wash cups (2)
9. Lamp
10. Cuvette segments (11)

The movement of the reaction carousel, the timing of these movements, and the position of the components allow each reaction activity to occur at a specified time and location.

During processing, the reaction carousel rotates counter-clockwise approximately 1/4 turn every 4.5 seconds to position the cuvettes at each location. Each rotation includes 41 cuvette positions on the *c*8000 processing module or 41 cuvette pair positions on the *c*16000 processing module. As each rotation occurs the cuvettes pass the photometric position, where the lamp is located, and the absorbance is measured in each cuvette.

The following illustration shows key positions on the reaction carousel where activities occur.

Figure 3.11: Reaction carousel positions



The following information describes the movement and timing used in all assay protocol types.

Position(s)	Description
1	The sample pipettor dispenses sample into the cuvette at the starting position. The *c*16000 sample pipettor dispenses sample into one cuvette or two separate (paired) cuvettes.
2	The reaction carousel rotates approximately 1/4 turn (41 cuvettes for the *c*8000 processing module or 41 cuvette pairs for the *c*16000 processing module). The cuvette containing sample is now at the first reagent dispense position. Reagent pipettor 1 dispenses reagent 1 in the cuvette.
3	The reaction carousel rotates one cycle (1/4 turn) to this position at which no activity takes place.
4	The reaction carousel rotates one cycle to the first mixing position where the mixer unit (mixer 1) mixes the sample and reagent 1.

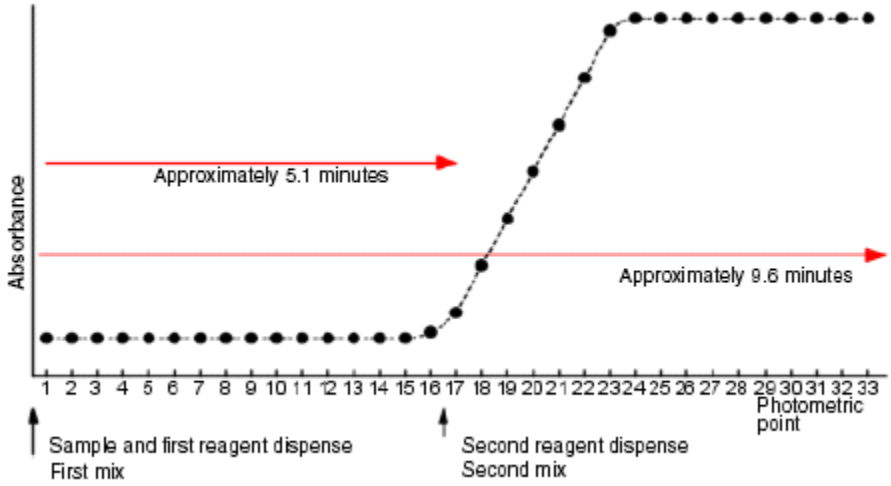
Position(s)	Description
Movement from 4 to 5	As the reaction carousel rotates from position 4 to position 5, the cuvette passes the photometric position where the lamp is located and the photometer measures the absorbance.
5	A full rotation of the reaction carousel consists of 4 cycles. • For the *c*8000 processing module each cycle rotates 41 cuvette positions, therefore a full rotation includes 164 cuvettes (4 x 41 = 164). • For the *c*16000 processing module each cycle rotates 41 cuvette pair positions, therefore a full rotation includes 164 cuvette pairs (4 x 41 = 164 pairs). Since there are a total of 165 cuvettes or cuvette pairs, the cuvette is now one position behind the starting position.
6 - 135	The reaction carousel continues to rotate and the reaction mixture incubates. The photometer takes absorbance readings every time the cuvette passes the photometric position for a total of 33 read times.
136 - 164	The cuvette washer removes the reaction mixture to waste and cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.
165	The clean cuvette waits at this position for one cycle before it begins again at position 1 with a new reaction.

Some assay protocols may also use the following locations.

Position(s)	Description
5	If onboard dilution is required, the sample pipettor aspirates the diluted sample and dispenses the sample into the new cuvette that is currently at position 1.
31	For an ICT sample, the ICT probe aspirates the diluted sample into the ICT unit.
67	If the reaction requires a second reagent, reagent pipettor 2 dispenses reagent 2 into the cuvette.
68	The mixer unit (mixer 2) mixes the second reagent with the sample and reagent mixture.

The following illustration shows the relationship between the timing of photometric reads and the dispense of samples and reagents.

Figure 3.12: Photometric timing



Related information...

- *Assay processing for a one-reagent protocol (c8000/c16000)*, page 3-21
- *Assay processing for a two-reagent protocol (c8000/c16000)*, page 3-21
- *Assay processing for a dilution protocol (c8000/c16000)*, page 3-22
- *Assay processing for a pretreatment protocol (c8000)*, page 3-22
- *Assay processing for an ICT protocol (c8000/c16000)*, page 3-23

Assay processing for a one-reagent protocol (*c*8000/*c*16000)

The following steps describe the *c*8000/*c*16000 operation and photometric reaction that occurs during one-reagent assay processing.

- In position 1 the sample pipettor (either from the sample handler or the sample carousel) aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates reagent, and then dispenses it into the cuvette.
- In position 4 the mixer unit (mixer 1) mixes the sample and reagent.
- In positions 4 - 132 the reaction mixture incubates, and the photometer takes photometric reads every time the cuvette passes the photometric position where the lamp is located.
- In positions 136 - 164 the cuvette washer removes the reaction mixture to waste and cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Assay processing for a two-reagent protocol (*c*8000/*c*16000)

The following steps describe the *c*8000/*c*16000 operation and photometric reaction that occurs during two-reagent assay processing.

- In position 1 the sample pipettor (either from the sample handler or the sample carousel) aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates reagent, and then dispenses the first reagent into the cuvette.
- In position 4 the mixer unit (mixer 1) mixes the sample and reagent.
- In positions 4 - 66 the reaction mixture incubates, and the photometer takes photometric reads every time the cuvette passes the photometric position where the lamp is located.
- In position 67 reagent pipettor 2 aspirates reagent, and then dispenses the second reagent into the cuvette.
- In position 68 mixer unit (mixer 2) mixes the second reagent with the sample and reagent mixture.
- In positions 68 - 132 the reaction mixture incubates, and the photometer takes photometric reads every time the cuvette passes the photometer.
- In positions 136 - 164 the cuvette washer removes the reaction mixture to waste and cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Assay processing for a dilution protocol (*c*8000/*c*16000)

The following steps describe the *c*8000/*c*16000 operation that occurs when the sample is diluted prior to sample processing.

- In position 1 the sample pipettor (either from the sample handler or the sample carousel) aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates sample diluent, and then dispenses it into the cuvette.
- In position 4 the mixer unit (mixer 1) mixes the sample and diluent.
- In position 5 the sample pipettor aspirates diluted sample, and then dispenses it into a new cuvette. The sample then follows the one-reagent or two-reagent assay protocol, as appropriate.

Assay processing for a pretreatment protocol (*c*8000)

The following steps describe the *c*8000 operation that occurs when the sample is pretreated prior to sample processing:

- In position 1 the sample pipettor aspirates sample (either from the sample handler or the sample carousel), and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates the pretreatment reagent, and then dispenses it into the cuvette.
- In position 4 the mixer unit (mixer 1) mixes the sample and pretreatment reagent.

- In position 5 the sample pipettor aspirates the pretreated sample, and then dispenses it into a new cuvette. The sample then follows the one-reagent or two-reagent assay protocol, as appropriate.

Assay processing for an ICT protocol (*c*8000/*c*16000)

The following steps describe the *c*8000/*c*16000 operation and potentiometric reaction for ICT (integrated chip technology) assays.

- In position 1 the sample pipettor (either from the sample handler or the sample carousel) aspirates sample, and then dispenses it into a cuvette.
- In position 2 reagent pipettor 1 aspirates ICT sample diluent, and then dispenses it into the cuvette.
- In position 4 the mixer unit (mixer 1) mixes the sample and ICT sample diluent.
- In position 31 the ICT probe aspirates the diluted sample, and then the ICT module analyzes the sample.

  NOTE: The ICT module analyzes the ICT Reference Solution once before and after each serum sample and twice before and after each urine sample to provide a reference potential used to calculate results.
- In positions 136 - 164 the cuvette washer removes the reaction mixture to waste, cleans the cuvette with Alkaline Wash, Acid Wash, and DI water. Then the cuvette washer dispenses DI water into the cuvette for a water blank measurement to ensure cuvette integrity. Finally, the cuvette washer aspirates the water and dries the cuvette.

Indirect assay processing method (*c* System)

The indirect assay processing method for photometric assays allows two results to be generated from one cuvette during a single assay processing cycle. The assay pair consists of a primary and secondary assay. These two assays are used as constituent assays for the calculated assay result. This option is available only when the assay parameters are loaded from an Abbott-labeled assay disk.

The two assays must be ordered at the same time when processing calibrations, patients, and controls. Each assay generates its own calibration curve, control results, and patient results.

To determine if an assay is a primary or secondary indirect assay, view the *Configure assay parameters window - General - Reaction definition view (photometric - c System)*, page 2-122.

- The reagent name, normally an editable field, cannot be edited.
- The reagent volume(s) of the secondary assay cannot be edited and equal zero.

SmartWash feature (*c* System)

SmartWash is a feature of the *c* System that provides an additional wash process, when needed, for reagent probes, sample probes, and cuvettes. It is used to prevent assay-to-assay interference when specific combinations of assays are tested.

If a known combination of assays results in assay-to-assay interference, you can avoid interference by configuring the combination as a SmartWash pair. This configuration executes an additional wash process between measurement of the assays.

NOTE: Abbott reagents are configured with SmartWash parameters as determined by reagent carryover studies that identify assay pairs which fail to meet reagent carryover criteria.

The ARCHITECT *c* System reagent carryover specifications meet or exceed the bias or total allowable error requirements for each assay and are developed using internationally recognized assay performance criteria. Examples of recognized assay performance criteria include:

- The U.S. Clinical Laboratories Improvement Act (CLIA)
- Guidelines for Quality Assurance of Medical Laboratory Examinations of the German Medical Association
- National Academy of Clinical Biochemistry (NACB)
- National Kidney Disease Education Program Guidelines (NKDEP)
- Biological Variation Database Specifications (Ricos C, et al) http://westgard.com/biodatabase1.htm

When possible, reagent carryover testing is performed using serum based control samples containing analyte concentrations near medical decision levels. Assay pairs meeting the reagent carryover criteria are not configured with SmartWash parameters. In some instances, due to system-specific conditions, customers may choose to configure SmartWashes for Abbott assay pairs.

To prevent consecutive measurement of assays configured as SmartWash pairs the *c* System processing module uses the OSS (optimum sampling sequence) feature, which automatically changes the sampling sequence.

OSS feature (*c* System)

The OSS (optimum sampling sequence) feature is an automatic process that maximizes processing speed and throughput by allowing the system to rearrange sampling sequence. This rearrangement prevents consecutive measurement of interfering reagents, and therefore reduces the number of required washes and unused cuvettes. If it is not possible to rearrange the sampling sequence, the system automatically activates SmartWash.

In the following example assays A, B, and C are ordered and SmartWash is configured between A and B. The elimination of the wash cycle shows how throughput is improved when the OSS feature is used.

OSS feature not used		OSS feature used	
Cycle	**System operations**	**Cycle**	**System operations**
1	Sampling for assay A	1	Sampling for assay B
2	Wash (empty cuvettes)	2	Sampling for assay A
3	Sampling for assay B	3	Sampling for assay C
4	Sampling for assay C		

Sample interference indices (*c* System)

The sample interference indices are sample measurements that allow estimation of lipids, hemoglobin, and bilirubin present in lipemic, hemolyzed, and icteric samples, respectively. The estimation is based on absorbance measurement of:

- Turbidity for lipids (lipemia)
- Red color for hemoglobin (hemolysis)
- Yellow color for bilirubin (icterus)

c System interference indices topics include:

- *Sample interference indices protocols (c System)*, page 3-25
- *Sample interference indices measurement (c System)*, page 3-26

Sample interference indices protocols (*c* System)

The sample interference indices protocols are two different methods that you can use to measure the lipemia, hemolysis, and icterus for a sample. Both methods require selection of a reference photometric assay that the system uses to estimate indices on a sample. You can select an existing assay for the reference photometric assay (common test file) or create a new assay that is only used for sample interference indices measurement (extra test file).

The type of assay file you select determines whether an additional cuvette is used to measure the indices.

The common test file is a protocol that uses an existing assay file such as AST or ALT as the reference photometric assay. The system simultaneously measures indices in the same cuvette as the selected assay and therefore does not impact system throughput.

When determining whether to use the common test file option, consider:

- Your choice of reference assays is limited to assays that are measured at different wavelengths than the indices and use a colorless reagent.
- Extra reagent is used if you do not routinely order the reference assay on most samples because reagent is dispensed for sample interference indices even though you do not order the reference assay.

The extra test file is a protocol that uses an assay file for the reference photometric assay that is defined to use saline as the reagent. The system measures the indices using saline and therefore does not impact reagent use. This method uses an earlier read window than the common test file method therefore providing a faster turnaround time for reporting results.

When determining whether to use the extra test file, consider that throughput is lowered because an additional cuvette is required.

Related information…

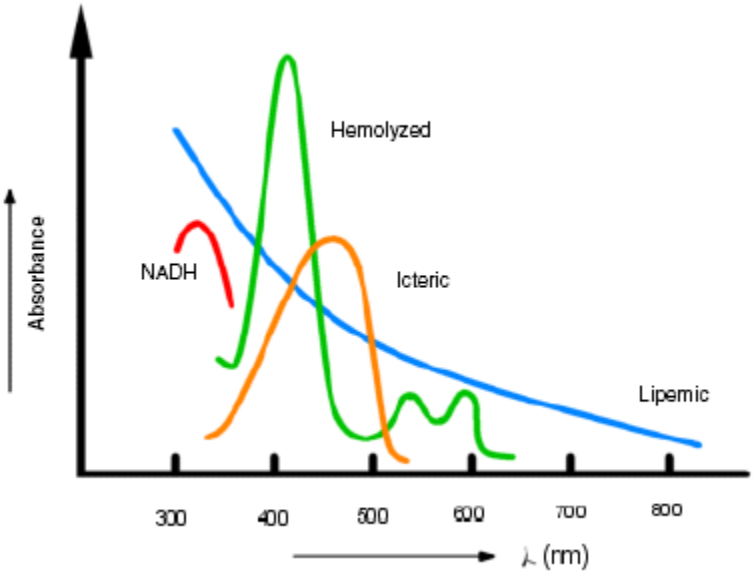
- *Sample interference indices measurement (c System)*, page 3-26

Sample interference indices measurement (*c* System)

Sample interference indices measurement is the process a *c* System uses to measure hemolysis, icterus, and lipemia in a sample once it has been mixed with the reagent or saline.

Specimens containing interfering substances such as hemolysis, icterus, and lipemia absorb at different wavelengths as shown in the following graph.

Figure 3.13: Absorption spectra of NADH and hemolyzed, icteric, and lipemic samples



NOTE: NADH is the reference absorbance peak.

To measure the three interfering substances, the system measures absorbance values of four wavelength pairs and, using the appropriate photometric reads, applies a mathematical calculation to determine the relative interferent concentration as shown:

- Lipemia = M (a01 x A1 + a02 x A2 + a03 x A3 + a04 x A4)

- Hemolysis = M (a05 x A1 + a06 x A2 + a07 x A3 + a08 x A4)
- Icterus = M (a09 x A1 + a10 x A2 + a11 x A3 + a12 x A4)

Where:

M	=	M is the correction for the sample dilution. (reagent volume + sample volume) / (sample volume).
• a01, a02, a03, and a04 (lipemic) • a05, a06, a07, and a08 (hemolysis) • a09, a10, a11, and a12 (icterus)	=	Constants specific to each interferrant are used by the system to calculate the sample interference indices. Constants are not user definable.
Absorbance level measured at wavelength pairs • A1 (500 nm/524 nm) • A2 (572 nm/604 nm) • A3 (628 nm/660 nm) • A4 (524 nm/804 nm)	=	(absorbance primary wavelength - absorbance secondary wavelength.)

Related information…

- *Sample interference indices protocols (c System)*, page 3-25

i System principles of operation

ARCHITECT *i* System principles of operation provides an overview of the CMIA (chemiluminescent microparticle immunoassay) technology, assay processing, and optical system used for analyte measurement.

i System principles of operation topics include:

CMIA method

CMIA (chemiluminescent microparticle immunoassay) is a detection method used by an *i* System to measure and quantify analyte concentration.

CMIA method topics include:

CMIA technology and reaction sequence

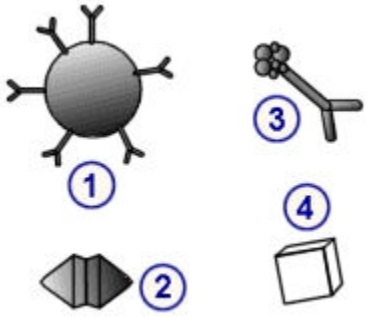
CMIA (chemiluminescent microparticle immunoassay) is a technology used to determine the presence of antigens, antibodies, and analytes in samples.

The reactants necessary for CMIA technology include:

- Paramagnetic microparticles coated with a capture molecule (antigen, antibody, or viral particle) specific for the analyte being measured
- Acridinium-labeled conjugate
- Pre-Trigger Solution and Trigger Solution

The following graphic symbols are used to represent these reactants.

Figure 3.14: Graphical symbols



Legend:

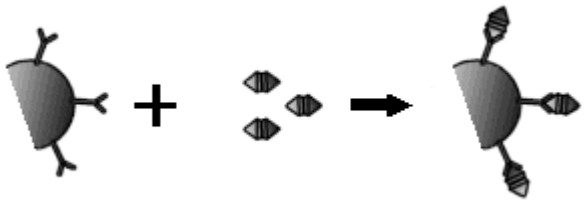
1. Anti-analyte microparticle with capture molecule
2. Sample analyte measured
3. Acridinium-labeled conjugate
4. Sample analyte not measured

A CMIA reaction sequence is the order of interactions between the analyte present in the sample and the reactants. A sequence is specific to the assay protocol.

The following two-step reaction sequence illustrates the basic principles of a reaction.

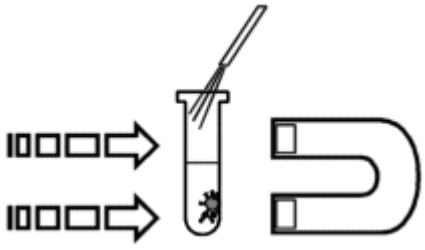
1. The pipettor dispenses microparticles (paramagnetic microparticles coated with capture molecules) into the sample in the reaction vessel. The vortexer mixes the reaction mixture.

   Figure 3.15: Sample and microparticle binding



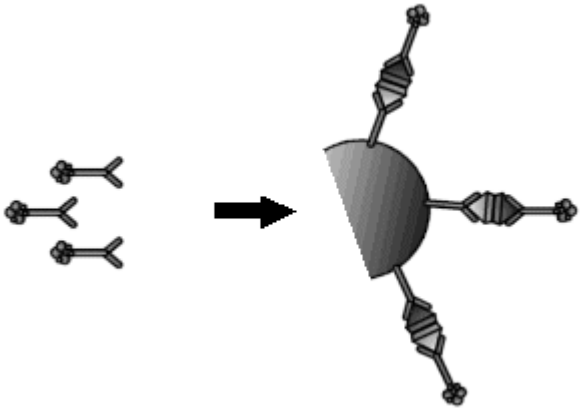
2. The reaction mixture incubates and the analyte present in the sample binds to the corresponding capture molecules on the microparticles forming the immune complex.
3. A magnet attracts the paramagnetic microparticles (bound to the specific analyte) to a wall of the reaction vessel. The wash zone manifold washes the reaction mixture to remove unbound materials. Further processing can now take place.

   Figure 3.16: Magnet attracting paramagnetic microparticles



4. The pipettor dispenses a chemiluminescent acridinium-labeled conjugate. The conjugate binds to the immune complex to complete the reaction mixture.

Figure 3.17: Addition of the acridinium-labeled conjugate



5. The reaction mixture incubates.
6. The wash zone manifold washes the reaction mixture to remove unbound materials.
7. The pre-trigger nozzle dispenses Pre-Trigger Solution (hydrogen peroxide) and the CMIA optical system takes a background read. Pre-trigger performs the following functions:
   - Creates an acidic environment to prevent early release of energy (light emission).
   - Helps to keep microparticles from clumping.
   - Splits acridinium dye off the conjugate bound to the microparticle complex. This action prepares the acridinium dye for the next step.
8. The trigger nozzle dispenses Trigger Solution (sodium hydroxide) to the reaction mixture. The acridinium undergoes an oxidative reaction when exposed to peroxide and an alkaline solution. This reaction causes the chemiluminescent reaction to occur. N-methylacridone forms and releases energy (light emission) as it returns to its ground state.
9. The CMIA optical system measures the chemiluminescent emission (activated read) over a predefined time period to quantitate the analyte concentration or to determine qualitative interpretations for index (cutoff) assays.

Related information…

- *Assay processing for One step 25 (i2000/i2000SR)*, page 3-34
- *Assay processing for Two step 18-4 (i2000/i2000SR)*, page 3-36
- *STAT assay processing for One step 11 (i2000SR)*, page 3-41
- *STAT assay processing for Two step 4-4 (i2000SR)*, page 3-43
- *Assay processing for One step 25 (i1000SR)*, page 3-47
- *Assay processing for Two step 18-4 (i1000SR)*, page 3-49

Optical measurements (*i* System)

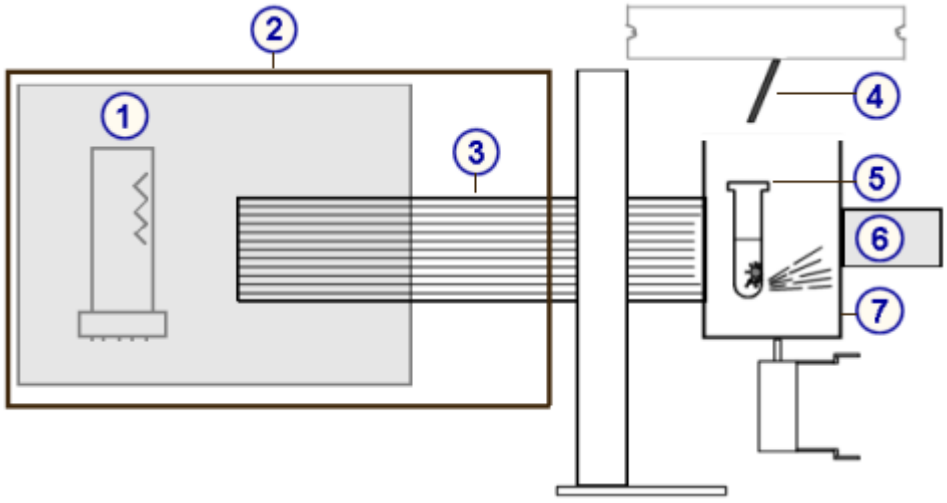
Optical measurement is the process an *i* System uses to obtain RLU (relative light unit) readings, and then convert them to assay-specific analyte concentration units or qualitative interpretations for index (cutoff) assays.

Optical measurement topics include:

Optical system and measurement sequence (*i* System)

The optical system on the processing module is a system that directs the chemiluminescent emission from the reaction vessel to the CMIA (chemiluminescent microparticle immunoassay) reader.

Figure 3.18: Optical system



Legend:

1. Photomultiplier tube (PMT)
2. CMIA reader
3. Light pipe
4. Trigger Solution delivery nozzle
5. Reaction vessel
6. Magnet

7. CMIA shutter assembly

Measurement occurs as the optical system performs the following:

1. Closes the shutter around the reaction vessel to seal off ambient light
2. Turns on the high voltage to the PMT (photomultiplier tube), takes a background read (Pre-Trigger Solution has already been dispensed), and transfers the data to the CPU (central processing unit)
3. Dispenses Trigger Solution into the reaction vessel

   NOTE: This solution initiates the chemiluminescent reaction that results in the emission of photons of light.
4. Uses the light pipe to collect the emitted light and directs it to the PMT, which is in the CMIA (chemiluminescent microparticle immunoassay) reader
5. Takes the activated read by collecting the emitted photons of light
6. Transfers the count data to the CPU

   NOTE: The chemiluminescent light produced during this reaction is directly or indirectly proportional to the amount of analyte present in the sample, depending on the type of assay.
7. Sums the signal over a defined time period to yield the RLU (relative light unit)
8. Turns off the high voltage PMT
9. Opens the shutter

Data reduction calculation (*i* System)

Data reduction calculation is the method used to calculate the final read in RLUs (relative light units). The calculation is:

Final Read (RLU) = Activated Read - Background

In performing the data reduction calculation the system:

1. Sums the signal measured by the CMIA optical system
2. Verifies that:
   - Background counts fall within an acceptable range
   - Activated read profile falls within an acceptable set of ranges
3. Subtracts the background counts from the activated read counts to calculate the final read and converted it to concentration units

Related information...

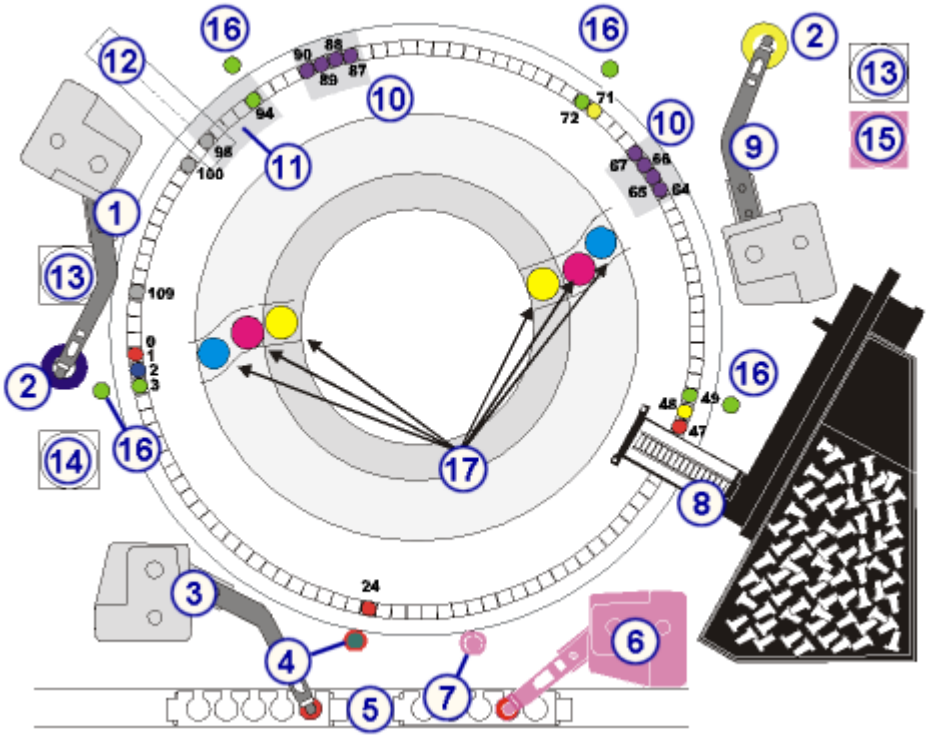
- *i System data reduction methods*, page C-13

Assay processing (*i*2000/*i*2000SR)

Many kinds of assay processing activities take place between sample aspiration and the final read. The movement of the process path, the timing of these movements, and the position of the components allow each reaction activity to occur at a specified time and location.

The following illustration shows the components surrounding the process path that are used for assay measurements.

Figure 3.19: i2000/i2000SR assay processing components



Legend:

1. Reagent pipettor 1 (R1)
2. Reagent wash stations (2) (R1W, R2W)
3. Sample pipettor (S)
4. Sample wash station (SW) or Induction Heating wash station (if present)
5. Sample carrier
6. STAT pipettor (ST)
7. STAT wash station (STW)
8. RV loader and hopper assembly (RVL)
9. Reagent pipettor 2 (R2)
10. Wash zone manifolds (2) (WZ1, WZ2)
11. Pre-Trigger/Trigger manifold (PT/T)

12. CMIA reader (CMIA)
13. Reagent syringes (2) (R1S, R2S)
14. Sample syringe (SS)
15. STAT syringe (STS)
16. Vortexers (4) (VTX1, VTX2, VTX3, VTXST)
17. Reagent pipetting locations

i System technology, known as Chemiflex technology, provides you with a variety of protocols or assay processing methods. Depending on the type of protocol, assay processing steps occur at different positions on the process path.

Related information…

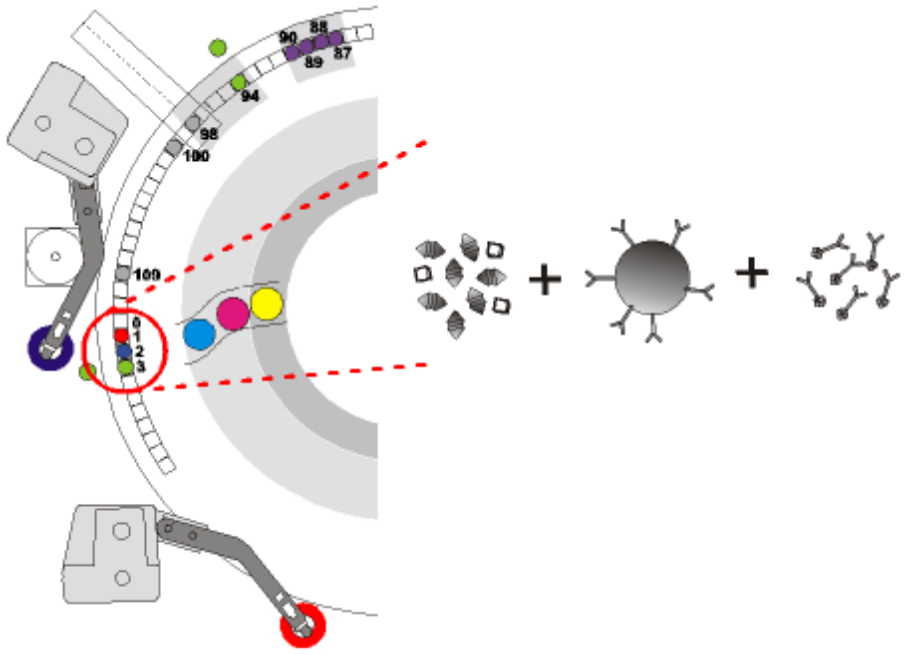
- *Assay processing for One step 25 (i2000/i2000SR)*, page 3-34
- *Assay processing for Two step 18-4 (i2000/i2000SR)*, page 3-36
- *Pretreatment (i2000/i2000SR)*, page 3-39
- *STAT assay processing for One step 11 (i2000SR)*, page 3-41
- *STAT assay processing for Two step 4-4 (i2000SR)*, page 3-43

Assay processing for One step 25 (*i*2000/*i*2000SR)

A One step 25 assay protocol is a method of assay processing in which the sample and all required reagents are added prior to washing the microparticles. Total processing time for a One step 25 assay is 29 minutes including a 25 minute incubation time. See *Pretreatment (i2000/i2000SR)*, page 3-39, for additional processing required by pretreatment assays.

The following steps describe *i*2000/*i*2000SR System operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 25 assay processing.

Figure 3.20: Process path, positions 1 - 3 (i2000/i2000SR)

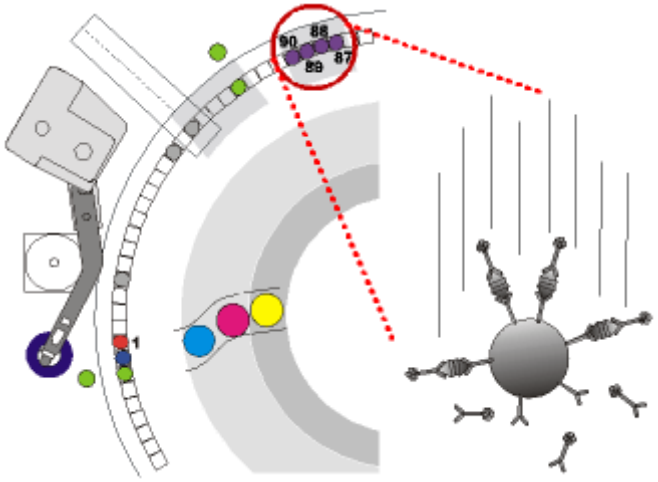


Inner process path track:

1. At position 1 the sample pipettor dispenses the sample into the RV (reaction vessel).
2. At position 2 the R1 pipettor dispenses the microparticles and acridinium-labeled conjugate.

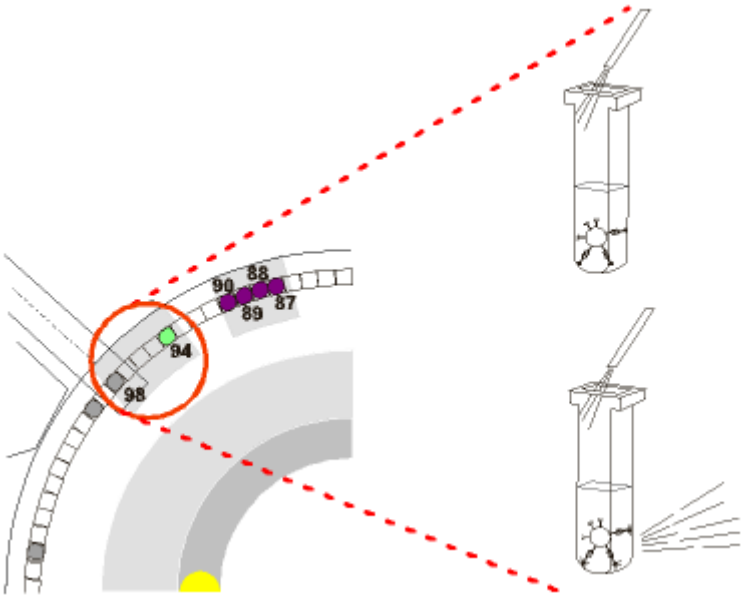
   NOTE: For a delayed one-step assay the R2 pipettor adds the acridinium-labeled conjugate at position 71 and the vortexer mixes the reaction mixture at position 72.
3. At position 3 the vortexer mixes the sample, microparticles, and conjugate.
4. At positions 4 - 86 the reaction mixture incubates for 25 minutes.

Figure 3.21: Process path, positions 87 - 90 (i2000/i2000SR)



5. At positions 87 - 90 the wash zone 2 manifold washes the reaction mixture in the RV, and then removes unbound materials.

Figure 3.22: Process path, positions 94 - 98 (i2000/i2000SR)



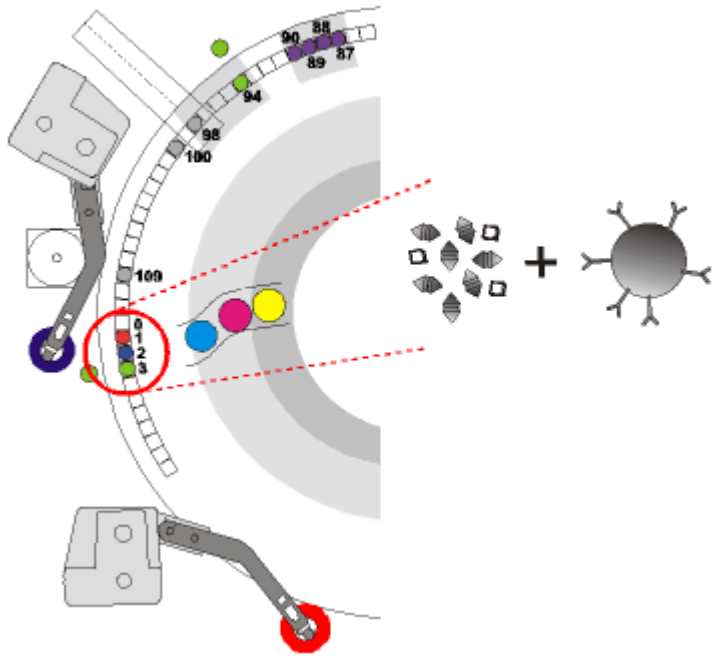
6. At position 94 the pre-trigger nozzle dispenses Pre-Trigger Solution to the reaction mixture, and then mixes using the vortexer.
7. At position 98 the CMIA optical system takes a background read, the trigger nozzle dispenses Trigger Solution to the reaction mixture, and then the CMIA optical system takes an activated read.
8. At position 100 the liquid waste arm aspirates the liquid waste from the RV.
9. At position 109 the RV unloader removes the RV, and then disposes of it in the solid waste container.

Assay processing for Two step 18-4 (*i*2000/*i*2000SR)

A Two step 18-4 assay protocol is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. Total processing time for a Two step 18-4 assay is 29 minutes including a 22 minute incubation time. For additional processing steps required by pretreatment assays, see *Pretreatment (i2000/i2000SR)*, page 3-39.

The following steps describe the *i*2000/*i*2000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 18-4 assay processing.

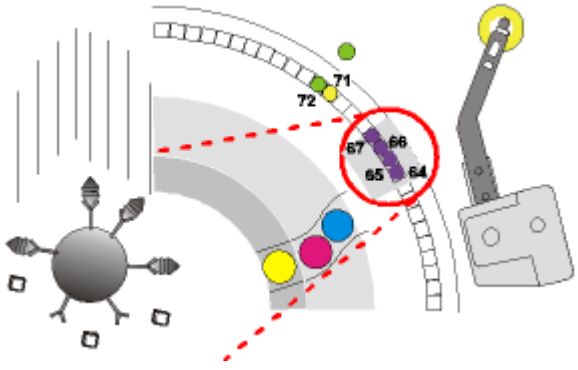
Figure 3.23: Process path, positions 1 - 3 (i2000/i2000SR)



Inner process path track:

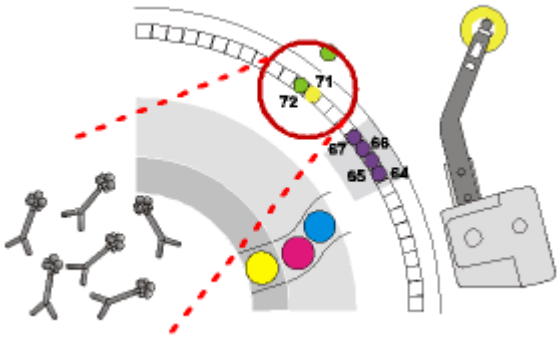
1. At position 1 the sample pipettor dispenses the sample into the RV (reaction vessel).
2. At position 2 the R1 pipettor dispenses the microparticles.
3. At position 3 the vortexer mixes the sample and microparticles.
4. At positions 4 - 63 the reaction mixture incubates for 18 minutes.

Figure 3.24: Process path, positions 64 - 67 (i2000/i2000SR)



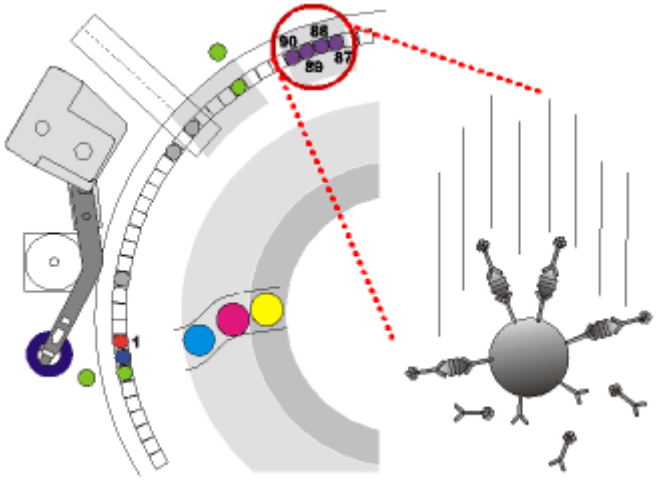
5. At positions 64 - 67 the wash zone 1 manifold washes the reaction mixture in the RV, and then removes unbound materials.

Figure 3.25: Process path, positions 71 and 72 (i2000/i2000SR)



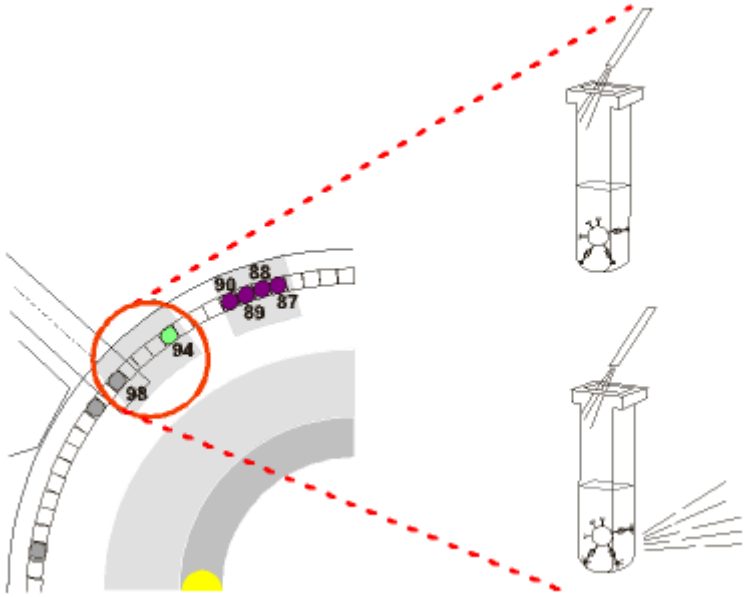
6. At position 71 the R2 pipettor dispenses acridinium-labeled conjugate.
7. At position 72 the vortexer mixes the reaction mixture.
8. At positions 73 - 86 the reaction mixture incubates for 4 minutes.

Figure 3.26: Process path, positions 87 - 90 (i2000/i2000SR)



9. At positions 87 - 90 the wash zone 2 manifold washes the reaction mixture in the RV, and then removes unbound materials.

Figure 3.27: Process path, positions 94 - 98 (i2000/i2000SR)



10. At position 94 the pre-trigger nozzle dispenses Pre-Trigger Solution to the reaction mixture, and then mixes using the vortexer.
11. At position 98 the CMIA optical system takes a background read, the trigger nozzle dispenses Trigger Solution to the reaction mixture, and then the CMIA optical system takes an activated read.
12. At position 100 the liquid waste arm aspirates the liquid waste from the RV.
13. At position 109 the RV unloader removes the RV, and then disposes of it in the solid waste container.

Pretreatment (*i*2000/*i*2000SR)

Pretreatment is the performance of additional steps prior to performing one-step or two-step assay protocols. An ARCHITECT *i* 2000/*i*2000SR automatically performs these steps if pretreatment is required.

Depending on the type of pretreatment processing, incubation times and number of pretreatment reagents vary. For information on processing activities for specific pretreatment types, see:

- *Processing for Pretreatment 7 (i2000/i2000SR)*, page 3-39
- *Processing for Pretreatment 7-7 (i2000/i2000SR)*, page 3-40
- *Processing for Pretreatment 14 (i2000/i2000SR)*, page 3-40

Processing for Pretreatment 7 (*i*2000/*i*2000SR)

Performance of Pretreatment 7 requires an additional 7 minutes. During pretreatment, the system completes the following steps.

1. At position 1 the sample pipettor dispenses sample in the RV (reaction vessel).

2. At position 2 the R1 pipettor dispenses the pretreatment reagents to the sample in the RV.
3. At position 3 the vortexer mixes the sample and pretreatment reagents.
4. At positions 4 - 24 the reaction mixture incubates for 7 minutes.
5. At position 24 the sample pipettor transfers the pretreated sample to a new reaction vessel in position 1. The one-step or two-step assay processing protocol proceeds.

   NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

Processing for Pretreatment 7-7 (*i*2000/*i*2000SR)

Performance of Pretreatment 7-7 requires an additional 14 minutes. During pretreatment, the system completes the following steps.

1. At position 1 the sample pipettor dispenses sample in the RV (reaction vessel).
2. At position 2 the R1 pipettor dispenses the first pretreatment reagents to the sample in the RV.
3. At position 3 the vortexer mixes the sample and pretreatment reagents.
4. At positions 4 - 24 the reaction mixture incubates for 7 minutes.
5. At position 24 the sample pipettor transfers the pretreated sample to a new reaction vessel in position 1.
6. At position 2 the R1 pipettor dispenses the second pretreatment reagents to the sample in the RV.
7. At position 3 the vortexer mixes the sample and pretreatment reagents.
8. At positions 4 - 24 the reaction mixture incubates for 7 minutes.
9. At position 24 the sample pipettor transfers the pretreated sample to a new reaction vessel in position 1. The one-step or two-step assay processing protocol proceeds.

   NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

Processing for Pretreatment 14 (*i*2000/*i*2000SR)

Performance of Pretreatment 14 requires an additional 14 minutes. During pretreatment, the system completes the following steps.

1. At position 1 the sample pipettor dispenses sample in the RV (reaction vessel).
2. At position 2 the R1 pipettor dispenses the pretreatment reagents to the sample in the RV.
3. At position 3 the vortexer mixes the sample and pretreatment reagents.

4. At positions 4 - 24 the reaction mixture incubates for 7 minutes.
5. At position 24 the sample pipettor transfers the pretreated sample to a new reaction vessel in position 1, and then the system re-incubates the mixture for an additional 7 minutes. The one-step or two-step assay processing protocol proceeds.

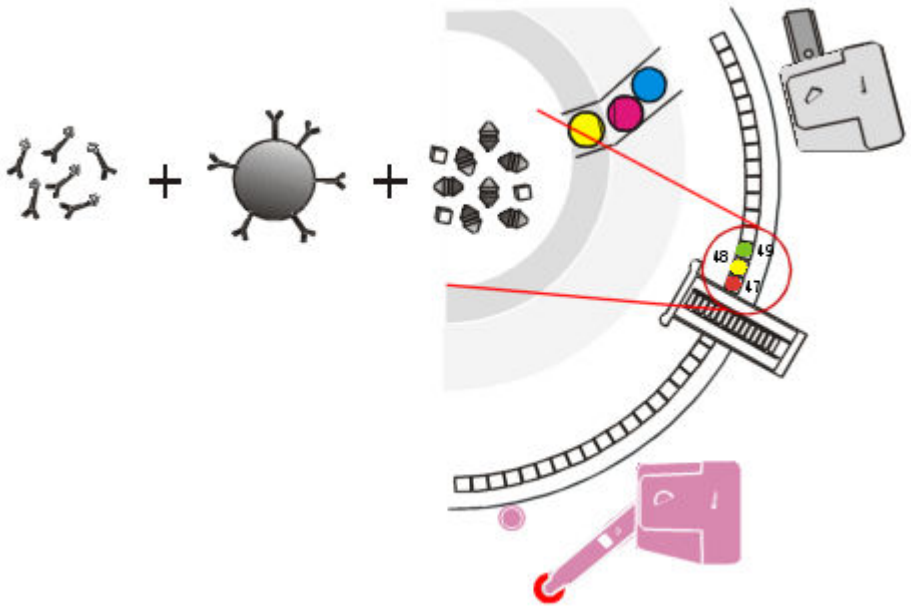
   NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

STAT assay processing for One step 11 (*i*2000SR)

A One step 11 assay protocol, like a One step 25 assay protocol, is a method of sample processing in which the sample and all required reagents are added prior to washing the microparticles. A One step 11 assay, however, has a shorter incubation time. Total processing time for a One step 11 assay is 18 minutes including an 11 minute incubation time.

The following steps describe the ARCHITECT *i*2000SR System operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 11 assay processing.

Figure 3.28: Process path, positions 47 - 49 (i2000SR)

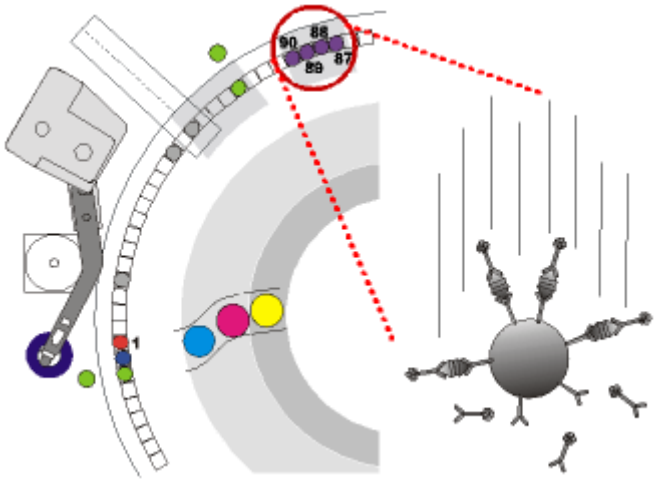


Inner process path track:

1. At position 47 the STAT pipettor dispenses the sample into the RV (reaction vessel).
2. At position 48 the R2 pipettor dispenses the microparticles and acridinium-labeled conjugate.

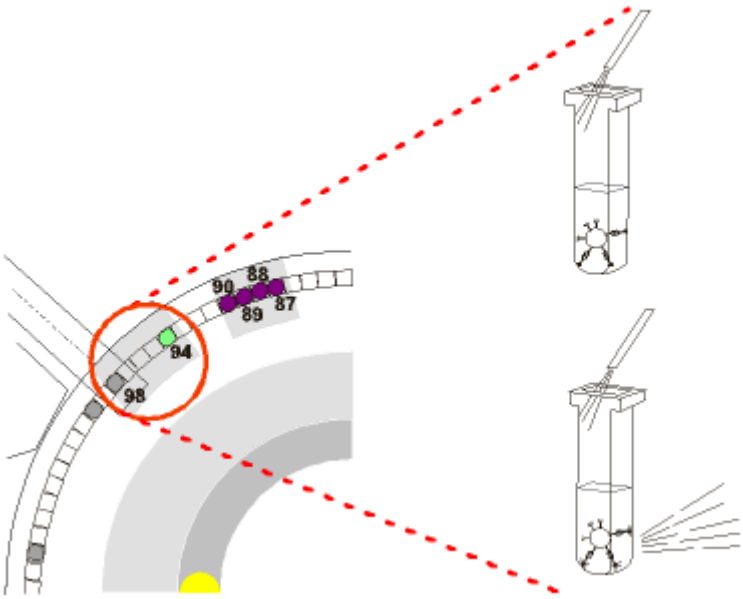
3. At position 49 the vortexer mixes the sample, microparticles, and conjugate.
4. At positions 50 - 86 the reaction mixture incubates for 11 minutes.

Figure 3.29: Process path, positions 87 - 90 (i2000SR)



5. At positions 87 - 90 the wash zone 2 manifold washes the reaction mixture in the RV, and then removes unbound materials.

Figure 3.30: Process path, positions 94 - 98 (i2000SR)



6. At position 94 the pre-trigger nozzle dispenses Pre-Trigger Solution to the reaction mixture, and then mixes using the vortexer.
7. At position 98 the CMIA optical system takes a background read, the trigger nozzle dispenses Trigger Solution to the reaction mixture, and then the CMIA optical system takes an activated read.

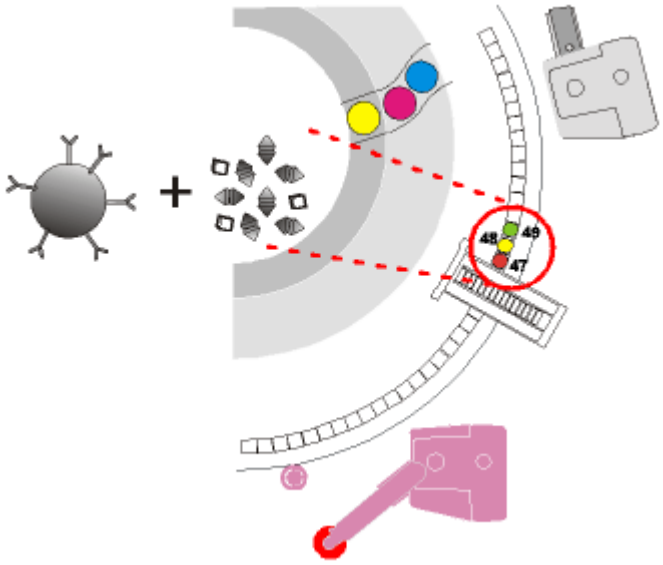
8. At position 100 the liquid waste arm aspirates the liquid waste from the RV.
9. At position 109 the RV unloader removes the RV, and then disposes of it in the solid waste container.

STAT assay processing for Two step 4-4 (*i*2000SR)

A Two step 4-4 assay protocol, like a Two step 18-4 assay protocol, is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. A Two step 4-4 assay, however, has a shorter incubation time. Total processing time for a Two step 4-4 assay is 18 minutes including an 8 minute incubation time.

The following steps describe the ARCHITECT *i*2000SR System operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 4-4 assay processing.

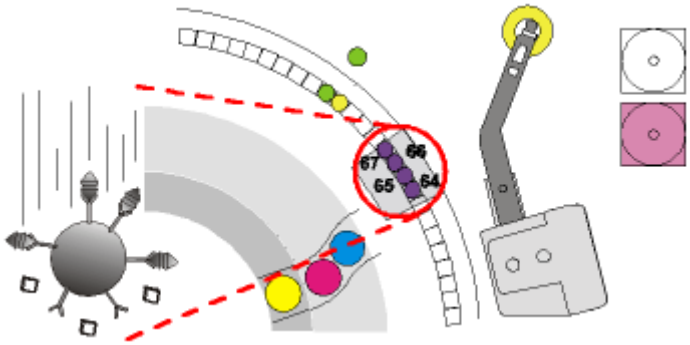
Figure 3.31: Process path, positions 47 - 49 (i2000SR)



Inner process path track:

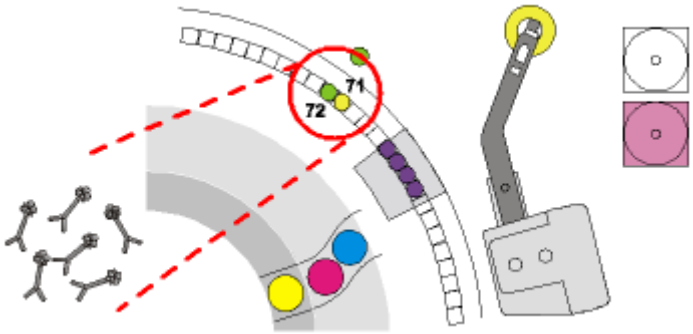
1. At position 47 the STAT pipettor dispenses the sample into the RV (reaction vessel).
2. At position 48 the R2 pipettor dispenses the microparticles.
3. At position 49 the vortexer mixes the sample and microparticles.
4. At positions 50 - 63 the reaction mixture incubates for 4 minutes.

Figure 3.32: Process path, positions 64 - 67 (i2000SR)



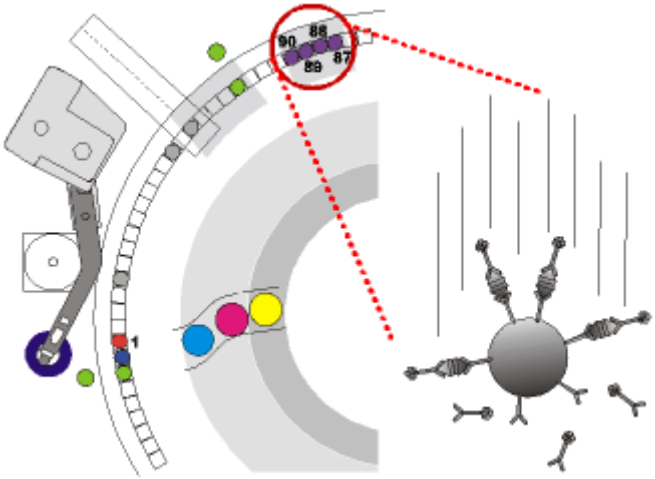
5. At positions 64 - 67 the wash zone 1 manifold washes the reaction mixture in the RV, and then removes unbound materials.

Figure 3.33: Process path, positions 71 - 72 (i2000SR)



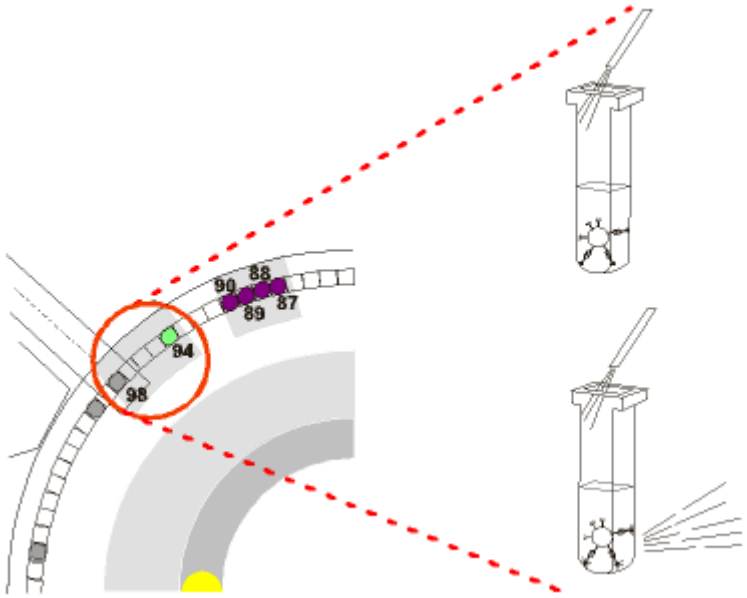
6. At position 71 the R2 pipettor dispenses acridinium-labeled conjugate.
7. At position 72 the vortexer mixes the reaction mixture.
8. At positions 73 - 86 the reaction mixture incubates for 4 minutes.

Figure 3.34: Process path, positions 87 - 90 (i2000SR)



9. At positions 87 - 90 the wash zone 2 manifold washes the reaction mixture in the RV, and then removes unbound materials.

Figure 3.35: Process path, positions 94 - 98 (i2000SR)



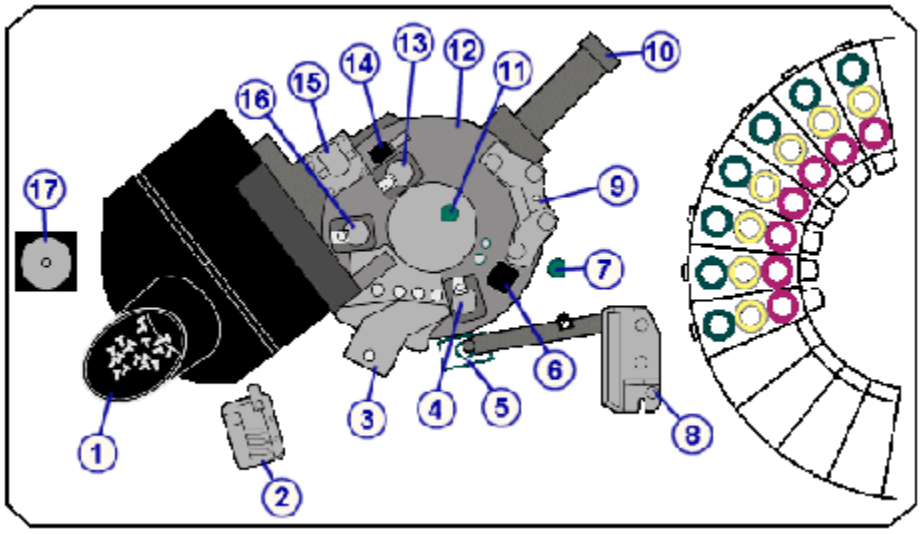
10. At position 94 the pre-trigger nozzle dispenses Pre-Trigger Solution to the reaction mixture, and then mixes using the vortexer.
11. At position 98 the CMIA optical system takes a background read, the trigger nozzle dispenses Trigger Solution to the reaction mixture, and then the CMIA optical system takes an activated read.
12. At position 100 the liquid waste arm aspirates the liquid waste from the RV.
13. At position 109 the RV unloader removes the RV, and then disposes of it in the solid waste container.

Assay processing (*i*1000SR)

Many kinds of assay processing activities take place between sample aspiration and the final read. The movement of the process path, the timing of these movements, and the position of the components allow each reaction activity to occur at a specified time and location.

The following illustration shows the components surrounding the process path that are used for assay measurements.

Figure 3.36: System assay processing components (i1000SR)



Legend:

1. RV Loader assembly (RVL)
2. Upper waste manifold (UWM)
3. Wash zone manifold (WM)
4. Wash zone outlet diverter (WZOD)
5. Pipettor wash (PW) or AWDS (Alternate Wash Delivery System) wash cup (if present)
6. RV access door (RVA)
7. Vortexer 2 (VTX2)
8. Pipettor (P)
9. Pre-trigger/trigger manifold (PT/T)
10. CMIA reader (CMIA)
11. Vortexer 1 (VTX1)
12. Process path (PP)
13. Unload diverter (ULD)
14. Unloader (UL)
15. Process path motor (PPM)
16. Wash zone inlet diverter (WZID)
17. Pipettor syringe (PS)

i System technology, known as Chemiflex technology, provides you with a variety of protocols or assay processing methods. Depending on the type of protocol, assay processing steps occur at different positions on the process path.

The Intelli-flow feature of the *i*1000SR System provides a robust wash process for the pipettor probe by using an enhanced wash cup design and wash algorithm. This wash process is accomplished by increasing the wash flow rate when required to minimize interferences. In addition the software provides a

smart-scheduler to minimize assay to assay interferences when specific combinations of assays are tested.

Related information…

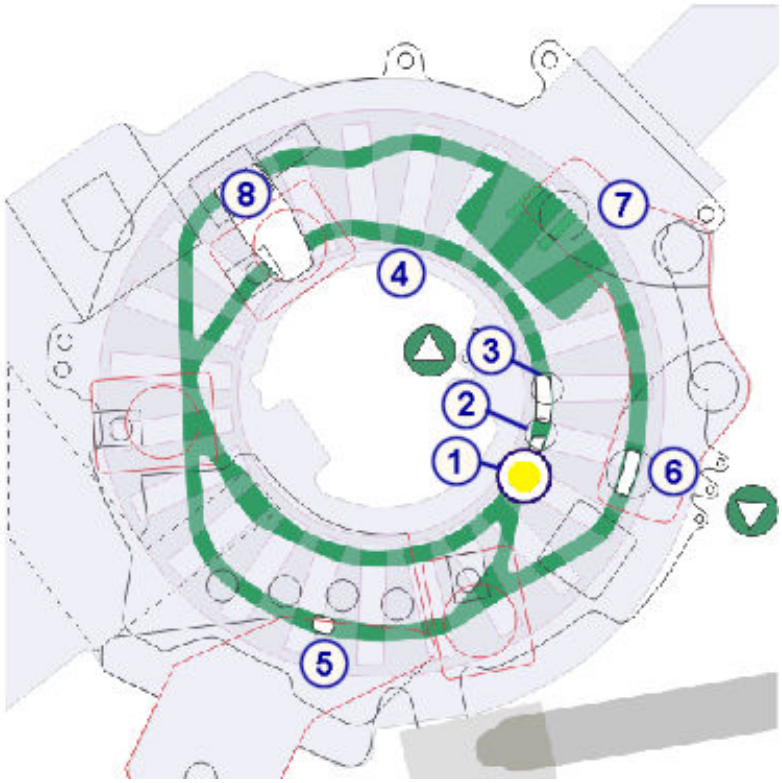
- *Assay processing for One step 25 (i1000SR)*, page 3-47
- *Assay processing for Two step 18-4 (i1000SR)*, page 3-49
- *Assay processing for One step 18 (i1000SR)*, page 3-50
- *Assay processing for Two step 11-4 (i1000SR)*, page 3-51
- *Pretreatment (i1000SR)*, page 3-52
- *STAT assay processing for One step 11 (i1000SR)*, page 3-54
- *STAT assay processing for Two step 4-4 (i1000SR)*, page 3-55
- *STAT assay processing for One step 4 (i1000SR)*, page 3-56

Assay processing for One step 25 (*i*1000SR)

A One step 25 assay protocol is a method of assay processing in which the sample and all required reagents are added prior to washing the microparticles. Total processing time for a One step 25 assay is 29 minutes including a 25 minute incubation time. See *Pretreatment (i1000SR)*, page 3-52, for additional processing required by pretreatment assays.

The following steps describe *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 25 assay processing.

Figure 3.37: Assay processing for One step 25 (i1000SR)



Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles, and conjugate at position 3.
4. The reaction mixture incubates for 25 minutes. (3 complete revolutions around the process path track)

   Outer process path track:

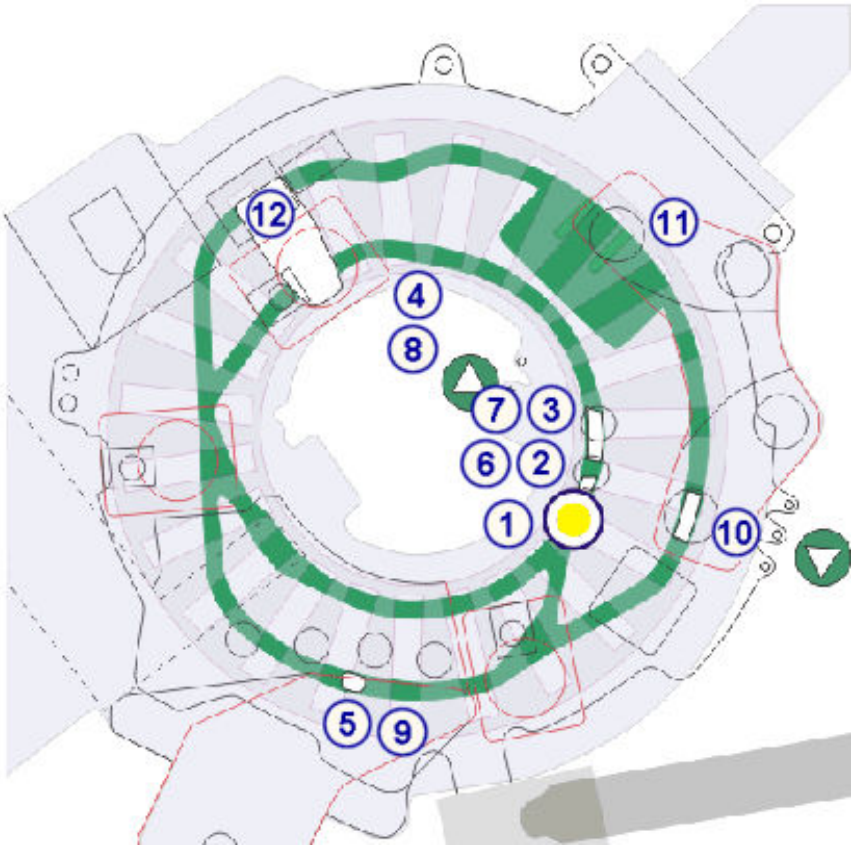
5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then Trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

Assay processing for Two step 18-4 (*i*1000SR)

A Two step 18-4 assay protocol is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. Total processing time for a Two step 18-4 assay is 29 minutes including a 22 minute incubation time. See *Pretreatment (i1000SR)*, page 3-52, for additional processing steps required by pretreatment assays.

The following steps describe the *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 18-4 assay processing.

Figure 3.38: Assay processing for Two step 18-4 (i1000SR)



Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles into the RV at position 2.
3. Vortexer 1 mixes the sample and microparticles at position 3.
4. The reaction mixture incubates for 18 minutes. (2 complete revolutions around the process path track)

Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

   Inner process path track:

6. The wash zone outlet diverter directs the RV back to the inner track and acridinium-labeled conjugate is added to the RV in position 2.
7. Vortexer 1 mixes the reaction mixture.
8. The reaction mixture incubates for 4 minutes.

   Outer process path track:

9. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track for a second wash.
10. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
11. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
12. The Unloader removes the RV and disposes of it in the solid waste container.

Assay processing for One step 18 (*i*1000SR)

A One step 18 assay protocol is a method of assay processing in which the sample and all required reagents are added prior to washing the microparticles. Total processing time for a One step 18 assay is 22 minutes including an 18 minute incubation time. See *Pretreatment (i1000SR)*, page 3-52, for additional processing required by pretreatment assays.

The following steps describe the *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 18 assay processing.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles, and conjugate at position 3.
4. The reaction mixture incubates for 18 minutes. (2 complete revolutions around the process path track.)

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then Trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

Assay processing for Two step 11-4 (*i*1000SR)

A Two step 11-4 assay protocol is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. Total processing time for a Two step 11-4 assay is 22 minutes including a 15 minute incubation time. See *Pretreatment (i1000SR)*, page 3-52, for additional processing steps required by pretreatment assays.

The following steps describe the *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 11-4 assay processing.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles into the RV at position 2.
3. Vortexer 1 mixes the sample and microparticles at position 3.
4. The reaction mixture incubates for 11 minutes. (1 complete revolution around the process path track.)

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

   Inner process path track:

6. The wash zone outlet diverter directs the RV back to the inner track and acridinium-labeled conjugate is added to the RV in position 2.
7. The reaction mixture incubates for 4 minutes.

   Outer process path track:

8. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track for a second wash.

9. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
10. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
11. The Unloader removes the RV and disposes of it in the solid waste container.

Pretreatment (*i*1000SR)

Pretreatment is the performance of additional steps prior to performing one-step or two-step assay protocols. An *i*1000SR automatically performs these steps if pretreatment is required.

Depending on the type of pretreatment processing, incubation times and number of pretreatment reagents vary. For information on processing activities for specific pretreatment types, see:

- *Processing for Pretreatment 7 (i1000SR)*, page 3-52
- *Processing for Pretreatment 7-7 (i1000SR)*, page 3-52
- *Processing for Pretreatment 14 (i1000SR)*, page 3-53

Processing for Pretreatment 7 (*i*1000SR)

Performance of Pretreatment 7 requires an additional 7 minutes. During pretreatment, the system completes the following steps.

Inner process path track:

1. The pipettor dispenses sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
3. The reaction mixture incubates 7 minutes. (One complete revolution around the process path track)
4. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1. The one-step or two-step assay processing protocol proceeds.
5. The Unload diverter unloads the RV used for pretreatment and discards it into the solid waste container.

NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

Processing for Pretreatment 7-7 (*i*1000SR)

Performance of Pretreatment 7-7 requires an additional 14 minutes. During pretreatment, the system completes the following steps.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
3. The reaction mixture incubates 7 minutes. (1 complete revolution around the process path track.)
4. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1.
5. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
6. The reaction mixture incubates 7 minutes. (1 complete revolution around the process path track)
7. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1. The one-step or two-step assay processing protocol proceeds.
8. The Unload diverter unloads the RVs used for pretreatment and discards them into the solid waste container.

NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

Processing for Pretreatment 14 (*i*1000SR)

Performance of Pretreatment 14 requires an additional 14 minutes. During pretreatment, the system completes the following steps.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the pretreatment reagents to the sample in the RV at position 2.
3. The reaction mixture incubates 7 minutes (1 complete revolution around the process path track).
4. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1.
5. The reaction mixture incubates 7 minutes (1 complete revolution around the process path track).
6. At the RV in position 2 the pipettor transfers the pretreated sample to a new RV in position 1. The one-step or two-step assay processing protocol proceeds.
7. The Unload diverter unloads the RVs used for pretreatment and discards them into the solid waste container.

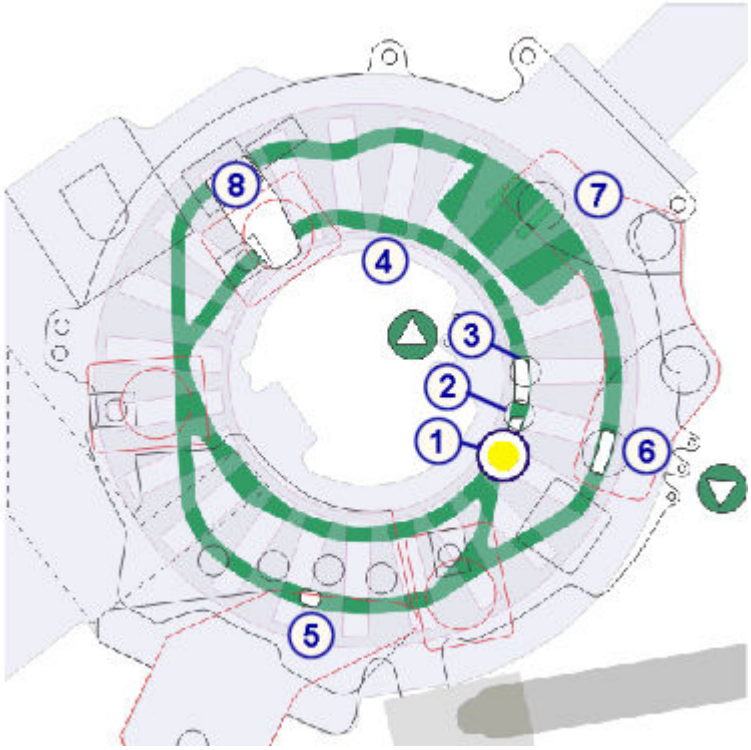
NOTE: For more information on assay-specific pretreatment processing protocols, see the *i* System assay-package insert.

STAT assay processing for One step 11 (*i*1000SR)

A One step 11 assay protocol, like a One step 25 assay protocol, is a method of sample processing in which the sample and all required reagents are added prior to washing the microparticles. A One step 11 assay, however, has a shorter incubation time. After the sample is aspirated the processing time for a One step 11 assay is 15 minutes including an 11 minute incubation time.

The following steps describe the *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 11 assay processing.

Figure 3.39: STAT assay processing for One step 11 (i1000SR)



Inner process path track:

1. The pipettor dispenses the sample into the RV (reaction vessel) at position 1.
2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles and conjugate at position 3.
4. The reaction mixture incubates for 11 minutes. (One complete revolution around the process path track)

   Outer process path track:

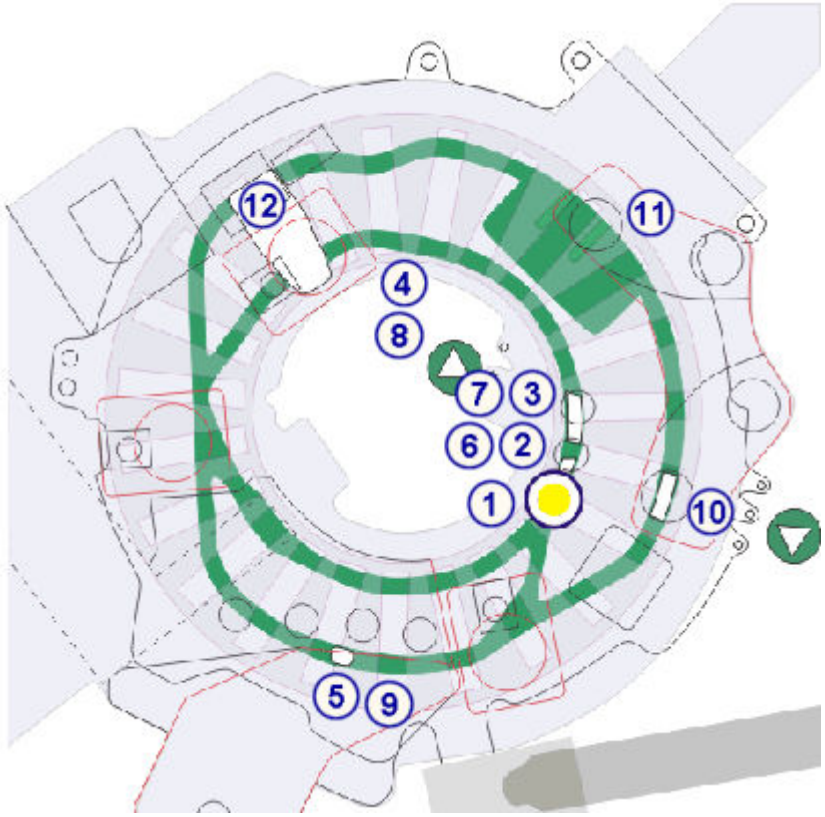
5. The wash zone inlet diverter directs the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

STAT assay processing for Two step 4-4 (*i*1000SR)

A Two step 4-4 assay protocol, like a Two step 18-4 assay protocol, is a method of sample processing in which the sample and some reagents are added prior to washing the microparticles. The conjugate reagent is added after the microparticles are washed. A Two step 4-4 assay, however, has a shorter incubation time. After the sample is aspirated the processing time for a Two step 4-4 assay is 15 minutes including an 8 minute incubation time.

The following steps describe the *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during Two step 4-4 assay processing.

Figure 3.40: STAT assay processing for Two step 4-4 (i1000SR)



Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.
2. The pipettor dispenses the microparticles into the RV at position 2.
3. Vortexer 1 mixes the sample and microparticles at position 3.
4. The reaction mixture incubates for 4 minutes.

   Outer process path track:

5. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.

   Inner process path track:

6. The wash zone outlet diverter directs the RV back to the inner track and acridinium-labeled conjugate is added to the RV in position 2.
7. Vortexer 1 mixes the reaction mixture.
8. The reaction mixture incubates for 4 minutes.

   Outer process path track:

9. The wash zone inlet diverter directs the RV with the reaction mixture to the outer track for a second wash.
10. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
11. The CMIA optical system takes a background read and then trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
12. The Unloader removes the RV and disposes of it in the solid waste container.

STAT assay processing for One step 4 (*i*1000SR)

A One step 4 assay protocol, like a One step 25 assay protocol, is a method of sample processing in which the sample and all required reagents are added prior to washing the microparticles. A One step 4 assay, however, has a shorter incubation time. Total processing for a One step 4 assay is 8 minutes including a 4 minute incubation time.

The following steps describe the *i*1000SR operation and CMIA (chemiluminescent microparticle immunoassay) reaction that occurs during One step 4 assay processing.

Inner process path track:

1. The pipettor dispenses the sample into the Reaction Vessel (RV) at position 1.

2. The pipettor dispenses the microparticles and acridinium-labeled conjugate into the RV at position 2.
3. Vortexer 1 mixes the sample, microparticles and conjugate at position 3.
4. The reaction mixture incubates for 4 minutes.

   Outer process path track:

5. The wash zone inlet diverter directs the reaction mixture to the outer track. The wash zone manifold washes the reaction mixture in the RV and then removes unbound materials.
6. Pre-trigger is dispensed into the RV and Vortexer 2 mixes the reaction mixture.
7. The CMIA optical system takes a background read and then Trigger is dispensed into the RV with the reaction mixture. The CMIA optical system takes an activated read.
8. The Unloader removes the RV and disposes of it in the solid waste container.

NOTES

Introduction

Before attempting to operate your system, you may want to familiarize yourself with its performance characteristics, throughput capabilities and capacities, specifications, and requirements for samples, temperature, waste, and clearance.

You may also want to familiarize yourself with the specifications and requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory, if your laboratory has chosen to use this accessory.

NOTE: For assay information, see your reagent manufacturer's documentation, such as the package insert or reagent application sheet.

Performance characteristics and specifications topics include:

- *Performance characteristics*, page 4-2
  Describes the operational mode, detection technique, and pipetting capabilities of the ARCHITECT System.
- *Specifications and requirements*, page 4-3
  Describes the specifications and system capacities for the ARCHITECT System.
- *ARM specifications and requirements*, page 4-39
  Describes the specifications and requirements for the ARCHITECT ARM accessory.

Performance characteristics

Performance characteristics include the operational mode, detection technology, and pipetting capabilities of the system.

Performance characteristics topics include:

c System performance characteristics

Performance characteristics representative of the *c* System are presented in the following table.

Table 4.1: c System performance characteristics

Operational mode	Random and continuous access, priority loading
Detection technology: • Photometric • Potentiometric	 End-point and rate ICT (integrated chip technology) ion-selective electrodes
Pipetting capability	Robotic precision with clot detection

i System performance characteristics

Performance characteristics representative of an *i* System are presented in the following table.

Table 4.2: i System performance characteristics

Operational mode	Random and continuous access, priority loading
Detection technology	CMIA (Chemiluminescent Microparticle Immunoassay)
Emission measurement	The CMIA optical assembly measures the chemiluminescent emission from the reaction vessel and outputs data corresponding to the quantity of emission detected.
Pipetting capability	Robotic precision with clot detection

Specifications and requirements

The system specifications and requirements presented are related to the proper installation and operation of the ARCHITECT System.

Specifications and requirements topics include:

General specifications

General specifications include information about throughput for each processing module, sample types that can be used on the ARCHITECT System, the primary components of the system, and the operator interface components.

General specifications topics include:

ARCHITECT System specifications

General specifications for the ARCHITECT System are presented in the following table.

NOTE: Approximate throughput times are presented in the following table.

Table 4.3: System specifications

Primary components	System control center, sample handler, and processing module

Operator interface	• System control center • Touch-screen monitor • Keyboard and pointing device • Processing module keypad (except for *i*1000SR) • Sample handler keypad (except for *c*4000/*i*1000SR) • Optional bar code scanner
Throughput *c*4000 stand alone:	
• Photometric assays only	Up to 400 tests per hour
• ICT (integrated chip technology) assays only	Up to 600 tests per hour
• Photometric and ICT assay mix	Up to 800 tests per hour
• Individual assay time	Up to 10 minutes
• Warm-up time from cold start	Approximately 30 minutes
Throughput *c*8000 stand alone:	
• Photometric assays only	Up to 800 tests per hour
• ICT (integrated chip technology) assays only	Up to 600 tests per hour
• Photometric and ICT assay mix	Up to 1200 tests per hour
• Individual assay time	Up to 10 minutes
• Warm-up time from cold start	Approximately 30 minutes
Throughput *c*16000 stand alone:	
• Photometric assays only	Up to 1600 tests per hour
• ICT (integrated chip technology) assays only	Up to 600 tests per hour
• Photometric and ICT assay mix	Up to 1800 tests per hour
• Individual assay time	Up to10 minutes
• Warm-up time from cold start	Approximately 30 minutes
Throughput *i*2000 stand alone:	
• General	Up to 200 tests per hour
• Time to first result	29 minutes (non-pretreatment) 36 to 43 minutes (pretreatment)
Throughput *i*2000SR stand alone:	
• General	Up to 200 tests per hour
• Time to first result	29 minutes (non-pretreatment) 36 to 43 minutes (pretreatment) 15 minutes (STAT protocol)* *18 minutes estimated processing time including sample handling
Throughput *i*1000SR stand alone:	
• General	Up to 100 tests per hour for One step 11 STAT protocol
• Time to first result	29 minutes (non-pretreatment) 36 to 43 minutes (pretreatment) 15 minutes (STAT protocol)*

	*18 minutes estimated processing time including sample handling
Sample types	Serum, plasma, whole blood, or other body fluids. For more information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
Sample volume required	See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
Sample probe carryover performance	Less than 0.1 ppm (serum, plasma, urine, or cerebrospinal fluid)
Quality control	Levey-Jennings and Westgard rules, Control range tracking
Onboard data storage	Hard drive
Stored data protection	Optional UPS (uninterruptible power supply)

c System processing module specifications

General specifications for the *c* System are presented in the following table.

Table 4.4: c System processing module specifications

Bar code readers:	
• *c*8000 and *c*16000 (4)	Reagent supply centers (2), sample carousel, and RSH
• *c*4000 (2)	Reagent supply center and RSH
Dispensing volume:	
• Sample (Photometric):	1.5 - 35.0 µL per test in 0.1 µL increments
• Sample (ICT):	15 µL per sample
• Reagent	20 - 345 µL per test in 1 µL increments
Temperature:	
• Onboard reagent refrigerator	2°C to 10°C
• Reaction mixture	36.7°C to 37.3°C
• Sample carousel	Minimum of 10°C below room temperature

i System processing module specifications

General specifications for an *i* System are presented in the following table.

Table 4.5: i System processing module specifications

Bar code readers:	
• *i*2000 system with SSH (standard sample handler) (3)	Reagent carousel, sample load queue, and sample processing queue

• *i*2000 with LAS (Laboratory Automation System) carousel sample handler (2)	Reagent carousel and sample processing queue
• *i*2000SR with RSH (robotic sample handler) (2)	Reagent carousel and RSH
• *i*1000SR with RSH (1)	RSH
Dispensing volume:	
• Sample	2 - 200 µL in 1 µL increments
• Reagent (*i*2000/*i*2000SR)	5 - 90 µL in 1 µL increments
• Reagent (*i*1000SR)	10 - 90 µL in 1 µL increments
• Pre-Trigger Solution	100 µL per test
• Trigger Solution	300 µL per test
Temperature:	
• Onboard reagent refrigerator	2°C to 12°C
• Reaction mixture	36.4°C to 37.6°C
Average liquid waste output:	
• *i*2000/*i*2000SR	5.5 L per hour
• *i*1000SR	1.5 L per hour

System capacities

System capacities include storage information for the SCC (system control center), processing modules, and sample handlers.

System capacities topics include:

SCC onboard data storage capacities

Capacities for the SCC (system control center) are presented in the following table.

Table 4.6: Onboard data storage capacities

Reagent kits	3,000 kits
Message history log	12,000 messages
Temporary messages	200 messages
Inventory log	1000 messages
Printer spool	10 print requests
QC results	35,000 results
Released results:	
• SCC with Pentium IV	50,000 results

• SCC with Pentium II or III	25,000 results Includes system ordered constituents for calculated assays, which cannot be viewed in the stored results screen.
Unreleased results:	
• Patient	8,000 test orders, tests in process, and/or exceptions
• QC	2,000 test orders, tests in process, and/or exceptions
• Calibrator	1,000 test orders, tests in process, and/or exceptions
Calibration curves (Inactive)	Up to 3 months
Assay files	200 assay files

c System processing module capacities

Capacities for the *c* System processing module are presented in the following table.

Table 4.7: c System processing module capacities

Bulk solutions:	
• ICT Reference Solution	2 L
• Alkaline Wash	500 mL
• Acid Wash	500 mL
***c*4000 Reagent supply center:**	
• Outer carousel	40 - 60 positions
• Inner carousel	25 - 30 positions
***c*8000 Reagent supply centers:**	
• R1	56 - 65 positions
• R2	36 - 56 positions
***c*16000 Reagent supply centers:**	
• R1	56 - 65 positions
• R2	56 - 65 positions
Reaction carousel	
• *c*4000	99 cuvettes
• *c*8000	165 cuvettes
• *c*16000	165 cuvette pairs
Reaction cuvettes:	
• Minimum volume	160 µL
• Maximum volume for photometric reaction	360 µL
***c*8000/*c*16000 Sample carousel:**	
• Positions used for patient, calibrators, and control samples	Carousel positions 1 - 30
• Positions used for wash solutions	Carousel positions 31 - 32

High-concentration waste bottle:	
• Volume	10 L
• Weight	22 lbs. (10 kg)

i System processing module capacities

Capacities for an *i* System processing modules are presented in the following table.

Table 4.8: i System processing module capacities

Bulk solutions:	
• Pre-Trigger Solution	975 mL
• Trigger Solution	975 mL
• Wash buffer reservoir volume (*i*2000/*i*2000SR)	25 L
• Wash buffer reservoir weight (*i*2000/*i*2000SR)	55 lbs. (25 kg)
• Wash buffer reservoir volume (*i*1000SR)	12 L
• Wash buffer reservoir weight (*i*1000SR)	30 lbs. (14 kg)
Reagent carousel	25* reagent positions available for loading 100 or 500** test kits *Does not include use of reagent kits with > three reagent bottles ** *i*2000/*i*2000SR only
Process path:	
***i*2000/*i*2000SR**	112 positions (in both inside and outside track)
***i*1000SR**	23 positions
RVs (reaction vessels):	
• Total volume	1000 µL
• Maximum reaction mixture volume	400 µL
RV hopper:	
• *i*2000/*i*2000SR	1200 RVs
• *i*1000SR	360 RVs
Solid waste:	
• Container capacity (*i*2000/*i*2000SR)	5 hours of operation at 200 RVs (reaction vessels) per hour (for a total of 1,000 RVs)
• Waste chute capacity (*i*2000/*i*2000SR only)	15 minutes of run time when the waste container is removed during processing (holds 50 RVs)
• Container capacity (*i*1000SR)	1000 RVs
Liquid waste container (*i*1000SR)	

• Volume • Weight	10 L 22 lbs (10 kg)
Biohazard bag size: • *i*2000/*i*2000SR • *i*1000SR	 25" X 35" (63.5 cm X 88.9 cm) 24" X 23" (60.9 cm X 58.42 cm)

Sample handler capacities

Capacities for the sample handlers are presented in the following table.

Table 4.9: Sample handler capacities (except for c4000/i1000SR/ci4100)

Sample carriers	5 positions per carrier
SSH (standard sample handler)	25 sample carriers per lane
LAS (Laboratory Automation System) carousel **Carrier trays**	20 positions per carousel 5 sample carriers or 25 positions
RSH (robotic sample handler) priority bay (except for *i*1000SR)	7 sample carriers or 35 positions
RSH routine bay (except for *i*1000SR)	1 carrier tray per bay 6 bays on a *c* System stand alone 4 bays on an *i*2000SR stand alone 12 bays on an integrated system
RSH (priority sections) (*i*1000SR)	0-7 sample carriers (configurable)
RSH (routine sections) (*i*1000SR)	Up to 13 sample carriers (configurable)

Table 4.10: Sample handler capacities (c4000/i1000SR/ci4100)

Sample carriers	5 positions per carrier
RSH (robotic sample handler) bays	8 bays on an integrated *ci*4100 4 bays on an integrated or stand alone *c*4000 4 bays on an integrated *i*1000SR (16 sections)
RSH (routine sections)	Up to 36 sections on an integrated *ci*4100 Up to 20 sections on a stand alone *c*4000
RSH (priority sections)	0-10 sections (up to 50 positions) on an integrated *ci*4100 0-7 sections (up to 35 positions) on a stand alone *c*4000 and *i*1000SR

Physical specifications

Approximate physical specifications for the ARCHITECT System are presented in the following table. Measurements for the processing modules and sample

handlers do not include the SCC (system control center) or any optional accessories.

Table 4.11: Physical specifications

Module	Depth	Width	Height	Weight
SCC	21" (53.3 cm)	15.5" (39.4 cm)	22" (55.9 cm)	55 lbs. (25 kg)
*c*8000 processing module and sample handler	49" (124.5 cm)	79" (200.6 cm)	48" (121.9 cm)	1425 lbs. (646.4 kg)
*c*16000 processing module and sample handler	49"(124.5 cm)	79" (200.6 cm)	48" (121.9 cm)	1545 lbs. (701 kg)
*i*2000SR processing module and sample handler	49" (124.5 cm)	61" (154.9 cm)	48" (121.9 cm)	1081 lbs. (490.3 kg)
*ci*8200 processing module and sample handler	49" (124.5 cm)	127" (322.6 cm)	48" (121.9 cm)	2447 lbs. (1109.9 kg)
*ci*16200 processing module and sample handler	49" (124.5 cm)	127" (322.6 cm)	48" (121.9 cm)	2679 lbs. (1215 kg)
*i*2000 processing module and sample handler	44" (111.8 cm)	68" (172.7 cm)	48" (121.9 cm)	1100 lbs. (499 kg)
*i*2000 processing modules (2) and sample handler	44" (111.8 cm)	132" (335.3 cm)	48" (121.9 cm)	2200 lbs. (998 kg)
*i*2000 processing modules (3) and sample handler	44" (111.8 cm)	176" (447.0 cm)	48" (121.9 cm)	3130 lbs. (1420 kg)
*i*2000 processing modules (4) and sample handler	44" (111.8 cm)	221" (561.3 cm)	48" (121.9 cm)	4060 lbs. (1842 kg)
*i*2000 processing module and LAS	48" (121.9 cm)	53" (134.6 cm)	48" (121.9 cm)	1100 lbs. (499 kg)

Module	Depth	Width	Height	Weight
carousel sample handler				
*c*4000 processing module and sample handler	36" (90.7 cm)	63" (160 cm)	49" (125.1 cm)	1132 lbs. (513.5 kg)
*i*1000SR processing module and sample handler	30" (76.2 cm)	59" (149.9 cm)	49" (124.5 cm)	636 lbs (288 kg)
*ci*4100 processing module and sample handler	36" (90.7 cm)	111" (281.2 cm)	49" (125.1 cm)	1677 lbs. (760.7 kg)

Weight and force specifications

Approximate weight and force specifications are presented in the following tables.

NOTE: Specifications also apply to processing modules with LAS sample handlers.

Figure 4.1: ci4100 footprint

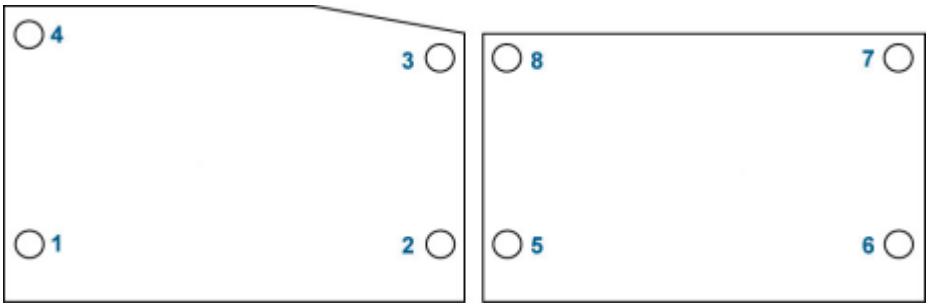


Table 4.12: ARCHITECT ci4100 weight and force specifications

Total weight	1677.0 lbs. (760.7 kg)
Weight at each foot	1. 256.0 lbs. (116.1 kg) 2. 232.5 lbs. (105.5 kg) 3. 272.0 lbs. (123.4 kg) 4. 265.5 lbs. (120.4 kg) 5. 148.5 lbs. (67.4 kg) 6. 211.5 lbs. (95.9 kg) 7. 138.0 lbs. (62.6 kg)

	8. 133.0 lbs. (60.3 kg)
Force at each foot	1. 59.1 lbs./sq. in. (4.2 kg/sq. cm) 2. 53.8 lbs./sq. in. (3.8 kg/sq. cm) 3. 62.8 lbs./sq. in. (4.4 kg/sq. cm) 4. 61.3 lbs./sq. in. (4.3 kg/sq. cm) 5. 48.1 lbs./sq. in. (3.4 kg/sq. cm) 6. 68.2 lbs./sq. in. (4.8 kg/sq. cm) 7. 44.7 lbs./sq. in. (3.1 kg/sq. cm) 8. 43.2 lbs./sq. in. (3.0 kg/sq. cm)

Figure 4.2: c4000 footprint

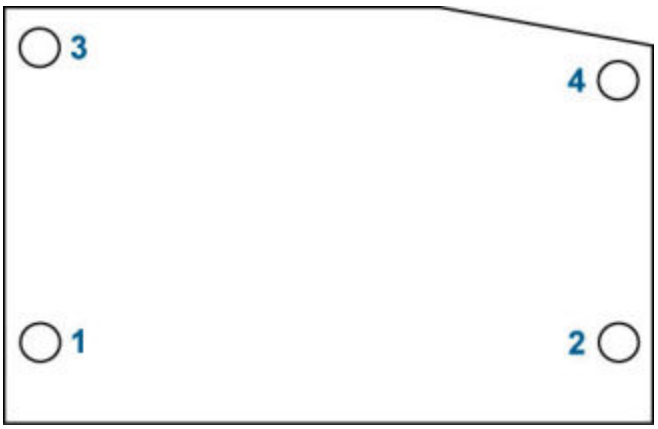


Table 4.13: ARCHITECT c 4000 weight and force specifications

Total weight	1132.0 lbs. (513.5 kg)
Weight at each foot	1. 264.5 lbs. (120.0 kg) 2. 291.5 lbs. (132.2 kg) 3. 328.5 lbs. (149.0 kg) 4. 247.5 lbs. (112.3 kg)
Force at each foot	1. 60.5 lbs./sq. in. (4.3 kg/sq. cm) 2. 66.7 lbs./sq. in. (4.7 kg/sq. cm) 3. 75.2 lbs./sq. in. (5.3 kg/sq. cm) 4. 56.6 lbs./sq. in. (4.0 kg/sq. cm)

Figure 4.3: ci8200 and ci16200 footprint

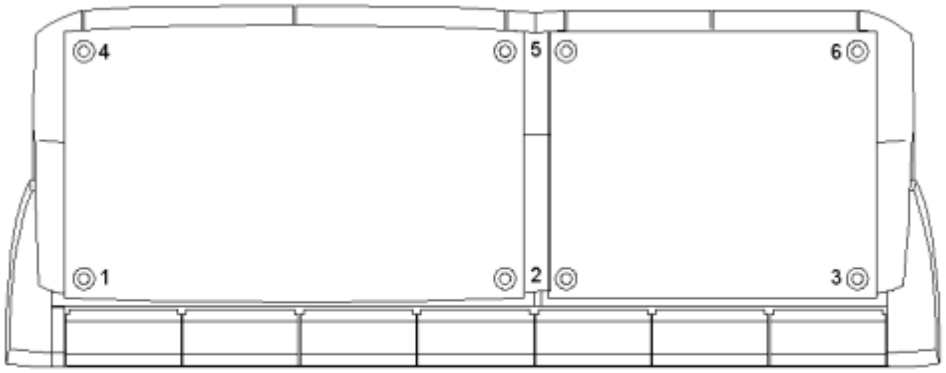


Table 4.14: ARCHITECT ci8200 weight and force specifications

Total weight	2447 lbs. (1110 kg)
Weight at each foot	1. 407 lbs. (185 kg) 2. 552 lbs. (250 kg) 3. 418 lbs. (190 kg) 4. 305 lbs. (138 kg) 5. 535 lbs. (243 kg) 6. 230 lbs. (104 kg)
Force at each foot	1. 88.48 lbs./sq. in. (6.22 kg/sq. cm) 2. 71.32 lbs./sq. in. (5.01 kg/sq. cm) 3. 133.12 lbs./sq. in. (9.36 kg/sq. cm) 4. 66.30 lbs./sq. in. (4.66 kg/sq. cm) 5. 69.12 lbs./sq. in. (4.86 kg/sq. cm) 6. 73.25 lbs./sq. in. (5.15 kg/sq. cm)

Table 4.15: ARCHITECT ci16200 weight and force specifications

Total weight	2679 lbs. (1215 kg)
Weight at each foot	1. 534 lbs. (242 kg) 2. 700 lbs. (318 kg) 3. 245 lbs. (111 kg) 4. 331 lbs. (150 kg) 5. 519 lbs. (235 kg)

	6. 350 lbs. (159 kg)
Force at each foot	1. 116.1 lbs./sq. in. (8.16 kg/sq. cm) 2. 158.4 lbs./sq. in. (11.14 kg/sq. cm) 3. 78 lbs./sq. in. (5.48 kg/sq. cm) 4. 72 lbs./sq. in. (5.06 kg/sq. cm) 5. 117.4 lbs./sq. in. (8.25 kg/sq. cm) 6. 111.4 lbs./sq. in. (7.83 kg/sq. cm)

Figure 4.4: c8000 and c16000 footprint

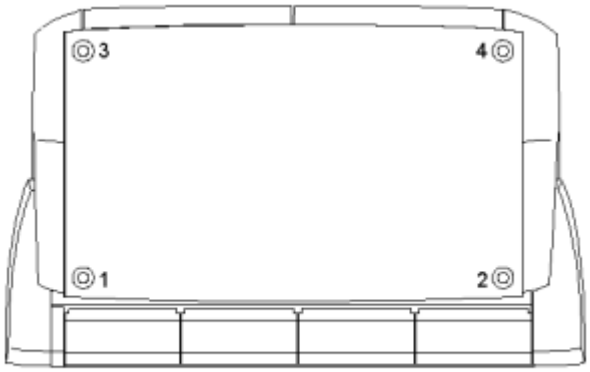


Table 4.16: ARCHITECT c8000 weight and force specifications

Total weight	1425 lbs. (646 kg)
Weight at each foot	1. 320 lbs. (145 kg) 2. 456 lbs. (207 kg) 3. 339 lbs. (154 kg) 4. 310 lbs. (141 kg)
Force at each foot	1. 69.57 lbs./sq. in. (4.89 kg/sq. cm) 2. 99.13 lbs./sq. in. (6.97 kg/sq. cm) 3. 73.70 lbs./sq. in. (5.18 kg/sq. cm) 4. 67.39 lbs./sq. in. (4.74 kg/sq. cm)

Table 4.17: ARCHITECT c16000 weight and force specifications

Total weight	1545 lbs. (701 kg)

Weight at each foot	1. 482 lbs. (219 kg) 2. 385 lbs. (175 kg) 3. 310.5 lbs. (140.8 kg) 4. 367.5 lbs. (166.7 kg)
Force at each foot	1. 105 lbs./sq. in. (7.38 kg/sq. cm) 2. 84 lbs./sq. in. (5.91 kg/sq. cm) 3. 68 lbs./sq. in. (4.78 kg/sq. cm) 4. 80 lbs./sq. in. (5.62 kg/sq. cm)

Figure 4.5: i2000SR footprint

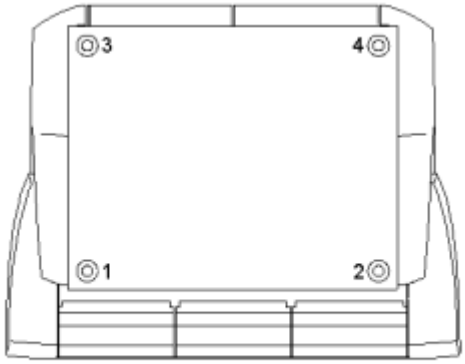


Table 4.18: ARCHITECT i2000SR weight and force specifications

Total weight	1081 lbs. (490 kg)
Weight at each foot	1. 331 lbs. (150 kg) 2. 265 lbs. (120 kg) 3. 195 lbs. (88 kg) 4. 290 lbs. (135 kg)
Force at each foot	1. 105.36 lbs./sq. in. (7.41 kg/sq. cm) 2. 84.35 lbs./sq. in. (5.93 kg/sq. cm) 3. 62.07 lbs./sq. in. (4.36 kg/sq. cm) 4. 92.31 lbs./sq. in. (6.49 kg/sq. cm)

Figure 4.6: i2000 footprint

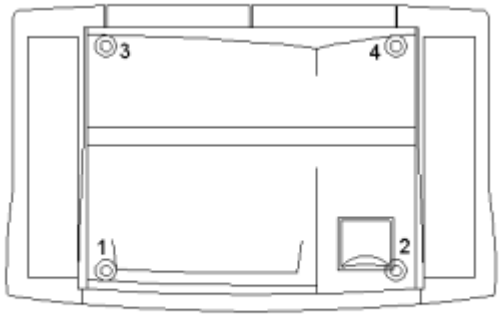


Table 4.19: ARCHITECT i2000 weight and force specifications

Total weight	1151 lbs. (522 kg)
Weight at each foot	1. 340 lbs. (154 kg) 2. 270 lbs. (122 kg) 3. 235 lbs. (107 kg) 4. 306 lbs. (139 kg)
Force at each foot	1. 108.28 lbs./sq. in. (7.61 kg/sq. cm) 2. 85.99 lbs./sq. in. (6.05 kg/sq. cm) 3. 74.84 lbs./sq. in. (5.26 kg/sq. cm) 4. 97.45 lbs./sq. in. (6.85 kg/sq. cm)

Figure 4.7: i1000SR footprint

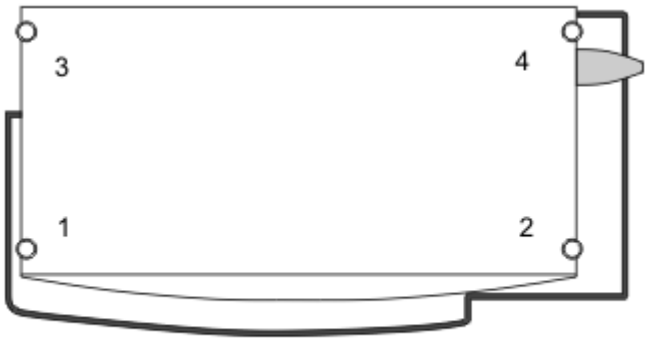


Table 4.20: ARCHITECT i1000SR weight and force specifications

Total weight	636 lbs. (288 kg)
Weight at each foot (Approximate weight on level floor)	1. 150 lbs. (68 kg) 2. 190 lbs. (86 kg) 3. 128 lbs. (58 kg) 4. 168 lbs. (76 kg)
Force at each foot	1. 65 lbs./sq. in. (4.53 kg/sq. cm) 2. 82 lbs./sq. in. (5.74 kg/sq. cm) 3. 55 lbs./sq. in. (3.87 kg/sq. cm) 4. 72 lbs./sq. in. (5.07 kg/sq. cm)

System clearances

System clearances include information about the space required around the system and processing module(s) so you can safely operate and service an ARCHITECT System.

System clearance topics include:

SCC clearances (*c* System or *i*2000/*i*2000SR)

Clearances for the SCC (system control center) are presented in the following table.

Table 4.21: SCC clearances (c System or i2000/i2000SR)

Power cord length	6' (1.8 m)
Clearance behind and on either side (for cooling and airflow)	6" (15.2 cm)

Clearance above monitor (for cooling and airflow)	24" (61.0 cm)
Clearance in front (for work area)	34" (86.4 cm)

c System processing module with RSH clearances

Clearances for the *c* System processing module with RSH (robotic sample handler) are presented in the following table.

Table 4.22: c System processing module with RSH

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	13' (4.0 m)
Left and right clearances (for access)	24" (61.0 cm)
Rear clearance: (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic) • Single module • Integrated system (with *c* System processing module)	 30" (76.2 cm)* 30" (76.2 cm)*
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions, syringe and pump components)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

*c*8000/*c*16000 processing module with RSH Extension clearances

Clearances for the *c*8000/*c*16000 processing module with RSH Extension are presented in the following table.

Table 4.23: c8000/c16000 processing module with RSH Extension

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	13' (4.0 m)
Right clearance (for access)	24" (61.0 cm)
Left clearance (for access)	5-6" (12.7 - 15.2 cm)

Rear clearance: (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic) • Single module • Integrated system (with *c*8000/*c*16000 processing module)	 30" (76.2 cm) 30" (76.2 cm)
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions, syringe and pump components)	34" (86.4 cm)

c System processing module with LAS clearances

Clearances for the *c* System processing module with LAS (laboratory automation system) are presented in the following table.

Table 4.24: c System processing module with LAS

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	13' (4.0 m)
Left clearance (for access)	24" (61.0 cm)
Right clearance: (to access the LAS track)	Varies per track vendor
Rear clearance: (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	30" (76.2 cm)*
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions, syringe and pump components)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

*i*2000SR processing module with RSH clearances

Clearances for an *i*2000SR processing module with RSH (robotic sample handler) are presented in the following table.

Table 4.25: i2000SR processing module with RSH

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	15' (4.6 m)
Left and right clearances (to access the sample load and unload queues)	24" (61.0 cm)
Rear clearance: (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	
• Single module • Integrated system (with *c* System processing module)	20" (50.8 cm)* 30" (76.2 cm)*
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions and waste)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

*i*2000 processing module with SSH clearances

Clearances for an *i*2000 processing module with SSH (standard sample handler) are presented in the following table.

Table 4.26: i2000 processing module with SSH

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	15' (4.6 m)
Left and right clearances (to access the sample load and unload queues)	24" (61.0 cm)
Rear clearance: (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	
• Single module • Multi-module	20" (50.8 cm)* 30" (76.2 cm)*
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions and waste)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative

specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

*i*2000 processing module with LAS carousel sample handler clearances

Clearances for an *i*2000 processing module with LAS (laboratory automation system) carousel sample handler are presented in the following table.

Table 4.27: i2000 processing module with LAS carousel sample handler

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	15' (4.6 m)
Left clearance (to access the LAS track)	Varies per track vendor
Right clearance (for access)	24" (61.0 cm)
Rear clearance (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	20" (50.8 cm)*
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions and waste)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

*i*2000SR processing module with LAS clearances

Clearances for an *i*2000SR processing module with LAS (laboratory automation system) are presented in the following table.

Table 4.28: i2000SR processing module with LAS

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	15' (4.6 m)
Track side clearance (to access the LAS track)	Varies per track vendor
Non-track side clearance (for access)	24" (61.0 cm)
Rear clearance	20" (50.8 cm)*

(for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	
Clearance above (to open processing center covers)	20" (50.8 cm)
Front clearance (to open front doors and to access, remove, and replace bulk solutions and waste)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

*i*1000SR processing module with RSH clearances

Clearance for the *i*1000SR processing module with RSH (robotic sample handler) are presented in the following table.

Table 4.29: i1000SR processing module with RSH clearances

Power cord length (to allow positioning of the module so that it is not difficult to disconnect the power cord)	8' (2.5 m)
Left clearance	3" (7.6 cm)
Right clearance	22" (55.9 cm)
Rear clearance (for safety access to main circuit breakers, cooling, airflow, cable and tubing routing, maintenance, and traffic)	20" (50.8 cm)*
Clearance above (to open processing center cover)	20" (50.8 cm) 72" (182.9 cm) from floor
Front clearance (to open front doors and to access, remove, and replace bulk solutions and waste)	34" (86.4 cm)

*In limited instances, rear clearance can be reduced to 10 inches (25.4 cm). This option requires rerouting of power cords and tubing. Use of this alternative specification requires an Abbott field service representative approval and the installation of a Power distribution unit for power cord connections.

Electrical specifications and requirements

Electrical specifications and requirements include information about the circuits, outlet types, and outlet requirements.

Electrical requirements topics include:

SCC electrical requirements

Electrical requirements for the SCC (system control center) are presented in the following table.

Table 4.30: Electrical requirements - SCC

AC power:	
• Low voltage option	• Voltage: 90 - 132 VAC • Frequency: 47 - 63 Hz
• High voltage option	• Voltage: 180 - 264 VAC • Frequency: 47 - 63 Hz
Circuit breaker that can be reset:	
• Low voltage option	14 amp
• High voltage option	12 amp
Outlet (one)	
• North America	NEMA 5-15 three prong (120 VAC, 15A)
• International	IEC 320 M grounded (220 - 240 VAC)
Power cord length	6' (1.8 m)

NOTE: If an UPS is used, the UPS must meet the voltage, frequency, and power consumption requirements of the ARCHITECT System. It is recommended that the UPS be approved for safety by a Nationally Recognized Testing Laboratory (NRTL) such as UL or TUV. In addition, it is recommended that the UPS meets the electromagnetic compatibility (EMC) requirements in IEC 62040-2.

c System processing module with sample handler electrical specifications and requirements

Electrical specifications and requirements for the *c* System processing module with its sample handler are presented in the following table.

Table 4.31: Electrical specifications and requirements - c System processing module with sample handler

AC power	• Voltage: 200, 208, 220, 230, or 240 ± 10% VAC (180 - 264 VAC) • Frequency: 50 or 60 Hz (47 - 63 Hz)
Circuit breaker that can be reset:	
• North America	20 amp
• International	16 amp

	NOTE: If using a system UPS, refer to the UPS manufacturer's specifications.
Outlet (one) • North America • International	 • 20 amps - NEMA L6-20R (250 VAC, 20A, twistlock) • With 30 amp UPS - NEMA L6-30R (250 VAC, 30A, twistlock) IEC309 (250 VAC, or 220 - 240 VAC, 16A) **NOTE:** If using a system UPS, refer to the UPS manufacturer's specifications.
Power cord length	13' (4.0 m)
Rated power consumption	3000 volt amp (3 kVA) maximum
Estimated heat output	See *Environmental specifications and requirements*, page 4-29.

NOTE: If an UPS is used, the UPS must meet the voltage, frequency, and power consumption requirements of the ARCHITECT System. It is recommended that the UPS be approved for safety by a Nationally Recognized Testing Laboratory (NRTL) such as UL or TUV. In addition, it is recommended that the UPS meets the electromagnetic compatibility (EMC) requirements in IEC 62040-2.

i System processing module with sample handler electrical specifications and requirements

Electrical specifications and requirements for an *i* System processing module with its sample handler are presented in the following table.

Table 4.32: Electrical specifications and requirements - i System processing module with sample handler

AC power • *i*2000/*i*2000SR • *i*1000SR	 • Voltage: 200 - 240 ± 10% VAC (176 - 264 VAC) Frequency: 50 or 60 Hz (47 - 63 Hz) • Voltage: 110 - 120 or 200 - 240 ± 10% VAC (99 - 264 VAC) Frequency: 50 or 60 Hz Self adjusting
Circuit breaker that can be reset (*i*2000SR): • North America • International	 With UPS - 30 amp Without UPS - 20 amp 16 amp
Circuit breaker that can be reset (*i*2000): One breaker for each processing module. • North America • International	 30 amp 32 amp

Circuit breaker that can be reset (*i*1000SR): One breaker for each processing module.	
• 110 Volts	20 amp
• 220 Volts	10 amp
Outlet (one, *i*2000SR):	
• North America	NEMA L6-20R (250 VAC, 20A, twistlock)
• International	IEC 309 (250 VAC or 220-240 VAC, 16A)
Outlet (one, *i*2000): One outlet for each processing module.	
• North America	NEMA L6-30R (250 VAC, 30A, twistlock)
• International	IEC 309 (250 VAC or 220-240 VAC, 32A)
Outlet (*i*1000SR): Outlet within 7' (2.1m) of the *i*1000SR processing module.	
• North America	NEMA L5-20R (125 VAC, 20A, twist lock) NEMA L6-20R (250 VAC, 20A, twist lock)
• International	Country specific based on voltage
Power cord length	
• *i*2000/*i*2000SR	15' (4.6 m)
• *i*1000SR	8' (2.5 m)
Rated power consumption:	
• *i*2000SR	3000 volt amp (3 kVA) maximum
• *i*2000	4700 volt amp (4.7 kVA) maximum
• *i*1000SR	1760 volt amp (1.76 kVA) maximum
Estimated heat output	See *Environmental specifications and requirements*, page 4-29.

NOTE: If an UPS is used, the UPS must meet the voltage, frequency, and power consumption requirements of the ARCHITECT System. It is recommended that the UPS be approved for safety by a Nationally Recognized Testing Laboratory (NRTL) such as UL or TUV. In addition, it is recommended that the UPS meets the electromagnetic compatibility (EMC) requirements in IEC 62040-2.

Electrical safety parameters

Electrical safety parameters for an ARCHITECT System are presented in the following table.

Table 4.33: Electrical safety parameters

Installation category	II (Overvoltage category)
Pollution degree	2

NOTE: Electrical safety parameters have no bearing on performance.

Optical specifications (*c* System)

Optical specifications for the *c* System processing module are presented in the following table.

Table 4.34: Optical specifications for the c System processing module

Light source	Tungsten-halogen lamp
Detector	Silicon photodiode array
Light path length	5 mm
Photometric method	Concave diffraction grating
Reaction cuvette	Rectangular glass cuvette
***c*8000 Wavelengths**	16 wavelengths (340, 380, 404, 412, 444, 476, 500, 524, 548, 572, 604, 628, 660, 700, 748, and 804 nm)
***c*4000/*c*16000 Wavelengths**	16 wavelengths (340, 380, 404, 416, 450, 476, 500, 524, 548, 572, 604, 628, 660, 700, 748, and 804 nm)
Photometric range	-0.1 to 3.2 Abs (converted to 10 mm light path length)
Linearity	≤ 2% at 2.0 Abs

Water and liquid waste specifications and requirements

Water and liquid waste specifications and requirements include information about water quality, water consumption, the drain port location, and drain capacity.

Water and liquid waste specifications and requirements topics include:

- *c System processing module water and liquid waste specifications and requirements*, page 4-26
- *i System processing module water and liquid waste requirements*, page 4-27

c System processing module water and liquid waste specifications and requirements

Water and liquid waste specifications and requirements for the *c* System processing module are presented in the following table.

Table 4.35: Water and liquid waste specifications and requirements - c System processing module

***c*4000 Deionized water consumption**	15 L per hour during normal operation 25 L per hour (maximum)
***c*8000 Deionized water consumption**	25 L per hour during normal operation
***c*16000 Deionized water consumption**	≤ 54 L per hour during normal operation
***c*4000 Average liquid waste output**	15 L per hour during normal operation

	25 L per hour (maximum)
***c*8000 Average liquid waste output**	25 L per hour
***c*16000 Average liquid waste output**	≤ 54 L per hour
Water quality: • Maximum microbial contamination • Minimum resistivity • Pressure **IMPORTANT:** Do not process samples on the *c* System when you are performing maintenance on your DI water system. After maintenance is complete, check the pressure to be sure it is within specifications. **Drainage port:** You must have a drainage port that meets the following specifications or you must use the external waste pump (optional accessory) if the drain is located in a sink or otherwise elevated. • Location • Height	 ≤ 1000 colony-forming units/mL 1 Meg Ohm - cm @ 25°C (77°F) 15 - 25 psi Within 9.5 ft. (2.9 m) from the rear of the system ≤ 4" (10.0 cm) above floor level
Drainage capacity	≥ 200 L per hour
Liquid waste configuration: • Two gravity-fed waste tubes • High-concentration waste tube(s) – *c*4000 (one) – *c*8000 (one) – *c*16000 (two)	 Drain into the drainage port or the external waste pump Drains into the high-concentration waste bottle, drainage port, or the external waste pump

i System processing module water and liquid waste requirements

Water and liquid waste requirements for an *i* System processing module are presented in the following table.

Table 4.36: Water and liquid waste requirements - i System processing module

Water quality: • Maximum microbial contamination • Minimum resistivity	 ≤ 1000 colony-forming units/mL 1 Meg Ohm - cm @ 25°C (77°F)
Liquid waste	Gravity flow to drain at floor level or external pump to sink

External waste pump specifications and requirements

The external waste pump is optional for use with the *c* System and/or *i* System when a floor drain is unavailable and a sink drain is used. This accessory pumps waste from the processing module(s) to an elevated drain located in a sink.

External waste pump specifications and requirements topics include:

External waste pump general specifications

Physical specifications for the external waste pump are presented in the following table.

Table 4.37: External waste pump general specifications

Depth	13" (33 cm)
Width	13" (33 cm)
Height	13" (33 cm)
Weight	18 lbs. (8 kg)

External waste pump electrical specifications and requirements

Electrical specifications and requirements for the external waste pump are presented in the following table.

NOTE: You must manually set the voltage selector switch.

Table 4.38: Electrical specifications and requirements - external waste pump

AC power:	
• North America	• Voltage: 115 ± 10% VAC (104 - 126 VAC) • Frequency: 60 Hz (47 - 63 Hz)
• International	• Voltage: 220 ± 10% VAC (207 - 253 VAC) • Frequency: 50 Hz (47 - 63 Hz)
Circuit breaker that can be reset:	
• North America	1.6 amp
• International	0.8 amp
Outlet (one):	
• North America	NEMA 5-15 three prong (120 VAC, 15A)
• International	IEC 320 M grounded (220 - 240 VAC)

External waste pump clearances

Clearances for the external waste pump are presented in the following table.

Table 4.39: External waste pump clearances

Clearance on either side (for access)	5" (12.7 cm)
Clearance in front (for access)	9" (22.9 cm)
Clearance in rear (for access)	9" (22.9 cm)

Environmental specifications and requirements

Environmental specifications and requirements for the ARCHITECT System are presented in the following table.

Table 4.40: Environmental specifications and requirements

Heat dissipation while in the typical Running mode: • *c*4000* • *c*8000* • *c*16000* • *i*1000SR* • *i*2000/*i*2000SR* • SCC *includes the processing module and sample handler	 3050 BTU/hour (894 watts) 3400 BTU/hour (996 watts) 4730 BTU/hour (1390 watts) 2400 BTU/hour (703 watts) 4280 BTU/hour (1250 watts) 389 BTU/hour (114 watts)
Noise level	Does not exceed 80 dBA during normal operation above a reference sound pressure of 20 µ Pa.
Temperature, operating	15°C to 30°C (59°F to 86°F)
Humidity	10% - 85% (non-condensing) RH (relative humidity) at 25°C (77°F) **NOTE:** For SCC (system control center) humidity requirements refer to the component manufacturers' information.
Altitude	≤ 8500 ft. (2590.7 m)
Placement	• For indoor use. Do not place in direct sunlight. • Avoid drafts from heating and cooling vents.

Storage and Transport	• Keep dry • Fragile - Handle with care

Computer and interface specifications

Computer and interface specifications for the SCC (system control center) of an ARCHITECT System are presented in the following table.

Table 4.41: Computer and interface specifications

Processor	Minimum: Intel Pentium II; 350 MHz, 640 Mb RAM
Hard drive (2):	
• C drive	Minimum: 10 Gbyte
• D drive	Minimum: 10 Gbyte
Floppy drive	3.5", 1.44 Mbyte
CD-RW drive:	
• Minimum read speed	24x
• Minimum write speed	8x
Operator interface:	
• Color monitor	Standard VGA connection
• Touchscreen	Resistive overlay, RS-232 connection (*i*2000/*i*2000SR) "Surface Wave" glass, USB connection (*i*1000SR)
• Keyboard	Standard PC-style 101-key system
• Pointing device	PS-2 interface
Optional external modem:	
• Speed	Minimum 28.8 bps
• PC interface	Integrated RS-232
• Cabling	RS-232 25-pin serial cable, RJ-11 phone cord and power adapter cable
• Telephone line	Direct line (no switchboard interface) is required. Dedicated line is recommended, but not required.
Host interface:	
• Communications mode	Bidirectional
• Communications device	Serial RS-232 port
• Baud rate options	1200, 2400, 4800, 9600, 14400, 19200, 28800, 38400, 57600 or 115200 bps
• Interface reference document	CLSI LIS1-A (ASTM E 1381-91) and LIS2-A2 (ASTM E1394-91)
Processing module interface:	
• *c* System	Ethernet, 100 BASE-T
• *i* System	Ethernet, 10 BASE-T

Printer specifications and requirements

The printer for the SCC (system control center) of the ARCHITECT System is provided by Abbott Laboratories.

Printer specifications and requirements topics include:

Printer general specifications

General specifications for the printer are presented in the following table.

Table 4.42: Printer general specifications

Power cord length	6' (1.8 m)
Parallel cable length	6' (1.8 m)

Printer electrical specifications and requirements

Electrical specifications and requirements for the printer are presented in the following table.

Table 4.43: Electrical specifications and requirements - printer

AC power:	
• North America	• Voltage: 110 or 120 ± 10% VAC (90 - 132 VAC) • Frequency: 60 Hz (47 - 63 Hz)
• International	• Voltage: 200, 208, 220, 230, or 240 ± 10% VAC (180 - 264 VAC) • Frequency: 50 Hz (47 - 63 Hz)
Circuit breaker that can be reset:	
• North America	14 amp
• International	12 amp
Outlet (one):	
• North America	NEMA 5-15 three prong (120 VAC, 15A)
• International	IEC 320 M grounded (220 - 240 VAC)
Power cord length	6' (1.8 m)

Bar code label requirements

Depending on the type of bar code label, requirements include information about guidelines, format, Sample ID length, label length, and placement.

Bar code label requirements topics include:

1D reagent bar code requirements (*c* System)

Review the following information to ensure 1D (one-dimensional) reagent bar code labels meet the recommended guidelines and are properly placed on reagent cartridges.

1D reagent bar code label guidelines

Bar code label guidelines for 1D (one-dimensional) reagent bar code labels are presented in the following table.

Table 4.44: 1D reagent bar code label guidelines

Component	Description
Printer type	Printer with a minimum resolution of 300 DPI (dots per inch). Proper maintenance of the bar code printer is essential. **NOTE:** Laser and ink jet printers with resolution less than 300 DPI may not produce acceptable labels. Dot matrix printers are not recommended.
Label stock	Good quality white label stock. Black ink used for bar codes must be compatible with the label stock used. The labels are used in the reagent carousels which have high humidity and condensation levels. The labels should be water resistant. **NOTE:** The contrast between the bars and the background label must be the maximum possible. Contact your bar code label supplier for help in increasing the contrast. If the use of color on the label is desired, a color band may be used outside the bar code portion of the label. For optimal performance, it is recommended that only black bars be used on a white background for the bar code portion of the label.
Bar code print quality	Label print quality is an important factor affecting the ability of a bar code reader to correctly decode label information. Performance can be enhanced by using labels with an ANSI (American National Standards Institute) grade of A, B, or C. Although bar code labels with ANSI grades lower than C can provide valid reads, the number of "no reads" is higher and the possibility of misreads is increased. **NOTE:** ANSI document X3.182-1990, "Bar Code Print Quality - Guideline," presents a standardized methodology for measuring

Component	Description
	and grading bar code print quality. It is good practice to evaluate all bar code labels according to this methodology. Contact your bar code label or print supplier for help in grading your labels. Commercially available verifier systems are also available to perform these evaluations.
Symbology	128 (recommended) or Interleaved 2 of 5
Length	Maximum length of the printed bar code is 2.17" (55 mm)
Height	Minimum height of the printed bar code is 0.36" (9 mm)
Quiet zone	The quiet zone is the distance from the left edge of the label to the first black bar and from the last black bar to the right edge of the label. Minimum quiet zone distance: 0.2" (5 mm)
Density	Minimum density (narrow bar width) is 12 Mils (0.012" or 0.3 mm)
Ratio (wide to narrow bar)	Minimum ratio: 2.5:1 Maximum ratio: 3:1

1D reagent bar code label data format

The 1D (one-dimensional) reagent bar code data format includes 18 digits (17 data digits and one checksum digit). A description of the data format is presented in the following table.

Table 4.45: 1D reagent bar code label data format

Digit	Description
1 to 5	**Reagent name:** A unique number assigned for each reagent. Range: 00000 - 99999
6	**Cartridge size:** Identifies the reagent cartridge size. Options are: • 1 = 20 mL (bottle) • 2 = 50 mL (trapezoid) • 3 = 100 mL (cartridge) • 4 = 20 mL (cartridge) • 5 = Small (55 mL cartridge) • 6 = Large (90 mL cartridge) • 7 = 70 mL (cartridge) - for use with *c*8000 and *c*16000 only • 8 = 20 mL (trapezoid)
7	**Reagent type:** Identifies the reagent type. Options are: • 1 = Reagent 1 • 2 = Reagent 2
8	**Expiration date (year):** Identifies the year the reagent expires. Range: 0 - 9 The selection represents the last digit of the year. The range is then interpreted as a year prior to the selection and eight years in

Digit	Description
	the future. For example, if the current year is 2012 and the selection is 2, the following apply: • 0 would represent 2020 • 1 would represent 2011 • 9 would represent 2019
9 to 10	**Expiration date:** Identifies the day of the year the reagent expires. Range: 00 - 52 • 00 = Expires at the end of the 8th day of the year • 01 = Expires at the end of the 15th day of the year • 51 = Expires at the end of the 365th day of the year • 52 = Expires at the end of the last day of the leap year **NOTE:** If you enter a value greater than 52, the reagent expiration is not tracked.
11 to 13	**Lot number:** Identifies the unique reagent lot number. Range: 000 - 999 **NOTE:** The lot number displayed for the reagent is eight digits and includes the five digit reagent name and this three digit lot number.
14 to 17	**Serial number:** Identifies the unique serial number of the reagent cartridge. Range: 0000 - 9999 **NOTE:** Each cartridge for a single lot of reagent must have a unique numeric identifier.
18	**Checksum:** The checksum digit calculated for the bar code data. The checksum modulus is Mod 10.

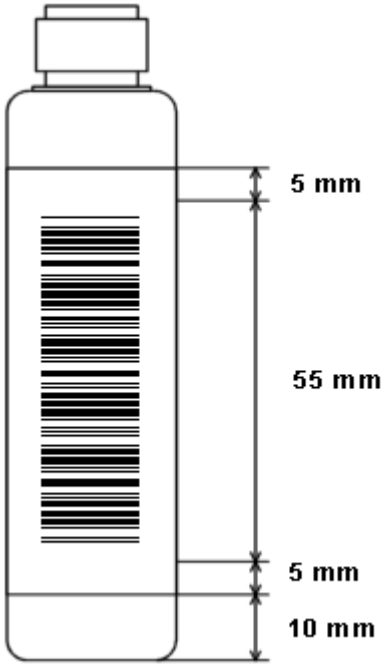
NOTE: When you configure the user-defined reagent for the 1D bar code labeled reagent, the reagent name that you define must be identical to characters 1 to 5 of the bar code. See *Configure a user-defined reagent (photometric - c System)*, page 2-92.

1D reagent bar code label placement

You should affix the bar code label to the reagent cartridge in a "ladder" orientation where the printed bars are horizontal.

To ensure the entire label is visible to the bar code reader when the reagent cartridge is loaded into the reagent supply center, do not place the bar code label lower than 10 mm from the bottom of the reagent cartridge. Place bar code labels on reagent cartridges as vertically straight as possible. If the vertical angle exceeds one degree, the bar code reader may have difficulty locating the required quiet zones.

Figure 4.8: 1D reagent bar code label placement



Sample bar code label requirements

Review the following information to ensure sample bar code labels meet the recommended guidelines and are properly placed on sample tubes.

- *Sample bar code label guidelines*, page 4-35
- *Sample ID (identification) length*, page 4-36
- *Sample bar code label length*, page 4-37
- *Sample bar code label placement*, page 4-37

Sample bar code label guidelines

Guidelines for sample bar code labels are presented in the following table.

Table 4.46: Bar code label guidelines

Component	Description
Printer type	Printer with a minimum resolution of 300 DPI (dots per inch). Proper maintenance of the bar code printer is essential. **NOTE:** Laser and ink jet printers with resolution less than 300 DPI may not produce acceptable labels. Dot matrix printers are not recommended.
Label stock	Good quality white label stock. Black ink used for bar codes must be compatible with the label stock used. The printed labels should be clean and dry when they are presented to the bar code reader.

Component	Description
	NOTE: The contrast between the bars and the background label must be the maximum possible. Contact your bar code label supplier for help in increasing the contrast. If the use of color on the label is desired, a color band may be used outside the bar code portion of the label. For optimal performance, it is recommended that only black bars be used on a white background for the bar code portion of the label.
Bar code print quality	Label print quality is an important factor affecting the ability of a bar code reader to correctly decode label information. Performance can be enhanced by using labels with an ANSI (American National Standards Institute) grade of A, B, or C. Although bar code labels with ANSI grades lower than C can provide valid reads, the number of "no reads" is higher and the possibility of misreads is increased. **NOTE:** ANSI document X3.182-1990, "Bar Code Print Quality - Guideline," presents a standardized methodology for measuring and grading bar code print quality. It is good practice to evaluate all bar code labels according to this methodology. Contact your bar code label or print supplier for help in grading your labels. Commercially available verifier systems are also available to perform these evaluations.
Symbology	Symbologies allowed on the ARCHITECT System include: • Code 39 • Codabar • Interleaved 2 of 5 • Code 128 (Subsets A, B, C, and includes ISBT)
Quiet zone	The quiet zone is the distance from the left edge of the label to the first black bar and from the last black bar to the right edge of the label. Minimum quiet zone distance: 0.25" (6.35 mm)
Density	Minimum density (narrow bar width) is 7.5 Mils (0.0075" or 0.19 mm)
Ratio (wide to narrow bar)	Minimum ratio: 2:1 Maximum ratio: 3:1

Sample ID (identification) length

The following factors affect the number of characters that can fit on a sample bar code label:

- *Sample bar code label length*, page 4-37
- *Sample bar code label placement*, page 4-37
- Symbology used
- Density
- Ratio

- Quiet zone

A maximum of 20 characters is allowed on the sample bar code label. However, the maximum number of readable characters may be less than 20 for some symbologies due to overall label length, narrow bar width, and ratio. A minimum of 2 characters is required for samples loaded on the *c* System sample carousel when using Code 128 symbology.

IMPORTANT: When the bar code reader scans a bar code label with an SID containing >20 characters, only the first 20 characters are read.

NOTE: If you print bar code labels (3 of 9, codabar, and I 2 of 5) with the checksum function enabled, a checksum character is added to the label. This character is usually added after the last character on the right and to the left of the stop character. The operator-readable portion of the label may or may not display this checksum character.

Sample bar code label length

Generally, a 51 mm label fits a 75 mm sample tube and a 76 mm label fits a 100 mm sample tube.

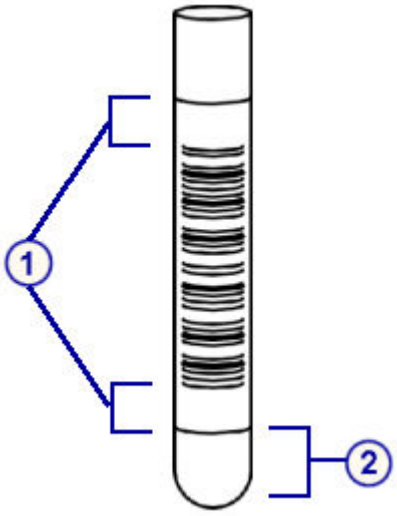
Sample bar code label placement

You should affix the bar code label to the sample tube in a "ladder" orientation where the printed bars are horizontal. *Correctly labeled tube*, page 4-38, shows an example of correct label placement. *Incorrectly labeled tubes*, page 4-38, shows examples of incorrect label placement.

To ensure the entire label is visible to the bar code reader when the tube is loaded into the carousel, do not place the bar code label lower than 8 mm from the bottom of the sample tube. Place bar code labels on tubes as vertically straight as possible. If the vertical angle exceeds five degrees, the bar code reader may have difficulty locating the required quiet zones and the start/stop characters. The bar code label should not exceed the top of the tube.

IMPORTANT: The operator is responsible for placing the correct bar code label on the sample tube to ensure proper sample identification.

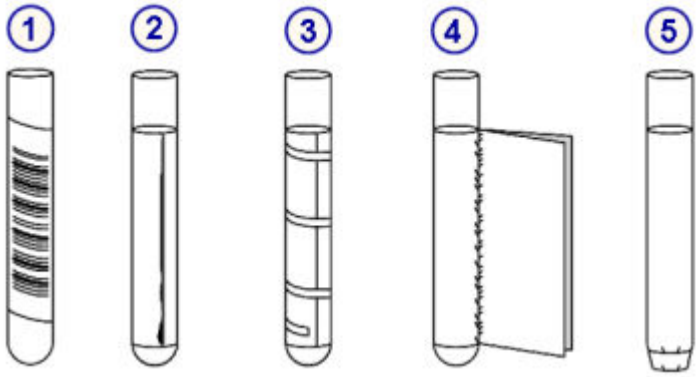
Figure 4.9: Correctly labeled tube



Legend:

1. Quiet zones
2. Minimum distance from bottom of sample tube: 8 mm

Figure 4.10: Incorrectly labeled tubes



Legend:

1. Angled placement
2. Edges peeled loose
3. Clear tape over label
4. Flap extending from label
5. Label extending beyond bottom of tube

ARM specifications and requirements

The ARCHITECT ARM (Automatic Reconstitution Module) accessory is optional for use with an *i*2000/*i*2000SR. You may want to familiarize yourself with the specifications and requirements for the ARM, if your laboratory has chosen to use this accessory. This information is related to the proper installation and operation of the ARM to ensure optimal safety and performance requirements are met.

ARM specifications and requirements topics include:

ARM physical specifications

Physical specifications for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.47: ARCHITECT ARM accessory physical specifications

Dimensions:	
• Height	28.3" (71.9 cm)
• Width	22.9" (58.2 cm)
• Depth	17.8" (45.2 cm)
Weight	69 lbs. (31.3 kg)

ARM clearance requirements

Clearance requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.48: ARCHITECT ARM accessory clearance requirements

Left clearance (for tubing and fittings)	18" (45.7 cm)
Right clearance (for tubing and fittings)	12" (30.5 cm)
Rear clearance (for access and airflow)	10" (25.4 cm)

Front clearance (for panel access)	20" (50.8 cm)

ARM electrical requirements

Electrical requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.49: ARCHITECT ARM accessory electrical requirements

Line voltage	90-132 VAC / 180-264 VAC, 50/60 Hz. The ARM accessory ships with power cords and fuses for various power systems.
Power cord type	U.S.: NEMA 5-15P or equivalent Europe: CE E 7/7 or equivalent
Current rating	1.5 amp maximum
Fuses	2 time-lag, Type T, 5x20 mm, 250 V~, 1.0 amp 2 time-lag, Type T, 5x20 mm, 250 V~, 2.0 amp

ARM electrical safety parameters

Electrical safety parameters for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.50: ARCHITECT ARM accessory electrical safety parameters

Installation category	II (Overvoltage category)
Pollution degree	2

NOTE: Electrical safety parameters have no bearing on performance.

ARM water source requirements

Water source requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.51: ARCHITECT ARM accessory water source requirements

Purity	≤ 1000 colony-forming units/mL 1 Meg Ohm - cm @ 25°C (77°F)
Pressure	8 to 100 psi
Flow rate	102 L/hr (1.7 L/minute) or greater if pressure exceeds 15 psig (103.425 Kpa)

	132 L/hr (2.2 L/minute) or greater if pressure is 8-15 psig (55.16-103.425 Kpa)
Temperature	15°C to 37°C (59°F - 98.6°F)

ARM environmental requirements

Environmental requirements for the ARCHITECT ARM (Automatic Reconstitution Module) accessory are presented in the following table.

Table 4.52: ARCHITECT ARM accessory environmental requirements

Operating environment: • Temperature • Humidity	For indoor use only 15°C to 30°C 10% to 85% (non-condensing) RH (relative humidity) at 25°C (77°F)
Storage environment: • Temperature • Humidity	 -25°C to 65°C 10% to 85% (non-condensing) RH (relative humidity) at 25°C (77°F)

NOTES

Introduction

The flexibility of the ARCHITECT System accommodates many laboratory environments and workflows. Operating procedures are included for all system configurations.

Before attempting to operate the system, you should be familiar with the hardware components of your system and the fundamental principles of the software user interface. See *Use or function*, page 1-1.

Operating instructions topics include:

- *System startup, pause, and shutdown*, page 5-3
  Describes how to start up, pause, shut down, cycle power to, and power off the system and its components.
- *Plan my day (premium feature)*, page 5-28
  Provides a description of the Plan my day screen to prepare your system for processing samples uninterrupted over a defined timeframe.
- *Consumable inventory management*, page 5-40
  Provides a description of the Supply status screen and instructions for performing consumable inventory management procedures.
- *Reagent inventory management*, page 5-104
  Provides descriptions of the Reagent status and Reagent history screens and instructions for performing reagent inventory management procedures.
- *Patient and control orders*, page 5-184
  Provides instructions for automated ordering of patient and control samples, descriptions of the Patient order and Control order screens and instructions for performing patient order and control order procedures.
- *Sample management*, page 5-240
  Describes how to prepare, load, and unload samples, and how to initiate processing.
- *Patient and QC results review, rerun, and release*, page 5-297
  Provides descriptions of the Results review and the QC result review screens and instructions for rerunning tests and releasing results.
- *Patient and QC stored results*, page 5-336
  Provides descriptions of the Stored results and the Stored QC results screens and instructions on how to view and archive patient and QC results that have been released.
- *Exception management*, page 5-364
  Provides a description of the Exception status screen and Stored exceptions screen and instructions for performing exception management procedures.
- *Quality control analysis*, page 5-382
  Provides descriptions of Westgard rules, Levey-Jennings graph and QC reports screens, and instructions on quality control management.
- *Report printing*, page 5-403

Provides instructions for printing reports and describes the screens from which you can print each report.

- *LIS management*, page 5-417
  Provides instructions for managing transmission between the ARCHITECT System and the LIS (laboratory information system).

System startup, pause, and shutdown

You may need to start up, pause, shut down, cycle power to, or power off the system and its components to:

- Load samples, reagents, and solutions
- Perform maintenance or diagnostic procedures
- Replace components

System startup, pause, and shutdown topics include:

SCC power off and power on

You may need to power off and power on the SCC (system control center) to store configuration information or when indicated for troubleshooting purposes.

See specific procedures to determine if you must shut down the SCC.

To resume normal operation, you must then *Power on the SCC*, page 5-3.

SCC power off and power on procedures include:

Power on the SCC

Perform this procedure to apply power to the SCC (system control center).

Prerequisite	*Power off the processing module and/or sample handler*, page 5-11
Module status	NA
User access level	General operator
Supplies	NA

To power on the SCC:

1. Verify the processing module power is off before applying power to the SCC.

NOTE: If the processing module(s) power is on when you power on the SCC, communication is not properly initialized between the system components.

2. Locate the CPU (central processing unit).

   NOTE: For the *i*1000SR/*ci*4100, open the card cage and SCC center door to access the power switch.

   For systems with the CPU located inside the right side processing module cover, open the CPU access door to access the power switch.

3. Press the power switch on the front of the CPU (central processing unit) to turn on the SCC.
4. Log on to the SCC. See *Log on (general operator)*, page 1-26 or *Log on (system administrator)*, page 1-27.

To power on the processing module and/or sample handler, see *Power on the processing module and/or sample handler*, page 5-7.

Related information…

- *Snapshot screen*, page 1-22
- *System control center*, page 1-11
- *c8000 processing module*, page 1-33
- *c16000 processing module*, page 1-35
- *i2000SR processing module*, page 1-99

Power off the SCC

Perform this procedure to shut down and power off the SCC (system control center) and to ensure that all data is stored before powering off the system.

NOTE: The sample handler and processing module(s) are not functional when the system control center is off. To prevent flooding when your system is connected to an ARCHITECT ARM (Automatic Reconstitution Module) accessory, do not shut down the SCC if the ARM is in the process of filling the wash buffer reservoir.

To cycle power to the SCC, see *Cycle power to the SCC*, page 5-5.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To power off the SCC:

1. Select **F3 - Shutdown** on the Snapshot screen.

   A confirmation message displays.

2. Select **OK** to initiate shutdown.
3. Wait for the information window to display, and then simultaneously press the **CTRL+ALT+DELETE** keys on the keyboard.

   The Confirm Exit window displays.
4. Perform one of the following:
   - If the dialog window displays leave the **Shutdown the computer** option selected, select **OK** and then wait for the information window to display.
   - If the red power off button displays, select  .
5. Locate the CPU (central processing unit).

   NOTE: For the *i*1000SR/*ci*4100, open the card cage and SCC center door to access the power switch.

   For systems with the CPU located inside the right side processing module cover, open the CPU access door to access the power switch.
6. Press and hold the power switch on the front of the CPU (central processing unit) to turn off power to the SCC.

   NOTE: The SCC may power off immediately, or it may take up to 10 seconds depending on the type of SCC you have.

Related information...

- *Snapshot screen*, page 1-22
- *System control center*, page 1-11
- *c8000 processing module*, page 1-33
- *c16000 processing module*, page 1-35
- *i2000SR processing module*, page 1-99

Cycle power to the SCC

Perform this procedure to cycle power to the SCC (system control center) to reestablish communication to the system control center, to store configuration information, or when indicated for troubleshooting purposes.

NOTE: The sample handler and processing module(s) are not functional when the system control center is off. To prevent flooding when your system is connected to an ARCHITECT ARM (Automatic Reconstitution Module) accessory, do not shut down the SCC if the ARM is in the process of filling the wash buffer reservoir.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To cycle power to the SCC:

1. Select **F3 - Shutdown** on the Snapshot screen.

   A confirmation message displays.

2. Select **OK** to confirm the shutdown.

3. Wait for the information window to display, and then simultaneously press the **CTRL+ALT+DELETE** keys on the keyboard.

   The Confirm Exit window displays.

4. Perform one of the following:

   - If the dialog window displays leave the **Shutdown the computer** option selected, select **OK** and then wait for the information window to display.
   - If the red power off button displays, select  .

5. Locate the CPU (central processing unit).

   NOTE: For the *i*1000SR/*ci*4100, open the card cage and SCC center door to access the power switch.

   For systems with the CPU located inside the right side processing module cover, open the CPU access door to access the power switch.

6. Press and hold the power switch on the front of the CPU (central processing unit) to turn off power to the SCC.

   NOTE: The SCC may power off immediately, or it may take up to 10 seconds depending on the type of SCC you have.

7. Turn off the power to the processing module(s) by moving the power switch down. See *Power off the processing module and/or sample handler*, page 5-11 for power switch location.

8. Press the power switch on the front of the CPU to turn on the SCC.

9. Wait for the Log on window to display. It may take several minutes to display.

10. Ensure the processing module(s) (*i*2000/*i*2000SR) has been powered off for five minutes, and then move the power switch up to turn on power.

    Ensure the processing module(s) has been powered off for one minute (*i*1000SR), and then move the power switch up to turn on power.

    Ensure the processing module(s) has been powered off for one minute (*c* Systems), and then move the power switch up to turn on power.

To log on to the SCC, see *Log on (general operator)*, page 1-26 or *Log on (system administrator)*, page 1-27.

To change the status of the processing module from Stopped to Ready, see *Start up the processing module and/or sample handler*, page 5-15.

Related information...

- *Snapshot screen*, page 1-22
- *System control center*, page 1-11
- *c8000 processing module*, page 1-33
- *c16000 processing module*, page 1-35
- *i2000SR processing module*, page 1-99

Processing module and sample handler cycle power, startup, and pause

It may be necessary for you to remove power to the processing module(s) and sample handler to perform certain procedures.

Cycling power involves powering off the processing module and sample handler followed by applying power. Once the power is on, you must perform a startup to attain a Ready status.

You are required to pause the sample load queue to load samples on the SSH (standard sample handler), and you must pause the sample carousel (*c* System) to load samples in the carousel.

You are required to pause the sample handler and the processing module to load reagents and solutions, and to perform maintenance or diagnostic procedures.

Processing module and sample handler cycle power, startup, and pause procedures include:

- *Power on the processing module and/or sample handler*, page 5-7
- *Power off the processing module and/or sample handler*, page 5-11
- *Cycle power to the processing module and/or sample handler*, page 5-14
- *Start up the processing module and/or sample handler*, page 5-15
- *Pause the processing module*, page 5-16
- *Pause the RSH*, page 5-17
- *Pause the sample carousel (c8000/c16000)*, page 5-18
- *Pause the sample load queue (SSH)*, page 5-19
- *Pause the LAS carousel sample handler (i2000)*, page 5-20

Power on the processing module and/or sample handler

Perform this procedure to apply power to the processing module and/or sample handler.

Prerequisite	*Power on the SCC*, page 5-3
Module status	Offline
User access level	General operator

Supplies	NA

To power on the processing module and/or sample handler:

1. Ensure that the SCC (system control center) power is on and that the Snapshot screen displays.
2. Move the power switch on the lower left rear (except for *i*1000SR) of the processing module up to the ON/| position to turn on the power.

   Move the power switch on the lower center rear (*i*1000SR) of the processing module up to the ON/| position to turn on the power.

   Move the power switch on the back (*c*4000) of the processing module up to the ON/| position to turn on the power.

   NOTE: In a single module system, powering on the processing module also turns on power to the sample handler.

   In a multi-module system or integrated system (except for *ci*4100), powering on the processing module farthest to the right (when facing the front of the system) powers on the sample handler. On the *ci*4100 System, powering on the *c*4000 processing module powers on the sample handler.

Figure 5.1: c4000 power switch

Figure 5.2: c8000 power switch

Figure 5.3: c16000 power switch

Figure 5.4: i2000/i2000SR power switch

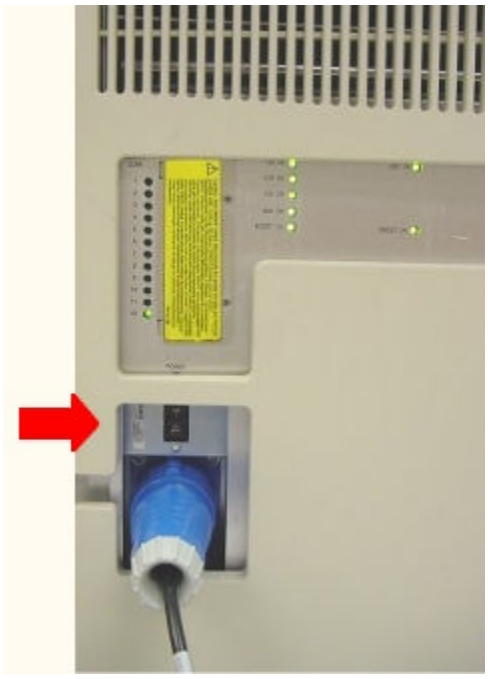


Figure 5.5: i1000SR power switch

To change the status of the processing module and sample handler from Stopped to Ready, see *Start up the processing module and/or sample handler*, page 5-15.

Related information…

- *Snapshot screen*, page 1-22
- *Processing module (c System)*, page 1-31
- *Processing modules (i System)*, page 1-95

Power off the processing module and/or sample handler

Perform this procedure to power off the processing module and sample handler during component replacement and troubleshooting activities.

To cycle power to the processing module and sample handler, see *Cycle power to the processing module and/or sample handler*, page 5-14.

To power off the *i* System for more than two weeks, see *Long-term shutdown (i System)*, page 5-27.

Prerequisite	NA
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To power off the processing module and/or sample handler:

1. Determine which module to power off.

   IMPORTANT: To power off all processing modules in a multi-module system, you must turn the power to each processing module off.

2. Verify the processing module and/or sample handler are in Offline, Stopped, Warming, or Ready status. The processing module MUST be in one of these statuses to ensure that test processing is not interrupted.

3. Move the power switch on the lower left rear (except for *i*1000SR) of the processing module down to the OFF/O position to turn off the power.

   Move the power switch on the lower center rear (*i*1000SR) of the processing module down to the OFF/O position to turn off the power.

   Move the power switch on the back (*c*4000) of the processing module down to the OFF/O position to turn off the power.

   NOTE: In a single module system, powering off the processing module also turns off power to the sample handler.

   In a multi-module or integrated system (except for *ci*4100), powering off the processing module farthest to the right (when facing the front of the system) powers off the sample handler. On the *ci*4100 System, powering off the *c*4000 processing module powers off the sample handler.

Figure 5.6: c4000 power switch

Figure 5.7: c8000 power switch

Figure 5.8: c16000 power switch

Figure 5.9: i2000/i2000SR power switch

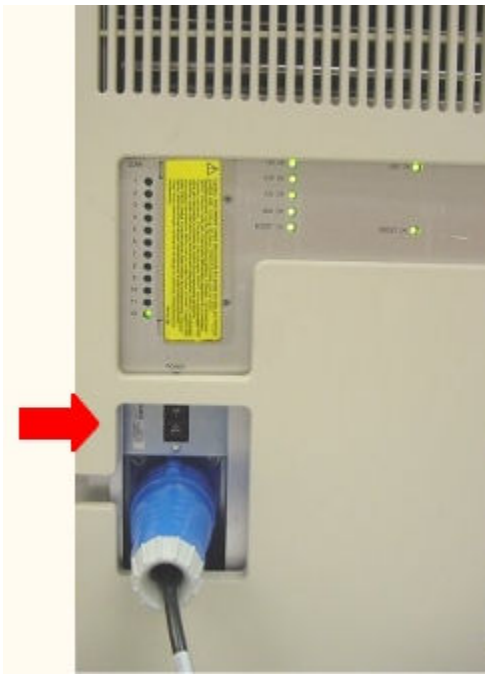


Figure 5.10: i1000SR power switch

Related information...

- *Snapshot screen*, page 1-22
- *Processing module (c System)*, page 1-31
- *Processing modules (i System)*, page 1-95

Cycle power to the processing module and/or sample handler

Perform this procedure to cycle power to the processing module and/or sample handler when indicated for troubleshooting purposes, and to reestablish communication to the SCC (system control center).

Prerequisite	NA
Module status	Offline, Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To cycle power to the processing module and/or sample handler:

1. Determine the module to power off.
2. Verify the processing module and/or sample handler are in Offline, Stopped, Warming, or Ready status. The processing module MUST be in one of these statuses to ensure that test processing is not interrupted.
3. Move the power switch on the lower left rear (except for *i*1000SR) of the processing module down to turn off the power.

   Move the power switch on the lower center rear (*i*1000SR) of the processing module down to turn off the power.

   Move the power switch on the back (*c*4000) of the processing module down to the OFF/O position to turn off the power.

NOTE: In a single module system, powering off the processing module also turns off power to the sample handler.

In a multi-module or integrated system (except for *ci*4100), powering off the processing module farthest to the right (when facing the front of the system) powers off the sample handler. On the *ci*4100 System, powering off the *c*4000 processing module powers off the sample handler.

4. Ensure that the SCC (system control center) power is on and that the Snapshot screen displays.
5. Ensure the processing module has been powered off for five minutes (*i*2000/*i*2000SR), and then move the power switch up to turn on the processing module and/or sample handler.

   Ensure the processing module has been powered off for one minute (*i*1000SR), and then move the power switch up to turn on the processing module and/or sample handler.

   Ensure the processing module(s) has been powered off for one minute (*c* Systems), and then move the power switch up to turn on power.

To change the status of the processing module and sample handler from Stopped to Ready, see *Start up the processing module and/or sample handler*, page 5-15.

Related information…

- *Snapshot screen*, page 1-22
- *Processing module (c System)*, page 1-31
- *Processing modules (i System)*, page 1-95

Start up the processing module and/or sample handler

Perform this procedure to change the status of the processing module and/or sample handler from Stopped to Ready to:

- Initialize the processing module and/or sample handler
- Prepare for sample processing

Prerequisite	*Power on the SCC*, page 5-3 *Power on the processing module and/or sample handler*, page 5-7 *Access the Snapshot screen*, page 1-24
Module status	Stopped
User access level	General operator
Supplies	NA

To start up the processing module and/or sample handler:

1. Select the **processing module** graphic and/or **sample handler** graphic on the Snapshot screen, and then select **F5 - Start-up**.

NOTE: For the *i*2000 SSH (standard sample handler), you must wait for the processing module status to change from Offline to Stopped before initiating a start up.

2. Verify the status(es) when startup is complete:
   - Ready or Warming (processing module)
   - Ready (sample handler)

To initiate a run, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *Snapshot screen*, page 1-22
- *Processing modules*, page 1-31

Pause the processing module

Perform this procedure to change the status of the processing module from Running to Ready to:

- Load reagents (except for *i*1000SR)
- Load bulk solutions
- Load onboard solutions (*c* Systems)
- Perform maintenance or diagnostic procedures
- Perform component replacement

NOTE: Some tests with a status of Scheduled may become exceptions and will not be processed.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Processing module - Running
User access level	General operator
Supplies	NA

To pause the processing module:

1. Select the desired **processing module** graphic on the Snapshot screen, and then select **F7 - Pause**.

   A confirmation message displays.

2. Select **OK** to pause the processing module.

   NOTE: If you are pausing a *c*4000 module, open the reagent supply center access door to view the access button. Once the button is illuminated press the button to access the reagent supply center.

If you are pausing a *c*8000/*c*16000 processing module, do not open the R1 and R2 reagent supply center covers until the access indicators on the processing module keypad illuminate.

If you are pausing an *i*2000/*i*2000SR processing module, do not open the module covers until the access indicator on the processing module keypad illuminates, indicating the status is Ready.

To resume processing module operation, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

To resume processing module operation, see *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278.

Related information…

- *Snapshot screen*, page 1-22
- *Processing module (c System)*, page 1-31
- *Processing modules (i System)*, page 1-95

Pause the RSH

Perform this procedure to pause the RSH (robotic sample handler) so you can:

- Remove a sample carrier from the priority bay or section when the amber indicator is illuminated
- Remove a carrier tray from a routine bay(s) or section(s) when the amber indicator is illuminated
- Perform maintenance or diagnostic procedures (*c*4000/*i*1000SR)

You may also perform this procedure to pause the RSH prior to pausing a processing module(s) so that samples are not transported to the module(s).

NOTE: When you pause the RSH, the sample handler status transitions from Running to Scheduled pause. The processing module completes aspirations for all scheduled tests and the RSH returns the carriers to their original locations. It may take up to 45 minutes for the sample handler to complete this process. If you do not initiate a run on the sample handler during that time, the sample handler status changes to Ready.

To pause the processing module, see *Pause the processing module*, page 5-16.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Running
User access level	General operator
Supplies	NA

To pause the RSH:

1. Select the **sample handler** graphic on the Snapshot screen, and then select **F7 - Pause**.

A confirmation message displays.

2. Select **OK** to pause the RSH.

   The pause indicator illuminates on the RSH keypad (except for *c*4000/*i*1000SR/*ci*4000).

To return to Running status, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information...

- *Snapshot screen*, page 1-22
- *Loading samples (RSH)*, page 5-246
- *Unload samples (RSH - except for c4000/i1000SR /ci4100)*, page 5-289
- *Load samples for processing (RSH - c4000/i1000SR /ci4100)*, page 5-252
- *Unload samples (RSH - c4000/i1000SR/ci4100)*, page 5-291
- *RSH keypad (c8000/c16000/i2000SR)*, page 1-171

Pause the sample carousel (*c*8000/*c*16000)

Perform this procedure to pause the sample carousel when the sample carousel access indicator is not illuminated. In the Paused status, you can:

- Load patient samples, calibrators, or controls for priority processing
- Remove samples when they are no longer needed

  NOTE: If a sample is moved while in the Paused status the following will occur:

  – If a bar coded sample is moved to a new position on the sample carousel, original pending orders will be deleted the next time the carousel is scanned.

  – If orders are added to a bar coded sample, the original pending orders are deleted and the orders added will be run.

  – If a bar coded sample is moved to a position on the carousel previously occupied by a non-bar coded sample, any pending orders for the non-bar coded sample will be deleted the next time the carousel is scanned.

IMPORTANT: You are responsible for loading the correct sample in the correct position.

Prerequisite	NA
Module status	Running
User access level	General operator
Supplies	NA

To pause the sample carousel:

1. Locate the square **sample carousel access** indicator button next to the sample carousel.
2. Press and hold the button until the light blinks.

   The light blinks to indicate the sample carousel is in the process of pausing. The pause process completes when the sample probe wash solutions are no longer required for samples in process.
3. Verify the illuminated **sample carousel access** indicator is no longer blinking.

To load samples and return to Running status, see *Load samples and initiate sample processing (sample carousel - c8000/c16000)*, page 5-261.

To unload samples, see *Unload samples (sample carousel - c8000/c16000)*, page 5-293.

Related information…

- *Sample carousel (c8000)*, page 1-59
- *Sample carousel (c16000)*, page 1-79

Pause the sample load queue (SSH)

Perform this procedure to change the status of the SSH (standard sample handler) from Running to Load queue paused so you can:

- Load a sample carrier
- Priority load a sample carrier

You may also perform this procedure to pause the SSH prior to pausing a processing module(s) so that samples are not transported to the module(s).

NOTE: When you pause the sample load queue, the sample handler status transitions from Running to Load queue paused. The sample load queue stops routing any new carriers, but the processing queue and unload queue remain active for approximately 20 minutes after the last carrier is unloaded. If you do not initiate a run on the sample handler during that time, the sample handler status changes to Ready.

To pause the processing module see, *Pause the processing module*, page 5-16.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Running
User access level	General operator
Supplies	NA

To pause the sample load queue:

1. Select the **sample handler** graphic on the Snapshot screen, and then select **F7 - Pause**.

   A confirmation message displays.

2. Select **OK** to pause the SSH.

   The pause indicator illuminates on the sample handler keypad.

To return to Running status, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *Snapshot screen*, page 1-22
- *Loading samples (SSH)*, page 5-264

Pause the LAS carousel sample handler (*i*2000)

Perform this procedure to pause the LAS (laboratory automation system) carousel sample handler so you can:

- Priority load a sample or calibrator
- Remove samples when they are no longer needed

You may also perform this procedure to pause the LAS carousel sample handler prior to pausing the processing module.

NOTE: When you pause the LAS carousel sample handler, the sample handler status transitions from Running to Scheduled pause. The processing module completes aspirations for the current sample or for all scheduled calibrators. If you do not initiate a run on the sample handler during that time, the sample handler status changes to Ready.

To pause the processing module see, *Pause the processing module*, page 5-16.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Running
User access level	General operator
Supplies	NA

To pause the LAS carousel sample handler:

1. Select the **sample handler** graphic on the Snapshot screen, and then select **F7 - Pause**.

   A confirmation message displays.

2. Select **OK** to pause the LAS carousel sample handler.

   The pause indicator illuminates on the sample handler keypad.

   NOTE: If you open the LAS carousel cover before the indicator illuminates, all tests in process on the carousel become exceptions and do not complete.

To return to Running status, see *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278.

Related information...

- *Snapshot screen*, page 1-22
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274
- *Unload samples (LAS carousel sample handler)*, page 5-295

ARM power off and power on (*i*2000/*i*2000SR)

You may need to power off the ARCHITECT ARM (Automatic Reconstitution Module) accessory to perform troubleshooting, and then power it back on.

ARM power off and power on procedures include:

- *Power off the ARM (i2000/i2000SR)*, page 5-21
- *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21

Power off the ARM (*i*2000/*i*2000SR)

Perform this procedure to power off the ARCHITECT ARM (Automatic Reconstitution Module) accessory when indicated for troubleshooting purposes.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To power off the ARM:

1. Verify the ARM is not transferring buffer.

   The green indicator, located under the start key on the ARM keypad, flashes when wash buffer is pumped to the wash buffer reservoir in the processing module.

2. Move the power switch, located on the lower left side of the ARM, down to the "0" position.

Related information...

- *ARM optional accessory (i2000/i2000SR)*, page 1-158

Power on and initialize the ARM (*i*2000/*i*2000SR)

Perform this procedure to power on and initialize the ARCHITECT ARM (Automated Reconstitution Module) accessory for automated buffer transfer.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To power on and initialize the ARM accessory:

1. Move the power switch, located on the lower left side of the ARM, up to the "|" position.

   A red indicator illuminates under the stop key on the ARM keypad.

2. Press the **start** key on the ARM keypad to initialize the ARM.

   A green indicator illuminates under the start key.

Related information…

- *ARM optional accessory (i2000/i2000SR)*, page 1-158

Emergency shutdown

When an unusual circumstance indicates that an emergency may exist, turn off the power to the ARCHITECT System.

Steps for turning off the power vary slightly based on whether you have a single or multi-module system.

Related procedures…

- *Emergency shutdown recovery (RSH)*, page 5-22
- *Perform an emergency shutdown on a single module system (except for c4000/i1000SR)*, page 5-22
- *Perform an emergency shutdown on a c4000*, page 5-24
- *Perform an emergency shutdown on an i1000SR*, page 5-24
- *Perform an emergency shutdown on a multi-module system*, page 5-25

Emergency shutdown recovery (RSH)

If a carrier is in the RSH (robotic sample handler) carrier transport when you perform an emergency shutdown, samples and the surrounding area may be contaminated by sample splashing as the carrier transport motor loses power.

IMPORTANT: You must remove the sample carrier(s) from the carrier transport and positioner(s) and then discard all sample cups and/or tubes.

Related procedures…

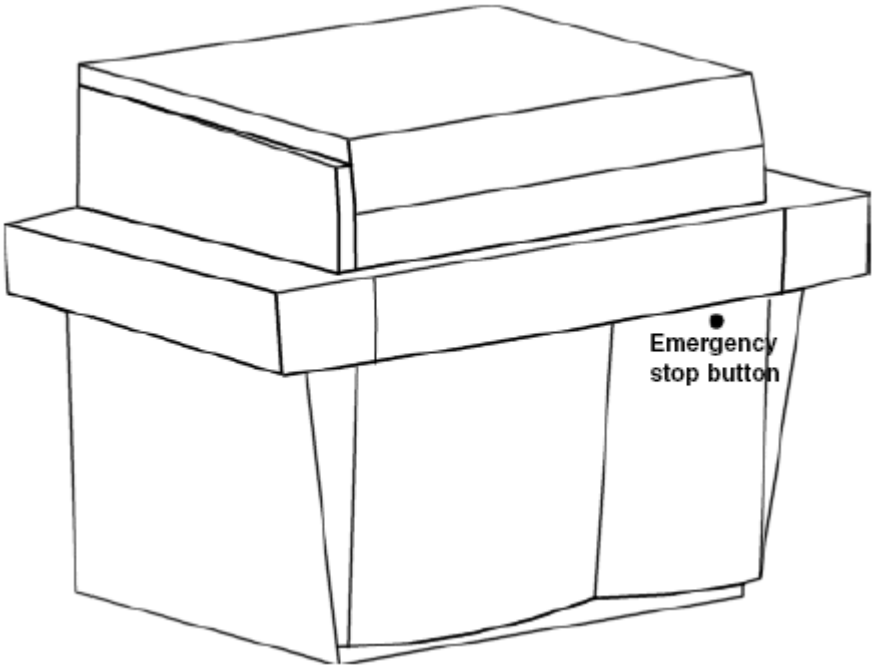
- *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715
- *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716

Perform an emergency shutdown on a single module system (except for *c*4000/*i*1000SR)

Perform this procedure to stop the sample handler and processing module in a single module system.

To perform an emergency shutdown on a single module system:

1. Press the emergency stop button for the processing module.



2. Perform one of the following:
   - Disconnect the main power cord at its receptacle.
   - If the Power distribution unit is used, disconnect the processing module power cord from the J1 or J2 inlet. Disconnect the main power cord at its receptacle.

Related information…

- *Emergency shutdown*, page 5-22
- *Emergency shutdown recovery (RSH)*, page 5-22

Perform an emergency shutdown on a *c*4000

Perform this procedure to stop the sample handler and processing module on a *c*4000.

To perform an emergency shutdown on a *c*4000 system:

1. Perform one of the following:
   - Move the power switch on the back of the processing module down to the OFF/O position to turn off the power.
   - If the Power distribution unit is used, disconnect the processing module power cord from the J1 or J2 inlet.

2. Disconnect the main power cord at its receptacle.

   NOTE: This AC power cord does not disconnect power to the System Control Center (SCC).

Related information…

- *Emergency shutdown*, page 5-22
- *Emergency shutdown recovery (RSH)*, page 5-22
- *Power off the processing module and/or sample handler*, page 5-11

Perform an emergency shutdown on an *i*1000SR

Perform this procedure to stop the sample handler and processing module on an *i*1000SR.

To perform an emergency shutdown on an *i*1000SR system:

1. Perform one of the following:
   - Move the power switch on the lower center rear of the processing module down to the OFF/O position to turn off the power.
   - If the Power distribution unit is used, disconnect the processing module power cord from the J1 or J2 inlet.

2. Disconnect the main power cord at its receptacle.

   NOTE: This AC power cord does not disconnect power to the System Control Center (SCC).

Related information...

- *Emergency shutdown*, page 5-22
- *Emergency shutdown recovery (RSH)*, page 5-22
- *Power off the processing module and/or sample handler*, page 5-11

Perform an emergency shutdown on a multi-module system

Perform this procedure to stop the sample handler and processing module(s) in a multi-module system.

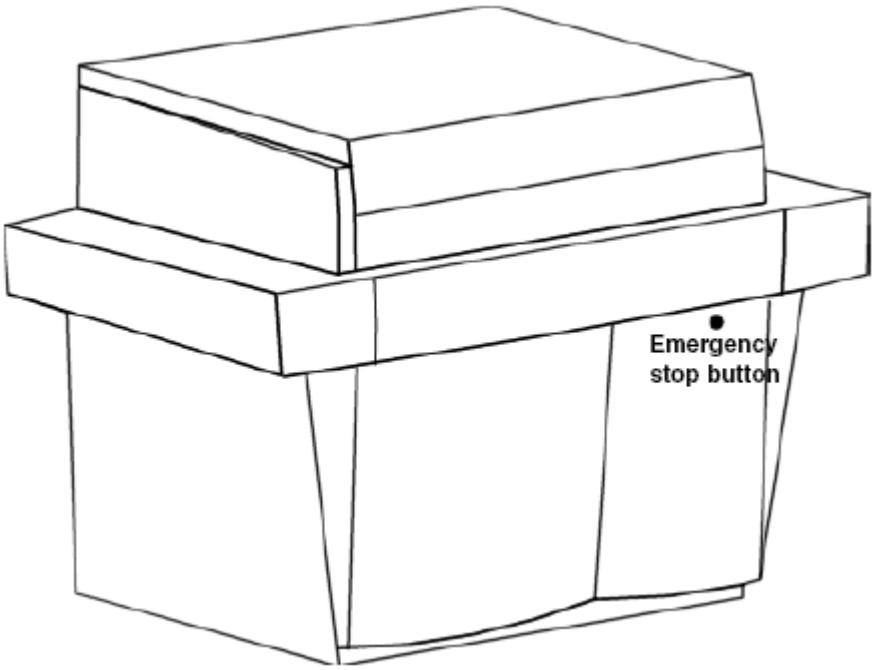
To perform an emergency shutdown on a multi-module system:

1. Perform one or both of the following:
   - Press the emergency stop button for the processing module farthest to the right when facing the front of the system.

     Power to the processing module and sample handler is turned off.

     And/or
   - Press the emergency stop button for the desired processing module(s).

     Power to the processing module(s) is turned off.



2. Perform one of the following:

   – Disconnect the main power cord for the processing module(s) at its receptacle.

     IMPORTANT: To remove power to all processing modules in a multi-module system, you must disconnect the main power cord for each processing module.

   – If the Power distribution unit is used, disconnect the processing module power cords from the J1 and J2 inlets. Disconnect the main power cord at its receptacle.

Related information…

- *Emergency shutdown*, page 5-22
- *Emergency shutdown recovery (RSH)*, page 5-22

Long-term shutdown (*i* System)

Whenever you shut down an ARCHITECT *i* System for more than seven days, you must perform the processing module specific Long Term Shutdown diagnostic procedure. This diagnostic procedure:

- Flushes all pumps and fluid lines with buffer, air, deionized water, and then air (*i*2000/*i*2000SR)
- Flushes all pumps with deionized water and then air (*i*1000SR)
- Removes all RVs

For instructions on how to perform a diagnostic procedure, see *Perform a diagnostic procedure*, page 10-624.

An internal decontamination must be performed prior to start up after a long-term shutdown. Contact your Area Customer Support for more information.

Related procedures…

- *2135 Long Term Shutdown*, page 10-657
- *2138 Long Term Shutdown*, page 10-676

Plan my day (premium feature)

The Plan my day feature will help you maximize the workflow of the ARCHITECT System in your laboratory. From one screen you can determine what actions to take, within a user-defined timeframe, in regards to the following statuses:

- Reagent inventory
- Calibrations
- Supplies inventory
- Quality control
- Maintenance

Plan my day topics include:

- *Access the Plan my day screen*, page 5-28
- *Plan my day screen*, page 5-29

Access the Plan my day screen

Perform this procedure to display the Plan my day screen.

Prerequisite	NA
Module status	Any
User access level	Any
Supplies	NA

To access the Plan my day screen:

1. Select **Overview** from the menu bar, and then select **Plan my day**.
2. Enter the desired end time using the 24 hour clock and select **Update**. ***(optional)***

   NOTE: The configured end time will remain the same until a new end time is entered and the Update button is selected. If the defined end time is less than the start time, it is interpreted as the next day.
3. Select the desired category. ***(optional)***

Related information…

- *Plan my day screen - Reagents view*, page 5-29
- *Plan my day screen - Calibrations view*, page 5-31
- *Plan my day screen - Supplies view*, page 5-34
- *Plan my day screen - QC view*, page 5-36
- *Plan my day screen - Maintenance view*, page 5-38

Plan my day screen

From the Plan my day screen you can view the status for reagents, calibrations, supplies, quality control, and maintenance for the user defined timeframe.

Plan my day screen topics include:

Plan my day screen - Reagents view

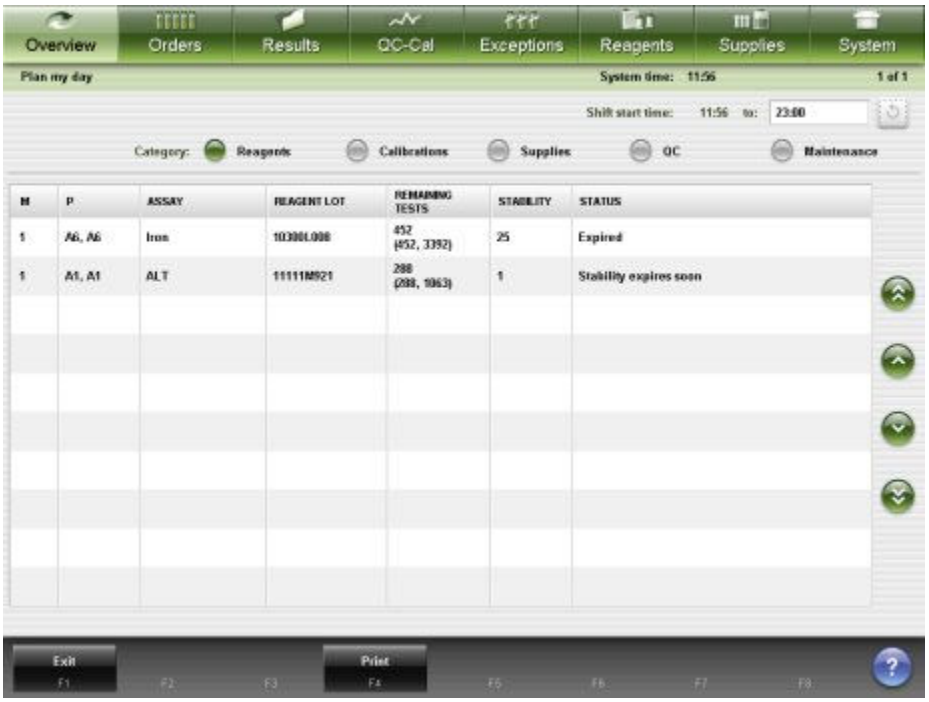
From the reagents view of the Plan my day screen you can view:

- Module ID
- Reagent position(s)
- Assay name
- Reagent lot number
- Remaining reagent tests
- Remaining on-board stability
- Reagent status

The displayed information is associated with reagents that may require operator intervention in order to successfully process samples without interruption within the user-defined timeframe. See *Descriptions of the Reagents view statuses*, page 5-31.

An ellipsis (...) displays when the system cannot display all data on a screen. View the printed report to see all data.

Figure 5.11: Plan my day screen - Reagents view



For descriptions of these fields, see *Plan my day screen - Reagents view field descriptions*, page E-21.

When accessing the Plan my day screen - Reagents view, the information sorts by status.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
P	Carousel position in ascending order.
ASSAY AND REAGENT LOT	Alphanumerically in ascending order.
REMAINING TESTS	Numerically in ascending order.
ONBOARD STABILITY	Shortest stability in ascending order.
STATUS	See *Descriptions of the Reagents view statuses*, page 5-31.

To display this screen, see *Access the Plan my day screen*, page 5-28.

Related procedures…

- *c4000 procedures - reagent inventory management*, page 5-135
- *c8000/c16000 procedures - reagent inventory management*, page 5-150
- *i2000/i2000SR procedures - reagent inventory management*, page 5-166
- *i1000SR procedures - reagent inventory management*, page 5-173

- *Print a report*, page 5-403

Descriptions of the Reagents view statuses

You can use reagent status information to determine if the reagent kit needs to be replaced or if additional reagent kits need to be loaded on the system. The table below displays the status in the order in which they sort:

Status	Description
Empty	The reagent is empty.
Low	The remaining volume of the reagent is below the configured number of tests for the low alert notification.
Expired	The reagent expiration date has been exceeded and has not been overridden.
Exceeded onboard stability	The reagent on-board stability has been exceeded and has not been overridden.
Expires soon	The reagent will expire before the configured end time for the evaluation window.
Kit disabled	The reagent kit has been disabled.
Expiration overridden	The operator has overridden a reagent that has expired.
Stability overridden	The operator has overridden a reagent that has exceeded the onboard stability time.

To display this screen, see *Access the Plan my day screen*, page 5-28.

Plan my day screen - Calibrations view

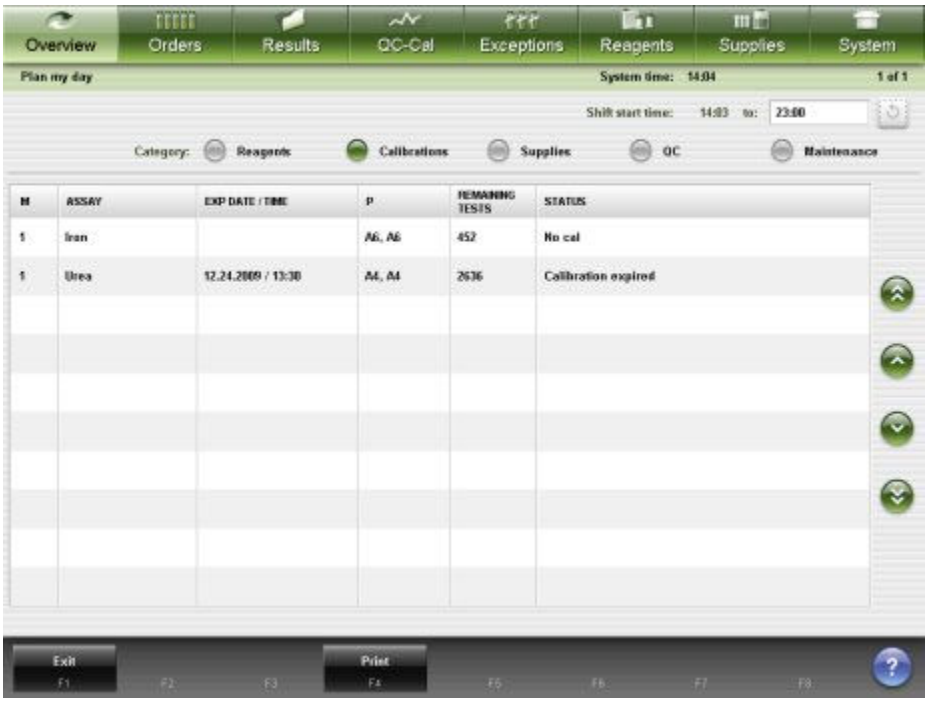
From the Calibrations view of the Plan my day screen you can view:

- Module ID
- Assay name
- Calibration expiration date and time
- Reagent position(s)
- Remaining reagent test counts
- Status description for assay calibration curves

The displayed information is associated with calibrations that may require operator intervention in order to successfully process samples without interruption within the user-defined timeframe. See *Descriptions of the Calibrations view statuses*, page 5-33.

An ellipsis (...) displays when the system cannot display all data on a screen. View the printed report to see all data.

Figure 5.12: Plan my day screen - Calibrations view



For descriptions of these fields, see *Plan my day screen - Calibrations view field descriptions*, page E-22.

When accessing the Plan my day screen - Calibrations view, the information sorts by status.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY	Alphanumerically in ascending order.
EXP DATE/TIME	Chronologically in ascending order.
POSITION	Reagent carousel position in ascending order.
REMAINING TESTS	Numerically in ascending order.
STATUS	See *Descriptions of the Calibrations view statuses*, page 5-33.

To display this screen, see *Access the Plan my day screen*, page 5-28.

Related procedures…

- *View calibration curve information*, page 6-32
- *Print a report*, page 5-403

Descriptions of the Calibrations view statuses

You can use calibration status information to determine which assays have reagent lots on-board that may need to be calibrated. The table below displays the status in the order in which they sort:

Status	Description
No cal	There is no Active calibration and no calibration in process.
Last calibration failed	The most recent calibration attempt failed and there is no calibration in process.
Calibration expired	The calibration has expired and there is no calibration in process. **NOTE:** If an assay supports both full and adjust calibration curves this status represents the full calibration curve. (*c* System only)
Adjustment calibration expired	The adjust calibration has expired and there is no calibration in process. (*c* System only)
Calibration expires soon	Calibration curve will expire before the configured end time for the evaluation window. **NOTE:** If an assay supports both full and adjust calibration curves this status represents the full calibration curve. (*c* System only)
Adjustment calibration expires soon	Adjust calibration curve will expire before the configured end time for the evaluation window. (*c* System only)
No cal - calibration is in process	There is no Active calibration but there is a calibration in process.
Last calibration failed - calibration in process	The most recent calibration attempt failed but there is a calibration in process.
Calibration expired- calibration in process	The calibration has expired but there is a calibration in process. **NOTE:** If an assay supports both full and adjust calibration curves this status represents the full calibration curve. (*c* System only)
Adjustment calibration expired - calibration in process	The adjust calibration has expired but there is a calibration in process. (*c* System only)
Pending QC (premium feature)	There is an Active calibration curve but the system is configured to require QC to run

Status	Description
	after the calibration. At least one control level has not completed. **NOTE:** A completed control does not require the control result to be within configured specifications.

Plan my day screen - Supplies view

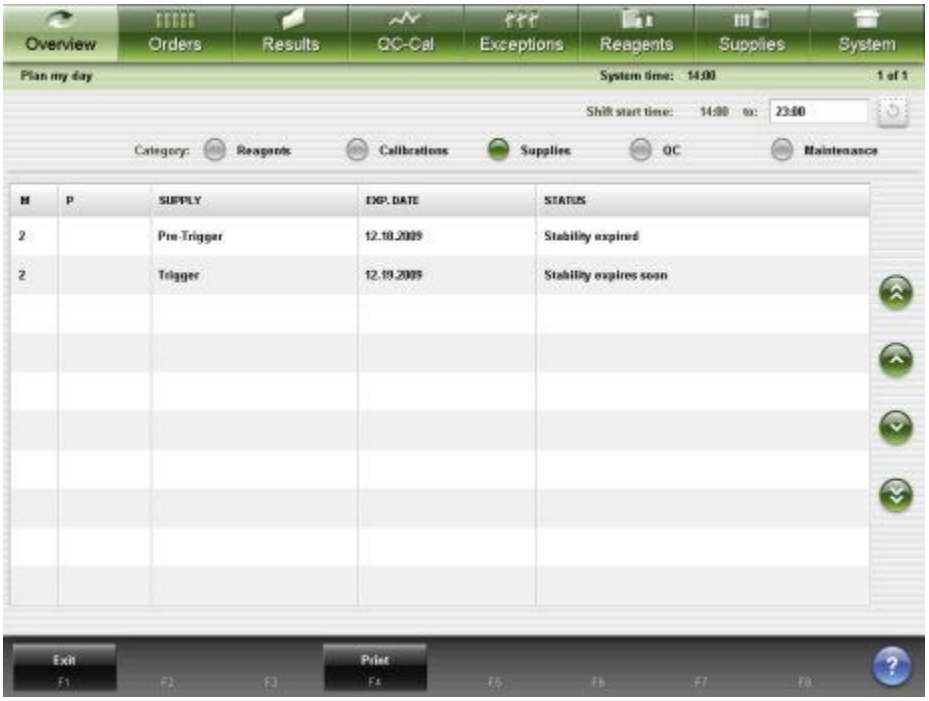
From the Supplies view of the Plan my day screen you can view:

- Module ID
- On-board solution position(s)
- System inventory name
- Trigger and Pre-Trigger Expiration date
- ICT Module Expiration date (if configured)
- Bulk and on-board *c* systems solution expiration dates (if configured)
- System inventory status

The displayed information is associated with supplies that may require operator intervention in order to successfully process samples without interruption within the user-defined timeframe. See *Descriptions of the Supplies view statuses*, page 5-35.

An ellipsis (...) displays when the system cannot display all data on a screen. View the printed report to see all data.

Figure 5.13: Plan my day screen - Supplies view



For descriptions of these fields, see *Plan my day screen - Supplies view field descriptions*, page E-23.

When accessing the Plan my day screen - Calibrations view, the information sorts by status.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
P	Alphanumerically in ascending order.
SUPPLY	Alphanumerically in ascending order.
EXP DATE/TIME	Chronologically in ascending order.
STATUS	See *Descriptions of the Supplies view statuses*, page 5-35.

To display this screen, see *Access the Plan my day screen*, page 5-28.

Related procedures…

- *c System procedures - consumable inventory management*, page 5-56
- *i System procedures - consumable inventory management*, page 5-76
- *Print a report*, page 5-403

Descriptions of the Supplies view statuses

You can use supply status information to determine which supplies need to be replaced or if additional supplies need to be loaded on the system. The table below displays the status in the order in which they sort:

Status	Description
Empty	System inventory is empty.
Low	System inventory has approximately 20% remaining.
LLS error	On-board solutions with a status of LLS Error.
Stability expired	The Trigger or Pre-Trigger solution stability has been exceeded and has not been overridden. (*i* System only) The stability of the bulk solution or on-board solution identified has been exceeded and has not been overriden. (*c* System only)
Stability expires soon	The Trigger or Pre-Trigger solution stability will be exceeded before the configured end time for the evaluation window. (*i* System only)

Status	Description
	The stability of the bulk solution or on-board solution identified will be exceeded before the configured end time of the evaluation window. (*c* System only)
Lot expired	The ICT Module is expired and has not been overridden. (*c* System only)
Lot expires soon	The ICT Module will expire before the configured end time for the evaluation window. (*c* System only)

Plan my day screen - QC view

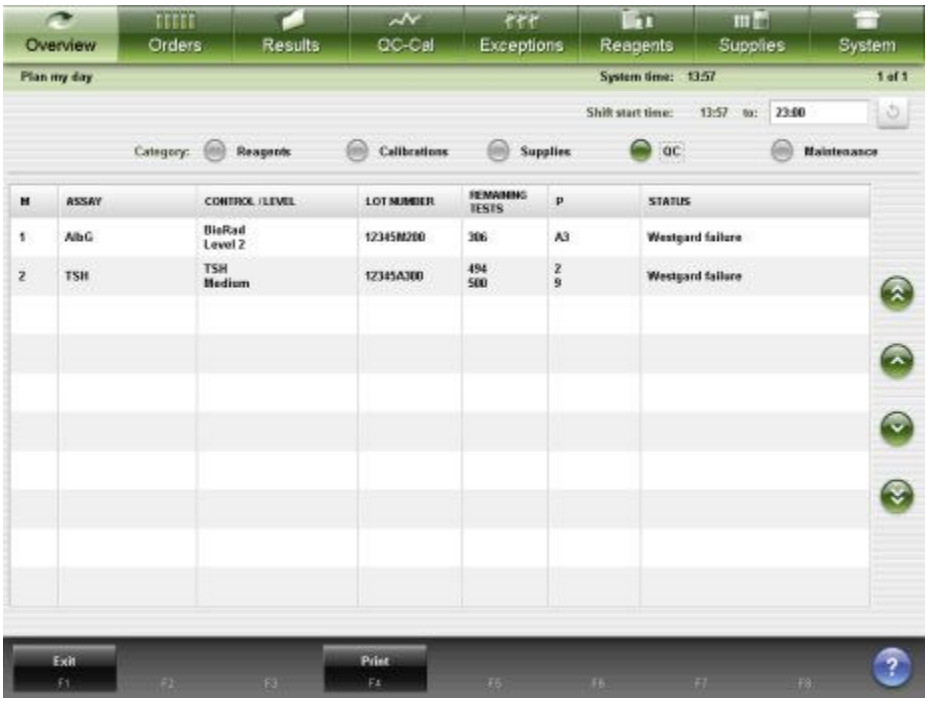
From the QC view of the Plan my day screen you can view:

- Module ID
- Assay name
- Control name
- Control lot number
- Remaining reagent test counts
- Reagent position(s)
- QC status

The displayed information is associated with QC that may require operator intervention in order to successfully process samples without interruption within the user-defined timeframe. See *Descriptions of the QC view statuses*, page 5-38.

An ellipsis (...) displays when the system cannot display all data on a screen. View the printed report to see all data.

Figure 5.14: Plan my day screen - QC view



For descriptions of these fields, see *Plan my day screen - QC view field descriptions*, page E-24.

When accessing the Plan my day screen - QC view, the information sorts by status.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY	Alphanumerically in ascending order.
CONTROL/LEVEL	Alphanumerically in ascending order.
LOT NUMBER	Numerically in ascending order.
REMAINING TESTS	Numerically in ascending order.
POSITION	Reagent carousel position in ascending order.
STATUS	See *Descriptions of the QC view statuses*, page 5-38.

To display this screen, see *Access the Plan my day screen*, page 5-28.

Related procedures…

- *View QC data summary*, page 5-396
- *View an assay control level Levey-Jennings graph*, page 5-398

- *Print a report*, page 5-403

Descriptions of the QC view statuses

You can use QC information to determine which QC results have Westgard failures.

Status	Description
Westgard failure	The QC result failed a Westgard rule.

Plan my day screen - Maintenance view

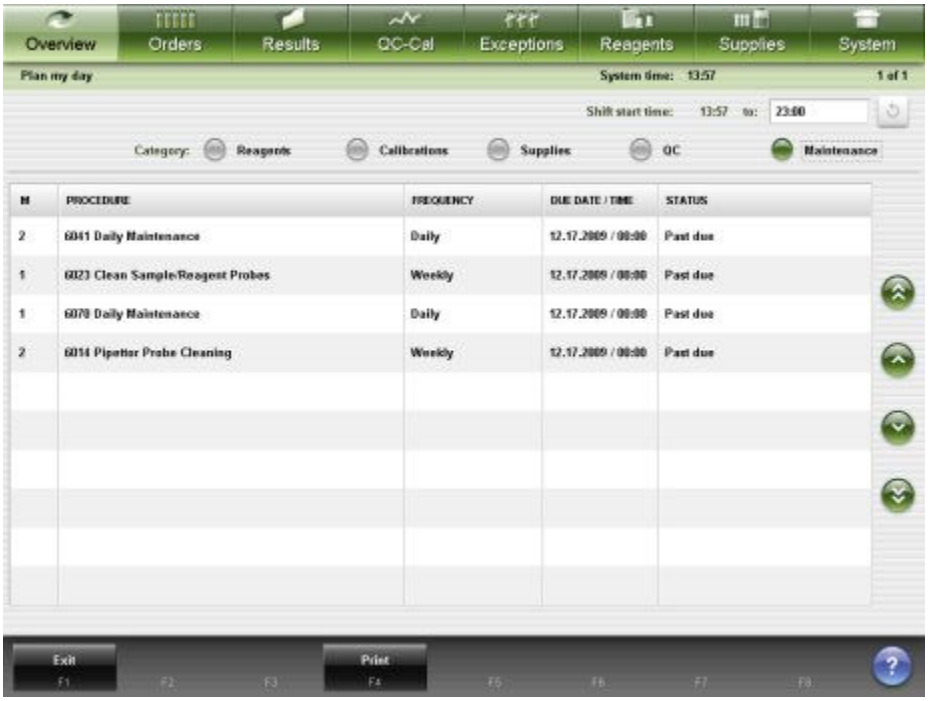
From the Maintenance view of the Plan my day screen you can view:

- Module ID
- Procedure number and name
- Frequency
- Due date and time
- Maintenance status

The displayed information is associated with maintenance that may require operator intervention in order to successfully process samples without interruption within the user-defined timeframe. See *Descriptions of the Maintenance view statuses*, page 5-39.

An ellipsis (...) displays when the system cannot display all data on a screen. View the printed report to see all data.

Figure 5.15: Plan my day screen - Maintenance view



For descriptions of these fields, see *Plan my day screen - Maintenance view field descriptions*, page E-25.

When accessing the Plan my day screen - Maintenance view, the information sorts by status.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
PROCEDURE	Numerically in ascending order.
FREQUENCY	Daily, weekly, monthly, quarterly.
DUE DATE/TIME	Chronologically in descending order.
STATUS	See *Descriptions of the Maintenance view statuses*, page 5-39.

To display this screen, see *Access the Plan my day screen*, page 5-28.

Related procedures…

- *Perform a maintenance procedure*, page 9-6
- *Print a report*, page 5-403

Descriptions of the Maintenance view statuses

You can use maintenance status information to determine which maintenance items need to be performed.

Status	Description
Past due	Maintenance items that were not performed when scheduled.
Due	Maintenance items that are scheduled within the user-defined timeframe. The items displayed depend on the date and time the maintenance was performed last. For example, a procedure performed at 10:00 a.m. will not display unless the user-defined timeframe includes 10:00 a.m.

Consumable inventory management

Always check consumable inventory before processing samples. Use the Supply status screen to check inventory.

Consumable inventory management topics include:

Supply status screens

From the Supply status screen you can view the status of supplies on board the system and the waste status. The view that displays is dependent on the processing module configuration of your system.

Supply status screen and views topics include:

Supply status screen - *c*4000 view

From the *c*4000 view of the Supply status screen you can:

- View the volume and percent of bulk solutions
- View the volume and percent of onboard solutions in the reagent supply center
- View the status of onboard solutions in the sample wash solution area
- View the status of the liquid waste in the high-concentration waste bottle
- Access a window to update the status(es) of bulk solutions and onboard solutions
- Access a window to enter the lot number and expiration date of bulk and onboard solutions
- Access a window to adjust the inventory level of bulk solutions
- Access a window to replace the ICT module and update warranty tracking (*c* System)

NOTE: The system calculates supply volume and % remaining information based on tests required for samples that have been scanned by the sample handler.

Figure 5.16: Supply status screen - c4000

For descriptions of these fields, see *Supply status screen - c4000 view field descriptions*, page E-127.

To display this view of the screen, see *Access the Supply status screen - c4000 view*, page 5-41.

See *Solutions used in daily operations (c4000)*, page 1-196 for quick reference regarding *c*4000 solutions.

Related procedures…

- *Verify supply and waste inventory*, page 5-54
- *Replace bulk solutions and update inventory (c System)*, page 5-56
- *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62
- *Empty the high-concentration waste bottle (c System)*, page 5-73
- *Replace the ICT module and update warranty tracking (c System)*, page 5-74

Access the Supply status screen - *c*4000 view

Perform this procedure to display the *c*4000 view of the Supply status screen.

Prerequisite	NA
Module status	Any

User access level	General operator
Supplies	NA

To access the Supply status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **supply status** button on the desired *c*4000 processing module graphic.

Select **Supplies** from the menu bar, and then select **Supply status**.

The Supply status screen - *c*4000 view displays.

Related information...

- *Snapshot screen*, page 1-22
- *Supply status screen - c4000 view*, page 5-40

Supply status screen - *c*8000/*c*16000 view

From the *c*8000 or *c*16000 view of the Supply status screen you can:

- View the volume and percent of bulk solutions
- View the volume and percent of onboard solutions in the reagent supply centers
- View the status of onboard solutions in the sample carousel
- View the status of liquid waste in the high-concentration waste bottle
- Access a window to update the status(es) of bulk solutions and onboard solutions
- Access a window to enter the lot number and expiration date of bulk and onboard solutions
- Access a window to adjust the inventory level of bulk solutions
- Access a window to replace the ICT module and update warranty tracking (*c* System)

NOTE: The system calculates supply volume and % remaining information based on tests required for samples that have been scanned by the sample handler.

The two views of the Supply status screen are:

- *c*8000 view
- *c*16000 view

Figure 5.17: Supply status screen - c8000 view

Figure 5.18: Supply status screen - c16000 view

For descriptions of these fields, see *Supply status screen - c8000/c16000 view field descriptions*, page E-130.

To display these views of the screen, see *Access the Supply status screen - c8000/c16000 view*, page 5-44.

See *Solutions used in daily operations (c8000/c16000)*, page 1-197 for a quick reference regarding *c* System solutions.

Related procedures…

- *Verify supply and waste inventory*, page 5-54
- *Replace bulk solutions and update inventory (c System)*, page 5-56
- *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67
- *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70
- *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72
- *Empty the high-concentration waste bottle (c System)*, page 5-73
- *Replace the ICT module and update warranty tracking (c System)*, page 5-74

Access the Supply status screen - *c*8000/*c*16000 view

Perform this procedure to display the *c*8000/*c*16000 view of the Supply status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Supply status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **supply status** button on the *c*8000 or *c*16000 processing module graphic.

Select **Supplies** from the menu bar, and then select **Supply status**.

The Supply status screen - *c*8000/*c*16000 view displays.

Related information…

- *Snapshot screen*, page 1-22
- *Supply status screen - c8000/c16000 view*, page 5-42

Supply status screen - *i*2000/*i*2000SR view

From the *i*2000/*i*2000SR view of the Supply status screen you can:

- View the volume and percent of bulk solutions
- View the status of solid waste
- View the status of RVs (reaction vessels)

- Access a window to update the status(es) of bulk solutions, solid waste, and RVs
- Access a window to enter the lot number and expiration date of bulk solutions and lot number of RVs
- Access a window to update the inventory level of wash buffer

NOTE: The system calculates supply volume and % remaining information based on tests required for samples that have been scanned by the sample handler.

Figure 5.19: Supply status screen - i2000/i2000SR view

For descriptions of these fields, see *Supply status screen - i2000/i2000SR view field descriptions*, page E-133.

To display this view of the screen, see *Access the Supply status screen - i2000/i2000SR view*, page 5-46.

Related procedures…

- *Verify supply and waste inventory*, page 5-54
- *Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76
- *Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82
- *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85
- *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93
- *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98

Access the Supply status screen - *i*2000/*i*2000SR view

Perform this procedure to display the *i*2000/*i*2000SRview of the Supply status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Supply status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **supply status** button on the desired *i*2000/*i*2000SR processing module graphic.

1. Select **Supplies** from the menu bar, and then select **Supply status**.

   The Supply status screen - *c* System view displays for a standalone *c* System or an integrated system.

   OR

   The Supply status screen - *i*2000/*i*2000SR view displays for a standalone or multi-module *i* System.

2. Select another **Module** option to display a different view. ***(optional)***

Related information…

- *Snapshot screen*, page 1-22
- *Supply status screen - i2000/i2000SR view*, page 5-44

Supply status screen - *i*1000SR view

From the *i*1000SR view of the Supply status screen you can:

- View the volume and percent of bulk solutions
- View the status of solid waste
- View the volume and percentage of liquid waste
- View the status of RVs (reaction vessels)
- Access a window to update the status(es) of bulk solutions, solid waste, RVs, and liquid waste
- Access a window to enter the lot number and expiration date of bulk solutions and lot number of RVs
- Access a window to update the inventory level of wash buffer

NOTE: The system calculates supply volume and % remaining information based on tests required for samples that have been scanned by the sample handler.

Figure 5.20: Supply status screen - i1000SR view

To display this view of the screen, see *Access the Supply status screen - i1000SR view*, page 5-47.

Related procedures...

- *Verify supply and waste inventory*, page 5-54
- *Remove solid waste and update inventory (i1000SR)*, page 5-79
- *Empty liquid waste and update inventory (i1000SR)*, page 5-80
- *Replenish RVs and update inventory (i1000SR)*, page 5-83
- *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88
- *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96
- *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98

Access the Supply status screen - *i*1000SR view

Perform this procedure to display the *i*1000SR view of the Supply status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Supply status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **supply status** button on the desired *i*1000SR processing module graphic.

Select **Supplies** from the menu bar, and then select **Supply status**.

The Supply status screen - *i*1000SR view displays.

Related information...

- *Snapshot screen*, page 1-22
- *Supply status screen - i1000SR view*, page 5-46

Windows - Supply status screen

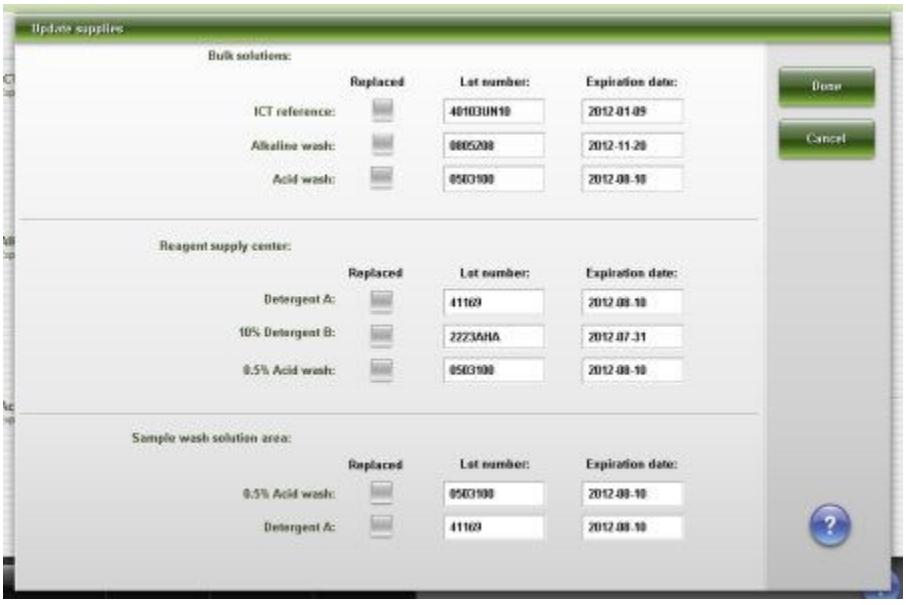
The windows you can access from the Supply status screen are:

- *Update supplies window - c4000 view*, page 5-48
- *Update supplies window - c8000/c16000 view*, page 5-49
- *Update supplies window - i2000/i2000SR view*, page 5-50
- *Update supplies window - i1000SR view*, page 5-51
- *Adjust inventory level window - c System view*, page 5-52
- *Adjust inventory level window - i System view*, page 5-53
- *Replace ICT window (c System) view*, page 5-53

Update supplies window - *c*4000 view

From the *c*4000 view of the Update supplies window you can update supply information so the system can accurately track onboard supply inventory.

Figure 5.21: Update supplies window - c4000 view



For descriptions of these fields, see *Update supplies window - c4000 view field descriptions*, page E-135.

Related procedures…

- *Replace bulk solutions and update inventory (c System)*, page 5-56
- *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62

Update supplies window - *c*8000/*c*16000 view

From the *c*8000 or *c*16000 view of the Update supplies window you can update supply information so the system can accurately track onboard supply inventory.

The two views of the Update supplies window are:

- *c*8000 view
- *c*16000 view

Figure 5.22: Update supplies window - c8000 view

Figure 5.23: Update supplies window - c16000 view

For descriptions of these fields, see *Update supplies window - c8000/c16000 view field descriptions*, page E-136.

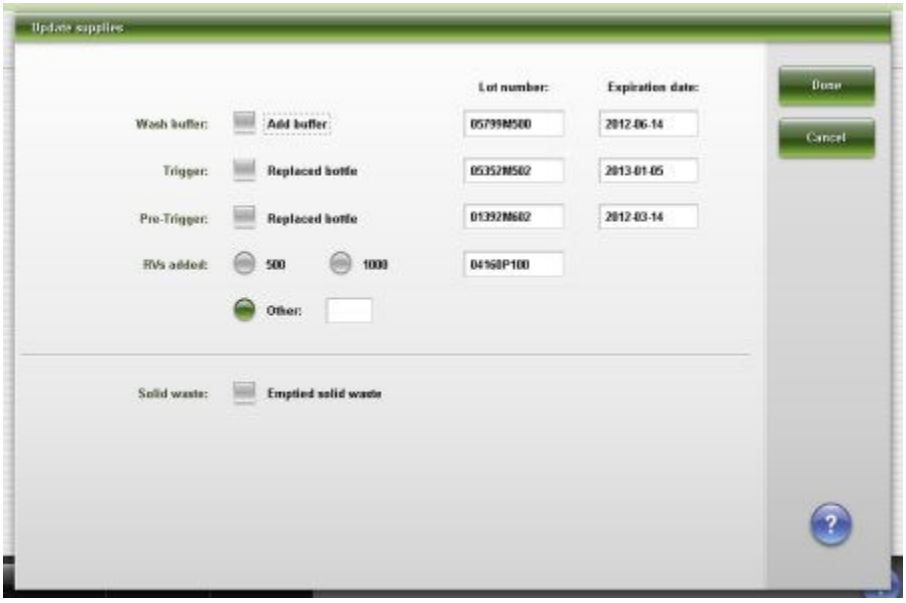
Related procedures…

- *Replace bulk solutions and update inventory (c System)*, page 5-56
- *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67
- *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70
- *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72

Update supplies window - *i*2000/*i*2000SR view

From the *i*2000/*i*2000SR view of the Update supplies window you can update supply information so the system can accurately track onboard supply inventory.

Figure 5.24: Update supplies window - i2000/i2000SR view



For descriptions of these fields, see *Update supplies window - i2000/i2000SR view field descriptions*, page E-137.

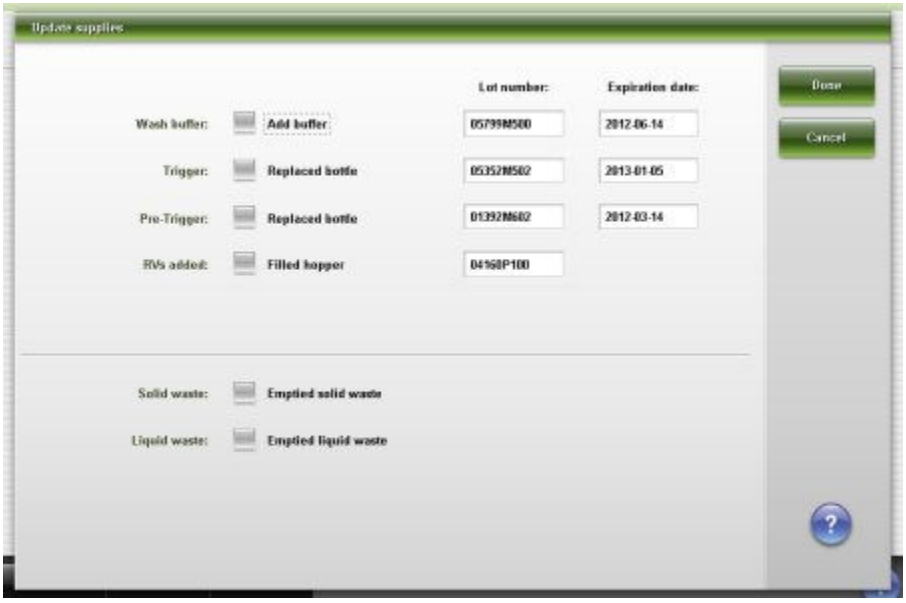
Related procedures...

- *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98
- *Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76
- *Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82
- *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85
- *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93

Update supplies window - *i*1000SR view

From the *i*1000SR view of the Update supplies window you can update supply information so the system can accurately track onboard supply inventory.

Figure 5.25: Update supplies window - i1000SR view



For descriptions of these fields, see *Update supplies window - i1000SR view field descriptions*, page E-138.

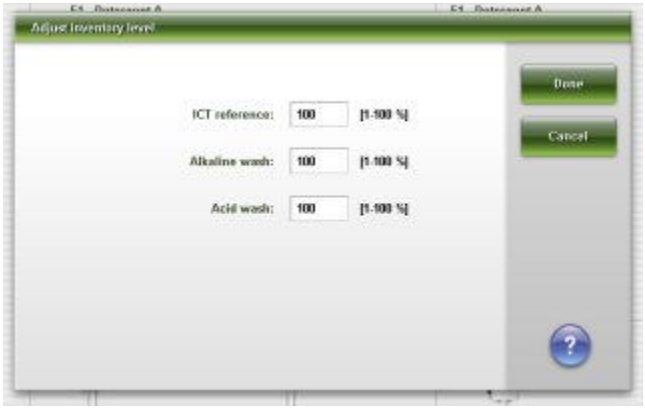
Related procedures…

- *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98
- *Remove solid waste and update inventory (i1000SR)*, page 5-79
- *Empty liquid waste and update inventory (i1000SR)*, page 5-80
- *Replenish RVs and update inventory (i1000SR)*, page 5-83
- *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88
- *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96

Adjust inventory level window - *c* System view

From the *c* System view of the Adjust inventory level window, you can adjust the system inventory level of the bulk solutions to align with the visible inventory level.

Figure 5.26: Adjust inventory level window - c System view



For descriptions of these fields, see *Adjust inventory level - c System view field descriptions*, page E-139.

Related procedures…

- *Adjust inventory level of bulk solutions*, page 5-55

Adjust inventory level window - *i* System view

From the *i* System view of the Adjust inventory level window, you can adjust the system inventory level of the Wash buffer solution to align with the visible inventory level.

Figure 5.27: Adjust inventory level window - i System view

For descriptions of these fields, see *Adjust inventory level - i System view field descriptions*, page E-140.

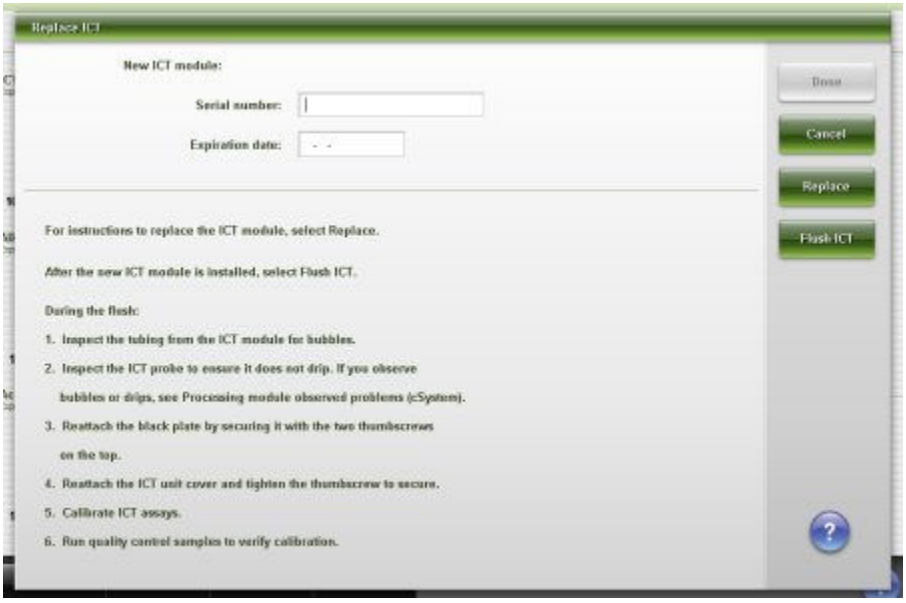
Related procedures…

- *Adjust inventory level of bulk solutions*, page 5-55

Replace ICT window (*c* System) view

From the Replace ICT window (*c* System), you can replace and flush the ICT module.

Figure 5.28: Replace ICT window (c System) view



For descriptions of these fields, see *Replace ICT window - c System view field descriptions*, page E-140.

ARCHITECT System procedures - consumable inventory management

The procedures that are common to both the *c* System and *i* Systems are:

- *Verify supply and waste inventory*, page 5-54
- *Adjust inventory level of bulk solutions*, page 5-55

Verify supply and waste inventory

Perform this procedure before initiating sample processing to verify adequate supply inventory levels or when the supply status button on the processing module(s) graphic(s) displays a caution icon.

NOTE: The status that displays reflects the inventory that remains after the system processes the samples that have been scanned by the sample bar code reader.

You can create orders when inventory levels are insufficient. However, if inventory is not adequate when you initiate sample processing, tests become exceptions and are not processed.

Prerequisite	*Access the Supply status screen - c4000 view*, page 5-41 *Access the Supply status screen - c8000/c16000 view*, page 5-44 *Access the Supply status screen - i2000/i2000SR view*, page 5-46 *Access the Supply status screen - i1000SR view*, page 5-47

Module status	Any
User access level	General operator
Supplies	NA

To verify supply and waste inventory:

1. Select the desired **Module** option.

   The Supply status screen for the selected module displays.

2. View the inventory of supplies and waste.

Related information...

- *Supply status screen - c4000 view*, page 5-40
- *Supply status screen - c8000/c16000 view*, page 5-42
- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Supply status screen - i1000SR view*, page 5-46

Adjust inventory level of bulk solutions

Perform this procedure to adjust the inventory level of ICT reference solution, Alkaline Wash solution, Acid Wash solution or Wash buffer solution when it differs from what is displayed on the Supply status screen.

Prerequisite	*Access the Supply status screen - c4000 view*, page 5-41 *Access the Supply status screen - c8000/c16000 view*, page 5-44 *Access the Supply status screen - i2000/i2000SR view*, page 5-46 *Access the Supply status screen - i1000SR view*, page 5-47
Module status	Stopped, Warming or Ready
User access level	General Operator
Supplies	N/A

To adjust the inventory level of bulk solutions:

1. Select the **Module** option on the Supply status screen.
2. Review the displayed bulk solution % remaining.
3. Inspect the bulk solution to determine the % remaining.
4. Select **F3-Adjust level**.

   The Adjust inventory level window displays.

5. Enter the revised % remaining into the data entry box for the desired solution.

   NOTE: If the bulk solution platform weight sensor or the wash buffer float sensor indicates an inconsistency with the user-entered level, the sensor

data supersedes the user-entered level. The inventory level is set to a value consistent with the sensor.

6. Select **Done**.

   The Supply status screen displays the updated inventory level.

Related procedures…

- *Supply status screen - c4000 view*, page 5-40
- *Supply status screen - c8000/c16000 view*, page 5-42
- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Supply status screen - i1000SR view*, page 5-46
- *Adjust inventory level window - c System view*, page 5-52
- *Adjust inventory level window - i System view*, page 5-53

c System procedures - consumable inventory management

For a quick reference describing *c* System consumable solutions used in daily operation, see *Solutions used in daily operations (c4000)*, page 1-196 or *Solutions used in daily operations (c8000/c16000)*, page 1-197.

c System consumable inventory management procedures include:

- *Replace bulk solutions and update inventory (c System)*, page 5-56
- *Prepare 0.5% acid wash solution (c System)*, page 5-59
- *Prepare detergent A (c System)*, page 5-60
- *Prepare 10% detergent B solution (c System)*, page 5-61
- *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62
- *Replace onboard solutions in the sample wash solution area and update inventory (c4000)*, page 5-65
- *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67
- *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70
- *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72
- *Empty the high-concentration waste bottle (c System)*, page 5-73
- *Replace the ICT module and update warranty tracking (c System)*, page 5-74

Replace bulk solutions and update inventory (*c* System)

Perform this procedure to replace and update ICT Reference Solution, Acid Wash, or Alkaline Wash inventory when the bottle is empty or the solution is expired.

To adjust inventory levels of bulk solutions on the system, see *Adjust inventory level of bulk solutions*, page 5-55.

Prerequisite	*Access the Supply status screen - c4000 view*, page 5-41 *Access the Supply status screen - c8000/c16000 view*, page 5-44
Module status	Stopped or Ready
User access level	General operator
Supplies	• ICT Reference solution • Alkaline Wash • Acid Wash

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace bulk solutions and update inventory:

1. Verify the new solution is within the expiration date listed on the label. DO NOT use the solution if the expiration date is exceeded.
2. Select **F2 - Update Supplies**.

   The Update supplies window displays.
3. Enter the lot number and expiration date in the same format as they appear on the bulk solution bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the bulk solution is disabled.
4. Open the supply center door.
5. Remove the used bottle from the weight platform, and then place the used bottle on the floor in front of the supply center.

6. Verify the following:
   - liquid or dried solution has not accumulated on the weight platform tray
   - excess solution is not present in the bottles (volume is decreasing over time)
   - bottles are not overflowing

   If liquid or dried solution has accumulated on the tray, see *Solution/dried solution under bulk solution bottles (c System)*, page 10-527.

   If excess solution is present or bottles are overfilled, see *Wash solution is not being used (level not falling over time) (c System)*, page 10-527.
7. Remove the cap from the new bottle, and then place the bottle on the floor next to the used bottle.

   IMPORTANT: DO NOT pool partially filled bottles of bulk solutions.
8. Remove the cap and tubing from the used bottle.
9. Insert the tubing into the new bottle, and then press the cap firmly on the new bottle.
10. Place the new bottle in the correct orientation and the correct location on the weight platform, ensuring the bottle is securely seated. The correct bottle orientation is:
    - Acid and Alkaline wash - bottle cap and opening in front
    - ICT Reference solution - bottle cap and opening in back

    IMPORTANT: Results can be adversely affected if you do not load bulk solutions correctly

11. Discard the used bottle in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
12. Close the supply center door.
13. Select the appropriate **Bulk solutions** check box(es).
14. Select **Done** to update supply inventory.

    NOTE: The bulk solution inventory is updated to 100% remaining. Inaccurate tracking will result if a new bottle is not used. The system automatically flushes the replaced solution before testing is performed.

Related information…

- *ICT reference solution (c System)*, page 1-191
- *Alkaline wash (c System)*, page 1-192
- *Acid wash (c System)*, page 1-193
- *Supply status screen - c4000 view*, page 5-40
- *Supply status screen - c8000/c16000 view*, page 5-42
- *Update supplies window - c4000 view*, page 5-48
- *Update supplies window - c8000/c16000 view*, page 5-49

Prepare 0.5% acid wash solution (*c* System)

Perform this procedure to prepare a 0.5% dilution of Acid Wash. Acid wash is an onboard solution used for washing probes.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	• Acid Wash (bulk solution) • Purified water • Appropriate reagent cartridge • Sample cup

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To prepare 0.5% acid wash solution:

1. Verify that the concentrated acid wash is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
2. Add 5 mL of acid wash to 995 mL of purified water and mix.
3. Store the diluted solution in a container labeled with the name (0.5% acid wash) and the expiration date.

   NOTE: The expiration date of the prepared 0.5% solution of acid wash is the same as the concentrated acid wash.

4. Pour 0.5% acid wash into the appropriate container to be loaded on the processing module.

   NOTE: Do not overfill the reagent cartridge. Ensure the maximum fluid level is at least 1/2 inch (12.7 mm) from the top, to prevent bubbles from forming in the top of the cartridge.

5. Label the container with the name (0.5% acid wash), lot number, and expiration date.

   NOTE: The stability of the prepared 0.5% acid wash when placed onboard the reagent supply centers is 30 days.

   The stability of the prepared 0.5% acid wash when placed onboard the sample carousel is one day.

To replace 0.5% acid wash in the reagent supply center on the *c*4000 processing module, see *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62.

To replace 0.5% acid wash in the reagent supply centers on the *c*8000 processing module, see *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67.

To replace 0.5% acid wash in the reagent supply centers on the *c*16000 processing module, see *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

To replace 0.5% acid wash in the sample wash solution area, see *Replace onboard solutions in the sample wash solution area and update inventory (c4000)*, page 5-65.

To replace 0.5% acid wash in the sample carousel, see *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72.

Related information...

- *Onboard solutions (c System)*, page 1-194
- *Acid wash (c System)*, page 1-193

Prepare detergent A (*c* System)

Perform this procedure to prepare Detergent A. This detergent is an onboard solution used for washing probes and cleaning cuvettes.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	• Detergent A • Appropriate reagent cartridge • Sample cup

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To prepare Detergent A:

1. Verify detergent A is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
2. Gently invert to ensure a homogeneous solution.
3. Pour detergent A into the appropriate container to be loaded on board the reagent supply center.

   NOTE: Do not overfill the reagent cartridge. Ensure the maximum fluid level is at least 1/2 inch (12.7 mm) from the top, to prevent bubbles from forming in the top of the cartridge.
4. Label the container with the name (Detergent A), lot number, and expiration date.

   NOTE: The stability of detergent A when placed onboard the reagent supply centers is the expiration date on the bottle label.

   The stability of detergent A when placed on board the sample carousel is one day.

To replace detergent A on the *c*4000 processing module, see *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62.

To replace detergent A on the *c*8000 processing module, see *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67.

To replace detergent A on the *c*16000 processing module, see *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

To replace detergent A in the sample wash solution area see *Replace onboard solutions in the sample wash solution area and update inventory (c4000)*, page 5-65.

To replace detergent A in the sample carousel, see *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72.

Related information…

- *Onboard solutions (c System)*, page 1-194

Prepare 10% detergent B solution (*c* System)

Perform this procedure to prepare a 10% dilution of Detergent B. This detergent is an onboard solution used for washing probes.

Prerequisite	NA

Module status	Any
User access level	General operator
Supplies	• Detergent B • Purified water • Appropriate reagent cartridge

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To prepare 10% Detergent B solution:

1. Verify detergent B is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
2. Gently invert 4-5 times to ensure a homogeneous solution.
3. Mix 50 mL of detergent B with 450 mL of purified water.
4. Store the diluted solution in a container labeled with the name (10% Detergent B) and the expiration date.

   NOTE: The stability of the prepared 10% detergent B is 14 days.
5. Pour the 10% detergent B into the appropriate container to be loaded onboard the reagent supply center.

   NOTE: Do not overfill the reagent cartridge. Ensure the maximum fluid level is at least 1/2 inch (12.7 mm) from the top, to prevent bubbles from forming in the top of the cartridge.
6. Label the container with the name (10% Detergent B), lot number, and expiration date.

   NOTE: The stability of the prepared 10% detergent B when placed onboard the reagent supply centers is 14 days.

To replace detergent B on the *c*4000 processing module, see *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62.

To replace detergent B on the *c*8000 processing module, see *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67.

To replace detergent B on the *c*16000 processing module, see *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Related information…

- *Onboard solutions (c System)*, page 1-194

Replace onboard solutions in the reagent supply center and update inventory (*c*4000)

Perform this procedure to replace and update onboard solution inventory in the reagent supply center when the inventory is empty or the solution is expired.

Onboard solutions in the reagent supply center may include a 0.5% dilution of acid wash, detergent A, or a 10% dilution of detergent B.

To change the onboard solution locations, see *Change the onboard solution options (c4000)*, page 2-33.

Prerequisite	*Prepare 0.5% acid wash solution (c System)*, page 5-59 *Prepare detergent A (c System)*, page 5-60 *Prepare 10% detergent B solution (c System)*, page 5-61 *Access the Supply status screen - c4000 view*, page 5-41
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• 0.5% dilution of Acid Wash • Detergent A • 10% dilution of Detergent B • Appropriate reagent cartridge

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace onboard solutions in the reagent supply center and update inventory:

1. Pour the appropriate solution into a reagent cartridge.

   NOTE: Do not overfill the reagent cartridge. Ensure the maximum fluid level is at least 1/2 inch (12.7 mm) from the top, to prevent bubbles from forming in the top of the cartridge.

2. Label the container with the solution name, lot number, and expiration date.

   NOTE: The stability of the prepared 0.5% acid wash when placed on board the reagent supply centers is 30 days.

   The stability of detergent A when placed on board the reagent supply centers is the expiration date on the bottle label.

   The stability of the prepared 10% detergent B when placed on board the reagent supply centers is 14 days.

   When the premium features are activated, the system monitors:

   – onboard stability for all solutions except detergent A

   – lot expiration for all solutions

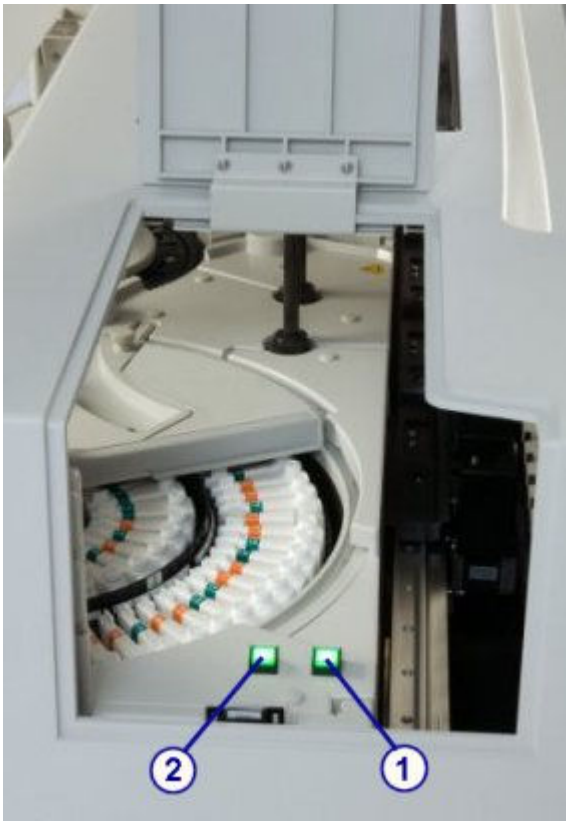
3. Remove air bubbles, if they exist, with a clean applicator stick.

4. Open the reagent supply center access door.

   CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. For more information, see *Mechanical hazards*, page 8-16.

5. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

NOTE: If the module status is Scheduled pause, the button will illuminate when the reagent supply center becomes available. It may take up to five minutes after you pause the module for the reagent supply center to become available.



6. Remove and replace the onboard solutions in the reagent supply center by performing the following steps:
   a. Press the reagent supply center access button (1) to open the cover.
   b. Press the carousel advance button (2) after the button illuminates to advance the reagent supply center to access the position.
   c. Remove the empty or expired solution and place the fresh solution in the position.
   d. Press the reagent supply center access button to close the cover.
7. Discard the used cartridge in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
8. Close the reagent supply center access door.
9. Select run to resume processing if the module status is Scheduled pause or perform the following steps to update supplies if the module status is Ready.

   To update supplies:

a. Select **F2 - Update supplies**.

The Update supplies window displays.

b. Select the appropriate **Reagent supply center** check box(es).

c. Enter the lot number and expiration date in the same format as they appear on the bulk solution bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

NOTE: If the expiration date is not provided, expiration tracking for the onboard solution is disabled.

d. Select **Done** to update the supply information.

NOTE: The inventory of the solution indicates that the reagent cartridge is completely full. The inventory updates with the actual remaining volume when the solution is accessed during a run.

Related information...

- *Acid wash (c System)*, page 1-193
- *Onboard solutions (c System)*, page 1-194
- *Reagent supply center (c4000)*, page 1-44
- *Supply status screen - c4000 view*, page 5-40
- *Update supplies window - c4000 view*, page 5-48

Replace onboard solutions in the sample wash solution area and update inventory (*c*4000)

Perform this procedure to replace and update onboard solution inventory in the sample wash solution area when the sample cup or tube is empty or the solution is expired. Onboard solutions in the sample wash solution area may include 0.5% Acid Wash and Detergent A.

Prerequisite	*Prepare 0.5% acid wash solution (c System)*, page 5-59 *Prepare detergent A (c System)*, page 5-60 *Access the Supply status screen - c4000 view*, page 5-41
Module status	Ready
User access level	General operator
Supplies	• 0.5% Acid Wash • Detergent A • Sample cups or tubes

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace onboard solutions in the sample wash solution area and update inventory:

1. Pour the appropriate onboard solution into a sample cup (sample cups must be used in conjunction with sample tubes) or tube.

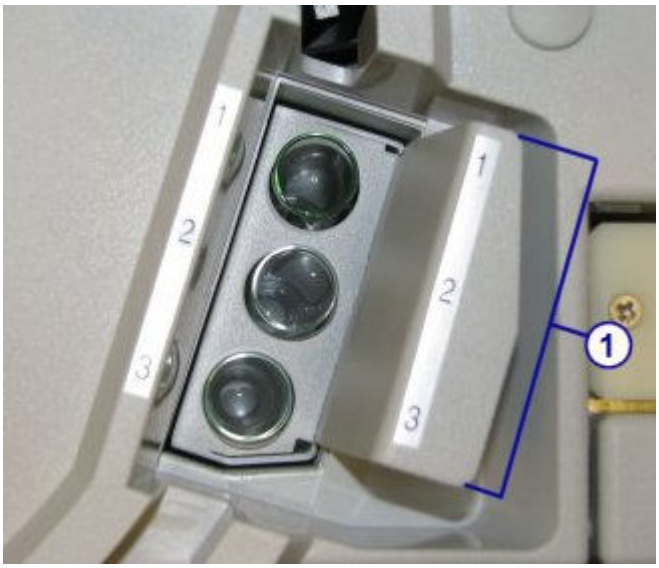
   A minimum of 500 µL onboard solution is required.

   NOTE: The stability of onboard solutions in the sample wash solution area is one day.

2. Open the processing module cover.

   When the premium features are activated the system monitors the onboard solution stability and expiration dating.

3. Locate the sample wash solution area.



4. Remove the sample wash solution carrier (1).
5. Remove the empty or expired solution and place the fresh solution in the sample wash solution area as specified:
   - 0.5% acid wash in position 1
   - Detergent A in position 2

   IMPORTANT: You are responsible for loading the correct solution in the correct position.
6. Discard used sample cups and/or tubes in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
7. Place the carrier into the sample wash solution area.
8. Close the processing module cover.

9. Select **F2 - Update supplies**.

   The Update supplies window displays.

10. Select the appropriate **Sample wash solution** check box(es).

11. Enter the lot number and expiration date in the same format as they appear on the bulk solution bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

    IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

    NOTE: If the expiration date is not provided, expiration tracking for the sample wash solution is disabled.

12. Select **Done** to update the supply inventory.

Related information…

- *Acid wash (c System)*, page 1-193
- *Onboard solutions (c System)*, page 1-194
- *Sample wash solution area (c4000)*, page 1-42
- *Supply status screen - c4000 view*, page 5-40
- *Update supplies window - c4000 view*, page 5-48

Replace onboard solutions in the reagent supply centers and update inventory (*c*8000)

Perform this procedure to replace and update onboard solution inventory in the reagent supply centers when the inventory is empty or the solution is expired. Onboard solutions in the reagent supply centers may include a 0.5% dilution of acid wash, detergent A, or a 10% dilution of detergent B.

To change the onboard solution locations, see *Change the onboard solution options (c8000)*, page 2-34.

Prerequisite	*Prepare 0.5% acid wash solution (c System)*, page 5-59 *Prepare detergent A (c System)*, page 5-60 *Prepare 10% detergent B solution (c System)*, page 5-61 *Access the Supply status screen - c8000/c16000 view*, page 5-44
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• 0.5% dilution of Acid Wash • Detergent A • 10% dilution of Detergent B • Appropriate reagent cartridge

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace onboard solutions in the reagent supply centers and update inventory:

1. Pour the appropriate solution into a reagent cartridge.

   NOTE: Do not overfill the reagent cartridge. Ensure the maximum fluid level is at least 1/2 inch (12.7 mm) from the top, to prevent bubbles from forming in the top of the cartridge.

   Onboard solutions located in positions E1 or E2 on the *c*8000 processing module must be poured into a large cartridge (90 mL) only.

2. Label the container with the solution name, lot number, and expiration date.

   NOTE: The stability of the prepared 0.5% acid wash when placed on board the reagent supply centers is 30 days.

   The stability of detergent A when placed on board the reagent supply centers is the expiration date on the bottle label.

   The stability of the prepared 10% detergent B when placed on board the reagent supply centers is 14 days.

   When the premium features are activated, the system monitors:

   - onboard stability for all solutions except detergent A
   - lot expiration for all solutions

3. Remove air bubbles, if they exist, with a clean applicator stick.
4. Open the processing module cover.
5. Verify the R1 and/or R2 **carousel advance** key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center 2 to become available.

6. Remove and replace the solutions in positions E1 or E2 on the *c*8000 processing module by performing the following steps:

   - Remove the empty or expired solution.
   - Place the fresh solution in the assigned position.

7. Remove and replace the solution in the reagent supply centers by performing the following steps:

   NOTE: Position D1 in each reagent carousel on the *c*8000 processing module is the only position that can be used for onboard solution storage.

   - Press the green or orange button on the front portion of the reagent supply center(s), and then open the cover(s).

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

- Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to access the position.
- Remove the empty or expired solution and place the fresh solution in the position.
- Close the reagent supply center cover(s) by pushing the cover(s) down until you hear a click.

8. Discard the used cartridge in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
9. Close the processing center cover.
10. Select run to resume processing if the module status is Scheduled pause or perform the following steps to update supplies if the module status is Ready.

    To update supplies:

    a. Select **F2 - Update supplies**.

       The Update supplies window displays.

    b. Select the appropriate **Reagent supply center** check box(es).

    c. Enter the lot number and expiration date in the same format as they appear on the bulk solution bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

       IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

       NOTE: If the expiration date is not provided, expiration tracking for the onboard solution is disabled.

    d. Select **Done** to update the supply information.

       NOTE: The inventory of the solution indicates that the reagent cartridge is completely full. The inventory updates with the actual remaining volume when the solution is accessed during a run.

Related information…

- *Acid wash (c System)*, page 1-193
- *Onboard solutions (c System)*, page 1-194
- *Reagent supply centers (c8000)*, page 1-62
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Supply status screen - c8000/c16000 view*, page 5-42

- *Update supplies window - c8000/c16000 view*, page 5-49

Replace onboard solutions in the reagent supply centers and update inventory (*c*16000)

Perform this procedure to replace and update onboard solution inventory in the reagent supply centers when the inventory is empty or the solution is expired. Onboard solutions in the reagent supply centers may include a 0.5% dilution of acid wash, detergent A, or a 10% dilution of detergent B.

To change the onboard solution locations, see *Change the onboard solution options (c16000)*, page 2-35.

Prerequisite	*Prepare 0.5% acid wash solution (c System)*, page 5-59 *Prepare detergent A (c System)*, page 5-60 *Prepare 10% detergent B solution (c System)*, page 5-61 *Access the Supply status screen - c8000/c16000 view*, page 5-44
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• 0.5% dilution of Acid Wash • Detergent A • 10% dilution of Detergent B • Appropriate reagent cartridge

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace onboard solutions in the reagent supply centers and update inventory:

1. Pour the appropriate solution into a reagent cartridge.

   NOTE: Do not overfill the reagent cartridge. Ensure the maximum fluid level is at least 1/2 inch (12.7 mm) from the top, to prevent bubbles from forming in the top of the cartridge.

2. Label the container with the solution name, lot number, and expiration date.

   NOTE: The stability of the prepared 0.5% acid wash when placed on board the reagent supply centers is 30 days.

   The stability of detergent A when placed on board the reagent supply centers is the expiration date on the bottle label.

   The stability of the prepared 10% detergent B when placed on board the reagent supply centers is 14 days.

   When the premium features are activated, the system monitors:

   – onboard stability for all solutions except detergent A

   – lot expiration for all solutions

3. Remove air bubbles, if they exist, with a clean applicator stick.
4. Open the processing module cover.
5. Verify the R1 and/or R2 **carousel advance** key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center 2 to become available.
6. Remove and replace onboard solutions in the reagent supply center(s) by performing the following steps:
   a. Open the reagent supply center cover(s).
   b. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to access the position.
   c. Remove the empty or expired solution and place the fresh solution in the position.
   d. Close the reagent supply center cover(s).
7. Discard the used cartridge in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
8. Close the processing center cover.
9. Select run to resume processing if the module status is Scheduled pause or perform the following steps to update supplies if the module status is Ready.

   To update supplies:
   a. Select **F2 - Update supplies**.

      The Update supplies window displays.
   b. Select the appropriate **Reagent supply center** check box(es).
   c. Enter the lot number and expiration date in the same format as they appear on the bulk solution bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

      IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

      NOTE: If the expiration date is not provided, expiration tracking for the onboard solution is disabled.
   d. Select **Done** to update the supply information.

      NOTE: The inventory of the solution indicates that the reagent cartridge is completely full. The inventory updates with the actual remaining volume when the solution is accessed during a run.

Related information…

- *Acid wash (c System)*, page 1-193
- *Onboard solutions (c System)*, page 1-194
- *Reagent supply centers (c16000)*, page 1-82
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Supply status screen - c8000/c16000 view*, page 5-42
- *Update supplies window - c8000/c16000 view*, page 5-49

Replace onboard solutions in the sample carousel and update inventory (*c*8000/*c*16000)

Perform this procedure to replace and update onboard solution inventory in the sample carousel when the sample cup or tube is empty or the solution is expired. Onboard solutions in the sample carousel may include 0.5% Acid Wash and Detergent A.

Prerequisite	*Prepare 0.5% acid wash solution (c System)*, page 5-59 *Prepare detergent A (c System)*, page 5-60 *Access the Supply status screen - c8000/c16000 view*, page 5-44
Module status	Ready
User access level	General operator
Supplies	• 0.5% Acid Wash • Detergent A • Sample cups or tubes

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace onboard solutions in the sample carousel and update inventory:

1. Pour the appropriate onboard solution into a sample cup or tube.

   A minimum of 500 µL onboard solution is required.

   NOTE: The stability of onboard solutions in the sample carousel is one day.

2. Open the processing module cover.
3. Press the gray button on the front portion of the sample carousel cover, and then open the cover.

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

4. Press the **sample carousel advance** indicator button (round) to advance the sample carousel to access the desired position(s).
5. Remove the empty or expired solution and place the fresh solution in the carousel as specified:

- 0.5% acid wash in position 31
- Detergent A in position 32

IMPORTANT: You are responsible for loading the correct solution in the correct position. When you load sample cups or tubes, ensure that you have pushed them down completely into the sample carousel and that they are not tilted.

6. Close the sample carousel cover by pushing the cover down until you hear a click.
7. Discard used sample cups and/or tubes in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
8. Close the processing module cover.
9. Select **F2 - Update supplies**.

   The Update supplies window displays.
10. Select the appropriate **Sample carousel** check box(es).
11. Enter the lot number and expiration date in the same format as they appear on the bulk solution bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

    IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

    NOTE: If the expiration date is not provided, expiration tracking for the onboard solution is disabled.
12. Select **Done** to update the supply inventory.

Related information…

- *Acid wash (c System)*, page 1-193
- *Onboard solutions (c System)*, page 1-194
- *Supply status screen - c8000/c16000 view*, page 5-42
- *Update supplies window - c8000/c16000 view*, page 5-49
- *Sample carousel (c8000)*, page 1-59
- *Sample carousel (c16000)*, page 1-79

Empty the high-concentration waste bottle (*c* System)

Perform this procedure to empty the high-concentration waste bottle (optional component) when it reaches capacity.

Prerequisite	Check the liquid waste inventory in Supply status screen
Module status	Offline, Stopped, or Ready
User access level	General operator

Supplies	Absorbent towels

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To empty the high-concentration waste bottle:

1. Disconnect the float switch cable from the waste bottle cap by unscrewing the locking ring and disconnecting the cable.
2. Place an absorbent towel next to the bottle to catch any spills from the bottle cap.
3. Unscrew the waste bottle from the cap, and ensure the tubing is not kinked.
4. Place the cap with the attached tubing on the absorbent towel.
5. Dispose of liquid waste in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.

   CAUTION: Lifting Hazard. The ARCHITECT *c* System high-concentration waste bottle is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

   CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.
6. Screw the cap onto the waste bottle, and ensure the tubing is not kinked.
7. Reconnect the float switch cable by inserting the cable and tightening the locking ring.

   NOTE: The Supply status screen updates automatically when you reconnect the float switch cable.

Related information...

- *Optional components*, page 1-158
- *Supply status screen - c4000 view*, page 5-40
- *Supply status screen - c8000/c16000 view*, page 5-42

Replace the ICT module and update warranty tracking (*c* System)

Perform this procedure to replace the ICT module when it is expired.

Prerequisite	*Access the Supply status screen - c4000 view*, page 5-41 *Access the Supply status screen - c8000/c16000 view*, page 5-44
Module status	Ready
User access level	General operator
Supplies	ICT module

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To replace the ICT module and update warranty tracking:

1. Select **F4-Replace ICT**.

   A Warning message displays indicating that ICT module replacement will inactivate any active calibration curves for ICT assays.

2. Select **Continue**.
3. Enter or use the barcode scanner to scan in the ICT module serial number.

   NOTE: The ICT module serial number is unique and can only be used once.

4. Enter the expiration date in the format dd-MMM-yyyy from the ICT Module carton label or use the bar code scanner to scan in the data. The month, MMM, must be in alpha characters. ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the serial number.

   NOTE: If the expiration date is not provided, expiration tracking for the module is disabled.

5. Select **Replace** for instructions to replace the ICT module or access the instructions by selecting the appropriate procedure listed below:
   - *Replace the ICT module or probe (c4000)*, page 9-148
   - *Replace the ICT module or probe (c8000)*, page 9-215
   - *Replace the ICT module or probe (c16000)*, page 9-285
6. After replacement is complete, select **Flush ICT**.
7. During the flush:
   - Inspect the tubing from the ICT module for bubbles.
   - Inspect the ICT probe to ensure it does not drip.

   If you observe bubbles or drips, see *Bubbles in ICT module tubing (c System)*, page 10-519 or *ICT probe leaks (c System)*, page 10-522.
8. Select **Done** when the flush is complete.

NOTE: ICT module warranty tracking resets after a successful completion of the flush. Once installed, the ICT module is warranted for 3 months or 20,000 samples, whichever occurs first.

9. Reattach the black plate by securing it with the two thumbscrews on the top.
10. Reattach the ICT unit cover and tighten the thumbscrew to secure. (*c*8000 and *c*16000 only)
11. Calibrate the ICT assays.
12. Run quality control samples to verify calibration.

Related information…

- *Supply status screen - c4000 view*, page 5-40
- *Supply status screen - c8000/c16000 view*, page 5-42

i System procedures - consumable inventory management

i System consumable inventory management procedures include:

- *Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76
- *Remove solid waste and update inventory (i1000SR)*, page 5-79
- *Empty liquid waste and update inventory (i1000SR)*, page 5-80
- *Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82
- *Replenish RVs and update inventory (i1000SR)*, page 5-83
- *Prepare wash buffer (i System)*, page 5-84
- *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85
- *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88
- *Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92
- *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93
- *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96
- *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98

Remove solid waste and update inventory (*i*2000/*i*2000SR)

Perform this procedure to empty the solid waste container and to update the waste status. The solid waste container holds used RVs (reaction vessels).

Prerequisite	*Access the Supply status screen - i2000/i2000SR view*, page 5-46
Module status	Any
User access level	General operator
Supplies	Biohazard bag

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To remove solid waste and update inventory:

1. Open the supply and waste center door.

2. Lift the solid waste container over the stopper on the floor of the supply and waste center, and then slide the solid waste container out.

   The waste chute closes.

NOTE: The closed waste chute holds 50 RVs (reaction vessels). Therefore, if the processing module is running, you have approximately 15 minutes to empty the waste container. If the waste chute is full, the processing module status changes to Scheduled pause and the used RVs remain on the outer ring of the process path.

3. Remove the biohazard bag and discard the bag and its contents in a biohazard trash receptacle.
4. Install a new biohazard bag in the solid waste container.

   NOTE: The biohazard bag must fit snugly and be fully opened in the solid waste container to allow RVs to drop freely into the container.
5. Slide the solid waste container into the waste area, lift it over the stopper on the floor, and then push it firmly against the back wall to ensure the waste chute is open.
6. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.
7. Select the **Solid waste** check box.
8. Select **Done** to update supplies.

Related information...

- *Supply and waste center (i2000/i2000SR)*, page 1-122
- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Update supplies window - i2000/i2000SR view*, page 5-50

Remove solid waste and update inventory (*i*1000SR)

Perform this procedure to empty the solid waste container and to update the waste status. The solid waste container holds used RVs (reaction vessels).

Prerequisite	*Access the Supply status screen - i1000SR view*, page 5-47
Module status	Any
User access level	General operator
Supplies	Biohazard bag

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To remove solid waste and update inventory:

1. Open the supply and waste center door.
2. Disconnect the quick disconnect on the liquid waste container, if present.
3. Grasp the handle and pull out the waste drawer.
4. Lift the solid waste container out of the drawer.

5. Remove the biohazard bag and discard the bag and its contents in a biohazard trash receptacle.
6. Install a new biohazard bag in the solid waste container.

   NOTE: The biohazard bag must fit snugly and be fully opened in the solid waste container to allow RVs to drop freely into the container.
7. Replace the solid waste container and liquid waste container (if present) into the waste drawer and push the waste drawer back in place.

   NOTE: If the solid or liquid waste container is not replaced within 30 minutes, sample processing will be paused.
8. Reconnect the quick disconnect fitting on the liquid waste container.
9. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.
10. Select the **Solid waste** check box.
11. Select **Done** to update supplies.

Related information...

- *Supply status screen - i1000SR view*, page 5-46
- *Update supplies window - i1000SR view*, page 5-51

Empty liquid waste and update inventory (*i*1000SR)

Perform this procedure to empty the liquid waste container and to update the liquid waste status.

Prerequisite	*Access the Supply status screen - i1000SR view*, page 5-47
Module status	Any
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. When performing this procedure, the use of full face protection, such as a face shield, is strongly recommended. See *Biological hazards*, page 8-5.

To empty liquid waste and update inventory:

1. Open the supply and waste center door.
2. Disconnect the quick disconnect on the liquid waste container.
3. Grasp the handle and pull out the waste drawer.
4. Lift the liquid waste container out of the drawer.

CAUTION: Lifting hazard. The *i*1000SR liquid waste container is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

5. Discard the liquid waste in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10 for additional information.

   NOTE: Do not add disinfectant to the liquid waste container prior to loading it back onto the system.

6. Replace the liquid waste container into the waste drawer and push the waste drawer back in place.

   NOTE: If the liquid waste container is not replaced within 30 minutes, sample processing will be paused.

7. Reconnect the quick disconnect fitting on the liquid waste container.
8. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

9. Select the **Liquid waste** check box.
10. Select **Done** to update supplies.

Related information…

- *Supply status screen - i1000SR view*, page 5-46
- *Update supplies window - i1000SR view*, page 5-51

Replenish RVs and update inventory (*i*2000/*i*2000SR)

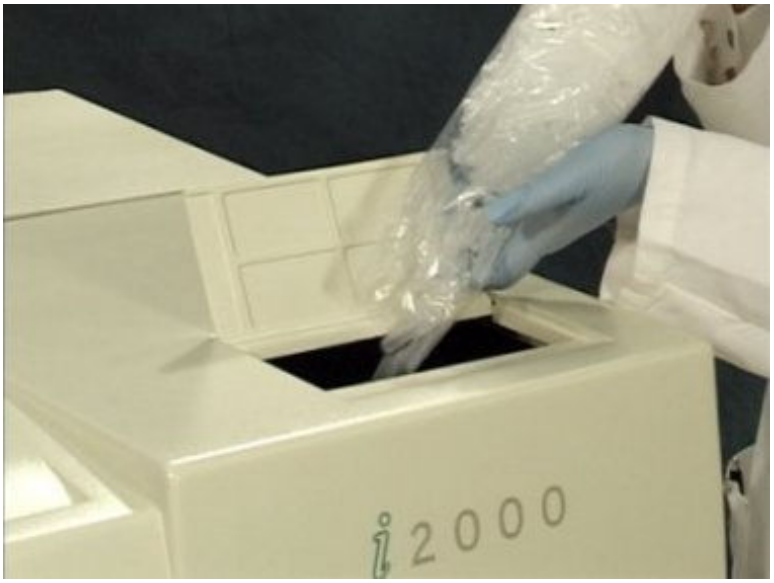
Perform this procedure to replenish and update RV (reaction vessel) inventory on the processing module(s). The maximum onboard storage capacity is 1200 RVs (sufficient inventory for approximately five hours of continuous operation).

Prerequisite	*Access the Supply status screen - i2000/i2000SR view*, page 5-46
Module status	Any
User access level	General operator
Supplies	Reaction vessels

To replenish RVs and update inventory:

1. Open the RV hopper cover.
2. Add RVs by performing one of the following:
   - Pour a partial bag of RVs into the RV hopper, estimating the quantity added.
   - Pour a full bag of RVs (500) into the RV hopper.

     NOTE: Do not overfill the hopper.



3. Close the RV hopper cover.
4. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.
5. Select the appropriate **RVs Added** option.

   Five hundred is equal to one bag. One thousand is equal to two bags. Use Other for a partial bag. If you select Other, enter the estimated number of RVs.
6. Enter the lot number in the same format as it appears on the bag label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.
7. Select **Done** to update RV inventory.

Related information…

- *Reaction vessels (i System)*, page 1-207
- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Update supplies window - i2000/i2000SR view*, page 5-50

Replenish RVs and update inventory (*i*1000SR)

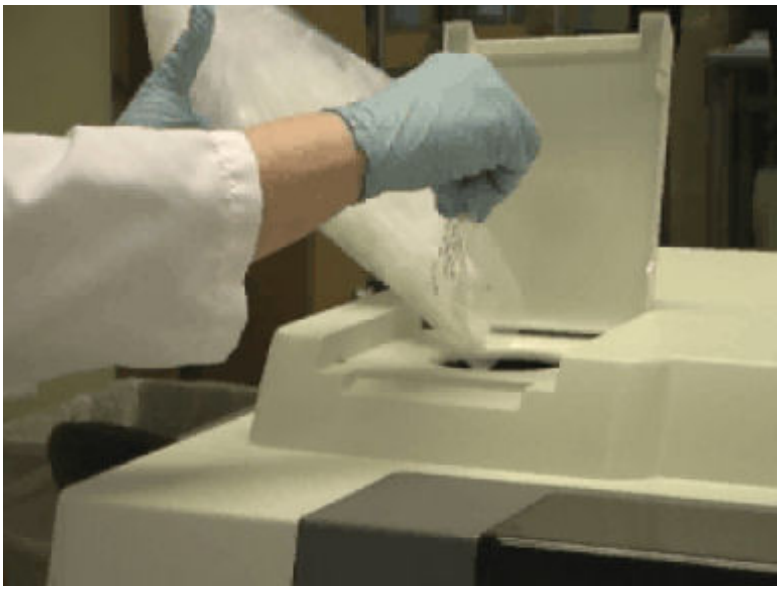
Perform this procedure to replenish and update RV (reaction vessel) inventory on the processing module. The maximum onboard storage capacity is 360 RVs.

Prerequisite	*Access the Supply status screen - i1000SR view*, page 5-47
Module status	Any
User access level	General operator
Supplies	Reaction vessels

To replenish RVs and update inventory:

1. Open the RV hopper cover.
2. Add enough RVs to fill the hopper.

   NOTE: Do not overfill the hopper.



3. Close the RV hopper cover.
4. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.
5. Select the **Filled hopper check box**.
6. Enter the lot number in the same format as it appears on the bag label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.
7. Select **Done** to update RV inventory.

Related information…

- *Reaction vessels (i System)*, page 1-207
- *Supply status screen - i1000SR view*, page 5-46
- *Update supplies window - i1000SR view*, page 5-51

Prepare wash buffer (*i* System)

Perform this procedure to prepare wash buffer from concentrate.

If your system is configured with an ARCHITECT ARM (Automatic Reconstitution Module) accessory, see *Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92.

Prerequisite	NA
Module status	NA
User access level	General operator

Supplies	• Concentrated Wash Buffer (1 L bottle) • 10 L wash buffer preparation container • Purified water

To prepare wash buffer:

1. Verify that the wash buffer is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
2. Invert the concentrated wash buffer bottle several times to ensure a homogeneous solution.
3. Pour the concentrated wash buffer into the preparation container.

   NOTE: The expiration date of the prepared wash buffer is the expiration date on the wash buffer label.

4. Slowly add purified water into the preparation container until the liquid reaches the 10 L mark.

   NOTE: Add the water slowly to avoid foaming. Ensure that the liquid level is between the two solid lines on the preparation container.

To load wash buffer, see *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85.

To load wash buffer, see *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Related information...

- *Concentrated wash buffer (i System)*, page 1-205

Replenish wash buffer manually and update inventory (*i*2000/*i*2000SR)

Perform this procedure to load wash buffer concentrate into the 25 liter onboard reservoir when your system is not configured with an ARCHITECT ARM

(Automatic Reconstitution Module) accessory or when the ARM is unavailable. A full reservoir holds sufficient inventory for approximately five hours of continuous operation.

To replace the concentrated wash buffer container on the ARCHITECT ARM accessory, see *Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92.

Prerequisite	*Prepare wash buffer (i System)*, page 5-84 *Access the Supply status screen - i2000/i2000SR view*, page 5-46
Module status	All except Offline, Initializing, and Maintenance
User access level	General operator
Supplies	• Prepared wash buffer (room temperature 15°C - 37°C) • Wash buffer transfer tubing • Lint-free tissue • Purified water

To replenish wash buffer manually and update inventory:

1. Open the supply and waste center door.
2. Put the transfer tubing into the wash buffer preparation container.
3. Attach the wash buffer transfer tubing to the quick disconnect at the left side of the wash buffer reservoir.

4. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

5. Select the **Add buffer** check box.

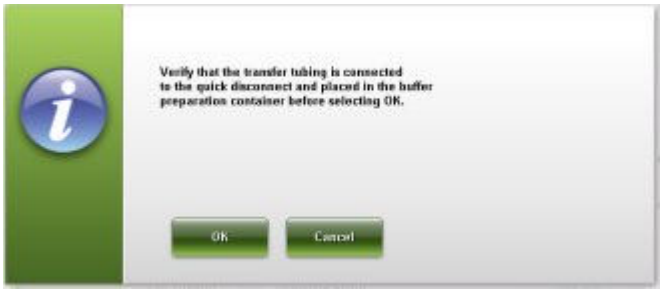
6. Enter the lot number and expiration date in the same format as they appear on the wash buffer bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the wash buffer is disabled.

7. Select **Done**.

   An information message displays.

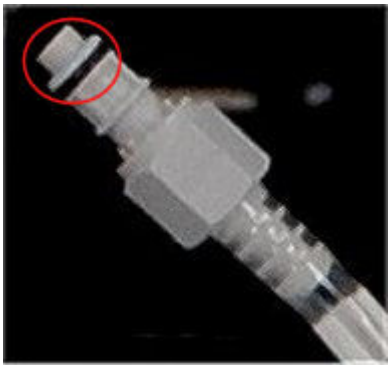


8. Select **OK** to initiate buffer transfer.

   The Supply status screen displays with a Wash buffer status of FILL IN PROGRESS.

9. Wait for the fill to complete, and then disconnect the wash buffer transfer tubing from the quick disconnect on the wash buffer reservoir.

10. Remove the tubing from the preparation container.
11. Drain any liquid remaining in the transfer tubing into a sink by raising the tubing above the level of the sink and depressing the connector (as indicated in the graphic) in the end of the tubing.



12. Dry the outside of the tubing with a clean soft lint-free tissue, and then store the tubing in a clean, dry place.
13. Close the supply and waste center door.
14. Rinse the wash buffer preparation container with purified water and place the container upside down to air dry.
15. Prepare wash buffer so it is ready the next time you need to load wash buffer. ***(optional)***

Related information…

- *Supply and waste center (i2000/i2000SR)*, page 1-122
- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Update supplies window - i2000/i2000SR view*, page 5-50

Replenish wash buffer manually and update inventory (*i*1000SR)

Perform this procedure to load wash buffer concentrate into the 12 liter onboard reservoir.

CAUTION: The quick disconnect port above the waste area is used for manually loading wash buffer.

Prerequisite	*Prepare wash buffer (i System)*, page 5-84 *Access the Supply status screen - i1000SR view*, page 5-47
Module status	All except Offline, Initializing, and Maintenance
User access level	General operator
Supplies	• Prepared wash buffer (room temperature 15°C - 37°C) • Wash buffer transfer tubing • Lint-free tissue • Purified water

To replenish wash buffer manually and update inventory:

1. Open the supply and waste center door.
2. Put the transfer tubing into the wash buffer preparation container.
3. Attach the wash buffer transfer tubing to the quick disconnect above the waste area.

4. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

5. Select the **Add buffer** check box.

6. Enter the lot number and expiration date in the same format as they appear on the wash buffer bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the wash buffer is disabled.

7. Select **Done**.

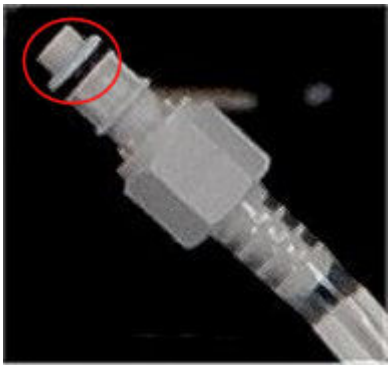
   An information message displays.

8. Select **OK** to initiate buffer transfer.

   The Supply status screen displays with a Wash buffer status of FILL IN PROGRESS.

9. Wait for the fill to complete, and then push the gray button to disconnect the wash buffer transfer tubing from the quick disconnect above the waste area.

10. Remove the tubing from the preparation container.
11. Drain any liquid remaining in the transfer tubing into a sink by raising the tubing above the level of the sink and depressing the connector (as indicated in the graphic) in the end of the tubing.



12. Dry the outside of the tubing with a clean soft lint-free tissue, and then store the tubing in a clean, dry place.
13. Close the supply and waste center door.
14. Rinse the wash buffer preparation container with purified water and place the container upside down to air dry.

Related information…

- *Supply and waste center (i1000SR)*, page 1-145
- *Supply status screen - i1000SR view*, page 5-46
- *Update supplies window - i1000SR view*, page 5-51

Replace concentrated wash buffer on the ARM (*i*2000/*i*2000SR)

Perform this procedure to load a Concentrated Wash Buffer container on the ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	Concentrated Wash Buffer

To replace concentrated wash buffer on the ARM:

1. Verify that the concentrated wash buffer is within the expiration date on the box label. DO NOT use if the expiration date is exceeded.
2. Press the **stop** key on the ARM keypad.

   The red indicator beneath the stop key illuminates.
3. Disconnect the sensor cable [1] from the ARM.

4. Disconnect the tubing [2].
5. Twist the fitting to loosen the tubing assembly [4] and remove it from the container.
6. Place the tubing assembly into the tubing assembly holder [3].
7. Remove the empty container from the ARM.
8. Remove the cardboard cutout from the full container and discard.
9. Position the full container on the ARM so that the cap is close to the white bracket [5].

10. Remove the cap from the container.
11. Place the tubing assembly into the full container, and then twist the fitting to tighten.
12. Reconnect the sensor cable [1] and supply tubing quick disconnect fitting [2] to the ARM console.
13. Press the **replace buffer** key on the ARM keypad.

    NOTE: It is normal for a small amount of wash buffer to drain as the ARM primes itself before resuming operation.

    The stop indicator is no longer illuminated and the following occurs:

    – The amber replace buffer indicator illuminates briefly while the sensor automatically recalibrates to "full."

    – The green start indicator illuminates steadily indicating the ARM is ready for operation.

    – Buffer is automatically transferred to the buffer reservoir when the onboard remaining wash buffer is approximately 40%.
14. Discard the empty container.

To initiate wash buffer transfer, see *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.

Related information...

- *ARM optional accessory (i2000/i2000SR)*, page 1-158
- *ARM connectors (i2000/i2000SR)*, page 1-161
- *Concentrated wash buffer (i System)*, page 1-205

Replace pre-trigger and/or trigger solution and update inventory (*i*2000/*i*2000SR)

Perform this procedure to replace and update Pre-Trigger and Trigger Solution inventory when the bottle is empty, has reached the onboard stability expiration date, or is expired.

Prerequisite	*Access the Supply status screen - i2000/i2000SR view*, page 5-46
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	• Pre-trigger solution • Trigger solution

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace pre-trigger and/or trigger and update inventory:

1. Verify that the new pre-trigger or trigger is within the expiration date listed on the label. DO NOT use if the expiration date is exceeded.

   NOTE: Onboard stability of the solution is ≤ 28 days. Some assays require a shorter stability period. Refer to your *i* System assay package inserts for more information.

   IMPORTANT: DO NOT pool partially filled bottles of pre-trigger or trigger.

2. Record the installation date in accordance with your current laboratory procedures.
3. Select the appropriate **Module** option from the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

4. Select the **Pre-Trigger** and/or **Trigger** check box(es).
5. Enter the lot number and expiration date in the same format as they appear on the bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the Pre-Trigger or Trigger solution is disabled.

6. Select **Done** to update the pre-trigger or trigger inventory.

   IMPORTANT: The pre-trigger and/or trigger inventory is updated to 100% remaining. Inaccurate tracking will result if a new bottle is not used.

7. Open the supply and waste center door.
8. Slide the pre-trigger/trigger tray out.

   NOTE: Use caution when handling the level sensors. Avoid bending the tubing connected to the cap. Avoid applying stress on the wiring and connectors.

9. Move the bottle to be replaced to the bottle exchange position in the middle of the tray.
10. Place the new bottle in the correct location in the tray, as indicated by the label on the tray.

    IMPORTANT: Results can be adversely affected if you do not load pre-trigger and trigger correctly. Make sure pre-trigger and trigger are loaded in the correct locations in the tray. Placing concentrated wash buffer in place of trigger or pre-trigger will adversely affect results.

11. Remove the cap from the new bottle and place it in the cap storage area at the front of the tray.
12. Remove the cap from the used bottle.

    The level sensor assembly is attached to the cap.

13. Place the level sensor and cap into the new bottle.

14. Place the level sensor into the container with the arrow facing towards the front.
15. Tighten the cap.

    When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left.

    IMPORTANT: Results and inventory status can be adversely affected if you do not align the level sensor correctly.
16. Place the cap from the cap storage area on the used bottle, and then remove the bottle.
17. Discard the used bottle in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10, for additional information.
18. Slide the pre-trigger/trigger tray back into the module.
19. Close the supply and waste center door. The system automatically flushes the replaced solution before testing is performed.

Related information…

- *Pre-trigger solution (i System)*, page 1-204
- *Trigger solution (i System)*, page 1-204
- *Supply and waste center (i2000/i2000SR)*, page 1-122
- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Update supplies window - i2000/i2000SR view*, page 5-50

Replace pre-trigger and/or trigger solution and update inventory (*i*1000SR)

Perform this procedure to replace and update Pre-Trigger and Trigger Solution inventory when the bottle is empty, has reached the onboard stability expiration date, or is expired.

Prerequisite	*Access the Supply status screen - i1000SR view*, page 5-47
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	• Pre-Trigger Solution • Trigger Solution

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To replace pre-trigger and/or trigger and update inventory:

1. Verify that the new pre-trigger or trigger is within the expiration date listed on the label. DO NOT use if the expiration date is exceeded.

   NOTE: Onboard stability of the solution is ≤ 28 days. Some assays require a shorter stability period. Refer to your *i* System assay package inserts for more information.

   IMPORTANT: DO NOT pool partially filled bottles of pre-trigger or trigger.

2. Record the installation date in accordance with your current laboratory procedures.

3. Select the appropriate **Module** option from the Supply status screen, and then select **F2 - Update supplies**.

   The Update supplies window displays.

4. Select the **Pre-Trigger** and/or **Trigger** check box(es).

5. Enter the lot number and expiration date in the same format as they appear on the bottle label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the Pre-Trigger or Trigger solution is disabled.

6. Select **Done** to update the pre-trigger or trigger inventory.

   IMPORTANT: The pre-trigger and/or trigger inventory is updated to 100% remaining. Inaccurate tracking will result if a new bottle is not used.

7. Open the supply and waste center door.

8. Slide the pre-trigger/trigger tray out.

NOTE: Use caution when handling Level Sensors:

- Avoid bending the tubing connected to the cap
- Avoid stress on the Level Sensor wiring and connectors

9. Move the bottle to be replaced to the bottle exchange position in the middle of the tray.
10. Place the new bottle in the correct location in the tray, as indicated by the label on the tray.

    IMPORTANT: Results can be adversely affected if you do not load pre-trigger and trigger correctly. Make sure pre-trigger and trigger are loaded in the correct locations in the tray. Placing concentrated wash buffer in place of trigger or pre-trigger will adversely affect results.
11. Remove the cap from the new bottle and place it in the cap storage area at the front of the tray.
12. Remove the cap from the used bottle. The level sensor assembly is attached to the cap.
13. Slide the level sensor and cap into the new bottle, with the arrow on top of the level sensor facing towards the front.

14. Tighten the cap.

    IMPORTANT: Results and inventory status can be adversely affected if you do not align the level sensor correctly.
15. Place the cap from the cap storage area on the used bottle and then remove the bottle.
16. Discard the used bottle in accordance with the waste disposal procedures for your laboratory. See *Waste handling and disposal*, page 8-10 for additional information.

17. Slide the pre-trigger/trigger tray back into the module.
18. Close the supply and waste center door. The system automatically flushes the replaced solution before testing is performed.

Related information...

- *Pre-trigger solution (i System)*, page 1-204
- *Trigger solution (i System)*, page 1-204
- *Supply status screen - i1000SR view*, page 5-46
- *Update supplies window - i1000SR view*, page 5-51

Initiate wash buffer transfer from the ARM (*i*2000/*i*2000SR)

Perform this procedure to manually start transfer of buffer from the ARCHITECT ARM (Automatic Reconstitution Module) accessory to an *i* System processing module. This procedure is required when an error condition occurs during buffer transfer.

Prerequisite	*Access the Supply status screen - i2000/i2000SR view*, page 5-46
Module status	All except Offline and Stopped
User access level	General operator
Supplies	NA

To initiate wash buffer transfer from the ARM:

1. Verify the ARM is in Ready status (green indicator under the Start key is illuminated). If not in Ready status, press the Stop key followed by the Start key on the ARM keypad.
2. Select the appropriate **Module** option on the Supply status screen, and then select **F2 - Update Supplies**.

   The Update supplies window displays.
3. Select the **Add buffer** check box.
4. Enter the lot number and expiration date in the same format as they appear on the wash buffer container label or use the bar code scanner to scan in the data. (premium feature) ***(optional)***

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the wash buffer is disabled.
5. Select **Done**.

   The updated Supply status screen displays.

Related information...

- *Supply status screen - i2000/i2000SR view*, page 5-44
- *Update supplies window - i2000/i2000SR view*, page 5-50
- *ARM optional accessory (i2000/i2000SR)*, page 1-158

Estimation of supply inventory low alert

Low alert settings are configured as a percentage of the supply volume.

Calculating the supply inventory low alert differs depending on which system you use and which solution the alert is for.

Estimation of supply inventory low alert topics include:

- *Estimation of Trigger and Pre-trigger solution low alert*, page 5-99
- *Estimation of ICT Reference Solution and Wash buffer low alert*, page 5-100
- *Estimation of Acid Wash and Alkaline Wash solution low alert*, page 5-102
- *Estimation of c System Onboard Wash solution low alert*, page 5-102

Estimation of Trigger and Pre-trigger solution low alert

The same amount of Trigger and Pre-trigger solutions are used for each test. When estimating the low alert setting for Trigger and Pre-trigger solutions, the daily non-test usage (consumption related to the performance of daily maintenance procedures) must be considered. Daily non-test usage also includes the worst case of 3 automated flushes per day.

Low Alert settings can only be entered as whole values, therefore the daily non-test usage percentages are rounded to the nearest whole number.

Use the table below to calculate the low alert setting.

NOTE: If AWDS (Alternate Wash Delivery System) (*i*1000SR) is installed, the low alert for Trigger may need to be set higher.

Table 5.1: Estimation of Trigger and Pre-trigger solution low alert

System	Supply	Daily non-test usage	Tests/supply volume %	
			1%	**5%**
i System	Trigger	6% (57 mL)	30	150
	Pre-trigger	6% (57 mL)	90	450

The formula used for the Trigger and Pre-trigger solution low alert is:

(Daily non-test usage) + (tests/supply volume % for your number of tests)

Example: Configure a Pre-trigger solution low alert corresponding to 1 day of testing of 500 tests on an *i*2000SR System.

Approximate the test count by combining the test count values from the 1% and 5% test/supply volume % columns in the table. For 500 tests the closest

estimation includes 1% (90 tests) and 5% (450 tests). On an *i*2000SR System the daily non-test usage for Pre-trigger solution is 6%.

(6%) + (90 tests + 450 tests)

(6%) + (1% + 5%)

Low alert setting = 12%

Related procedures…

- *Change the inventory low alert setting for bulk and onboard solutions (premium feature)*, page 2-21

Estimation of ICT Reference Solution and Wash buffer low alert

ICT Reference Solution low alert calculation includes solution usage per sample only. Wash buffer low alert calculation includes buffer usage per test and non-test usage related to performance of daily maintenance procedures.

ICT Reference Solution

ICT Reference Solution usage is determined by the number and type of samples processed, not the number of ICT tests run. A sample generating a single ICT result uses the same amount of ICT Reference Solution as a sample generating results for all 3 ICT analytes.

Urine samples for ICT measurement use twice the amount of ICT Reference Solution as a serum or plasma sample.

The high end of the range in the table represents the number of samples for the given percentage if only serum or plasma samples are assayed. The low end of the range in the table represents the number of samples for the given percentage if only urine samples are assayed.

The daily non-sample usage is negligible and therefore is not included in the calculation.

Use the table below to calculate the low alert setting.

Table 5.2: Estimation of ICT Reference Solution low alert

System	Supply	Sample/supply volume %	
		1%	5%
c Systems	ICT Reference Solution	9 - 18	45 - 90

The formula used for the ICT Reference Solution low alert is:

Samples/supply volume % for your number of tests

Example: Configure an ICT Reference low alert corresponding to 1 day of testing of 200 serum or plasma and 20 urine ICT samples on a *c*8000 System.

Approximate the sample count by combining the sample count values from the 1% and 5% sample/supply volume % columns in the table. For 200 serum or

plasma samples the closest estimation includes 1% (18 samples) and 2 x 5% (90 samples). For 20 urine samples the closest estimation includes 2 x 1% (9 samples).

18 serum or plasma samples + (2 x 90 serum or plasma samples) + (2 x 9 urine samples)

1% + (2 x 5%) + (2 x 1%) of ICT Reference Solution volume

Low alert setting = 13%

Wash buffer

Wash buffer usage varies from approximately 25 mL to 90 mL per test. Usage is determined by the assay menu, dilution protocols used, and test processing order. The values in the final two columns assume an average usage of 50 mL of wash buffer per test.

When estimating the low alert setting for Wash buffer, the non-test usage (consumption related to the performance of daily maintenance procedures) must be considered. Wash buffer non-test usage also includes one flush because wash buffer is used at a faster rate and may be added multiple times during the day.

Low Alert settings can only be entered as whole values, therefore the daily non-test usage percentages are rounded to the nearest whole number.

Use the table below to calculate the low alert setting.

Table 5.3: Estimation of Wash buffer solution low alert

System	Supply	Non-test usage	Tests/supply volume %	
			1%	5%
*i*1000SR	Wash Buffer	1% (109mL)	2	12
*i*2000/*i*2000SR	Wash Buffer	3% (859mL)	5	25

The formula used for the Wash buffer low alert is:

(Non-test usage) + (tests/supply volume % for your number of tests)

Example: Configure a Wash buffer low alert corresponding to processing 80 tests on an *i*2000SR System.

Approximate the test count by combining the test count values from the 1% and 5% test/supply volume % columns in the table. For 80 tests the closest estimation includes 1% (5 tests) and 3 x 5% (75 tests). On an *i*2000SR System the non-test usage for Wash buffer is 3%.

(3%) + (5 tests) + (3 x 25 tests)

(3%) + (1%) + (3 x 5%)

Low alert setting = 19%

Related procedures…

- *Change the inventory low alert setting for bulk and onboard solutions (premium feature)*, page 2-21

Estimation of Acid Wash and Alkaline Wash solution low alert

For *c* Systems, the usage of the bulk wash solutions is determined by the time that the module is in the Running state with 1 or more tests in progress, not the number of tests processed.

Daily non-test usage is negligible and is not used in the calculation.

Use the table below to calculate the low alert setting.

Table 5.4: Estimation of Acid Wash and Alkaline Wash solution low alert

System	Supply	Usage/hour of active processing	
*c*4000	Alkaline Wash	1.0% (4.8 mL)	
	Acid Wash	0.6% (3.2 mL)	
*c*8000	Alkaline Wash	1.9% (9.6 mL)	
	Acid Wash	1.3% (6.4 mL)	
*c*16000	Alkaline Wash	3.8% (19.3 mL)	
	Acid Wash	2.6% (12.8mL)	

Example: Configure an Acid Wash solution low alert corresponding to approximately 8 hours of testing on a *c*8000 System.

The supply low alert calculation consists only of the usage for the hours of running time.

Acid Wash solution low alert = 8 hours x 1.3% per hour

Low alert setting = 10%

Related procedures…

- *Change the inventory low alert setting for bulk and onboard solutions (premium feature)*, page 2-21

Estimation of *c* System Onboard Wash solution low alert

No guidance can be provided for translating system usage (tests or time) into a low alert setting for the *c* System onboard wash solutions located in the reagent supply center(s).

These include:

- 0.5% Acid Wash
- Detergent A

- 10% Detergent B

Usage of these solutions is highly variable and entirely dependant on several factors including:

- Which assays are used and with what frequency
- The specific order samples and tests are processed
- The size of cartridge used for these solutions
- Any SmartWash parameters added to accommodate non-Abbott assays

Adjustment of the low alert setting for these solutions should be made based on historical observations for your lab and workflow.

Reagent inventory management

Always check reagent inventory before processing samples. Use the Reagent screens to manage reagent inventory.

Reagent inventory management topics include:

Reagent status screens

From the Reagent status and Reagent status all screens you can view the status of reagents on board the system. The view that displays for the Reagent status screen is dependent on the processing module configuration of your system.

Reagent status screen and views topics include:

Reagent status screen - *c*4000 view

From the *c*4000 view of the Reagent status screen you can view information for reagents loaded on the reagent carousel, such as:

- Reagent location
- Assay name
- Calibration status
- Remaining tests

- Reagent status

A graphical representation of the reagent carousel indicates the location of the reagents and their statuses.

You can also access windows to:

- Find a specific reagent
- Update the reagent inventory
- Print the Reagent Load Error report
- Print the Reagent Status report
- View detailed reagent information
- Assign locations for non-bar coded reagents
- Reset volume and stability for non-bar coded reagents

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.29: Reagent status screen - c4000 view

For descriptions of these fields, see *Reagent status screen - c4000 field descriptions*, page E-116.

When accessing the Reagent status screen the information sorts by reagent position.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
R1, R2	R1 carousel position in ascending order.
ASSAY	Alphanumerically in ascending order.
REMAINING TESTS	Numerically is ascending order.
CAL STATUS and REAGENT STATUS	See *Descriptions of calibration statuses*, page 6-18 and *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

To display this screen, see *Access the Reagent status screen - c4000 view*, page 5-106.

Related procedures…

- *Verify reagent inventory on a single module*, page 5-128
- *Verify reagent inventory on all modules*, page 5-129
- *Find a specific reagent*, page 5-130
- *View reagent details*, page 5-131
- *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132
- *Load bar coded reagents (c4000)*, page 5-135
- *Load sample diluent(s) (c4000)*, page 5-137
- *Load non-bar coded reagents (c4000)*, page 5-139
- *Replace sample diluent(s) (c4000)*, page 5-142
- *Replace non-bar coded reagents (c4000)*, page 5-144
- *Unload bar coded reagents (c4000)*, page 5-146
- *Unload non-bar coded reagents (c4000)*, page 5-148
- *Print a report*, page 5-403

Access the Reagent status screen - *c*4000 view

Perform this procedure to display the *c*4000 view of the Reagent status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **reagent status** button on the *c*4000 processing module graphic.

Select **Reagents** from the menu bar, and then select **Reagent status**.

The Reagent status screen - *c*4000 view displays.

Related information...

- *Snapshot screen*, page 1-22
- *Reagent status screen - c4000 view*, page 5-104

Reagent status screen - *c*8000/*c*16000 view

From the *c*8000 or *c*16000 view of the Reagent status screen you can view information for reagents loaded on the reagent carousels, such as:

- Reagent location
- Assay name
- Calibration status
- Remaining tests
- Reagent status

A graphical representation of the reagent carousels indicates the location of the reagents and their statuses.

You can also access windows to:

- Find a specific reagent
- Update the reagent inventory
- Print the Reagent Load Error report
- Print the Reagent Status report
- View detailed reagent information
- Assign locations for non-bar coded reagents
- Reset volume and stability for non-bar coded reagents

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

The two views of the Reagent status screen are:

- *c*8000 view
- *c*16000 view

Figure 5.30: Reagent status screen - c8000 view

Figure 5.31: Reagent status screen - c16000 view

For descriptions of these fields, see *Reagent status screen - c8000/c16000 field descriptions*, page E-117.

When accessing the Reagent status screen the information sorts by reagent position.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
R1, R2	R1 carousel position in ascending order.
ASSAY	Alphanumerically in ascending order.
REMAINING TESTS	Numerically is ascending order.
CAL STATUS and REAGENT STATUS	See *Descriptions of calibration statuses*, page 6-18 and *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

To display this screen, see *Access the Reagent status screen - c8000/c16000 view*, page 5-109.

Related procedures…

- *Verify reagent inventory on a single module*, page 5-128
- *Verify reagent inventory on all modules*, page 5-129
- *Find a specific reagent*, page 5-130
- *View reagent details*, page 5-131
- *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132
- *Load bar coded reagents (c8000/c16000)*, page 5-150
- *Load sample diluent(s) (c8000/c16000)*, page 5-152
- *Load non-bar coded reagents (c8000/c16000)*, page 5-155
- *Replace sample diluent(s) (c8000/c16000)*, page 5-157
- *Replace non-bar coded reagents (c8000/c16000)*, page 5-159
- *Unload bar coded reagents (c8000/c16000)*, page 5-161
- *Unload non-bar coded reagents (c8000/c16000)*, page 5-163
- *Print a report*, page 5-403

Access the Reagent status screen - *c*8000/*c*16000 view

Perform this procedure to display the *c*8000 or *c*16000 view of the Reagent status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **reagent status** button on the *c*8000 or *c*16000 processing module graphic.

Select **Reagents** from the menu bar, and then select **Reagent status**.

The Reagent status screen - *c*8000 or *c*16000 view displays.

Related information...

- *Snapshot screen*, page 1-22
- *Reagent status screen - c8000/c16000 view*, page 5-107

Reagent status screen - *i*2000/*i*2000SR view

From the *i*2000/*i*2000SR view of the Reagent status screen you can view information for reagents loaded on the reagent carousel, such as:

- Reagent location
- Assay name
- Calibration status
- Remaining tests
- Reagent status

A graphical representation of the reagent carousel indicates the location of the reagents and their statuses.

You can also access windows to:

- Find a specific reagent
- Update the reagent inventory
- Print the Reagent Load Error report
- Print the Reagent Status report
- View detailed reagent information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.32: Reagent status screen - i2000/i2000SR view

For descriptions of these fields, see *Reagent status screen - i2000/i2000SR field descriptions*, page E-119.

When accessing the Reagent status screen the information sorts by reagent position.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
P	Carousel position in ascending order.
ASSAY	Alphanumerically in ascending order.
REMAINING TESTS	Numerically is ascending order.
CAL STATUS and REAGENT STATUS	See *Descriptions of calibration statuses*, page 6-18 and *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

To display this screen, see *Access the Reagent status screen - i2000/i2000SR view*, page 5-112.

Related procedures...

- *Verify reagent inventory on a single module*, page 5-128
- *Verify reagent inventory on all modules*, page 5-129
- *Find a specific reagent*, page 5-130
- *View reagent details*, page 5-131

- *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132
- *Prepare new reagent bottles (i2000/i2000SR)*, page 5-167
- *Prepare used reagent bottles (i2000/i2000SR)*, page 5-169
- *Load reagents (i2000/i2000SR)*, page 5-169
- *Unload reagents (i2000/i2000SR)*, page 5-171
- *Print a report*, page 5-403

Access the Reagent status screen - *i*2000/*i*2000SR view

Perform this procedure to display the *i*2000/*i*2000SR view of the Reagent status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **reagent status** button on the desired *i*2000/*i*2000SR processing module graphic.

1. Select **Reagents** from the menu bar, and then select **Reagent status**.

   The Reagent status screen - *c* System view displays for a standalone *c* System or an integrated system.

   OR

   The Reagent status screen - *i*2000/*i*2000SR view displays for a standalone or multi-module *i* System.

2. Select another **Module** option to display a different view. ***(optional)***

Related information…

- *Snapshot screen*, page 1-22
- *Reagent status screen - i2000/i2000SR view*, page 5-110

Reagent status screen - *i*1000SR view

From the *i*1000SR view of the Reagent status screen you can view information for reagents loaded on the reagent carousel and RSH (robotic sample handler), such as:

- Reagent location
- Assay name
- Calibration status
- Remaining tests

- Reagent status
- Carrier status
- Scheduled tests
- Ready to unload time (reagent kit becomes available to unload)

A graphical representation of the reagent carousel indicates the location of the reagents and their statuses.

You can also access windows to:

- Find a specific reagent
- View detailed reagent information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.33: Reagent status screen - i1000SR view

For descriptions of these fields, see *Reagent status screen - i1000SR field descriptions*, page E-120.

When accessing the Reagent status screen the information sorts by reagent position.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
P	RSH section number and then carousel position in ascending order.
ASSAY	Alphanumerically in ascending order.
REMAINING TESTS	Numerically is ascending order.
CAL STATUS and REAGENT STATUS	See *Descriptions of calibration statuses*, page 6-18 and *Descriptions of reagent statuses (i1000SR)*, page 5-118.
CARRIER STATUS	See *Descriptions of carrier statuses (i1000SR)*, page 5-119.
SCHEDULED TESTS	Numerically in ascending order.
READY TO UNLOAD	First to last to become available for unload.

To display this screen, see *Access the Reagent status screen - i1000SR view*, page 5-114.

Related procedures…

- *Verify reagent inventory on a single module*, page 5-128
- *Find a specific reagent*, page 5-130
- *View reagent details*, page 5-131
- *Prepare new reagent bottles (i1000SR)*, page 5-173
- *Prepare used reagent bottles (i1000SR)*, page 5-175
- *Load reagents on the RSH (i1000SR)*, page 5-178
- *Unload reagents from reagent carousel (i1000SR)*, page 5-179
- *Reloading reagents after opening the reagent carousel cover (i1000SR)*, page 5-182
- *Cancel reagent unload (i1000SR)*, page 5-180
- *Print a report*, page 5-403

Access the Reagent status screen - *i*1000SR view

Perform this procedure to display the *i*1000SR view of the Reagent status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **reagent status** button on the *i*1000SR processing module graphic.

1. Select **Reagents** from the menu bar, and then select **Reagent status**.

   The Reagent status screen - *i*1000SR view displays.

2. Select another **Module** option to display a different view. ***(optional)***

Related information…

- *Snapshot screen*, page 1-22
- *Reagent status screen - i1000SR view*, page 5-112

Reagent status screen - View all view

From the View all view of the Reagent status screen you can see information for reagents loaded on all modules, such as:

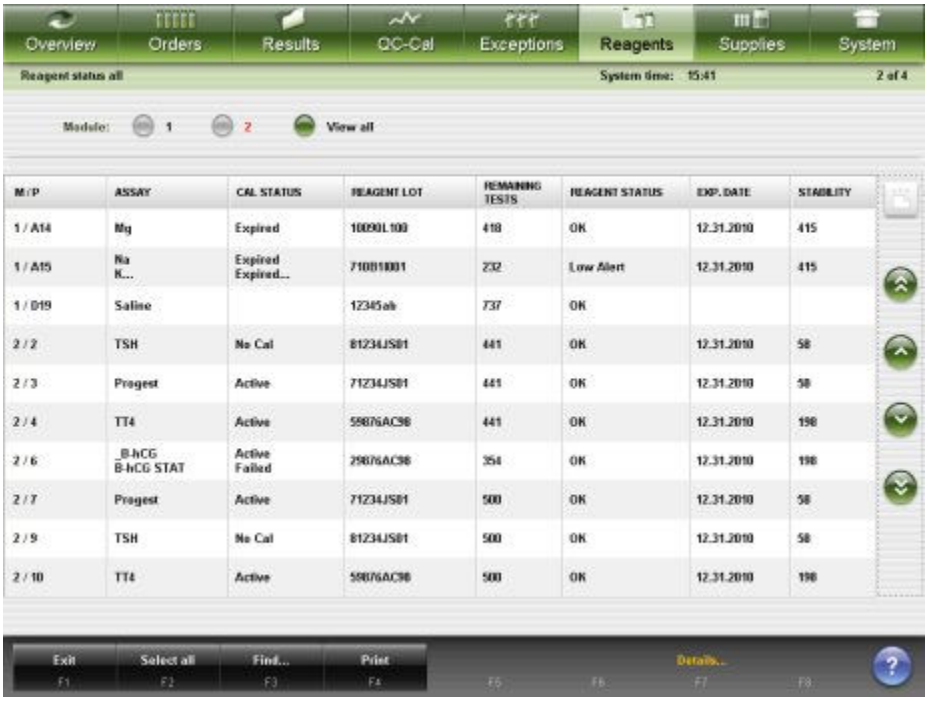
- Assay name
- Reagent location, lot number, expiration date, and onboard stability
- Reagent and calibration status
- Remaining tests

You can also access windows to:

- Find a specific reagent
- Print the Reagent Load Error report
- Print the Reagent Status report
- View detailed reagent information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.34: Reagent status screen - View all view



For descriptions of these fields, see *Reagent status screen - View all view field descriptions*, page E-121.

When accessing the Reagent status all screen the information sorts by reagent position.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M/P	Module, and then carousel position in ascending order.
ASSAY and REAGENT LOT	Numerically in ascending order.
REMAINING TESTS	Numerically in ascending order.
CAL STATUS and REAGENT STATUS	*Descriptions of calibration statuses*, page 6-18 *Descriptions of reagent statuses (except for i1000SR)*, page 5-117. *Descriptions of reagent statuses (i1000SR)*, page 5-118.
EXP. DATE	First to last to expire.
STABILITY	Shortest stability in ascending order.

To display this screen, see *Access the Reagent status screen - View all view*, page 5-116.

Related procedures…

- *Verify reagent inventory on all modules*, page 5-129
- *Find a specific reagent*, page 5-130
- *View reagent details*, page 5-131
- *Print a report*, page 5-403

Access the Reagent status screen - View all view

Perform this procedure to display the Reagent status screen - View all view.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent status screen - View all view:

1. Select **Reagents** from the menu bar, and then select **Reagent status**.

   The Reagent status screen - *c* System view displays. This view displays for a standalone *c* System and an integrated system.

   OR

The Reagent status screen - *i* System view displays. This view displays for standalone and multi-module *i* Systems.

2. Select the **View all** option.

   The Reagent status screen - view all view displays.

Related information…

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Reagent status screen - i1000SR view*, page 5-112
- *Reagent status screen - View all view*, page 5-115

Descriptions of reagent statuses (except for *i*1000SR)

You can use reagent status information to determine the status of each reagent and if there are problems with the reagent kits loaded on the system. The system displays one of the following reagent statuses for each reagent kit. When you select the REAGENT STATUS column heading, the reagent status sorts in the following order.

Table 5.5: Reagent statuses (except for i1000SR)

Status	Description
BC Fail	The bar code on the reagent bottle is unreadable.
Undefined	The reagent configuration for a 1D bar code is not defined. See *Configure a user-defined reagent (photometric - c System)*, page 2-92.
Load Error	*c* System: The reagent is loaded in the wrong reagent supply center. For example, an R1 reagent is loaded in reagent supply center 2. *c*16000: The reagent is loaded in the wrong carousel (inner versus outer) in a reagent supply center. For example, the ICT diluent is loaded in the R1 Inner (B-line) carousel when it should be loaded in the R1 Outer (A-line) carousel. *i*2000/*i*2000SR: The reagent kit contains more than three bottles and is loaded in positions 25 and 1 on the reagent carousel.
Missing Bottle	The reagent kit is missing a required bottle.
Extra Bottle	The detected bottle(s) is not part of a known reagent kit or insufficient bottles are loaded to create a kit.
Mismatch (*i*2000/*i*2000SR)	One or more detected bottles are not linked to the reagent kit. **NOTE:** Bottles in a reagent kit are linked together by the system software when they are scanned for the first time. The bottles

Status	Description
	must be kept together and cannot be used for another reagent kit.
No Assay	The reagent is not used by any assay file installed on the system.
Empty	The reagent is empty. For *c* System, remaining tests reflect the reagent volume that has not been committed to an order and is calculated as: (Physical reagent volume) - (Committed reagent volume) The physical reagent volume is updated when the probe aspirates reagent (liquid level sense). The committed reagent volume is the allocation to scheduled tests which have not been aspirated. The remaining test count is updated when the probe aspirates reagent and when scheduled tests do not get processed. Therefore it is possible for a cartridge with an Empty status to have tests remaining after assay processing is complete.
LLS Error	Consecutive liquid level sense errors occurred during aspiration of the reagent.
Expired	The reagent is expired or has exceeded the onboard stability time.
Disabled	The operator or system has disabled a reagent kit from running patient samples.
Low Alert	The remaining volume of the reagent is below the configured number of tests for the low alert notification.
Overridden	The operator has overridden a reagent that is expired or has exceeded the onboard stability time.
Mixing (*i*2000/*i*2000SR)	The reagent is mixing during run initialization to disperse the microparticles.
OK	The reagent is OK.

Descriptions of reagent statuses (*i*1000SR)

You can use reagent status information to determine the status of each reagent and if there are problems with the reagent kits loaded on the system. The system displays one of the following reagent statuses for each reagent kit. When you select the REAGENT STATUS column heading, the reagent status sorts in the following order.

Table 5.6: Reagent statuses (i1000SR)

Status	Description
BC Fail	The bar code on the reagent bottle is unreadable. **NOTE:** This status is also displayed when the system automatically unloads reagent carriers while performing a

Status	Description
	maintenance or diagnostic procedure and after opening the reagent carousel cover.
Incomplete	A hardware error occurred during loading or unloading a two carrier reagent kit causing a separation of the reagent carriers. **NOTE:** When this status occurs either: • one reagent carrier is located on the RSH and the other carrier is on the reagent carousel or • one reagent carrier is located on the RSH or reagent carousel and the other carrier is no longer on the system
Missing Bottle	The reagent kit is missing a required bottle.
Extra Bottle	The detected bottle(s) is not part of a known reagent kit or insufficient bottles are loaded to create a kit.
Mismatch	One or more detected bottles are not linked to the reagent kit. **NOTE:** Bottles in a reagent kit are linked together by the system software when they are scanned for the first time. The bottles must be kept together and cannot be used for another reagent kit.
No Assay	The reagent is not used by any assay file installed on the system.
Empty	The reagent is empty.
LLS Error	Consecutive liquid level sense errors occurred during aspiration of the reagent.
Expired	The reagent is expired or has exceeded the onboard stability time.
Disabled	The operator or system has disabled a reagent kit from running patient samples.
Low Alert	The remaining volume of the reagent is below the configured number of tests for the low alert notification.
Overridden	The operator has overridden a reagent that is expired or has exceeded the onboard stability time.
OK	The reagent is OK.
Mixing	The reagent is mixing to disperse the microparticles.

Descriptions of carrier statuses (*i*1000SR)

You can use carrier status information to determine the status of loading or unloading each reagent carrier and if there are problems with the loading or unloading of the reagent carriers. The system displays one of the following carrier statuses for each reagent kit. When you select the CARRIER STATUS column heading, the carrier status sorts in the following order.

Table 5.7: Carrier statuses (i1000SR)

Status	Description
Unload error	A hardware error occurred when unloading the reagent carrier.
Load error	A hardware error occurred when loading the reagent carrier or a hardware condition exists that prevents future loading of reagent carriers.
Scheduled unload	A reagent carrier unload has been requested but can not be immediately processed due to one of the following: • tests are still running for the requested reagent • no RSH section is available to unload the carrier • the system is currently unloading another reagent kit
Scheduled load	A reagent carrier needs to be loaded on the reagent carousel but no position is available on the carousel.
Partially unloaded	The first carrier of a two carrier reagent kit has been unloaded or the second carrier needs to be unloaded but no section is available on the RSH.
Scanning	The first carrier of a two carrier reagent kit has been scanned by the bar code reader and is waiting on the system to scan the second carrier.
Unloading	The reagent carrier is in the process of being removed from the reagent carousel.
Loading	The reagent carrier is in the process of being loaded on the reagent carousel.
Blank	The reagent carrier is loaded on the reagent carousel, has been successfully unloaded to the RSH or has just been loaded on the RSH but not scanned by the bar code reader.

Windows - Reagent status screens

Windows you can access from the Reagent status screen are listed below.

Windows not in this sub-section include:

- *Print options window*, page 5-415

Windows in this sub-section include:

- *Details for reagent (Reagent status) window*, page 5-120
- *Assign location window (c4000)*, page 5-121
- *Assign location window (c8000/c16000)*, page 5-122
- *Find options (Reagent status) window*, page 5-123
- *Find options (Reagent status - View all or Reagent history) window*, page 5-124

Details for reagent (Reagent status) window

From the Details for reagent (Reagent status) window you can view reagent, assay, and component details for a reagent. This information allows you to address reagent inventory concerns.

Figure 5.35: Details for reagent (Reagent status) window - c System

Figure 5.36: Details for reagent (Reagent status) window - i System

For descriptions of these fields, see *Details for reagent (Reagent status) window field descriptions*, page E-121.

Related procedures...

- *View reagent details*, page 5-131

Assign location window (*c*4000)

From the Assign location window, you can configure a location in the reagent supply center for non-bar coded reagents.

You can also unload non-bar coded reagents when inventory is depleted, expired, or space is needed for a different assay.

Figure 5.37: Assign location window (c4000)

For descriptions of these fields, see *Assign location window - c4000 field descriptions*, page E-122.

Related procedures...

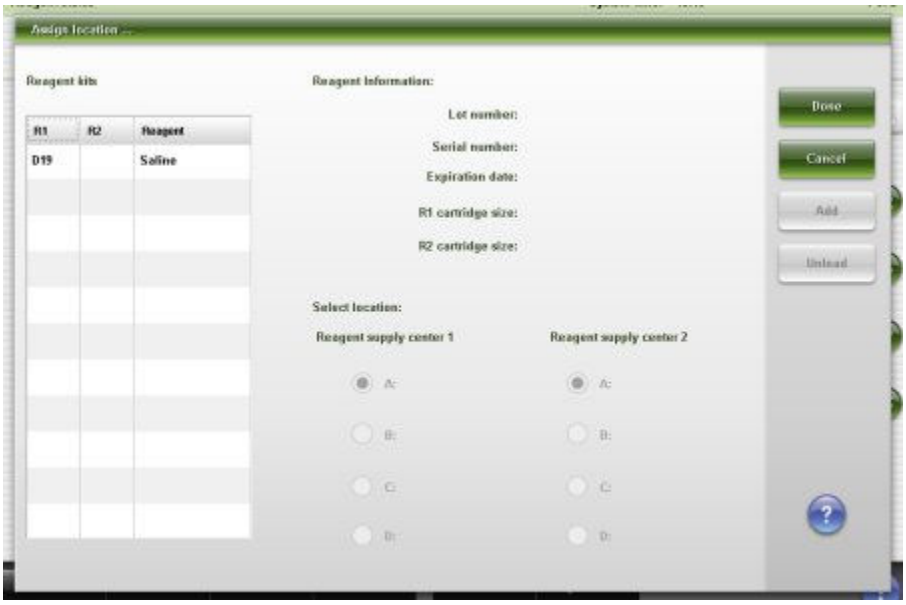
- *Load non-bar coded reagents (c4000)*, page 5-139
- *Load sample diluent(s) (c4000)*, page 5-137
- *Unload non-bar coded reagents (c4000)*, page 5-148

Assign location window (*c*8000/*c*16000)

From the Assign location window, you can configure a location in the reagent supply centers for non-bar coded reagents.

You can also unload non-bar coded reagents when inventory is depleted, expired, or space is needed for a different assay.

Figure 5.38: Assign location window (c8000/c16000)



For descriptions of these fields, see *Assign location window - c8000/c16000 field descriptions*, page E-123.

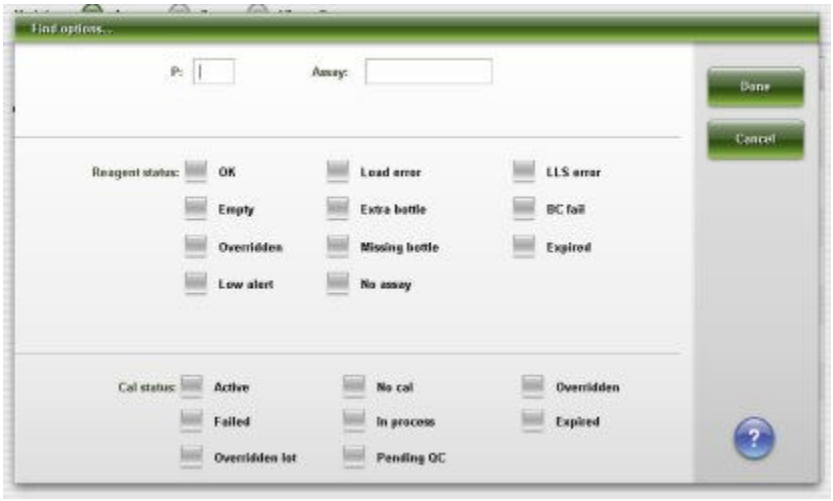
Related procedures...

- *Load non-bar coded reagents (c8000/c16000)*, page 5-155
- *Load sample diluent(s) (c8000/c16000)*, page 5-152
- *Unload non-bar coded reagents (c8000/c16000)*, page 5-163

Find options (Reagent status) window

From the Find options (Reagent status) window you can search for specific reagent(s) on a single module by entering your search criteria in one or more fields.

Figure 5.39: Find options (Reagent status) window



For descriptions of these fields, see *Find options (Reagent status) window field descriptions*, page E-124.

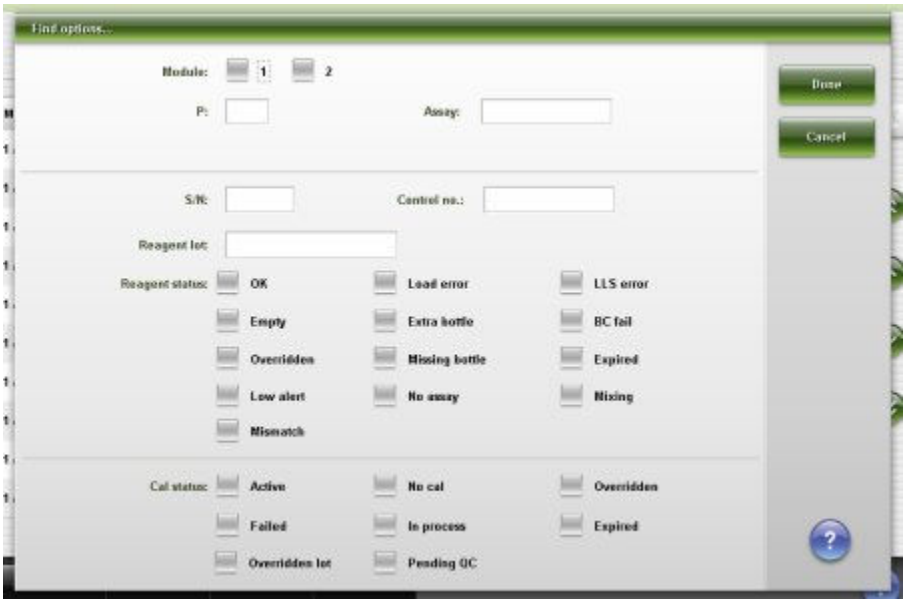
Related procedures...

- *Find a specific reagent*, page 5-130

Find options (Reagent status - View all or Reagent history) window

From the Find options (Reagent status - View all or Reagent history) window you can search for specific reagents on all modules by entering your search criteria in one or more fields.

Figure 5.40: Find options (Reagent status - view all) window



For descriptions of these fields, see *Find options (Reagent status - View all) window field descriptions*, page E-124.

Related procedures...

- *Find a specific reagent*, page 5-130

Reagent history screen

From the Reagent history screen you can view historical information on reagent kits that have been used on the system, such as:

- Assay name
- Reagent location, lot number, onboard stability, and expiration date
- Reagent and calibration status
- Remaining tests

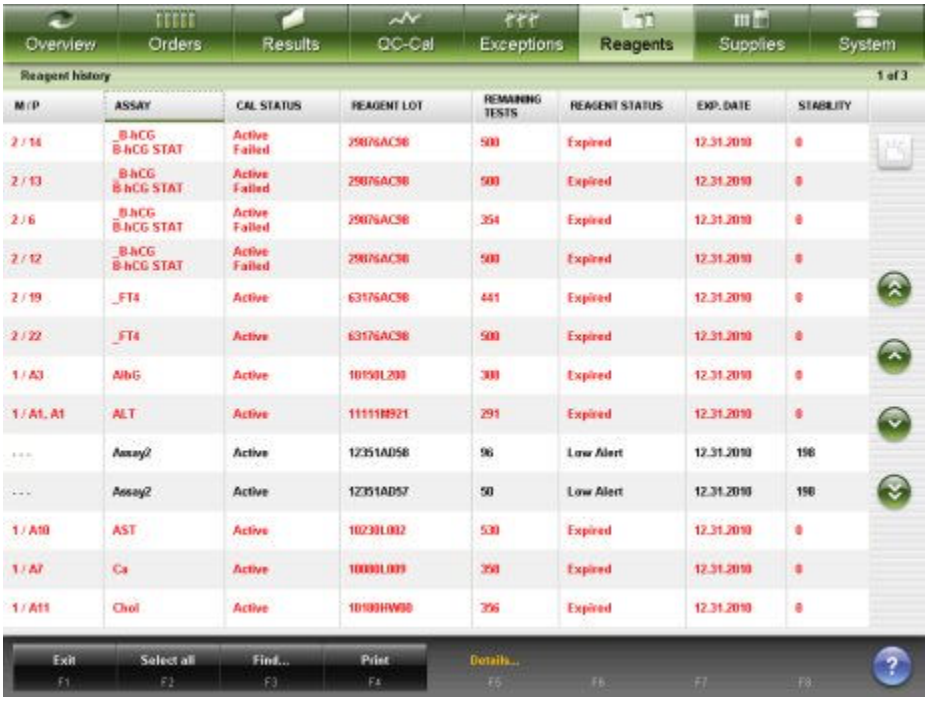
You can also access windows to:

- Find a specific reagent
- View detailed reagent information
- *Delete a reagent kit (FSE logon)*, page 5-133

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

The system stores information for up to 3000 reagent kits.

Figure 5.41: Reagent history screen



For descriptions of these fields, see *Reagent history screen field descriptions*, page E-125.

When accessing the Reagent history screen the information sorts by reagent position.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M/P	Module, and then carousel position in ascending order.
ASSAY and REAGENT LOT	Numerically in ascending order.
REMAINING TESTS	Numerically in ascending order.
CAL STATUS and REAGENT STATUS	*Descriptions of calibration statuses*, page 6-18 *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

Column	Sort description
	Descriptions of reagent statuses (i1000SR), page 5-118.
EXP. DATE	First to last to expire.
STABILITY	Shortest stability in ascending order.

To display this screen, see *Access the Reagent history screen*, page 5-126.

Related procedures…

- *View reagent history details*, page 5-132
- *Find a specific reagent*, page 5-130
- *Delete a reagent kit (FSE logon)*, page 5-133

Access the Reagent history screen

Perform this procedure to display the Reagent history screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Reagent history screen:

Select **Reagents** from the menu bar, and then select **Reagent history**.

The Reagent history screen displays.

Related information…

- *Reagent history screen*, page 5-124

Window - Reagent history screen

Windows you can access from the Reagent history screen are listed below.

Windows not in this sub-section include:

- *Find options (Reagent status - View all or Reagent history) window*, page 5-124

Windows in this sub-section include:

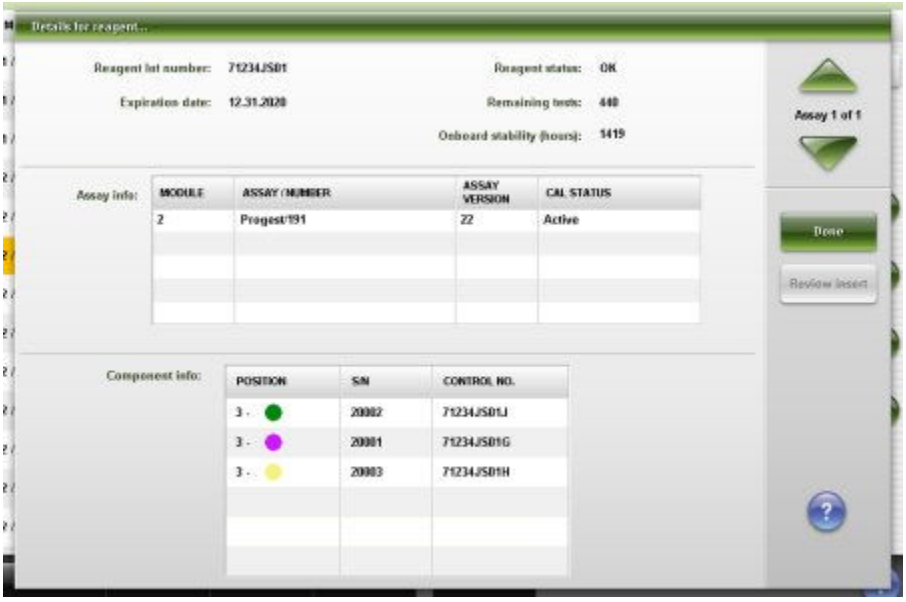
- *Details for reagent (history) window*, page 5-126

Details for reagent (history) window

From the Details for reagent (history) window you can view reagent, assay, and component details for a reagent. This information provides a historical perspective that is useful in a troubleshooting scenario.

Figure 5.42: Details for reagent (history) window - c System

Figure 5.43: Details for reagent (history) window - i System



For descriptions of these fields, see *Details for reagent (history) window field descriptions*, page E-126.

Related procedures…

- *View reagent history details*, page 5-132
- *Find a specific reagent*, page 5-130

ARCHITECT System procedures - Reagent inventory management

Procedures that are common to both the *c* System and the *i* System are:

Verify reagent inventory on a single module

Perform this procedure before initiating sample processing to verify adequate reagent inventory or when the reagent status button on the processing module graphic displays a caution icon.

NOTE: The status that displays reflects the inventory that remains after the system processes the samples that have been scanned by the sample bar code reader.

You can create orders when inventory levels are insufficient. However, if inventory is not adequate when you initiate sample processing, tests become exceptions and are not processed.

To verify reagent inventory on all modules, see *Verify reagent inventory on all modules*, page 5-129.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106 *Access the Reagent status screen - c8000/c16000 view*, page 5-109 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112 *Access the Reagent status screen - i1000SR view*, page 5-114
Module status	Any
User access level	General operator
Supplies	NA

To verify reagent inventory on a single module:

1. Select the desired **Module** option on the Reagent status screen. ***(optional)***

   Reagent information for the selected module displays.
2. View reagent inventory.

To print a Reagent Status report or Reagent Load Error report, see *Print a report*, page 5-403.

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Reagent status screen - i1000SR view*, page 5-112
- *Descriptions of reagent statuses (except for i1000SR)*, page 5-117
- *Descriptions of reagent statuses (i1000SR)*, page 5-118
- *Descriptions of carrier statuses (i1000SR)*, page 5-119
- *Reagent Load Error Report*, page A-80
- *Reagent Status Report (except for i1000SR)*, page A-82
- *Reagent Status Report (i1000SR)*, page A-84

Verify reagent inventory on all modules

Perform this procedure before initiating sample processing to verify adequate reagent inventory or when the reagent status button on the processing module displays a caution icon.

NOTE: The status that displays reflects the inventory that remains after the system processes the samples that have been scanned by the sample bar code reader.

You can create orders when inventory levels are insufficient. However, if inventory is not adequate when you initiate sample processing, tests become exceptions and are not processed.

To view reagent inventory on a single module system, see *Verify reagent inventory on a single module*, page 5-128.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106 *Access the Reagent status screen - c8000/c16000 view*, page 5-109 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112 *Access the Reagent status screen - i1000SR view*, page 5-114
Module status	Any
User access level	General operator
Supplies	NA

To verify reagent inventory on all modules:

1. Select the **View all** option on the Reagent status screen.

   The Reagent status screen - View all view displays.

2. View reagent inventory.

To print a Reagent Status report or Reagent Load Error report, see *Print a report*, page 5-403.

Related information…

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Reagent status screen - i1000SR view*, page 5-112
- *Reagent status screen - View all view*, page 5-115
- *Descriptions of reagent statuses (except for i1000SR)*, page 5-117
- *Descriptions of reagent statuses (i1000SR)*, page 5-118
- *Reagent Load Error Report*, page A-80
- *Reagent Status Report (except for i1000SR)*, page A-82
- *Reagent Status Report (i1000SR)*, page A-84

Find a specific reagent

Perform this procedure to search for specific reagents by entering search criteria in one or more fields.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106 *Access the Reagent status screen - c8000/c16000 view*, page 5-109 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112 *Access the Reagent status screen - i1000SR view*, page 5-114 *Access the Reagent status screen - View all view*, page 5-116 *Access the Reagent history screen*, page 5-126
Module status	Any
User access level	General operator
Supplies	NA

To find a specific reagent:

1. Select the appropriate **Module** option on the Reagent status screen.

   The reagent inventory for the selected module displays.

2. Select **F3 - Find**.

   The Find options (Reagent status) window displays.

3. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

Example: If you enter 123* in the Reagent lot data entry box, all reagent lots starting with 123 display. This list could include 12345M100, 12346M100, and 12347M100.

NOTE: To display *c* System reagent(s) for a specific reagent carousel, you must enter a position in the P data entry box and select the R1 and/or R2 check box. If you do not enter a position (P), all reagents display.

4. Select **Done** to initiate the search.

   The Reagent status screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Reagent status screen - i1000SR view*, page 5-112
- *Reagent status screen - View all view*, page 5-115
- *Find options (Reagent status) window*, page 5-123
- *Find options (Reagent status - View all or Reagent history) window*, page 5-124
- *Reagent history screen*, page 5-124

View reagent details

Perform this procedure to display the Details for reagent (Reagent status) window. From this window you can view detailed information for reagents.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106 *Access the Reagent status screen - c8000/c16000 view*, page 5-109 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112 *Access the Reagent status screen - i1000SR view*, page 5-114 *Access the Reagent status screen - View all view*, page 5-116
Module status	Any
User access level	General operator
Supplies	NA

To view reagent details:

1. Select a **Module** option on the Reagent status screen.
2. Select the desired reagent(s) from the table or select **F2 - Select all**.

3. Select **F7 - Details**.

   The Details for reagent (Reagent status) window displays.

4. Use the **previous**/**next** buttons to display each reagent if you selected more than one. ***(optional)***

5. Select **Done** to return to the Reagent status screen.

Related information…

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Reagent status screen - i1000SR view*, page 5-112
- *Reagent status screen - View all view*, page 5-115
- *Details for reagent (Reagent status) window*, page 5-120

View reagent history details

Perform this procedure to display the Details for reagent (Reagent history) window. From this window you can view detailed information for reagents.

Prerequisite	*Access the Reagent history screen*, page 5-126
Module status	Any
User access level	General operator
Supplies	NA

To view reagent history details:

1. Select the desired reagent(s) from the table on the Reagent history screen or select **F2 - Select all**.

2. Select **F5 - Details**.

   The Details for reagent (Reagent history) window displays.

3. Use the **previous**/**next** buttons to display each reagent if you selected more than one. ***(optional)***

4. Select **Done** to return to the Reagent history screen.

Related information…

- *Reagent history screen*, page 5-124
- *Details for reagent (history) window*, page 5-126

Scan the reagent carousel(s) (except for *i*1000SR)

Perform this procedure to update reagent statuses by scanning the reagent kits currently on board the reagent supply centers.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106 *Access the Reagent status screen - c8000/c16000 view*, page 5-109 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112
Module status	Warming or Ready
User access level	General operator
Supplies	NA

To scan the reagent carousels:

1. Select the appropriate **Module** option.

   The Reagent status screen displays.

2. Select **F5 - Scan** to update reagent inventory.

   NOTE: Select the **refresh** button to display all records.

   The updated status displays on the Reagent status screen.

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Reagent status screen - i2000/i2000SR view*, page 5-110

Delete a reagent kit (FSE logon)

Perform this procedure to delete a reagent kit from the system.

NOTE: If you delete a reagent kit, the inventory and onboard stability time will be incorrect if the reagent kit is loaded again.

Deleted reagent kits remain associated with patient and QC results. When all reagent kits associated with a calibration curve are deleted, the calibration curve is also deleted.

Prerequisite	*Access the Reagent history screen*, page 5-126
Module status	NA
User access level	FSE
Supplies	NA

To delete a reagent kit:

1. Select the reagent kit to be deleted from the table on the Reagent history screen.

   NOTE: Only one reagent kit may be deleted at a time.

2. Select **F5 - Delete**.

   A confirmation message displays.

3. Select **OK** to delete the reagent kit.
4. Repeat steps 1-3 to delete an additional reagent kit. ***(optional)***

Related information…

- *Reagent history screen*, page 5-124

Disable or enable a reagent kit

Perform this procedure to manually disable or enable a reagent kit. You disable the kit to prevent the system from processing patient samples but allow manual ordering of QC and calibrations to resolve performance issues with the kit. After the issue is resolved you enable the kit to allow the system to process patient samples.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106 *Access the Reagent status screen - c8000/c16000 view*, page 5-109 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112 *Access the Reagent status screen - i1000SR view*, page 5-114 *Access the Reagent status screen - View all view*, page 5-116
Module status	Stopped, Ready, or Running
User access level	General operator
Supplies	NA

To disable or enable a reagent kit:

1. Select a **Module** or **View all** option on the Reagent status screen.
2. Select the desired reagent(s) from the table.
3. Select **F7 - Details**.

   The Details for reagent (Reagent status) window displays.
4. Select or deselect the **Patient disabled** checkbox to disable or enable the reagent.
5. Select **Done**.

To enable the kit, repeat the procedure and deselect the checkbox.

IMPORTANT: When ordering a calibration or control on a disabled reagent kit you must access the Assay options window and select the disabled kit. If only one kit is onboard the module the disabled reagent kit is automatically selected.

Related information…

- *Details for reagent (Reagent status) window*, page 5-120

*c*4000 procedures - reagent inventory management

*c*4000 reagent inventory management procedures include:

Load bar coded reagents (*c*4000)

Perform this procedure to load new bar coded reagents into the reagent supply center on the processing module.

NOTE: To ensure correct reagent status tracking, do not move reagents kits to a processing module controlled by a different SCC (system control center).

Prerequisite	Check reagent inventory *Access the Reagent status screen - c4000 view*, page 5-106
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Bar coded reagent kits • Adapter, if required

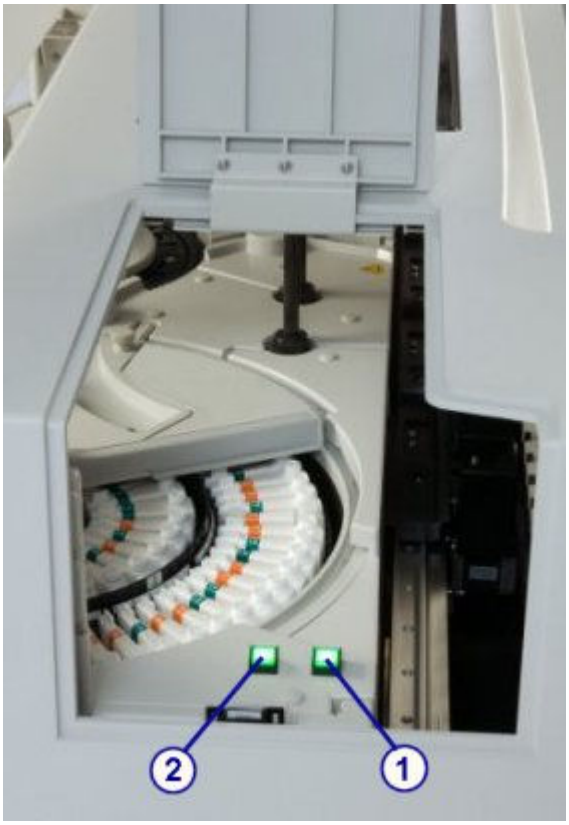
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load bar coded reagents:

1. Verify the expiration date of the reagent. DO NOT use the reagent if the expiration date is exceeded.
2. Invert the reagent cartridge gently to ensure a homogenous solution.
3. Remove and discard the cap.
4. Remove air bubbles, if they exist, with a clean applicator stick.
5. Open the reagent supply center access door.
6. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

NOTE: If the module status is Scheduled pause, the button will illuminate when the reagent supply center becomes available. It may take up to five minutes after you pause the module for the reagent supply center to become available.



7. Load the reagent cartridge(s) in the reagent supply center by performing the following steps:

   a. Press the reagent supply center access button (1) to open the cover.

      CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

   b. Press the carousel advance button (2) after the button illuminates to advance the reagent supply center to access the position.

   c. Load the reagent cartridge(s) in any open position.

   d. Press the reagent supply center access button to close the cover.

      For system loading information, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164

NOTE: The 20 mL (cartridge) and 20 mL (bottle) reagent cartridges require an adapter. Reagent cartridge adapters are placed in the outer carousel only.

8. Discard the used cartridge in accordance with the waste disposal procedures in your laboratory. See *Waste handling and disposal*, page 8-10 for additional information.
9. Close the reagent supply center access door.
10. Initiate or resume sample processing, or select **F5 - Scan** on the Reagent status screen to update reagent inventory.

    NOTE: Once you place a new reagent(s) on a processing module and the bar code reader scans the bar code label, the system software links individual R1 and R2 cartridges together as a kit. If the cartridges are not kept together, the reagent status of Missing bottle or Extra bottle displays.

    The system tracks onboard stability only when the reagent kit is on board the processing module. To update the onboard stability timer, you must perform a reagent scan every time you load a reagent kit. For information on reagent onboard stability, see the assay-specific package insert or reagent application sheet.

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent kits and components (c System)*, page 1-186
- *Reagent supply center (c4000)*, page 1-44
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapter (c4000)*, page 1-212

Load sample diluent(s) (*c*4000)

Perform this procedure to load sample diluent(s) into reagent supply center on the processing module.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different SCC (system control center).

Prerequisite	*Configure a user-defined sample diluent (photometric - c System)*, page 2-91 *Configure a user-defined reagent kit (photometric - c System)*, page 2-93 *Access the Reagent status screen - c4000 view*, page 5-106
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Sample diluent • Reagent cartridge • Adapter, if required

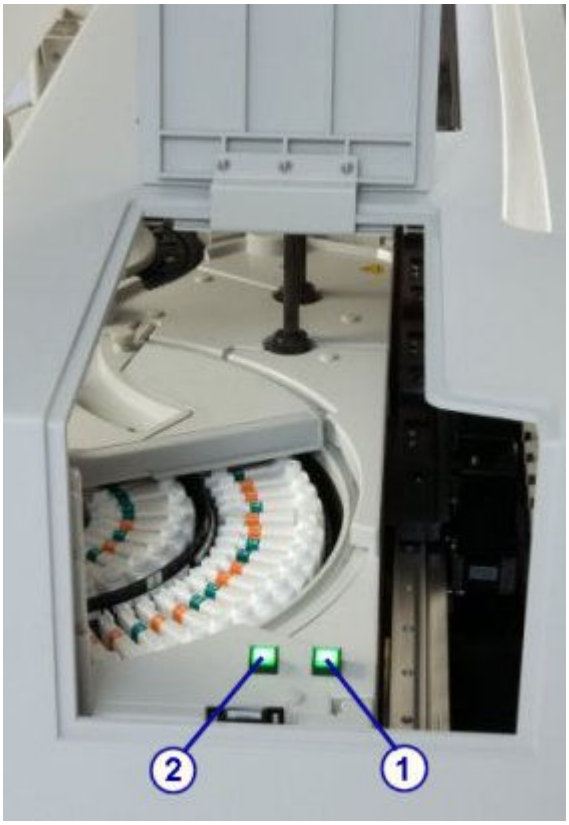
To load sample diluent(s):

1. Select **F6 - Assign location** on the Reagent status screen.

   The Assign location window displays.
2. Select the desired sample diluent from the **Reagent kits** table.
3. Select the desired **Reagent supply center** option, and then enter the desired location in the data entry box.
4. Select **Add**.

   The assigned position displays in the Reagent kits table.
5. Note the displayed **reagent cartridge size**.
6. Verify the expiration date of the sample diluent. DO NOT use the sample diluent if the expiration date is exceeded.
7. Pour the sample diluent into the specified reagent cartridge type.
8. Remove air bubbles, if they exist, with a clean applicator stick.
9. Label the container(s) with the name and expiration date.
10. Open the reagent supply center access door.
11. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

    NOTE: If the module status is Scheduled pause, the button is illuminated when the reagent supply center becomes available. It may take up to five minutes after you pause the module for the reagent supply center to become accessible.



12. Remove and replace the sample diluent(s) in the reagent supply center by performing the following steps:

    a. Press the reagent supply center access button (1) to open the cover.

    CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

    b. Press the carousel advance button (2) after the button illuminates to advance the reagent supply center to access the position.

    c. Remove the empty or expired sample diluent and place the fresh sample diluent in the assigned location(s).

    d. Press the reagent supply center access button to close the cover.

    For additional loading information, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164.

    NOTE: The 20 mL bottles and reagent cartridges require an adapter. Reagent cartridge adapters are placed in the outer carousel only.

13. Close the reagent supply center access door.

14. Select **Done** on the Assign location window to return to the Reagent status screen.

    NOTE: The Reagent status screen is not updated until after the reagent carousel is scanned.

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Assign location window (c4000)*, page 5-121
- *Reagent supply center (c4000)*, page 1-44
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapter (c4000)*, page 1-212

Load non-bar coded reagents (*c*4000)

Perform this procedure to load non-bar coded reagents into the reagent supply centers on the processing module.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different system control center.

Prerequisite	*Configure a user-defined sample diluent (photometric - c System)*, page 2-91 *Configure a user-defined reagent kit (photometric - c System)*, page 2-93

	Access the Reagent status screen - c4000 view, page 5-106
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Reagent kits • Reagent cartridges, if required • Adapters, if required

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load non-bar coded reagents:

1. Select **F6 - Assign location** on the Reagent status screen.

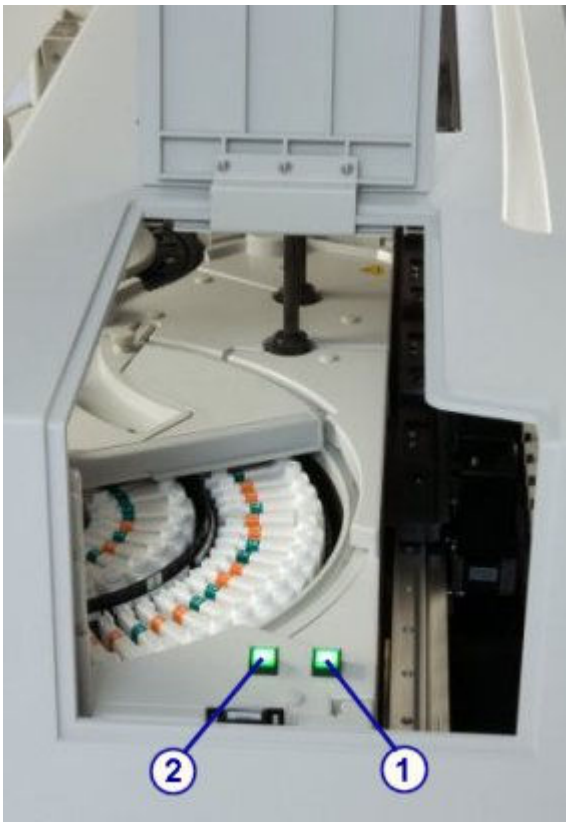
   The Assign location window displays.

2. Select the desired reagent from the **Reagent kits** table.
3. Select the desired **Reagent supply center** option, and then enter the desired location in the data entry box.
4. Select **Add**.

   The assigned position(s) displays in the Reagent kits table.

5. Verify the expiration date of the reagent. DO NOT use the reagent if the expiration date is exceeded.
6. Invert the reagent cartridge gently to ensure a homogenous solution.
7. Remove and discard the cap.
8. Remove air bubbles, if they exist, with a clean applicator stick.
9. Open the reagent supply center access door.
10. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

    NOTE: If the module status is Scheduled pause, the button is illuminated when the reagent supply center becomes available. It may take up to five minutes after you pause the module for the reagent supply center to become accessible.



11. Place the reagent cartridge(s) in the reagent supply center by performing the following steps:

    a. Press the reagent supply center access button (1) to open the cover.

    CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

    b. Press the carousel advance button (2) after the button is illuminated to advance the reagent supply center to access the position.

    c. Place the reagent cartridge(s) in the assigned location(s).

    d. Press the reagent supply center access button to close the cover.

    For additional loading information, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164.

    NOTE: The 20 mL bottles and reagent cartridges require an adapter. Reagent cartridge adapters are placed in the outer carousel only.

12. Close the reagent supply center access door.

13. Select **Done** on the Assign location window to return to the Reagent status screen.

NOTE: The Reagent status and Calibration status screens are not updated until the reagent carousel is scanned.

Related information…

- *Reagent status screen - c4000 view*, page 5-104
- *Assign location window (c4000)*, page 5-121
- *Reagent supply center (c4000)*, page 1-44
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapter (c4000)*, page 1-212

Replace sample diluent(s) (*c*4000)

Perform this procedure to replace sample diluents and to reset the sample diluent volume.

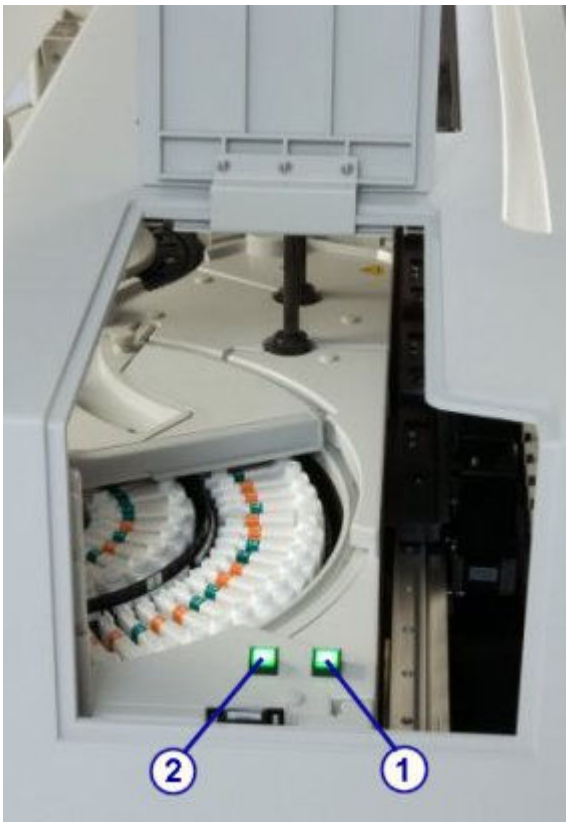
NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different SCC (system control center).

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Sample diluents • Reagent cartridge

To replace sample diluent(s):

1. Verify the expiration date of the sample diluent. DO NOT use the sample diluent if the expiration date is exceeded.
2. Pour the sample diluent into a new reagent cartridge.
3. Remove air bubbles, if they exist, with a clean applicator stick.
4. Label the container with the name and expiration date.
5. Open the reagent supply center access door.
6. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the button will illuminate when the reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center to become available.



7. Remove and replace the sample diluent(s) in the reagent supply center by performing the following steps:

   a. Press the reagent supply center access button (1) to open the cover.

   CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

   b. Press the carousel advance button (2) after the button is illuminated to advance the reagent supply center to access the position.

   c. Remove the empty or expired sample diluent and place the fresh sample diluent in the assigned location(s).

   d. Press the reagent supply center access button to close the cover.

   IMPORTANT: The outside of the cartridge(s) my be wet. Do not drip condensation into the other reagent cartridges.

8. Close the reagent supply center access door.

9. Select the desired sample diluent from the **Reagent status** table on the Reagent status screen, and then select **F8 - Reset**.

   A confirmation message displays.

10. Select **OK**.

    The updated remaining tests and reagent status display in the Reagent status table.

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent supply center (c4000)*, page 1-44
- *Reagent cartridges (c System)*, page 1-187

Replace non-bar coded reagents (*c*4000)

Perform this procedure to replace non-bar coded reagents and to reset the reagent volume and onboard stability.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different SCC (system control center).

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	Reagents

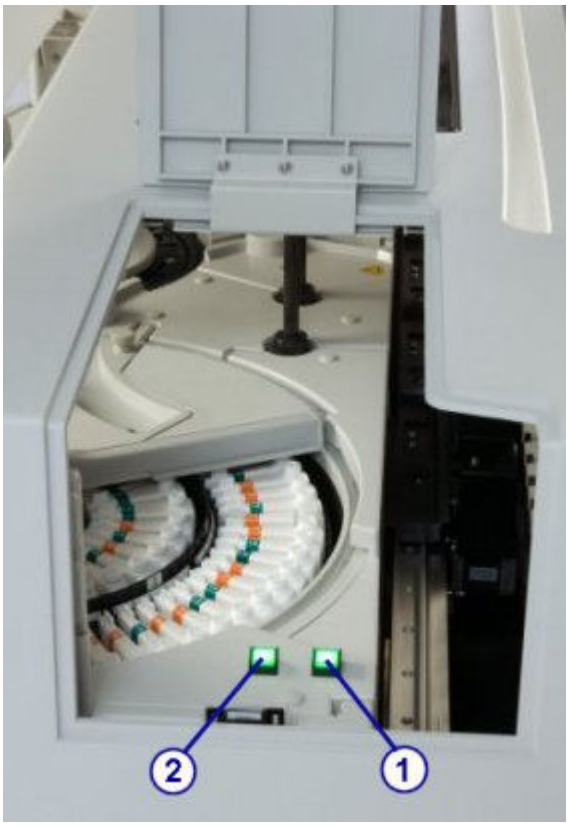
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To replace non-bar coded reagents:

1. Verify the expiration date of the reagent. DO NOT use the reagent if the expiration date is exceeded.
2. Invert the reagent cartridge gently to ensure a homogenous solution.
3. Remove and discard the cap.
4. Remove air bubbles, if they exist, with a clean applicator stick.
5. Open the reagent supply center access door.
6. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the button will illuminate when the reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center to become available.



7. Remove and replace the reagent kit(s) in the reagent supply center by performing the following steps:

   a. Press the reagent supply center access button (1) to open the cover.

   CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

   b. Press the carousel advance button (2) after the button is illuminated to advance the reagent supply center to access the position.

   c. Remove the empty or expired reagent kit and place the fresh kit in the assigned position.

   d. Press the reagent supply center access button to close the cover.

   IMPORTANT: The outside of the cartridge(s) my be wet. Do not drip condensation into the other reagent cartridges.

8. Discard the used cartridge in accordance with the waste disposal procedures in your laboratory. See *Waste handling and disposal*, page 8-10 for additional information.

9. Close the reagent supply center access door.

10. Select the desired non-bar coded reagent from the **Reagent status** table on the Reagent status screen, and then select **F8 - Reset**.

    A confirmation message displays.

11. Select **OK**.

    NOTE: The updated remaining tests and reagent status display in the Reagent status table. The onboard stability timer restarts. To update the onboard stability timer you must perform a reset every time you load a new reagent kit. For information on reagent onboard stability, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent supply center (c4000)*, page 1-44
- *Reagent cartridges (c System)*, page 1-187

Unload bar coded reagents (*c*4000)

Perform this procedure when reagents are depleted or have expired, or when you need room to add a different assay reagent kit in the reagent supply center.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	Container caps

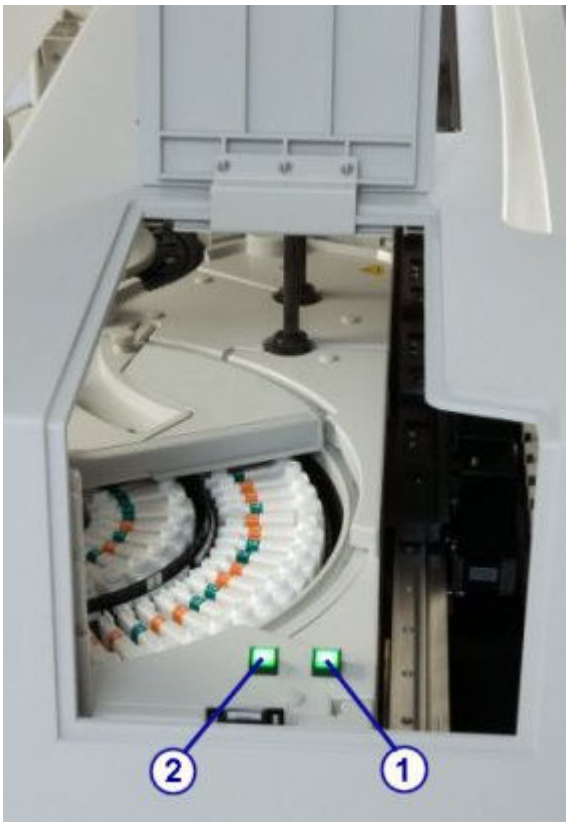
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To unload bar coded reagents:

1. Open the reagent supply center access door.
2. Verify the reagent supply center access button (1) is illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the button will illuminate when the reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center to become available.



3. Remove the reagent kit(s) in the reagent supply center by performing the following steps:

   a. Press the reagent supply center access button (1) to open the cover.

   CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

   b. Press the carousel advance button (2) after the button is illuminated to advance the reagent supply center to access the position.

   c. Remove the reagent kit(s) and place a container cap on the kit(s).

   d. Press the reagent supply center access button to close the cover.

4. Initiate or resume sample processing, or select **F5 - Scan** on the Reagent status screen to update the reagent inventory.

   NOTE: Onboard stability is tracked only when the reagent kit is on board the processing module. To update the onboard stability timer, you must perform a reagent scan every time you unload a reagent kit. For information on reagent onboard stability, see the assay-specific package insert or reagent application sheet.

Related information…

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent supply center (c4000)*, page 1-44
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapter (c4000)*, page 1-212

Unload non-bar coded reagents (*c*4000)

Perform this procedure to unload reagents when inventory is depleted or has expired, or when you need room to add a different assay reagent kit onto the processing module.

Prerequisite	*Access the Reagent status screen - c4000 view*, page 5-106
Module status	Ready
User access level	General operator
Supplies	Container caps

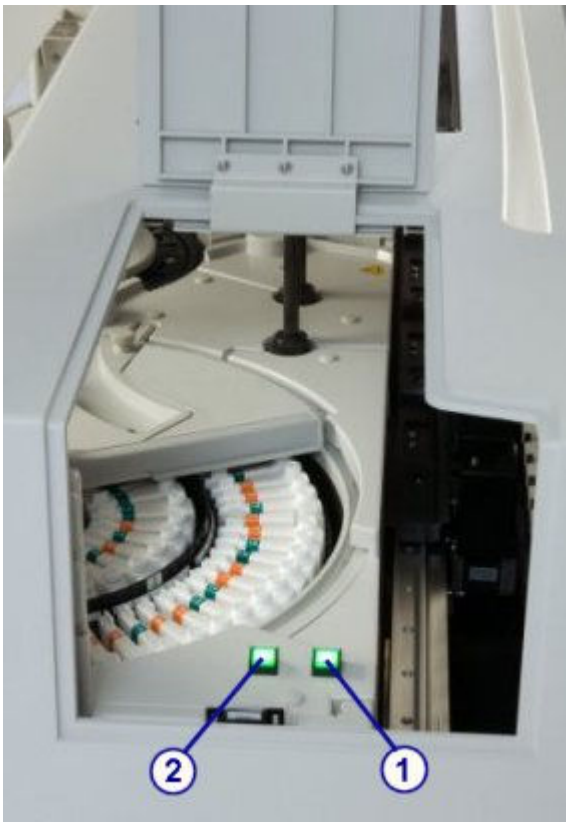
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To unload non-bar coded reagents:

1. Open the reagent supply access door.
2. Verify the reagent supply center access button is illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the button will illuminate when the reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center to become available.



3. Remove the reagent kit(s) in the reagent supply center by performing the following steps:

   a. Press the reagent supply center access button (1) to open the cover.

   CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. Do not allow any part of your body to enter the range of mechanical movement of the reagent supply center cover or carousel. For more information, see *Mechanical hazards*, page 8-16.

   b. Press the carousel advance button (2) after the button is illuminated to advance the reagent supply center to access the position.

   c. Remove the reagent kit(s) and place a container cap on the kit(s).

   d. Press the reagent supply center access button to close the cover.

4. Select **F6 - Assign location** on the Reagent status screen.

   The Assign location window displays.

5. Select the desired reagent from the **Reagent kits** table.

6. Select **Unload**.

   The assigned position no longer displays in the Reagent kits table.

7. Select **Done** to return to the Reagent status screen.

NOTE: Onboard stability is no longer tracked for the removed reagent(s). To update the onboard stability timer you must perform an unload procedure every time you unload a reagent kit. For information on reagent onboard stability, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Related information...

- *Reagent status screen - c4000 view*, page 5-104
- *Reagent supply center (c4000)*, page 1-44
- *Assign location window (c4000)*, page 5-121

*c*8000/*c*16000 procedures - reagent inventory management

*c*8000/*c*16000 reagent inventory management procedures include:

- *Load bar coded reagents (c8000/c16000)*, page 5-150
- *Load sample diluent(s) (c8000/c16000)*, page 5-152
- *Load non-bar coded reagents (c8000/c16000)*, page 5-155
- *Replace sample diluent(s) (c8000/c16000)*, page 5-157
- *Replace non-bar coded reagents (c8000/c16000)*, page 5-159
- *Unload bar coded reagents (c8000/c16000)*, page 5-161
- *Unload non-bar coded reagents (c8000/c16000)*, page 5-163

Load bar coded reagents (*c*8000/*c*16000)

Perform this procedure to load new bar coded reagents into the reagent supply centers on the processing module.

NOTE: To ensure correct reagent status tracking, do not move reagents kits to a processing module controlled by a different SCC (system control center).

Prerequisite	Check reagent inventory *Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Bar coded reagent kits • Adapter, if required

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

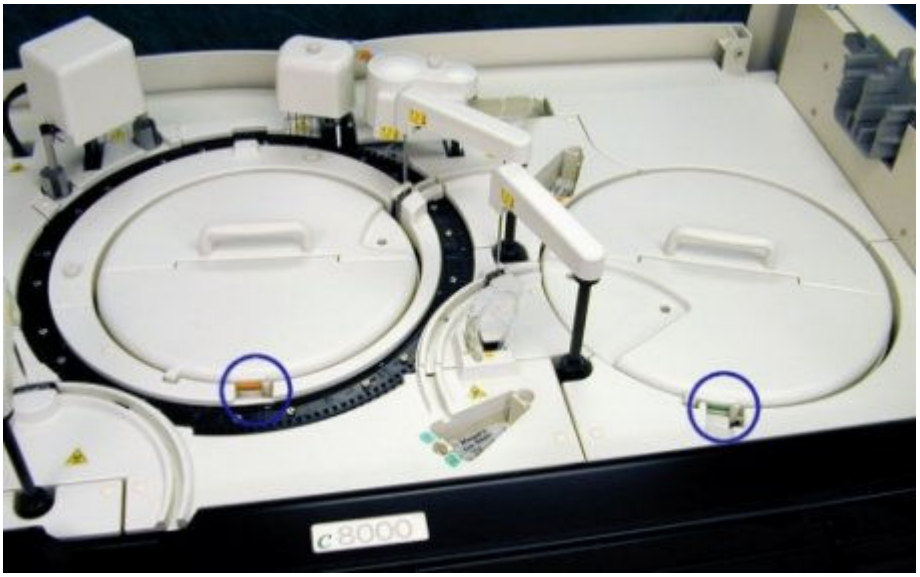
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load bar coded reagents:

1. Verify the expiration date of the reagent. DO NOT use the reagent if the expiration date is exceeded.
2. Invert the reagent cartridge gently to ensure a homogenous solution.
3. Remove and discard the cap.
4. Remove air bubbles, if they exist, with a clean applicator stick.
5. Open the processing module cover.
6. Verify the R1 and/or R2 **carousel advance** key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center 2 to become available.
7. Press the green or orange button on the front portion of the reagent supply center cover(s), and then open the cover(s).

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



8. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to open positions.
9. Load the reagent cartridges into any open positions in the appropriate R1 and R2 reagent supply centers.

   For additional loading information, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164.

NOTE: The 20 mL bottles and reagent cartridges require an adapter.

The small (55 mL) reagent cartridges may require an adapter depending on reagent segment configuration.

10. Close the reagent supply center cover(s) by pushing the cover(s) down until you hear a click.
11. Close the processing module cover.
12. Initiate or resume sample processing, or select **F5 - Scan** on the Reagent status screen to update reagent inventory.

    NOTE: Once you place a new reagent(s) on a processing module and the bar code reader scans the bar code label, the system software links individual R1 and R2 cartridges together as a kit. If the cartridges are not kept together, the reagent status of Missing bottle or Extra bottle displays.

    The system tracks onboard stability only when the reagent kit is on board the processing module. To update the onboard stability timer, you must perform a reagent scan every time you load a reagent kit. For information on reagent onboard stability, see the assay-specific package insert or reagent application sheet.

Related information…

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Reagent kits and components (c System)*, page 1-186
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapters (c8000)*, page 1-215
- *Reagent cartridge adapters (c16000)*, page 1-217

Load sample diluent(s) (*c*8000/*c*16000)

Perform this procedure to load sample diluent(s) into reagent supply center 1 on the processing module.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different SCC (system control center).

Prerequisite	*Configure a user-defined sample diluent (photometric - c System)*, page 2-91 *Configure a user-defined reagent kit (photometric - c System)*, page 2-93 *Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready or Scheduled pause

User access level	General operator
Supplies	• Sample diluent • Reagent cartridge • Adapter, if required

To load sample diluent(s):

1. Select **F6 - Assign location** on the Reagent status screen.

   The Assign location window displays.

2. Select the desired sample diluent from the **Reagent kits** table.
3. Select the desired **Reagent supply center 1** option, and then enter the desired location in the data entry box.
4. Select **Add**.

   The assigned position displays in the Reagent kits table.

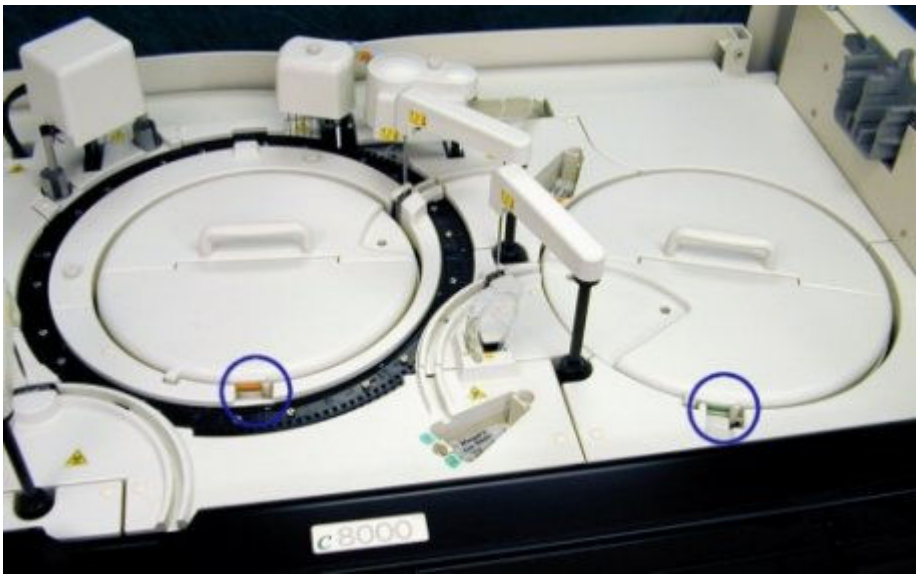
   NOTE: For the *c*16000 processing module, repeat steps 2 - 4 to assign a diluent to both the outer (segment A, B, or C) and the inner (segment D) carousels.

5. Note the displayed **R1 cartridge size**.
6. Verify the expiration date of the sample diluent. DO NOT use the sample diluent if the expiration date is exceeded.
7. Pour the sample diluent into the specified reagent cartridge type.
8. Remove air bubbles, if they exist, with a clean applicator stick.
9. Label the container(s) with the name and expiration date.
10. Open the processing module cover.
11. Verify the R1 and/or R2 carousel advance key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

    NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center is accessible. It may take up to five minutes after you pause the module for reagent supply center 2 to become accessible.

12. Press the green button on the front portion of the reagent supply center 1 cover, and then open the cover.

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



13. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to the assigned location(s).
14. Place the cartridge into the assigned location(s) in reagent supply center 1.

    For additional loading information, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164.

    NOTE: The 20 mL bottles and reagent cartridges require an adapter.

    The small (55 mL) reagent cartridges may require an adapter depending on reagent segment configuration.
15. Close the reagent supply center cover by pushing the cover down until you hear a click.
16. Close the processing module cover.
17. Select **Done** on the Assign location window to return to the Reagent status screen.

    NOTE: The Reagent status screen is not updated until after the reagent carousel is scanned.

Related information…

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Assign location window (c8000/c16000)*, page 5-122
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapters (c8000)*, page 1-215

- *Reagent cartridge adapters (c16000)*, page 1-217

Load non-bar coded reagents (*c*8000/*c*16000)

Perform this procedure to load non-bar coded reagents into the reagent supply centers on the processing module.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different system control center.

Prerequisite	*Configure a user-defined sample diluent (photometric - c System)*, page 2-91 *Configure a user-defined reagent kit (photometric - c System)*, page 2-93 *Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Reagent kits • Reagent cartridges, if required • Adapters, if required

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load non-bar coded reagents:

1. Select **F6 - Assign location** on the Reagent status screen.

   The Assign location window displays.

2. Select the desired reagent from the **Reagent kits** table.

3. Select the desired **Reagent supply center 1** option, and then enter the desired location in the data entry box.

   For additional loading information for the *c*16000 processing module, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164.

4. Select the desired **Reagent supply center 2** option, and then enter the desired location in the data entry box. ***(optional)***

5. Select **Add**.

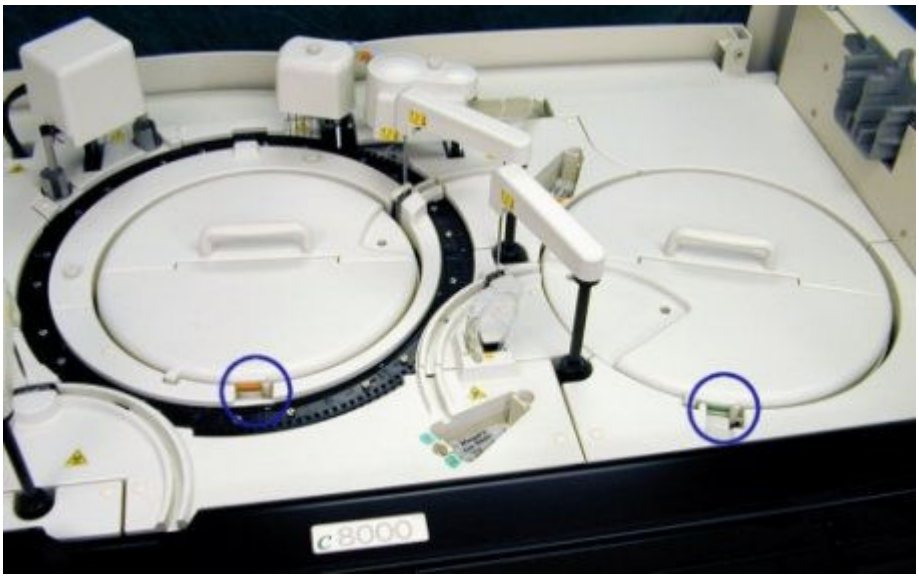
   The assigned position(s) displays in the Reagent kits table.

6. Verify the expiration date of the reagent. DO NOT use the reagent if the expiration date is exceeded.

7. Invert the reagent cartridge gently to ensure a homogenous solution.
8. Remove and discard the cap.
9. Remove air bubbles, if they exist, with a clean applicator stick.
10. Open the processing module cover.
11. Verify the R1 and/or R2 carousel advance key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

    NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center is accessible. It may take up to five minutes after you pause the module for reagent supply center 2 to become accessible.
12. Press the green or orange button on the front portion of the reagent supply center cover(s), and then open the cover(s).

    CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



13. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to the assigned location.
14. Load the reagent cartridges into the assigned location in the appropriate R1 and R2 reagent supply centers.

    For additional loading information, see *Loading requirements for the reagent supply center(s) (c System)*, page 5-164.

    NOTE: The 20 mL bottles and reagent cartridges require an adapter.

    The small (55 mL) reagent cartridges may require an adapter depending on reagent segment configuration.

15. Close the reagent supply center cover(s) by pushing the cover(s) down until you hear a click.
16. Close the processing module cover.
17. Select **Done** on the Assign location window to return to the Reagent status screen.

    NOTE: The Reagent status and Calibration status screens are not updated until the reagent carousel is scanned.

Related information…

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Assign location window (c8000/c16000)*, page 5-122
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapters (c8000)*, page 1-215
- *Reagent cartridge adapters (c16000)*, page 1-217

Replace sample diluent(s) (*c*8000/*c*16000)

Perform this procedure to replace sample diluents and to reset the sample diluent volume.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different SCC (system control center).

Prerequisite	*Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	• Sample diluents • Reagent cartridge

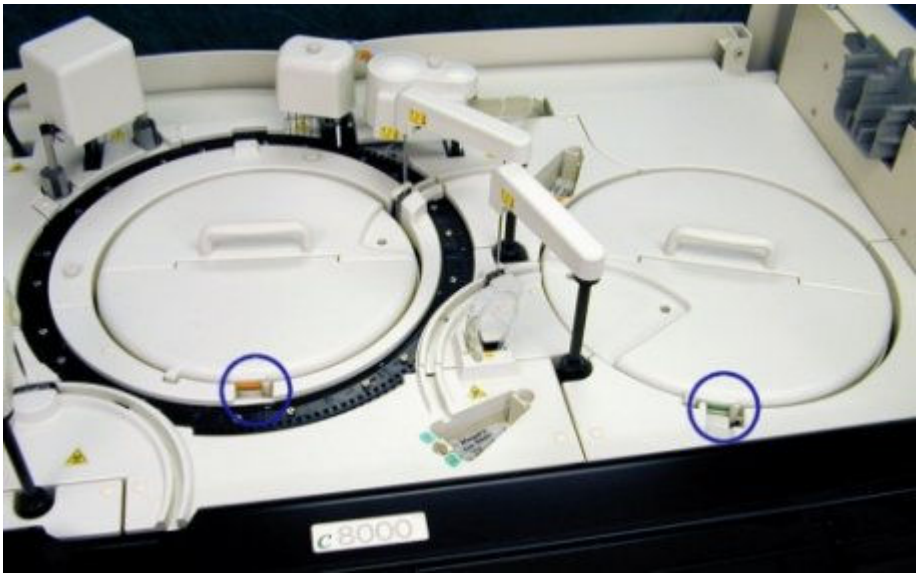
To replace sample diluent(s):

1. Verify the expiration date of the sample diluent. DO NOT use the sample diluent if the expiration date is exceeded.
2. Pour the sample diluent into a new reagent cartridge.
3. Remove air bubbles, if they exist, with a clean applicator stick.
4. Label the container with the name and expiration date.
5. Open the processing module cover.
6. Verify the R1 and/or R2 **carousel advance** key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center 2 to become available.

7. Press the green button on the front portion of the reagent supply center 1 cover, and then open the cover.

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



8. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to the assigned location(s).
9. Remove the empty cartridge and place the new cartridge into the assigned location in reagent supply center 1.

   IMPORTANT: The outside of the cartridge(s) may be wet. Do not drip condensation into the other reagent cartridges.
10. Close the reagent supply center cover by pushing the cover down until you hear a click.
11. Close the processing module cover.
12. Select the desired sample diluent from the **Reagent status** table on the Reagent status screen, and then select **F8 - Reset**.

    A confirmation message displays.
13. Select **OK**.

    The updated remaining tests and reagent status display in the Reagent status table.

Related information...

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Reagent cartridges (c System)*, page 1-187

Replace non-bar coded reagents (*c*8000/*c*16000)

Perform this procedure to replace non-bar coded reagents and to reset the reagent volume and onboard stability.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different SCC (system control center).

Prerequisite	*Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	Reagents

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

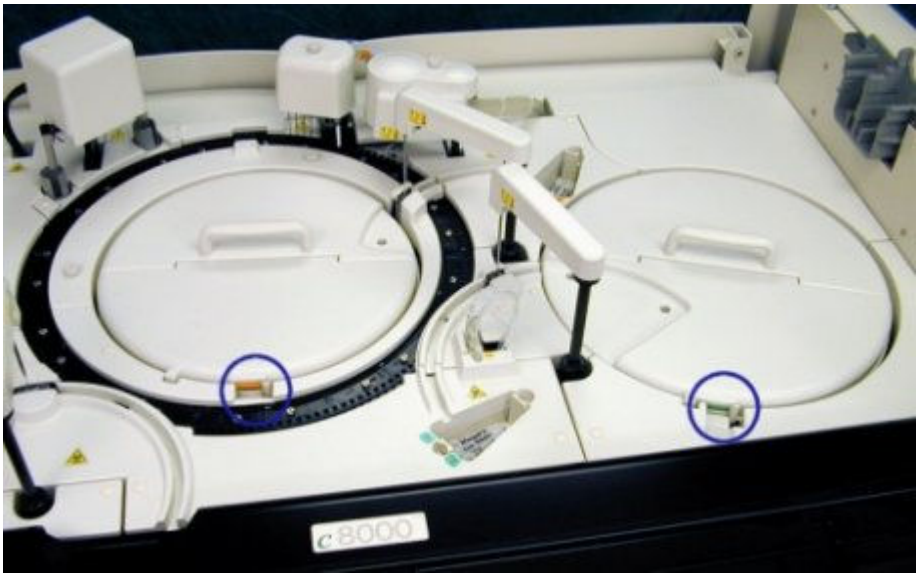
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To replace non-bar coded reagents:

1. Verify the expiration date of the reagent. DO NOT use the reagent if the expiration date is exceeded.
2. Invert the reagent cartridge gently to ensure a homogenous solution.
3. Remove and discard the cap.
4. Remove air bubbles, if they exist, with a clean applicator stick.
5. Open the processing module cover.
6. Verify the R1 and/or R2 **carousel advance** key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center 2 to become available.
7. Press the green or orange button on the front portion of the reagent supply center cover(s), and then open the cover(s).

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



8. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to the assigned location(s).
9. Remove the empty cartridge(s) and place the new cartridge(s) into the assigned location(s) in the appropriate reagent supply center.

   IMPORTANT: The outside of the cartridge(s) may be wet. Do not drip condensation into the other reagent cartridges.
10. Close the reagent supply center cover(s) by pushing the cover(s) down until you hear a click.
11. Close the processing module cover.
12. Select the desired non-bar coded reagent from the **Reagent status** table on the Reagent status screen, and then select **F8 - Reset**.

    A confirmation message displays.
13. Select **OK**.

    NOTE: The updated remaining tests and reagent status display in the Reagent status table. The onboard stability timer restarts. To update the onboard stability timer you must perform a reset every time you load a new reagent kit. For information on reagent onboard stability, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Related information...

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Reagent cartridges (c System)*, page 1-187

Unload bar coded reagents (*c*8000/*c*16000)

Perform this procedure when reagents are depleted or have expired, or when you need room to add a different assay reagent kit in the reagent supply center.

Prerequisite	*Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready or Scheduled pause
User access level	General operator
Supplies	Container caps

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

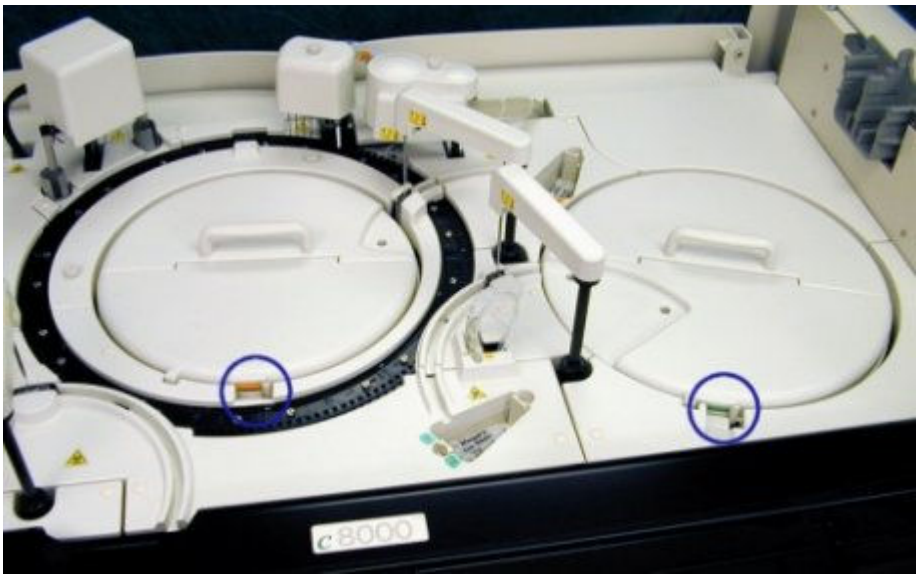
To unload bar coded reagents:

1. Open the processing module cover.
2. Verify the R1 and/or R2 **carousel advance** key(s) on the processing module keypad are illuminated before accessing the reagent supply center.

   NOTE: If the module status is Scheduled pause, the keys illuminate as each reagent supply center becomes available. It may take up to five minutes after you pause the module for reagent supply center 2 to become available.
3. Press the green or orange button on the front portion of the reagent supply center cover(s), and then open the cover(s).

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



4. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to provide access to the reagent(s).
5. Remove the reagent(s) and place a container cap on each.

   IMPORTANT: The outside of the cartridge(s) may be wet. Do not drip condensation into the other reagent cartridges.
6. Close the reagent supply center cover(s) by pushing the cover(s) down until you hear a click.
7. Close the processing module cover.
8. Initiate or resume sample processing, or select **F5 - Scan** on the Reagent status screen to update the reagent inventory.

   NOTE: Onboard stability is tracked only when the reagent kit is on board the processing module. To update the onboard stability timer, you must perform a reagent scan every time you unload a reagent kit. For information on reagent onboard stability, see the assay-specific package insert or reagent application sheet.

Related information…

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Reagent cartridges (c System)*, page 1-187
- *Reagent cartridge adapters (c8000)*, page 1-215
- *Reagent cartridge adapters (c16000)*, page 1-217

Unload non-bar coded reagents (*c*8000/*c*16000)

Perform this procedure to unload reagents when inventory is depleted or has expired, or when you need room to add a different assay reagent kit onto the processing module.

Prerequisite	*Access the Reagent status screen - c8000/c16000 view*, page 5-109
Module status	Ready
User access level	General operator
Supplies	Container caps

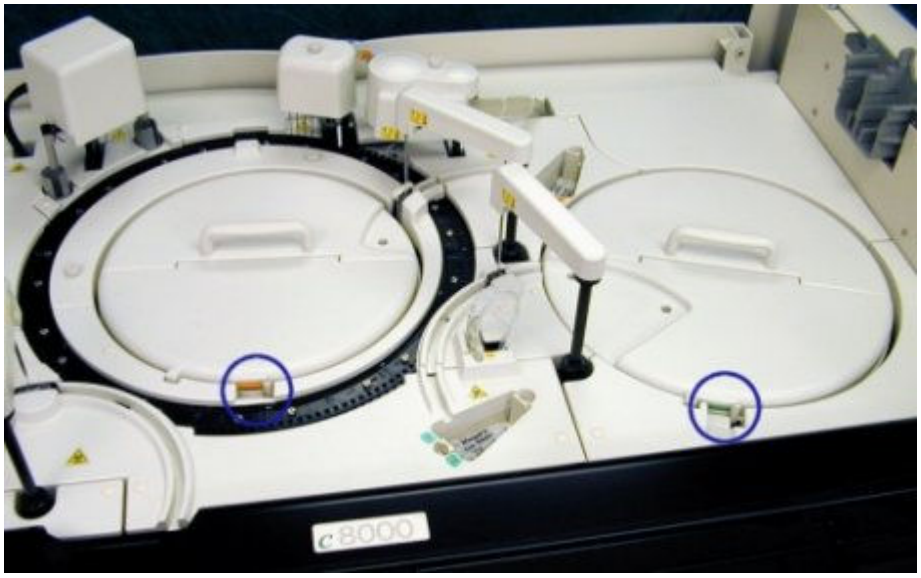
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To unload non-bar coded reagents:

1. Open the processing module cover.
2. Press the green or orange button on the front portion of the reagent supply center cover(s), and then open the cover(s).

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation when open for the *c*8000 processing module. See *Laser light*, page 8-18.



3. Press the **carousel advance** key on the processing module keypad to advance the reagent supply center to provide access to the reagent(s).
4. Remove the reagent(s) and place a container cap on each.

   IMPORTANT: The outside of the cartridge(s) may be wet. Do not drip condensation into the other reagent cartridges.
5. Close the reagent supply center cover(s) by pushing the cover(s) down until you hear a click.
6. Close the processing module cover.
7. Select **F6 - Assign location** on the Reagent status screen.

   The Assign location window displays.
8. Select the desired reagent from the **Reagent kits** table.
9. Select **Unload**.

   The assigned position no longer displays in the Reagent kits table.
10. Select **Done** to return to the Reagent status screen.

    NOTE: Onboard stability is no longer tracked for the removed reagent(s). To update the onboard stability timer you must perform an unload procedure every time you unload a reagent kit. For information on reagent onboard stability, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Related information...

- *Reagent status screen - c8000/c16000 view*, page 5-107
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Reagent supply centers (c8000)*, page 1-62
- *Reagent supply centers (c16000)*, page 1-82
- *Assign location window (c8000/c16000)*, page 5-122

Loading requirements for the reagent supply center(s) (*c* System)

Loading requirements for the reagent supply centers depend on what item you are loading, what type of cartridge or bottle you are loading, and which *c* System processing module you are loading it on. The following tables describe the loading requirements:

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Table 5.8: Loading requirements for the c16000 processing module

Item	Requirement
R2 reagent cartridge	• If the R1 reagent cartridge is loaded in (or assigned to) an A, B, or C segment in the outer carousel, then the R2 reagent cartridge must be loaded in (or assigned to) an A, B, or C segment in the outer carousel of the R2 supply center. • If the R1 reagent cartridge is loaded in (or assigned to) the D segment in the inner carousel, then the R2 reagent cartridge must be loaded in (or assigned to) the D segment in the inner carousel of the R2 supply center.
Sample diluent	Must be loaded in both the outer (segment A, B, or C) and inner (segment D) carousels.
ICT sample diluent	Must be loaded in an A, B, or C segment in the outer carousel of the R1 supply center.
New reagent cartridge or bottle	Must be loaded on the same carousel (inner or outer) as the empty reagent cartridge or bottle. Recalibration of the assay is required when a replacement cartridge or bottle is placed in a different carousel.

Table 5.9: Loading requirements for a 20mL cartridge, small (55 mL) cartridge, or 20 mL bottle

Item	Requirement
20 mL cartridge or small (55 mL) cartridge (*c*8000/*c*16000 only)	1. Load the small reagent cartridge adapter into the reagent supply center. 2. Insert the cartridge into the adapter and then set the cartridge completely.
20 mL bottle	1. Align the bottle so that the bar code faces outward. Center the bar code between the two longest adapter prongs as shown below and insert the bottle into the top of the adapter. **NOTE:** For *c*4000, reagent cartridge adapters are placed in the outer carousel only.

Item	Requirement
	 2. Load the adapter and bottle into the reagent supply center by positioning the guide bars on the adapter (identified in the figure below) so that they fit into the grooves at the bottom of the reagent segment. **IMPORTANT:** The guide bars must be inserted into the grooves in order to prevent a probe crash or level sense errors.  3. Ensure the bottle touches the bottom of the reagent supply center and the bar code label remains facing outward.

*i*2000/*i*2000SR procedures - reagent inventory management

*i*2000/*i*2000SR reagent inventory management procedures include:

- *Prepare new reagent bottles (i2000/i2000SR)*, page 5-167
- *Prepare used reagent bottles (i2000/i2000SR)*, page 5-169
- *Load reagents (i2000/i2000SR)*, page 5-169
- *Unload reagents (i2000/i2000SR)*, page 5-171

Prepare new reagent bottles (*i*2000/*i*2000SR)

Perform this procedure to prepare new reagent bottles before loading them on the processing module.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Reagent kits • One septum per reagent bottle

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To prepare new reagent bottles:

1. Verify the required assay reagent components are present.

   IMPORTANT: Do not mix reagent kit components from different reagent lots. Do not pool reagents.

2. Record the reagent lot numbers.

   NOTE: An ARCHITECT *i* System tracks only the reagent lot number from the reagent bottle. Record the lot numbers found on the reagent kit box prior to discarding the box. Also, record the reagent lot numbers from the reagent bottles.

3. Verify the reagent component is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.

4. Ensure the reagent bottles are not leaking.

5. Invert the microparticle bottle gently 30 times to resuspend microparticles that may have settled during shipment.

6. Inspect the bottle to ensure microparticles are resuspended. If microparticles still adhere to the bottle or cap, continue to invert the bottle until the microparticles have been completely resuspended.

   IMPORTANT: DO NOT use if the microparticles do not resuspend. Contact your Area Customer Support.

7. Open the reagent bottle and discard the white cap.

8. Check each bottle for bubbles. If bubbles are present, remove them with a clean applicator stick.

9. Wear clean gloves to prevent contamination, and then remove a septum from the bag.
10. Carefully seat the septum onto the top of the bottle. Ensure the reagent does not contaminate your gloves.

IMPORTANT: You MUST use septums to prevent reagent evaporation and contamination and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if septums are not used as instructed.

Once you have placed a septum on a reagent bottle, do not invert the bottle as this results in reagent leakage and may compromise assay results. Reagent bottles with septums installed must be stored UPRIGHT. Do not remove septums once they have been installed on reagent bottles.

To load reagents, see *Load reagents (i2000/i2000SR)*, page 5-169.

Related information...

- *Reagent kits and components (i System)*, page 1-199
- *Septums and replacement caps (i System)*, page 1-201
- *Reagent status screen - i2000/i2000SR view*, page 5-110

Prepare used reagent bottles (*i*2000/*i*2000SR)

Perform this procedure to prepare used reagent bottles before loading them on the processing module.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	• Reagent kits • Septum as required

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To prepare used reagent bottles:

1. Verify required assay reagent components are present.

   IMPORTANT: Do not pool reagents.

2. Verify the reagent component is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
3. Ensure reagent bottles have been stored upright.
4. Open the reagent bottles and discard the teal-colored replacement caps.
5. Ensure reagent bottles have septums.

To load reagents, see *Load reagents (i2000/i2000SR)*, page 5-169.

Related information...

- *Reagent kits and components (i System)*, page 1-199
- *Septums and replacement caps (i System)*, page 1-201
- *Reagent status screen - i2000/i2000SR view*, page 5-110

Load reagents (*i*2000/*i*2000SR)

Perform this procedure to load reagent bottles into the carousel.

NOTE: To ensure correct reagent status tracking, do not move reagent kits to a processing module controlled by a different system control center.

Do not open the *i* System processing center cover(s) while the processing module is in Running status. If you open the cover(s), all tests in progress become exceptions and results are not reported. The processing module status changes to Stopped.

Prerequisite	*Prepare new reagent bottles (i2000/i2000SR)*, page 5-167 *Prepare used reagent bottles (i2000/i2000SR)*, page 5-169 *Access the Reagent status screen - i2000/i2000SR view*, page 5-112
Module status	Warming or Ready
User access level	General operator
Supplies	Reagent kits (new or used)

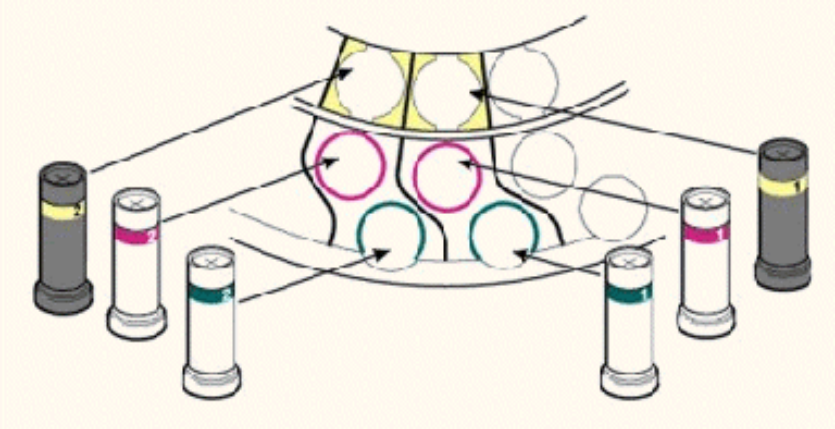
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load reagents:

1. Open the front processing center cover and the reagent carousel cover. See the label on the inside of the reagent carousel to facilitate reagent loading.

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. See *Laser light*, page 8-18.



2. Place the black bottle with the yellow color band securely into the yellow ring (inner location). Ensure the bottle is not tilted and the reagent bar code faces the center of the reagent carousel.

NOTE: If the reagent kit has more than three bottles, load the bottle designated with a #2 in the color band to the left of the same color-band bottle designated #1.

3. Place the bottle with the pink color band securely into the pink ring (middle location). Ensure the bottle is not tilted and the reagent bar code faces the center of the reagent carousel.
4. Place the bottle with the green color band securely in the green ring (outer location). Ensure the bottle is not tilted and the reagent bar code faces the center of the reagent carousel.
5. Press the **carousel advance** key on the processing module keypad to advance the reagent carousel and provide access to additional open positions. ***(optional)***
6. Close the reagent carousel cover and the front processing center cover.
7. Select **F5 - Scan** on the Reagent status screen to update reagent inventory.

   NOTE: Once you place a new reagent(s) on a processing module and the bar code reader scans the bar code label, the system software links individual bottles together as a kit. If the bottles are not kept together, the reagent status of Missing bottle or Extra bottle displays.

   Onboard stability is tracked only when the reagent kit is on board the processing module. To update the onboard stability timer, you must perform a reagent scan every time you load a reagent kit. For information on reagent onboard stability, see the assay-specific package insert.

Related information...

- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Processing module keypad (i2000/i2000SR)*, page 1-101
- *Reagent carousel and bar code reader (i2000/i2000SR)*, page 1-110

Unload reagents (*i*2000/*i*2000SR)

Perform this procedure when reagents are depleted or expired, or when you need room to add a different assay reagent kit.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

NOTE: Do not open the ARCHITECT *i* System processing center cover(s) while the processing module is in Running status. If you open the cover(s), all tests in progress become exceptions and results are not reported. The processing module status changes to Stopped.

Prerequisite	*Access the Reagent status screen - i2000/i2000SR view*, page 5-112
Module status	Warming or Ready
User access level	General operator
Supplies	Replacement cap (one for each bottle removed)

To unload reagents:

1. Open the front processing module cover and the reagent carousel cover.

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. See *Laser light*, page 8-18.

2. Press the **carousel advance** key on the processing module keypad to advance the carousel and to provide access to the reagent(s).
3. Place new teal-colored replacement caps on the bottles, covering the septums, and remove the bottles from the carousel.

   IMPORTANT: Always use replacement caps on used reagent bottles. Do not use the original bottle caps. Do not invert bottles with a septum and replacement cap, as this results in reagent leakage and may compromise assay results. Reagent bottles MUST be stored in an UPRIGHT position.

   Empty reagent kits may be discarded without the teal-colored replacement cap.
4. Close the reagent carousel cover and front processing module cover.
5. Select **F-4 Scan** on the Reagent status screen to update reagent inventory.

   NOTE: Once you place a new reagent(s) on a processing module and the bar code reader scans the bar code label, the system software links individual bottles together as a kit. If the bottles are not kept together, the reagent status of Missing bottle or Extra bottle displays.

   Onboard stability is tracked only when the reagent kit is on board the processing module. To update the onboard stability timer, you must perform a reagent scan every time you unload a reagent kit. For information on reagent onboard stability, see the assay-specific package insert.
6. Place the bottles UPRIGHT in refrigerated storage according to instructions in the assay-specific package insert.

   NOTE: For reagents stored off the system, it is recommended you store them in their original trays and boxes to ensure they remain upright.

Related information…

- *Reagent status screen - i2000/i2000SR view*, page 5-110
- *Septums and replacement caps (i System)*, page 1-201
- *Processing module keypad (i2000/i2000SR)*, page 1-101

- *Reagent carousel and bar code reader (i2000/i2000SR)*, page 1-110

*i*1000SR procedures - reagent inventory management

*i*1000SR System reagent inventory management procedures include:

- *Prepare new reagent bottles (i1000SR)*, page 5-173
- *Prepare used reagent bottles (i1000SR)*, page 5-175
- *Load reagent bottles into reagent carrier(s) (i1000SR)*, page 5-176
- *Load reagents on the RSH (i1000SR)*, page 5-178
- *Unload reagents from reagent carousel (i1000SR)*, page 5-179
- *Cancel reagent unload (i1000SR)*, page 5-180
- *Unload reagents from RSH (i1000SR)*, page 5-180
- *Reloading reagents after opening the reagent carousel cover (i1000SR)*, page 5-182

Prepare new reagent bottles (*i*1000SR)

Perform this procedure to prepare new reagent bottles before loading them on the processing module.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Reagent kits • One septum per reagent bottle

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To prepare new reagent bottles:

1. Verify the required assay reagent components are present.
2. Record the reagent lot numbers.
3. Verify the reagent component is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
4. Ensure the reagent bottles are not leaking.
5. Invert the microparticle bottle gently 30 times to resuspend microparticles that may have settled during shipment.

6. Inspect the bottle to ensure microparticles are resuspended. If microparticles still adhere to the bottle or cap, continue to invert the bottle until the microparticles have been completely resuspended.
7. Open the reagent bottle and discard the white cap.

   IMPORTANT: Do not mix reagent kit components from different reagent lots. Do not pool reagents.

   NOTE: An ARCHITECT *i* System tracks only the reagent lot number from the reagent bottle. Record the lot numbers found on the reagent kit box prior to discarding the box. Also, record the reagent lot numbers from the reagent bottles.

   IMPORTANT: DO NOT use if the microparticles do not resuspend. Contact your Area Customer Support.
8. Check each bottle for bubbles. If bubbles are present, remove them with a clean applicator stick.

9. Wear clean gloves to prevent contamination, and then remove a septum from the bag.
10. Carefully seat the septum onto the top of the bottle. Ensure the reagent does not contaminate your gloves.

IMPORTANT: You MUST use septums to prevent reagent evaporation and contamination and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if septums are not used as instructed.

Once you have placed a septum on a reagent bottle, do not invert the bottle as this results in reagent leakage and may compromise assay results. Reagent bottles with septums installed must be stored UPRIGHT. Do not remove septums once they have been installed on reagent bottles.

To load reagents, see *Load reagents on the RSH (i1000SR)*, page 5-178.

Related information...

- *Reagent kits and components (i System)*, page 1-199
- *Septums and replacement caps (i System)*, page 1-201
- *Reagent status screen - i1000SR view*, page 5-112

Prepare used reagent bottles (*i*1000SR)

Perform this procedure to prepare used reagent bottles before loading them on the processing module.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	• Reagent kits • Septum as required

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To prepare used reagent bottles:

1. Verify required assay reagent components are present.

   IMPORTANT: Do not pool reagents.

2. Verify the reagent component is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
3. Ensure reagent bottles have been stored upright.
4. Open the reagent bottles and discard the teal-colored replacement caps.
5. Ensure reagent bottles have septums.

To load reagents, see *Load reagents on the RSH (i1000SR)*, page 5-178.

Related information...

- *Reagent kits and components (i System)*, page 1-199
- *Septums and replacement caps (i System)*, page 1-201
- *Reagent status screen - i1000SR view*, page 5-112

Load reagent bottles into reagent carrier(s) (*i*1000SR)

Perform this procedure to load reagent bottles into reagent carrier(s).

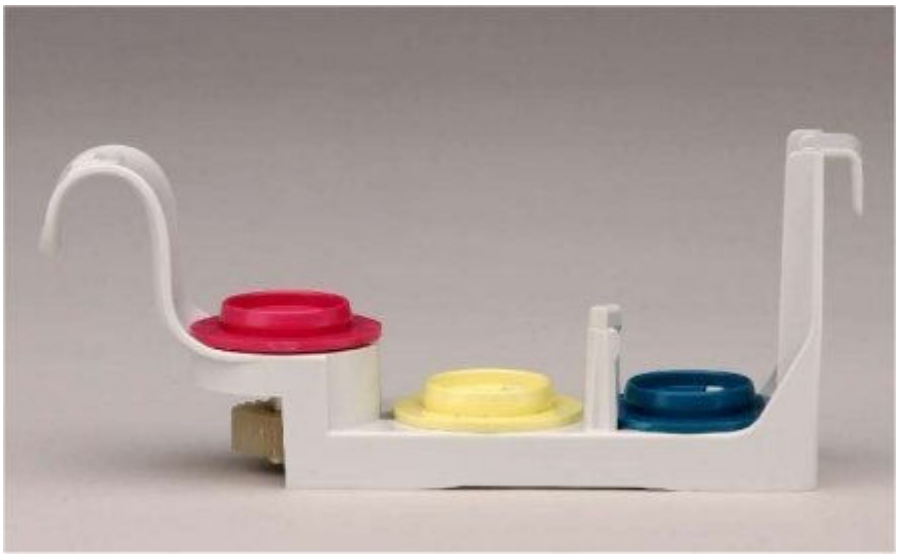
Prerequisite	*Prepare new reagent bottles (i1000SR)*, page 5-173 *Prepare used reagent bottles (i1000SR)*, page 5-175
Module status	NA
User access level	General operator
Supplies	• Reagent kit(s) **NOTE:** Only 100 test reagent kits can be used on the *i*1000SR. • Reagent carriers

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load reagent bottles into reagent carrier(s):

1. Place a reagent carrier on a work surface with the handle to the left.

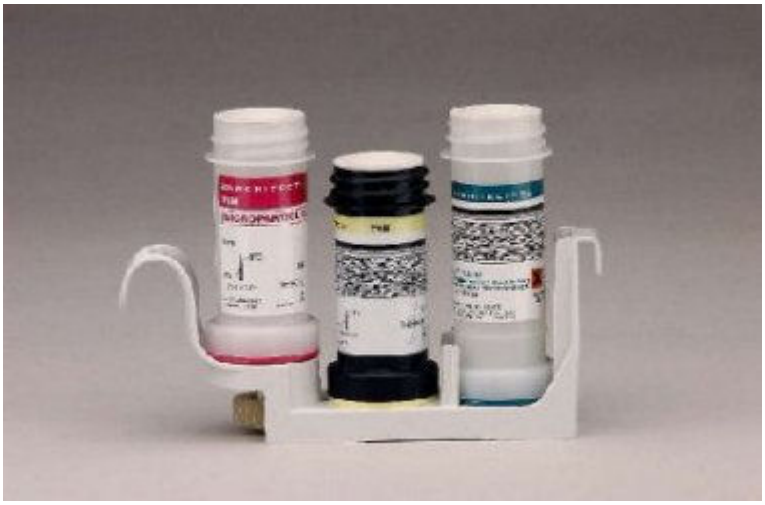


2. Place the bottle with the yellow color band securely into the position with the yellow seat on the reagent carrier. Ensure the bottle is not tilted and the reagent bar code is visible.

   NOTE: If the reagent kit has more than three bottles, load the bottle(s) designated with a #2 in a second reagent carrier.

3. Place the bottle with the pink color band into the position with the pink seat on the reagent carrier. Ensure the bottle is not tilted.

4. Place the bottle with the green color band into the position with the green seat on the reagent carrier. Ensure the bottle is not tilted and the reagent bar code is visible.



To load reagents on the RSH, see *Load reagents on the RSH (i1000SR)*, page 5-178,

Related information…

- *Reagent carriers (i1000SR)*, page 1-219
- *Reagent kits and components (i System)*, page 1-199

Load reagents on the RSH (*i*1000SR)

Perform this procedure to load reagent carriers in sections on the RSH (robotic sample handler).

Prerequisite	*Load reagent bottles into reagent carrier(s) (i1000SR)*, page 5-176
Module status	Ready or Running (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To load reagents:

1. Verify the indicators below the desired section are off, which indicates the section is available.

2. Load the reagent carrier into the section by pushing it in until the indicator illuminates.

   NOTE: When the modules have a status of Running or Ready for the processing module and Running for the sample handler, reagent carriers

are scanned by the bar code reader and loaded on the reagent carousel in the order they are placed on the RSH, not by position number.

NOTE: Once you place a new reagent(s) on the RSH and the bar code reader scans the bar code label, the system software links individual bottles together as a kit. If the bottles are not kept together, the reagent status of Missing bottle or Extra bottle displays.

Onboard stability is tracked after the reagent carrier is scanned by the bar code reader and is in the process of being loaded on the reagent carousel and while the reagent kit is loaded on the reagent carousel. Once the reagent carrier has been unloaded from the reagent carousel and removed from the RSH the onboard stability tracking timer stops.

For information on reagent onboard stability, see the assay-specific package insert.

Related information…

- *Reagent status screen - i1000SR view*, page 5-112

Unload reagents from reagent carousel (*i*1000SR)

Perform this procedure when reagents are expired, or when you need room to add a different assay reagent kit on the reagent carousel.

NOTE: The system automatically unloads reagent kits with a reagent status of empty or LLS error.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

Prerequisite	*Access the Reagent status screen - i1000SR view*, page 5-114

Module status	Running, Scheduled pause, Ready (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

To unload reagents:

1. Select the **Refresh** button to display all records.
2. Select the **Page scroll right** button and verify there are no scheduled tests for the reagent kit to be unloaded.

   NOTE: If a reagent kit is unloaded, all scheduled tests for that reagent kit will go to exceptions.
3. Select the desired reagent kit(s) to be unloaded, and then select **F7-Unload**. The reagent carrier will be unloaded to an available section on the RSH.

To cancel the unloading of the reagent kit, see *Cancel reagent unload (i1000SR)*, page 5-180.

Related information...

- *Reagent status screen - i1000SR view*, page 5-112

Cancel reagent unload (*i*1000SR)

Perform this procedure when reagent kit(s) have been selected for unloading from the reagent carousel and you want to cancel the unloading process and leave the reagent kit(s) on the reagent carousel.

Prerequisite	*Access the Reagent status screen - i1000SR view*, page 5-114
Module status	Running, Scheduled pause, Ready (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

To cancel a reagent unload:

1. Verify the carrier status is scheduled unload for the desired reagent kit(s).
2. Select the appropriate reagent kit(s).
3. Select **F8 - Cancel unload** to cancel the unloading of reagent kit(s).

Related information...

- *Reagent status screen - i1000SR view*, page 5-112

Unload reagents from RSH (*i*1000SR)

Perform this procedure to unload reagents from the sections of the RSH (robotic sample handler) when they are no longer needed on the system.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

Prerequisite	Section indicator: • blinking green • solid green • alternating green/amber
Module status	Any
User access level	General operator
Supplies	Replacement cap (one for each bottle removed)

To unload reagents from the RSH:

1. Remove the reagent carrier by sliding the reagent carrier out of the section.

2. Place new teal-colored replacement caps on the bottles covering the septums.

   IMPORTANT: Always use replacement caps on used reagent bottles. Do not use the original bottle caps. Do not invert bottles with a septum and replacement cap, as this results in reagent leakage and may compromise assay results. Reagent bottles MUST be stored in an UPRIGHT position.

   Empty reagent kits may be discarded without the teal-colored replacement cap.

   NOTE: Once you place a new reagent(s) on the RSH and the bar code reader scans the bar code label, the system software links individual bottles

together as a kit. If the bottles are not kept together, the reagent status of Missing bottle or Extra bottle displays.

Onboard stability is tracked after the reagent carrier is scanned by the bar code reader and is in the process of being loaded on the reagent carousel and while the reagent kit is loaded on the reagent carousel. Once the reagent carrier has been unloaded from the reagent carousel and removed from the RSH the onboard stability tracking timer stops.

For information on reagent onboard stability, see the assay-specific package insert.

3. Place the reagent carriers UPRIGHT in refrigerated storage according to instructions in the assay-specific package insert.

   NOTE: For reagents stored off the system, it is recommended you store them in their reagent carriers and ensure they remain upright.

To cancel the unloading of the reagent kit, see *Cancel reagent unload (i1000SR)*, page 5-180.

Related information…

- *Septums and replacement caps (i System)*, page 1-201
- *Reagent status screen - i1000SR view*, page 5-112

Reloading reagents after opening the reagent carousel cover (*i*1000SR)

Perform this procedure to reload reagent carriers in sections on the RSH (robotic sample handler) after opening the reagent carousel cover.

NOTE: Reagent carrier positions on the reagent carousel must be verified after opening the reagent carousel cover. Once the sample handler module status is running, the system will automatically unload the reagent carriers. You must reinsert the reagent carriers that you want to be loaded back on the reagent carousel.

Prerequisite	NA
Module status	Ready or Running (processing module) Running (sample handler)
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See the assay-specific package insert, reagent application sheet, or the product's Safety Data Sheet. See *Chemical hazards*, page 8-7.

To reload reagents:

1. Verify the indicators below the desired section are blinking green, which indicates the reagent carrier has been unloaded.
2. Reload the reagent carrier into the section by pulling the carrier out and pushing it in until the indicator illuminates.

NOTE: Reagent carriers are scanned by the bar code reader and loaded on the reagent carousel in the order they are repositioned on the RSH, not by position number.

Related information…

- *Reagent status screen - i1000SR view*, page 5-112
- *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171

Patient and control orders

Patient and control orders are created automatically or by an operator.

Patient and control orders topics include:

Automated ordering

Automated patient sample and control ordering is available using host computer download, host order query, or automated control ordering.

Host computer download

Host computer download is the process of downloading sample orders from a host computer to the SCC (system control center). Depending on the type of sample handler:

- All sample handlers except an LAS (laboratory automated system) track - When the bar code reader scans a bar coded sample and the host has downloaded an order to the SCC, the system processes the test(s).
- LAS track - When the LAS system sends sample information to the SCC and the host has downloaded an order to the SCC, the system processes the test(s).
- RSH (robotic sample handler) - When the host computer sends a rerun order for a sample to the SCC and the sample has not been unloaded from the RSH, the system processes the test(s).

When the host downloads new orders, the Orders icon blinks. You can view the orders on the Order status screen.

NOTE: For automated ordering by host computer download, you must configure your system to communicate with a host computer.

See *Configure host interface settings*, page 2-6.

Host order query

Host order query is the process of downloading a sample order from a host computer to the SCC (system control center) after a request from the SCC. Depending on the type of sample handler:

- All sample handlers except an LAS (laboratory automation system) track - When a bar code reader scans a bar coded sample (sample identification number not configured as a control) and an order does not exist on the SCC, the SCC sends a query to the host computer.
- LAS track - When the LAS system sends sample information to the SCC and an order does not exist, the SCC sends a query to the host computer.

If the host computer has test requests for that sample it sends them. When a new order is downloaded the Orders icon blinks. You can view the order on the Order status screen.

If the host computer has no orders for the sample (or no record of the sample) you are notified by a message on the System logs screen - Temporary message log view.

NOTE: For automated ordering by host order query, you must configure your system to communicate with a host computer with query.

See *Configure host interface settings*, page 2-6.

If the ARCHITECT System encounters three consecutive host time-out errors while waiting for a response from the host computer, the system communications setting "On with query" is turned off and the sample handler is paused. To continue using the query mode, you must reconfigure this setting.

NOTE: If the host computer creates rerun orders, you must download the orders to the SCC. The SCC does not query for rerun orders.

Automated control ordering

Automated control ordering is the process the system uses to automatically order control tests by associating an SID (sample ID) with a predefined test(s). For automated control ordering you must configure a bar code SID for each control level. When a bar code is scanned and recognized as a configured control, the system automatically processes the test(s) configured for that SID. You can view the order on the Order status screen.

Automated control ordering can also be performed based on an interval measured either in time or by the number of tests since the assay was last evaluated. This can be configured individually for each single analyte control level, and each analyte configured for a multiconstituent control level.

NOTE: If your system is configured to track control lot expiration (premium feature), an automated control is not created when the control lot is expired.

For *c*8000/*c*16000 processing modules bar coded control samples can be loaded on the sample carousel, which can be configured to scan at predefined intervals while processing patient samples. When no new patient samples are loaded on the RSH (robotic sample handler) the automated sample carousel scan is suspended. The automated scan is activated prior to processing new samples.

NOTE: You must establish the control onboard stability intervals for your laboratory if you use this feature.

Bar coded control samples configured for one or more QC intervals are automatically processed in the following conditions:

- A valid control result has never been generated.
- The QC time or test count interval has been exceeded.
- A reagent kit lot has a Westgard or control range failure on the most recent control result generated.
- A calibration order is Scheduled or Running.
- A control has not been verified for an existing calibration curve.

  NOTE: To ensure calibrators are processed first, the bar coded control samples must be loaded in numerically higher positions on the sample carousel than the bar coded calibrators. On the RSH the calibrator samples must be loaded prior to the bar coded control samples to ensure that calibrators are scanned before the controls.

Related procedures…

- *Configure a bar code for a single analyte control level*, page 2-151
- *Configure intervals for automated single analyte control ordering*, page 2-152
- *Configure a multiconstituent bar code SID*, page 2-155
- *Configure intervals for automated multiconstituent control ordering*, page 2-156

Auto retest (patient samples)

Auto retest is the process the system uses to automatically generate rerun orders for patient tests (excluding controls and calibrators). For each test, the system can generate four automatic rerun orders.

1. The system compares test results to the configured retest rules starting with the first rule. When a result meets the retest criteria of a rule, the system generates an order without evaluating further rules.

   NOTE: If the order generated is for a different assay, the order is suppressed if the sample already has the test in the Pending, Scheduled, Running, or Completed status.

You can view the tests scheduled for rerun on the Order status, Rerun status, and Sample status screens. The R (rerun) code is assigned to the test.

If your system is configured with an RSH (robotic sample handler), you can configure the system to automatically reposition the sample(s) for retest. If your system is not configured for automatic repositioning, you must reload the sample(s) to be retested.

If your system is configured with an SSH (standard sample handler) or LAS (laboratory automation system), you must reload the sample(s) to perform the auto retest.

If you are using the sample carousel (*c*8000/*c*16000), you must:

- Open the sample carousel cover.
- Reload the samples, if additional volume is required.
- Close the sample carousel cover.

2. The system compares retest results to the configured retest rules. If a retest result meets the retest criteria of a rule, the system generates a second rerun order. This rerun order displays and processes the same as the first.

   NOTE: If you manually rerun a test result or test exception, the system restarts the auto retest process and can generate four additional automatic rerun orders for each test.

To configure retest rules, see *Configure a retest rule*, page 2-74.

Patient order screens and views

You use patient order screens and their views to create patient orders.

Patient order screen and views topics include:

Patient order screen - Single patient view

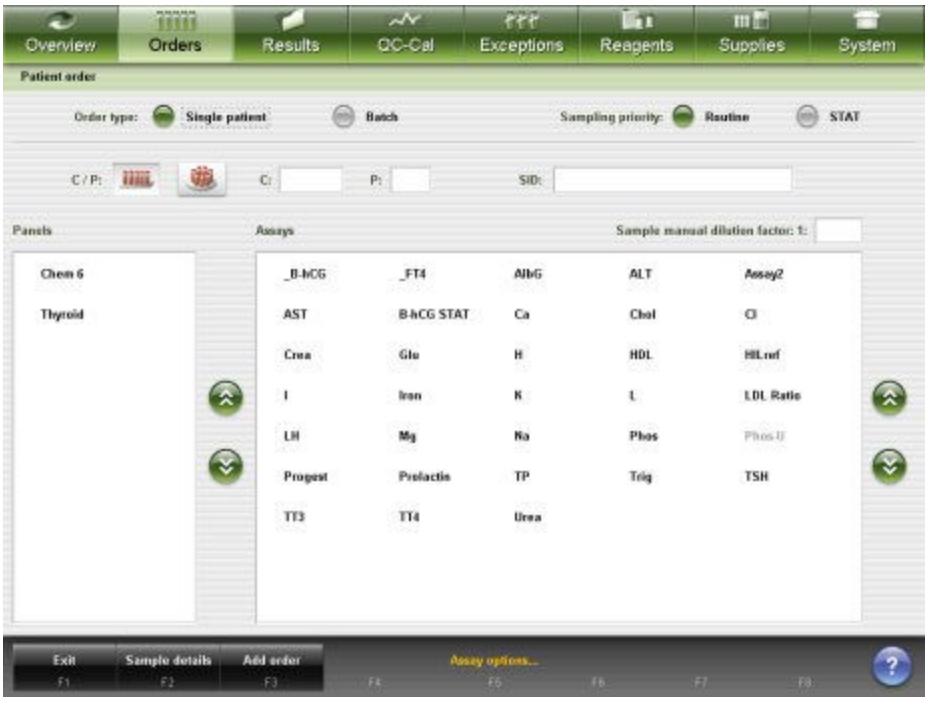
From the single patient view of the Patient order screen you can create non-batch patient orders when:

- The system is not connected to a host computer
- The host computer is inoperable
- The LAS (laboratory automation system) track is inoperable

- A sample does not have a bar code label

You can also access windows to enter additional patient information and order assay options.

Figure 5.44: Patient order screen - single patient view



For descriptions of these fields, see *Patient order screen - Single patient view field descriptions*, page E-26.

To display this screen, see *Access the Patient order screen - Single patient view*, page 5-188.

Related procedures…

- *Create a patient order (single order)*, page 5-192
- *Add a test to a patient order*, page 5-201

Access the Patient order screen - Single patient view

Perform this procedure to display the single order view of the Patient order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Patient order screen - single order view:

Select **Orders** from the menu bar, and then select **Patient order**.

The Patient order screen - single order view displays.

Related information...

- *Patient order screen - Single patient view*, page 5-187

Patient order screen - Batch (bar coded) view

From the Batch (bar coded) view of the Patient order screen you can create patient batch orders for bar coded samples.

NOTE: Batch ordering is not available if your system is configured with an LAS (laboratory automation system) sample handler.

Batch processing is not available for samples in the following locations:

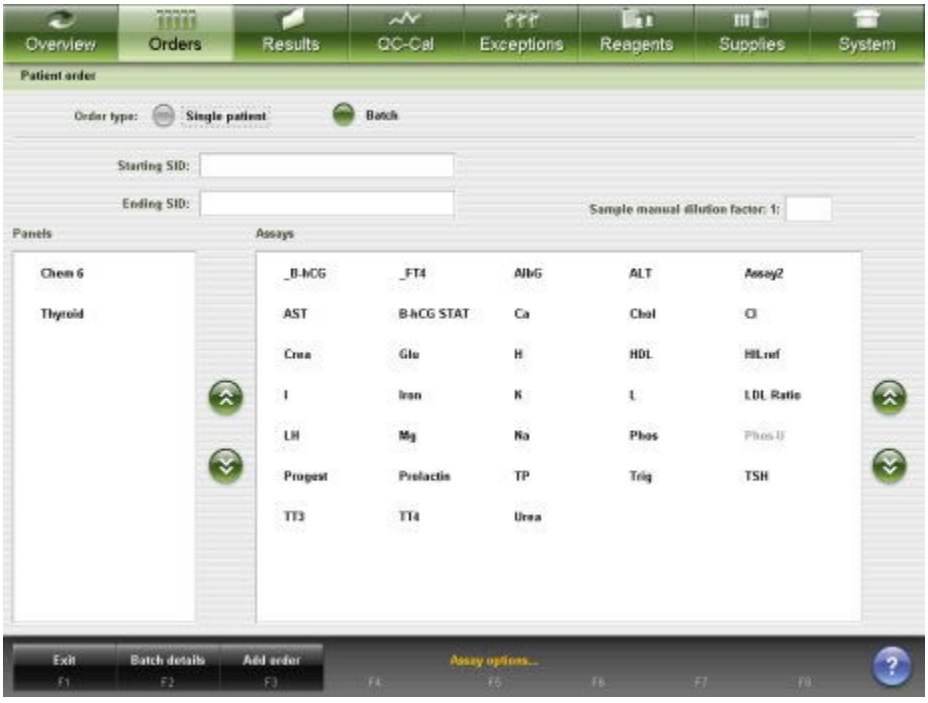
- Samples received from the RSH Extension
- Samples located in the *c*8000/*c*16000 sample carousel
- Samples in the RSH priority bay

Samples from these areas will not be processed as part of a batch order.

You can also access windows to change the batch name, add a comment for the batch order, and order assay options.

To change the view to allow you to order a non-bar coded batch, see *Change the batch sample ordering type*, page 2-15.

Figure 5.45: Patient order screen - Batch (bar coded) view



For descriptions of these fields, see *Patient order screen - Batch (bar coded) view field descriptions*, page E-28.

To display this view of the screen, see *Access the Patient order screen - Batch (bar coded) view*, page 5-190.

Related procedures…

- *Create a patient order (batch, bar coded)*, page 5-195
- *Change the batch sample ordering type*, page 2-15

Access the Patient order screen - Batch (bar coded) view

Perform this procedure to display the batch view of the Patient order screen.

Prerequisite	Batch ordering sample type configured to bar coded
Module status	Any
User access level	General operator
Supplies	NA

To access the Patient order screen - batch (bar coded) view:

1. Select **Orders** from the menu bar, and then select **Patient order**.

   The Patient order screen - single order view displays.

2. Select the **Batch** option.

   The Patient order screen - Batch view displays.

Related information…

- *Patient order screen - Single patient view*, page 5-187
- *Patient order screen - Batch (bar coded) view*, page 5-189
- *Patient order screen - Batch (non-bar coded) view*, page 5-190

Patient order screen - Batch (non-bar coded) view

From the Batch (non-bar coded) view of the Patient order screen you can create patient batch orders for non-bar coded samples.

You can also access windows to:

- Change the batch name
- Enter a comment for the batch order
- Order assay options

NOTE: Batch ordering is not available if your system is configured with an LAS (laboratory automation system) sample handler.

Batch processing is not available for samples in the following locations:

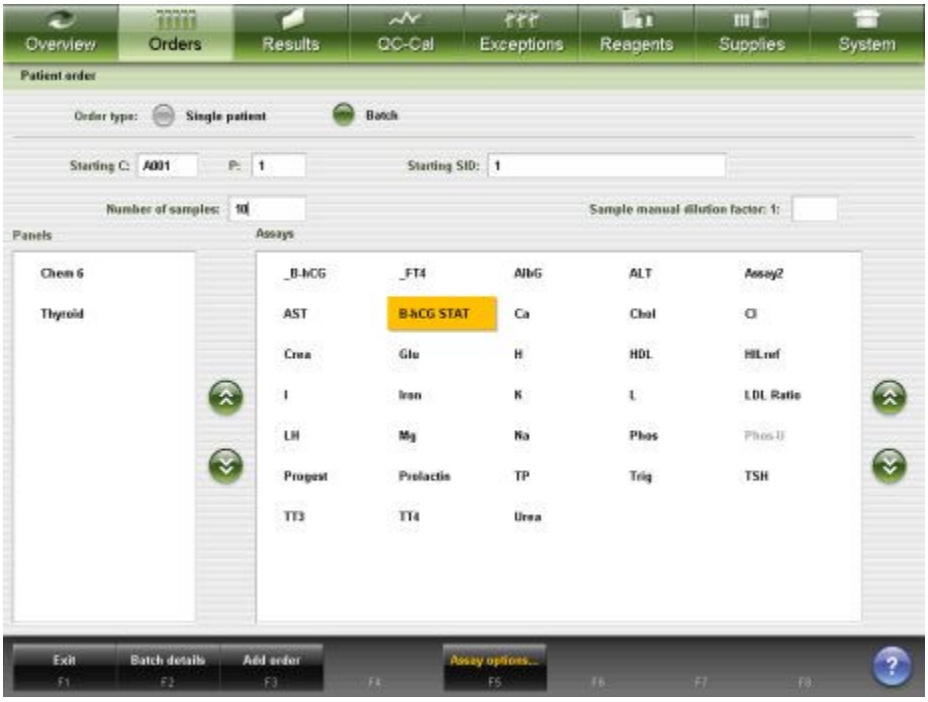
- Samples received from the RSH Extension
- Samples located in the *c*8000/*c*16000 sample carousel

- Samples in the RSH priority bay

Samples from these areas will not be processed as part of a batch order.

To change the view to allow you to order a bar coded batch, see *Change the batch sample ordering type*, page 2-15.

Figure 5.46: Patient order screen - Batch (non-bar coded) view



For descriptions of these fields, see *Patient order screen - Batch (non-bar coded) view field descriptions*, page E-29.

To display this view of the screen, see *Access the Patient order screen - Batch (non-bar coded) view*, page 5-191.

Related procedures...

- *Create a patient order (batch, non-bar coded)*, page 5-198
- *Change the batch sample ordering type*, page 2-15

Access the Patient order screen - Batch (non-bar coded) view

Perform this procedure to display the Batch view of the Patient order screen.

Prerequisite	Batch ordering sample type configured to non-bar coded
Module status	Any
User access level	General operator
Supplies	NA

To access the Patient order screen - Batch (non-bar coded) view:

1. Select **Orders** from the menu bar, and then select **Patient order**.

   The Patient order screen - Single patient view displays.

2. Select the **Batch** option.

   The Patient order screen - batch view displays.

Related information…

- *Patient order screen - Single patient view*, page 5-187
- *Patient order screen - Batch (bar coded) view*, page 5-189
- *Patient order screen - Batch (non-bar coded) view*, page 5-190

Procedures - Patient order screen

Procedures you can perform from the Patient order screen and its related windows include:

- *Create a patient order (single order)*, page 5-192
- *Create a patient order (batch, bar coded)*, page 5-195
- *Create a patient order (batch, non-bar coded)*, page 5-198
- *Add a test to a patient order*, page 5-201

Create a patient order (single order)

Perform this procedure to create a manual patient order.

To create batch orders, see:

- *Create a patient order (batch, bar coded)*, page 5-195
- *Create a patient order (batch, non-bar coded)*, page 5-198

Prerequisite	*Access the Patient order screen - Single patient view*, page 5-188
Module status	Any
User access level	General operator
Supplies	NA

To create a patient order (single order):

1. Select the **Sampling priority: STAT** option on the Patient order screen to display the "S" (STAT) code for the sample orders and results. ***(optional)***
2. Select the **carrier** or **carousel** button, if displayed.
3. Enter a carrier or carousel ID in the **C** data entry box, if displayed.
4. Enter a position in the **P** data entry box, if displayed.

   NOTE: When using bar coded samples, steps **3** and **4** are not required. If a carrier and position are entered and the bar code on the sample is not seen, the system automatically uses the scanned C/P as the unique ID and the sample is processed as entered.

5. Enter the SID (sample identification) in the **SID** data entry box.

   NOTE: You can use the bar code scanner, if available, to scan the SID. When using the bar code scanner, Caps Lock on the keyboard must be off to prevent an incorrect read of the SID. In addition ensure that the Shift key is not pressed prior to initiating a scan.

   IMPORTANT: To ensure tests processed include the correct information, confirm that your laboratory is not reusing the same SID prior to completion or deletion of previously pending orders.

6. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

7. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

   NOTE: If you selected the carousel button on an integrated System, panel names that include ARCHITECT *i* System assays do not display.

   To order a calculated assay, perform one of the following:

   - Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.

     Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

   - Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.

   - Select the calculated assay and all its constituent assays. The system releases and reports all results.

8. Select **F2 - Sample details** to enter patient information. ***(optional)***

   The Details for sample window displays.

   a. Enter patient information in the appropriate data entry box(es) and/or select the appropriate **Gender** option.

      NOTE: A Patient ID is required to print patient report data.

      When entering a PID, enter only the details that are known to be accurate. If the information is not known, leave the data entry box

empty. Never edit information previously entered. If you edit the PID, the software recognizes the PID as a different and unique patient.

b. Enter a comment in the **Comment** data entry box.

NOTE: Sample comments are associated with the sample and display and/or print with each test ordered for the sample.

c. Select **Done** to save your changes and return to the Patient order screen.

9. Select **F5 - Assay options to** specify assay options. ***(optional)***

The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

OR

The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

The system software automatically selects one replicate for the default dilution protocol.

You cannot order replicates for calculated assays.

IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous/next** buttons to display each assay if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

10. Select **F3 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List Report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Patient order screen - Single patient view*, page 5-187
- *Details for sample window*, page 5-205
- *Assay options (Patient order) window - manual dilution view*, page 5-204
- *Assay options (Patient order) window - automated dilution view*, page 5-204
- *Order List Report*, page A-54
- *Loading samples (RSH)*, page 5-246
- *Loading samples (sample carousel - c8000/c16000)*, page 5-261
- *Loading samples (SSH)*, page 5-264
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274

Create a patient order (batch, bar coded)

Perform this procedure to order the same test(s) on multiple patient samples. You can process batch orders on the standard or robotic sample handlers.

Batch processing is not available for samples in the following locations:

- Samples received from the RSH Extension
- Samples located in the *c*8000/*c*16000 sample carousel
- Samples in the RSH priority bay

Samples from these areas will not be processed as part of a batch order.

If you have an RSH and/or sample carousel, you may order tests for priority processing on patient or control samples and load them in the priority bay, section, or sample carousel while the batch order is processing.

IMPORTANT: When running a bar coded batch you cannot:

- Load calibrators
- Load priority samples in the SSH
- Leave empty spaces in a carrier
- Load batch samples in a carrier with tests in process

NOTE: You cannot add a test(s) to an order within the batch. If you add a test(s) to an order that is part of a batch order, the additional test(s) processes instead of the batch test(s). You must order additional tests separately and load the samples after the batch process is complete.

To change the view to allow you to order a non-bar coded batch, see *Change the batch sample ordering type*, page 2-15.

To create a single order for a patient sample, see *Create a patient order (single order)*, page 5-192.

Prerequisite	Batch ordering sample type configured to bar coded *Access the Patient order screen - Batch (bar coded) view*, page 5-190
Module status	Any
User access level	General operator
Supplies	NA

To create a patient order (batch, bar coded):

1. Select the **Order type: Batch** option on the Patient order screen.

   The Patient order screen - Batch (bar coded) view displays.

2. Enter a starting sample ID in the **Starting SID** data entry box.

3. Enter an ending sample ID in the **Ending SID** data entry box.

   NOTE: Batch processing begins on the sample with the starting SID and continues until the sample with the ending SID is processed. All samples in between, regardless of sequence or SID, are included in the batch process.

4. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

5. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

   NOTE: To order a calculated assay, perform one of the following:

   - Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.

     Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

   - Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.

   - Select the calculated assay and all its constituent assays. The system releases and reports all results.

6. Select **F2 - Batch details** to change the batch name or enter a comment. ***(optional)***

   The Details for batch window displays.

   a. Enter a new batch name in the **Batch name** data entry box.

   b. Enter a comment in the **Comment** data entry box.

   c. Select **Done** to save your changes and return to the Patient order screen.

7. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

      NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

      The system software automatically selects one replicate for the default dilution protocol.

      IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

      For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

      The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

   b. Select the **Module selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

      NOTE: Overriding the system module scheduler may impact overall throughput.

   c. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 7a and 7b for each. ***(optional)***

   d. Select **Done** to save your changes and return to the Patient order screen.

8. Select **F3 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Patient order screen - Batch (bar coded) view*, page 5-189
- *Details for batch window*, page 5-206
- *Assay options (Patient order) window - manual dilution view*, page 5-204
- *Assay options (Patient order) window - automated dilution view*, page 5-204
- *Order status screen*, page 5-222
- *Order List Report*, page A-54
- *Loading samples (RSH)*, page 5-246
- *Loading samples (SSH)*, page 5-264
- *Batch processing*, page 5-288

Create a patient order (batch, non-bar coded)

Perform this procedure to order the same test(s) on multiple patient samples. You can process batch orders on the RSH (robotic sample handler) or SSH (standard sample handler).

Batch processing is not available for samples in the following locations:

- Samples received from the RSH Extension
- Samples located in the *c*8000/*c*16000 sample carousel
- Samples in the RSH priority bay

Samples from these areas will not be processed as part of a batch order.

If you have an RSH and/or sample carousel, you may order tests for priority processing on patient or control samples and load them in the priority bay, section, or sample carousel while the batch order is processing.

IMPORTANT: When running a non-bar coded batch you cannot:

- Load calibrators
- Load priority samples in the SSH
- Leave empty spaces in a carrier
- Load batch samples in a carrier with tests in process

Loading any of the above samples will result in an incorrect SID assigned to the sample and every subsequent sample.

NOTE: You cannot add a test(s) to an order within the batch. If you add a test(s) to an order that is part of a batch order, the additional test(s) processes instead of the batch test(s). You must order additional tests separately and load the samples after the batch process is complete.

To change the view to allow you to order a bar coded batch, see *Change the batch sample ordering type*, page 2-15.

To create a single order for a patient sample, see *Create a patient order (single order)*, page 5-192.

Prerequisite	Batch ordering sample type configured to non-bar coded *Access the Patient order screen - Batch (non-bar coded) view*, page 5-191
Module status	Any
User access level	General operator
Supplies	NA

To create a patient order (batch, non-bar coded):

1. Select the **Order type: Batch** option on the Patient order screen.

   The Patient order screen - Batch (non-bar coded) view displays.

2. Enter the starting carrier ID in the **Starting (C)** data entry box.
3. Enter a position in the **(P)** data entry box.
4. Enter the starting SID (sample identification) in the **Starting SID** data entry box (maximum of nine numeric characters).

   The SID is assigned sequentially for each batch sample.

5. Enter the total number of samples in the batch order. This number cannot exceed 5000.

   NOTE: Batch processing begins on the sample with the starting carrier and position and continues until the total number of samples processed equals the number of samples entered.

6. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

7. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

   NOTE: To order a calculated assay, perform one of the following:

   – Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.

     Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

- Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.
- Select the calculated assay and all its constituent assays. The system releases and reports all results.

8. Select **F2 - Batch details**, to change the batch name or enter a comment. ***(optional)***

   The Details for batch window displays.

   a. Enter a new batch name in the **Batch name** data entry box.

   b. Enter a comment in the **Comment** data entry box.

   c. Select **Done** to save your changes and return to the Patient order screen.

9. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

      NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

      The system software automatically selects one replicate for the default dilution protocol.

      IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

      For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

      The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

   b. Select the **Module selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

      NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

10. Select **F3 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Patient order screen - Batch (non-bar coded) view*, page 5-190
- *Details for batch window*, page 5-206
- *Assay options (Patient order) window - manual dilution view*, page 5-204
- *Assay options (Patient order) window - automated dilution view*, page 5-204
- *Order status screen*, page 5-222
- *Order List Report*, page A-54
- *Loading samples (RSH)*, page 5-246
- *Loading samples (SSH)*, page 5-264
- *Batch processing*, page 5-288

Add a test to a patient order

Perform this procedure to add a test(s) to a patient order.

NOTE: If you are adding a calculated assay and new constituent results are desired for the calculation, you must add the constituent assays in addition to the calculated assay.

You cannot add a test(s) to an order within a batch.

If you add a test(s) to an order that is part of a batch order, the additional test(s) processes instead of the batch test(s).

You must order additional tests separately and load the samples after the batch process is complete.

Prerequisite	*Access the Patient order screen - Single patient view*, page 5-188
Module status	Any
User access level	General operator
Supplies	NA

To add a test to a patient order:

1. Enter the SID (sample identification) in the **SID** data entry box.

   NOTE: You can use the bar code scanner, if available, to scan the SID. When using the bar code scanner, the Caps Lock key on the keyboard must

be off to prevent an incorrect read of the SID. In addition ensure that the Shift key is not pressed prior to initiating a scan.

2. Enter the value from the original order in the **Sample manual dilution factor** data entry box.
3. Select the desired panel(s) from the **Panels** list and/or select an assay(s) from the **Assays** list.

   NOTE: If you selected the carousel button on an integrated system, panel names that include both ARCHITECT *c* System and ARCHITECT *i* System assays or only *i* System assays do not display.

   To order a calculated assay, perform one of the following:

   – Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.

     Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

   – Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.

   – Select the calculated assay and all its constituent assays. The system releases and reports all results.
4. Select **F5 - Assay options to** specify assay options. ***(optional)***

   The Assay options (Patient order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Patient order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

      NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

      The system software automatically selects one replicate for the default dilution protocol.

      IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Module selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

c. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 4a and 4b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Patient order screen.

5. Select **F3 - Add order**.

NOTE: If you have an RSH (robotic sample handler) that is configured to automatically reposition samples for retest and the sample is still onboard, a confirmation message displays. Select **Yes** to have the system re-aspirate the sample.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Patient order screen - Single patient view*, page 5-187
- *Details for sample window*, page 5-205
- *Assay options (Patient order) window - manual dilution view*, page 5-204
- *Assay options (Patient order) window - automated dilution view*, page 5-204
- *Order status screen*, page 5-222
- *Order List Report*, page A-54
- *Loading samples (RSH)*, page 5-246
- *Loading samples (sample carousel - c8000/c16000)*, page 5-261
- *Loading samples (SSH)*, page 5-264
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274

Windows - Patient order screen and views

Windows you can access from the Patient order screen include:

- *Assay options (Patient order) window - manual dilution view*, page 5-204
- *Assay options (Patient order) window - automated dilution view*, page 5-204

- *Details for sample window*, page 5-205
- *Details for batch window*, page 5-206

Assay options (Patient order) window - manual dilution view

From the manual dilution view of the Assay options (Patient order) window you can:

- Enter the desired number of replicates
- Override the system module scheduler and select a specific module for processing an order (multi-module *i* System)

Figure 5.47: Assay options (Patient order) window - manual dilution view

For descriptions of these fields, see *Assay options (Patient order) window - Manual dilution view field descriptions*, page E-29.

Related procedures…

- *Create a patient order (single order)*, page 5-192
- *Create a patient order (batch, bar coded)*, page 5-195
- *Create a patient order (batch, non-bar coded)*, page 5-198
- *Add a test to a patient order*, page 5-201

Assay options (Patient order) window - automated dilution view

From the automated dilution view of the Assay options (Patient order) window you can:

- Select an automated dilution factor other than the configured option
- Enter the desired number of replicates
- Override the system module scheduler and select a specific module for processing an order (multi-module *i* System)

Figure 5.48: Assay options (Patient order) window - automated dilution view

For descriptions of these fields, see *Assay options (Patient order) window - Automated dilution view field descriptions*, page E-30.

Related procedures…

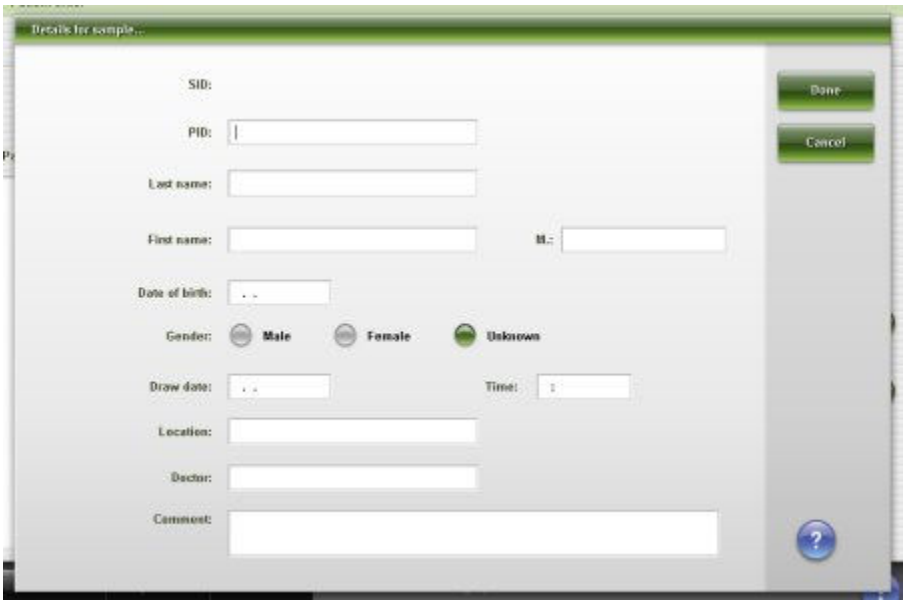
- *Create a patient order (single order)*, page 5-192
- *Create a patient order (batch, bar coded)*, page 5-195
- *Create a patient order (batch, non-bar coded)*, page 5-198
- *Add a test to a patient order*, page 5-201

Details for sample window

From the Details for sample window you can:

- Enter patient information such as patient ID, name, date of birth, and gender
- Enter comments for orders
- View previously entered patient information

Figure 5.49: Details for sample window



For descriptions of these fields, see *Details for sample window field descriptions*, page E-31.

Related procedures...

- *Create a patient order (single order)*, page 5-192

Details for batch window

From the Details for batch window you can change the batch name and enter a comment for your batch order.

Figure 5.50: Details for batch window

For descriptions of these fields, see *Details for batch window field descriptions*, page E-32.

Related procedures…

- *Create a patient order (batch, bar coded)*, page 5-195
- *Create a patient order (batch, non-bar coded)*, page 5-198

Control order screen and views

You use control order screens and their views to create control orders.

Controls have the following characteristics:

- Require running, at all levels and for each assay, immediately after calibration to verify the newly-stored calibration curve on a specific processing module.
- Are run routinely to check a previously-stored active curve and to monitor system/assay performance.

For recommendations on routine control test frequency, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: Patient results can be compromised if you do not run controls and evaluate the results according to the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Control order screen and views topics include:

- *Control order screen - Single analyte view*, page 5-207
- *Control order screen - Multiconstituent view*, page 5-209
- *Procedures - Control order screen*, page 5-211
- *Windows - Control order screen and views*, page 5-220

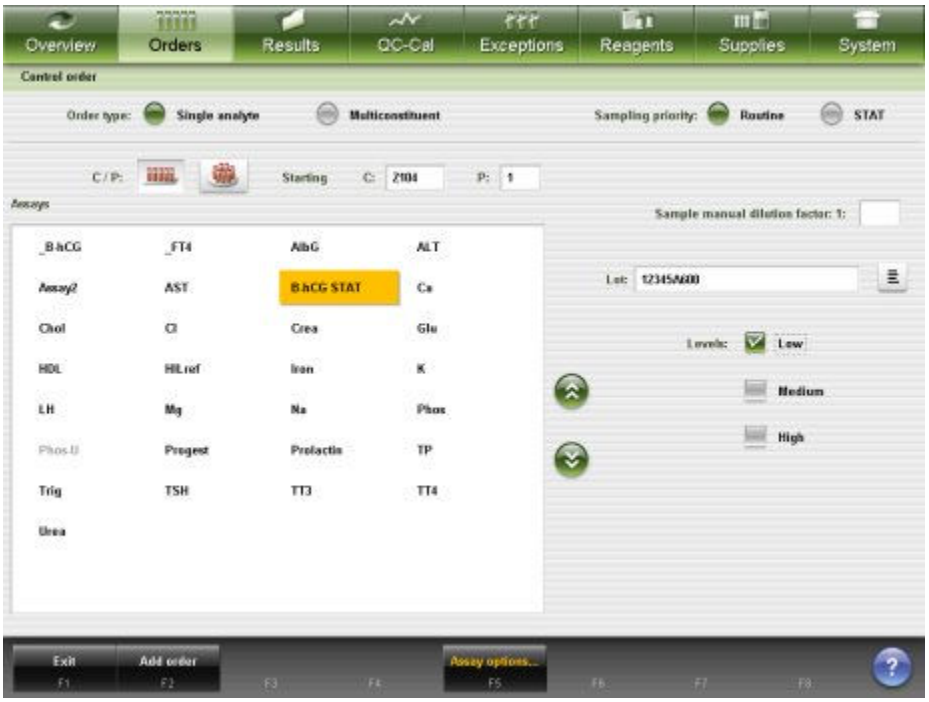
Control order screen - Single analyte view

From the Single analyte view of the Control order screen you can create a control order when:

- The system is not connected to a host computer
- The host computer is inoperable
- The system is not configured to run bar coded control samples
- The control sample does not have a bar code label
- The control sample has a SID bar code label not currently configured on the system

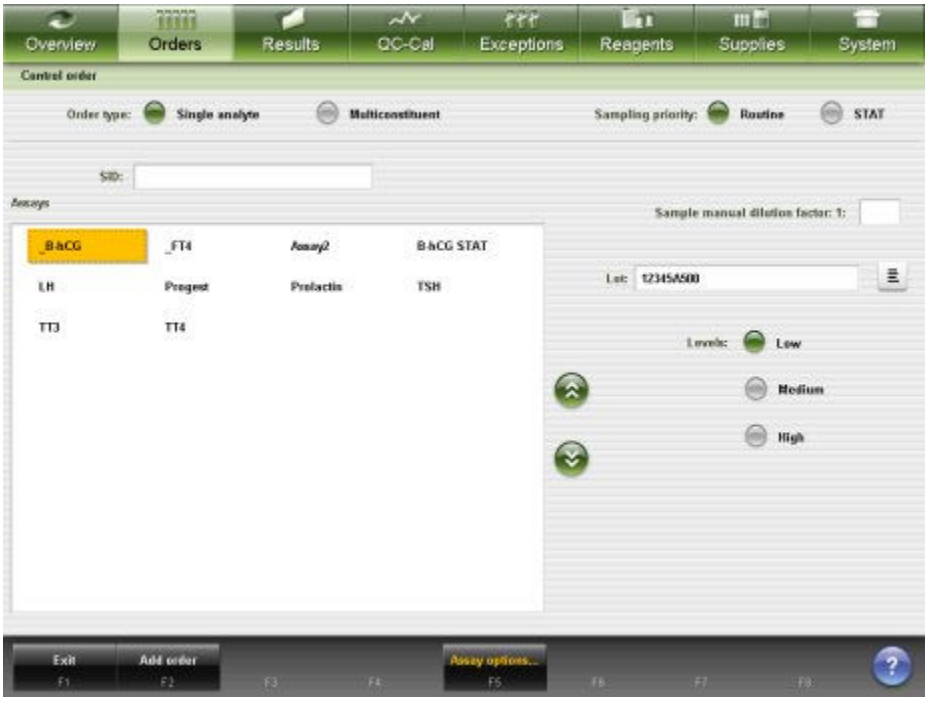
You can also access a window to order assay options.

Figure 5.51: Control order screen - Single analyte view



For descriptions of these fields, see *Control order screen - Single analyte view field descriptions*, page E-32.

Figure 5.52: Control order screen - Single analyte view (i2000SR LAS)



For descriptions of these fields, see *Control order screen - Single analyte view field descriptions (i2000SR LAS)*, page E-33.

To display this view of the screen, see *Access the Control order screen - Single analyte view*, page 5-209.

Related procedures…

- *Create a control order (single analyte)*, page 5-211
- *Create a control order (single analyte - i2000SR LAS)*, page 5-214

Access the Control order screen - Single analyte view

Perform this procedure to display the Single analyte view of the Control order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Control order screen - Single analyte view:

1. Select **Orders** from the menu bar, and then select **Control order**.

   The Control order screen - Multiconstituent view displays.

2. Select the **Order type: Single analyte** option.

   The Control order screen - Single analyte view displays.

Related information…

- *Control order screen - Multiconstituent view*, page 5-209
- *Control order screen - Single analyte view*, page 5-207

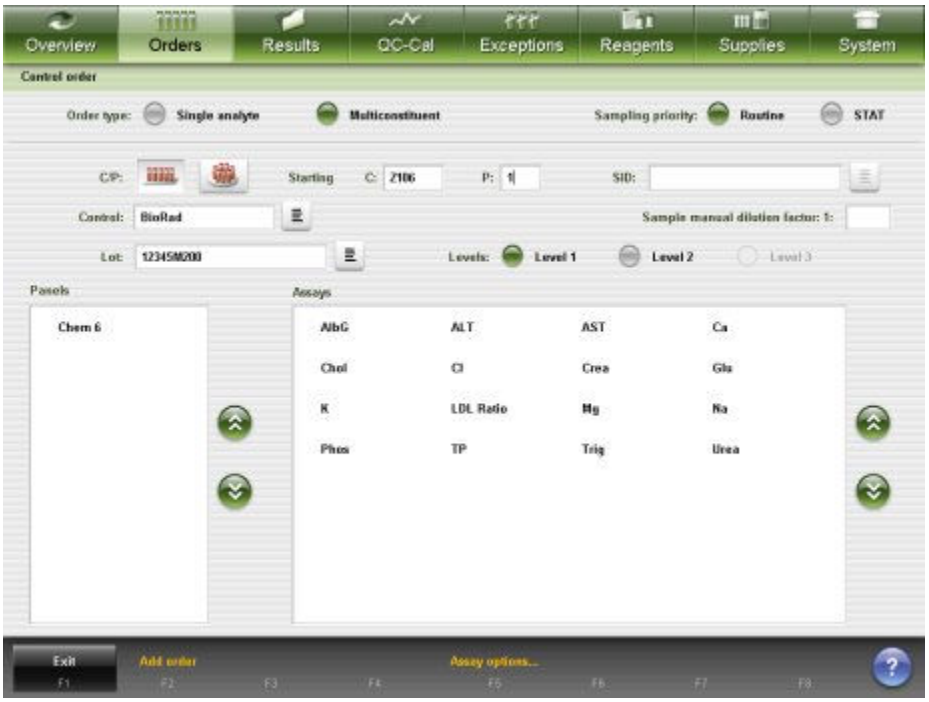
Control order screen - Multiconstituent view

From the Multiconstituent view of the Control order screen you can create a control order when:

- The system is not connected to a host computer
- The host computer is inoperable
- The system is not configured to run bar coded control samples
- The control sample does not have a bar code label
- The control sample has a SID bar code label which may or may not be configured on the system

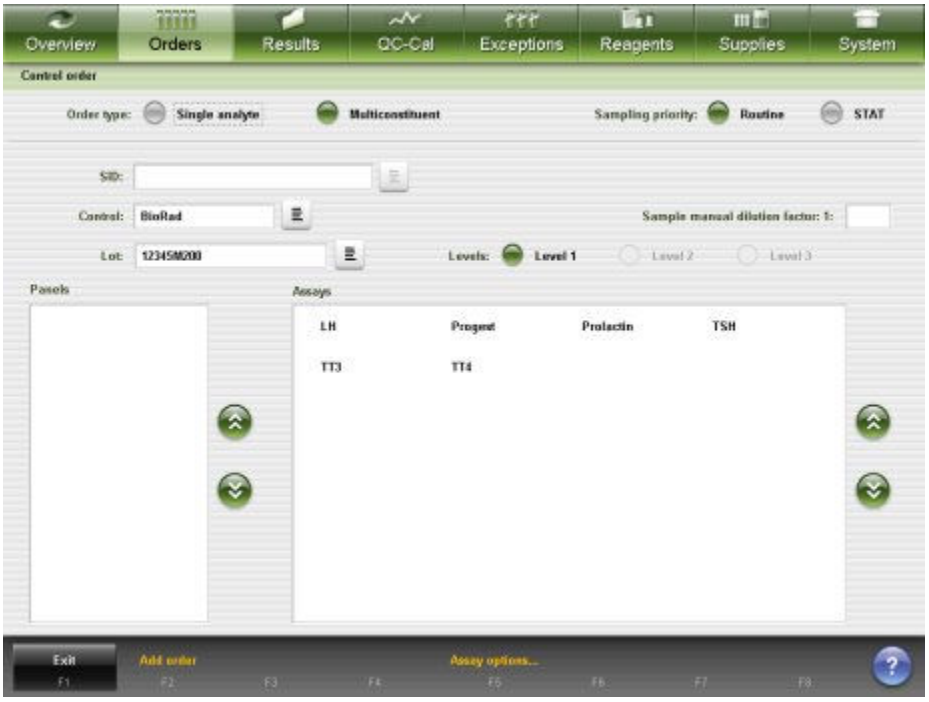
You can also access a window to order assay options.

Figure 5.53: Control order screen - Multiconstituent view



For descriptions of these fields, see *Control order screen - Multiconstituent view field descriptions*, page E-34.

Figure 5.54: Control order screen - Multiconstituent view (i2000SR LAS)



For descriptions of these fields, see *Control order screen - Multiconstituent view field descriptions (i2000SR LAS)*, page E-35.

To display this view of the screen, see *Access the Control order screen - Multiconstituent view*, page 5-211.

Related procedures…

- *Create a control order (multiconstituent)*, page 5-215
- *Create a control order (multiconstituent - i2000SR LAS)*, page 5-218

Access the Control order screen - Multiconstituent view

Perform this procedure to display the Multiconstituent view of the Control order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Control order screen - Multiconstituent view:

Select **Orders** from the menu bar, and then select **Control order**.

The Control order screen - Multiconstituent view displays.

Related information…

- *Control order screen - Multiconstituent view*, page 5-209

Procedures - Control order screen

Procedures you can perform from the Control order screen and its related windows include:

- *Create a control order (single analyte)*, page 5-211
- *Create a control order (single analyte - i2000SR LAS)*, page 5-214
- *Create a control order (multiconstituent)*, page 5-215
- *Create a control order (multiconstituent - i2000SR LAS)*, page 5-218

Create a control order (single analyte)

Perform this procedure to create an order for a single analyte control when a host computer is not available or single analyte controls are not configured to use a bar code SID (sample identification).

NOTE: You must configure controls in the system before you can perform this procedure. See *Configure a single analyte control*, page 2-149.

You may disable a reagent kit(s) for patient samples and still allow manual ordering of calibrations and controls. See *Disable or enable a reagent kit*, page 5-134.

Prerequisite	*Access the Control order screen - Single analyte view*, page 5-209
Module status	Any. If the processing module(s) is not in Running status, the volume printed on the Order List report is for one control per module.
User access level	General operator
Supplies	NA

To create a control order (single analyte):

1. Select the **Sampling priority: STAT** option on the Control order screen to display the "S" (STAT) code for the sample order and results. ***(optional)***
2. Select the **carrier** or **carousel** button.
3. Enter a carrier or carousel ID in the **C** data entry box, if displayed.
4. Enter a position in the **P** data entry box.
5. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
6. Select the desired assay from the **Assays** list.
7. Select the **Lot** list button, and then select the desired lot.

   NOTE: If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
8. Select the desired **Levels** check box(es).

   NOTE: All control levels selected must fit in one carrier/carousel.
9. Select **F5 - Assay options** to specify assay options. (***optional*** unless running the control on a disabled kit)

   The Assay options (Control order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Control order) window - automated dilution view displays if you did not enter a manual dilution factor.

   a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

      NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as

a package insert or reagent application sheet) for limitations on automated dilutions.

The system software automatically selects one replicate for the default dilution protocol.

IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Reagent selection: Select kit** option, the **Kit selection** list button, and then select the desired reagent kit to override the system scheduler. (***optional*** if the reagent kit is not disabled)

c. Select the **Reagent selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System). ***(optional)***

NOTE: Overriding the system module scheduler may impact overall throughput.

d. Use the **previous**/**next** buttons to display each level if you selected more than one, and then repeat steps 9a and 9b for each. ***(optional)***

e. Select **Done** to save your changes and return to the Control order screen.

10. Select **F2 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Control order screen - Single analyte view*, page 5-207
- *Assay options (Control order) window - manual dilution view*, page 5-220
- *Assay options (Control order) window - automated dilution view*, page 5-221
- *Order status screen*, page 5-222
- *Order List Report*, page A-54
- *Loading samples (RSH)*, page 5-246
- *Loading samples (sample carousel - c8000/c16000)*, page 5-261
- *Loading samples (SSH)*, page 5-264
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274

Create a control order (single analyte - *i*2000SR LAS)

Perform this procedure to create an order for a single analyte control when a host computer is not available or single analyte controls are not configured to use a bar code SID (sample identification), or a bar code SID not currently configured will be used for the control order.

NOTE: You must configure controls in the system before you can perform this procedure. See *Configure a single analyte control*, page 2-149.

You may disable a reagent kit(s) for patient samples and still allow manual ordering of calibrations and controls. See *Disable or enable a reagent kit*, page 5-134.

Prerequisite	*Access the Control order screen - Single analyte view*, page 5-209
Module status	Any. If the processing module(s) is not in Running status, the volume printed on the Order List report is for one control per module.
User access level	General operator
Supplies	NA

To create a control order (single analyte - *i*2000SR LAS):

1. Select the **Sampling priority: STAT** option on the Control order screen to display the "S" (STAT) code for the sample orders and results. ***(optional)***
2. Enter the SID (sample identification) in the **SID** data entry box.

   IMPORTANT: To ensure tests processed include the correct information, confirm that your laboratory is not reusing the same SID prior to completion or deletion of previously pending orders.
3. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
4. Select the desired assay from the **Assays** list.
5. Select the **Lot** list button, and then select the desired lot.

   NOTE: If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
6. Select the desired **Levels** check box(es).
7. Select **F5 - Assay options** to specify assay options. (***optional*** unless running the control on a disabled kit)

The Assay options (Control order) window - manual dilution view displays if you entered a manual dilution factor.

OR

The Assay options (Control order) window - automated dilution view displays if you did not enter a manual dilution factor.

a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

   NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for limitations on automated dilutions.

   The system software automatically selects one replicate for the default dilution protocol.

   IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

   The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Reagent selection: Select kit** option, the **Kit selection** list button, and then select the desired reagent kit to override the system scheduler. (***optional*** if the reagent kit is not disabled)

c. Select **Done** to save your changes and return to the Control order screen.

8. Select **F2 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Control order screen - Single analyte view*, page 5-207
- *Assay options (Control order) window - manual dilution view*, page 5-220
- *Assay options (Control order) window - automated dilution view*, page 5-221
- *Order status screen*, page 5-222
- *Order List Report*, page A-54

Create a control order (multiconstituent)

Perform this procedure to create an order for a multiconstituent control when a host computer is not available or multiconstituent controls are not configured to use a bar code SID (sample identification).

NOTE: You must configure controls in the system before you can perform this procedure. See *Configure a new multiconstituent control*, page 2-153.

You may disable a reagent kit(s) for patient samples and still allow manual ordering of calibrations and controls. See *Disable or enable a reagent kit*, page 5-134.

Prerequisite	*Access the Control order screen - Multiconstituent view*, page 5-211
Module status	Any. If the processing module(s) is not in Running status, the volume printed on the Order List report is for one control per module.
User access level	General operator
Supplies	NA

To create a control order (multiconstituent):

1. Select the **Sampling priority: STAT** option on the Control order screen to display the "S" (STAT) code for the sample orders and results. ***(optional)***
2. Select the **carrier** or **carousel** button.
3. Enter a carrier or carousel ID in the **C** data entry box, if displayed.
4. Enter a position in the **P** data entry box.
5. Select the **Control** list button, and then select the desired control.
6. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
7. Select the **Lot** list button, and then select the desired lot.

   NOTE: If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
8. Select the desired **Levels** option.
9. Select the **SID** list button, and then select the desired SID. ***(optional)***
10. Select the desired panel(s) from the **Panels** list and/or select the assay(s) from the **Assays** list.

    NOTE: If you select the carousel button on the *c*8000 or *c*16000 processing module, only the *c* System assays display for panels that include both *c* System and *i* System assays.

    To order a calculated assay, perform one of the following:

- Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.

  Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

- Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.

- Select the calculated assay and all its constituent assays. The system releases and reports all results.

11. Select **F5 - Assay options** to specify assay options.

    The Assay options (Control order) window - manual dilution view displays if you entered a manual dilution factor.

    OR

    The Assay options (Control order) window - automated dilution view displays if you did not enter a manual dilution factor.

    a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

       NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

       The system software automatically selects one replicate for the default dilution protocol.

       You cannot order replicates for calculated assays.

       IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

       For *c* System ICT assays do not order more than 15 tests per sample for samples loaded in cups and/or tubes.

       The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

    b. Select the **Reagent selection: Select kit** option, the **Kit selection** list button, and then select the desired reagent kit to override the system scheduler. (***optional*** if the reagent kit is not disabled)

    c. Select the **Reagent selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System). ***(optional)***

NOTE: Overriding the system module scheduler may impact overall throughput.

d. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 10a and 10b for each. ***(optional)***

e. Select **Done** to save your changes and return to the Control order screen.

12. Select **F2 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Control order screen - Multiconstituent view*, page 5-209
- *Assay options (Control order) window - manual dilution view*, page 5-220
- *Assay options (Control order) window - automated dilution view*, page 5-221
- *Order status screen*, page 5-222
- *Order List Report*, page A-54
- *Loading samples (RSH)*, page 5-246
- *Loading samples (sample carousel - c8000/c16000)*, page 5-261
- *Loading samples (SSH)*, page 5-264
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274

Create a control order (multiconstituent - *i*2000SR LAS)

Perform this procedure to create an order for a multiconstituent control when a host computer is not available or multiconstituent controls are not configured to use a bar code SID (sample identification), or a bar code SID not currently configured will be used for the control order.

NOTE: You must configure controls in the system before you can perform this procedure. See *Configure a new multiconstituent control*, page 2-153.

You may disable a reagent kit(s) for patient samples and still allow manual ordering of calibrations and controls. See *Disable or enable a reagent kit*, page 5-134.

Prerequisite	*Access the Control order screen - Multiconstituent view*, page 5-211
Module status	Any. If the processing module(s) is not in Running status, the volume printed on the Order List report is for one control per module.
User access level	General operator
Supplies	NA

To create a control order (multiconstituent - *i*2000SR LAS):

1. Select the **Sampling priority: STAT** option on the Control order screen to display the "S" (STAT) code for the sample orders and results. ***(optional)***
2. Select the **SID** list button and then select the desired SID.
3. Enter a value in the **Sample manual dilution factor** data entry box. ***(optional)***

   NOTE: Not all assays support manual dilutions. An assay displays unavailable if you select manual dilution, and the assay does not support this type of dilution. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
4. Select the **Control** list button, and then select the desired control.
5. Select the **Lot** list button, and then select the desired lot.

   NOTE: If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
6. Select the desired **Levels** option.
7. Select the desired panel(s) from the **Panels** list and/or select the assay(s) from the **Assays** list.

   To order a calculated assay, perform one of the following:

   - Select only the calculated assay. The system automatically orders the assays required to complete the calculation but does not release or report these results.

     Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.
   - Select the calculated assay and the desired constituent assay(s). The system automatically orders the additional constituent assays required to complete the calculation but does not release or report the system-ordered constituent results.
   - Select the calculated assay and all its constituent assays. The system releases and reports all results.
8. Select **F5 - Assay options** to specify assay options.

   The Assay options (Control order) window - manual dilution view displays if you entered a manual dilution factor.

   OR

   The Assay options (Control order) window - automated dilution view displays if you did not enter a manual dilution factor.

a. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/Number of replicates** data entry box.

NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

The system software automatically selects one replicate for the default dilution protocol.

You cannot order replicates for calculated assays.

IMPORTANT: For ARCHITECT *i* System assays do not order more than 10 tests per sample for samples loaded in sample cups.

The total number of tests per sample includes all assays, replicates, dilutions, and available reagent lots for the order.

b. Select the **Reagent selection: Select kit** option, the **Kit selection** list button, and then select the desired reagent kit to override the system scheduler. (***optional*** if the reagent kit is not disabled)

c. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 8a and 8b for each. ***(optional)***

d. Select **Done** to save your changes and return to the Control order screen.

9. Select **F2 - Add order**.

To view orders, see *Access the Order status screen*, page 5-224.

To print the Order List report, see *Print the Order List report*, page 5-405.

NOTE: The minimum sample volume information prints on the Order List report.

Related information…

- *Control order screen - Multiconstituent view*, page 5-209
- *Assay options (Control order) window - manual dilution view*, page 5-220
- *Assay options (Control order) window - automated dilution view*, page 5-221
- *Order status screen*, page 5-222
- *Order List Report*, page A-54

Windows - Control order screen and views

Windows you can access from the Control order screen include:

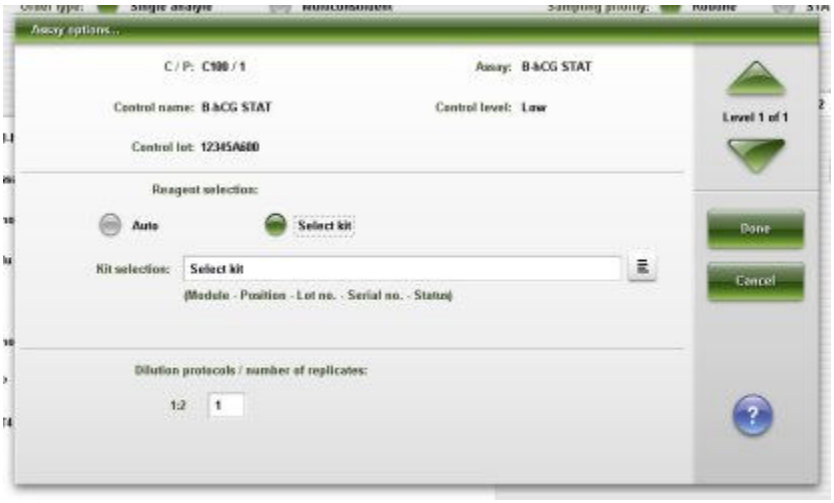
- *Assay options (Control order) window - manual dilution view*, page 5-220
- *Assay options (Control order) window - automated dilution view*, page 5-221

Assay options (Control order) window - manual dilution view

From the manual dilution view of the Assay options (Control order) window you can:

- Enter the desired number of replicates
- Override the system scheduler and select a specific module (multi-module *i* System) or reagent kit for processing an order

Figure 5.55: Assay options (Control order) window - manual dilution view



For descriptions of these fields, see *Assay options (Control order) window - Manual dilution view field descriptions*, page E-37.

Related procedures...

- *Create a control order (single analyte)*, page 5-211
- *Create a control order (multiconstituent)*, page 5-215

Assay options (Control order) window - automated dilution view

From the automated dilution view of the Assay options (Control order) window you can:

- Select an automated dilution factor other than the configured option
- Enter the desired number of replicates
- Override the system scheduler and select a specific module (multi-module *i* System) or reagent kit for processing an order

Figure 5.56: Assay options (Control order) window - automated dilution view

For descriptions of these fields, see *Assay options (Control order) window - Automated dilution view field descriptions*, page E-37.

Related procedures...

- *Create a control order (single analyte)*, page 5-211
- *Create a control order (multiconstituent)*, page 5-215

Order status screen

From the Order status screen you can view information for patient, control, calibration, and rerun test orders, which includes:

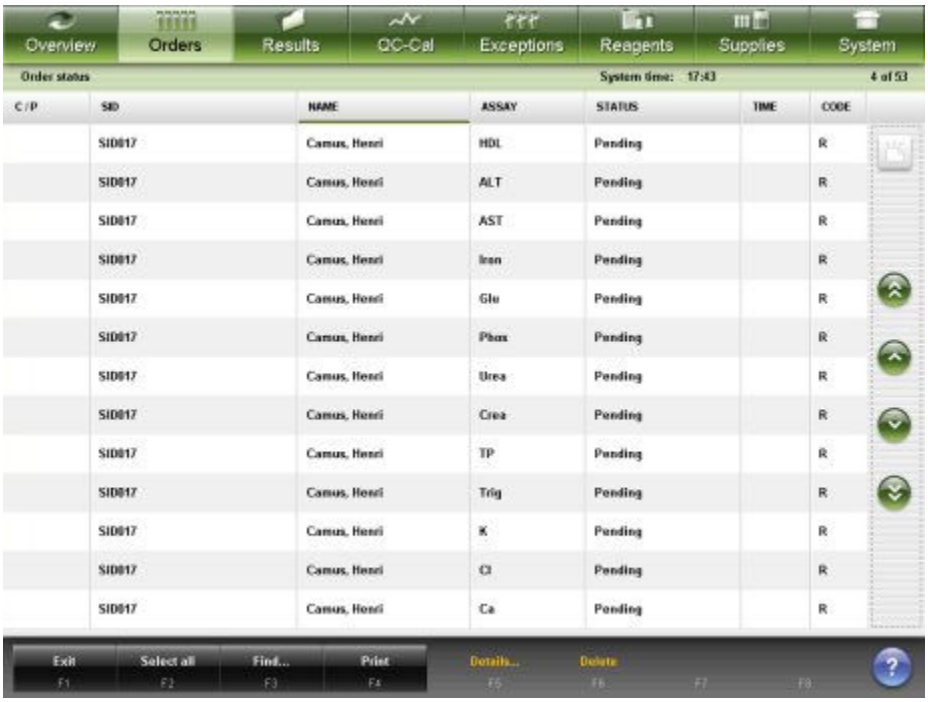
- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name, status, and time of completion
- Processing codes

You can also delete a test from an order and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Order List report and Order Status report
- View detailed test information
- Add a comment to an order

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.57: Order status screen



For descriptions of these fields, see *Order status screen field descriptions*, page E-38.

When accessing the Order status screen the information sorts by completion time, first to last complete. Orders with no completion time sort to the bottom.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0 • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order. If you did not enter a patient name, the test(s) with a blank name field displays last when the column sorts.
TIME	First to last to complete.
STATUS and CODE	See *Descriptions of test statuses*, page 5-224 and *Descriptions of processing codes*, page 5-225.

To display this screen, see *Access the Order status screen*, page 5-224.

Related procedures…

- *View the status of ordered tests*, page 5-226
- *Find a specific test order*, page 5-226
- *Print a report*, page 5-403
- *Print the Order List report*, page 5-405
- *View order or rerun status details*, page 5-227
- *Add a comment to an order*, page 5-228
- *Delete a test from a patient order*, page 5-229

Access the Order status screen

Perform this procedure to display the Order status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Order status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **order status** button on the processing module graphic.

Select **Orders** from the menu bar, and then select **Order status**.

The Order status screen displays.

Related information…

- *Snapshot screen*, page 1-22
- *Order status screen*, page 5-222
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

Descriptions of test statuses

You can use test status information to determine the progress of an ordered test or to manage patient and control results. The system tracks one of the following test statuses for each ordered or completed test. When you select the STATUS column heading, the status sorts in the following order.

Table 5.10: Test statuses

Status	Description
Pending	The test was ordered but the sample has not been scanned by the bar code reader.

Status	Description
Scheduled	The test was assigned to a processing module when the sample was scanned by the bar code reader, but aspiration has not occurred.
Running	The aspiration for the test has occurred and the test is being processed.
In Process	• Batch order - the sample labeled with the starting SID of a batch order was scanned by the bar code reader. • Calculated test - the tests required to calculate the result of a calculated test are being processed.
Exception	The test did not complete successfully due to an error.
*Complete	The test is complete.
*Pending Transmission	The test is complete but is waiting to be transmitted to the host.
*Archived	The test was archived (copied) to a CD.
*Pending Collation	The test is complete, but the system is waiting for one of the following to occur prior to transmitting to the host: • all tests associated with the SID to complete • all tests associated with the SID on a particular processing module to complete

* Indicates you can use the find option in the Stored results screen to locate these statuses.

Descriptions of processing codes

You use processing code information to determine how a sample(s) was processed. The system displays one or more of the following processing codes, when applicable, for an ordered test or test result. When you select the CODE column heading, the codes sort in the following order.

Table 5.11: Processing codes

Code	Description
S	The sample is ordered as a STAT.
D	The test is an automated dilution with a dilution factor >1, or an automated dilution that is not the first configured dilution.
M	The sample is manually diluted.
R	The test is a rerun.
*	The test is an original result for a rerun.
B	The test is part of a batch order.
C	The test has a comment.

Procedures - Order status screen

Procedures you can perform from the Order status screen and its related windows include:

View the status of ordered tests

Perform this procedure to access the Order status screen. From this screen you can check the status of patient, control, calibration, and rerun test orders.

To find specific test orders, see *Find a specific test order*, page 5-226.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view the status of ordered tests:

NOTE: You may also access this screen from the Snapshot screen by selecting the **order status** button on the processing module graphic.

Select **Orders** on the menu bar, and then select **Order status**.

The Order status screen displays.

An ellipsis (...) displays when the system cannot display all the data on a screen or window. View the details window to see all of the data.

Some data fields may not display all data if the data you entered is maximum character length.

NOTE: Select the **refresh** button to display all records.

Related information...

- *Snapshot screen*, page 1-22
- *Order status screen*, page 5-222
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

Find a specific test order

Perform this procedure to search for a specific test order(s) by entering search criteria in one or more fields.

Prerequisite	*Access the Order status screen*, page 5-224, or *Access the Rerun status screen*, page 5-333
Module status	Any
User access level	General operator

Supplies	NA

To find a specific test order:

1. Select **F3 - Find** on the Order or Rerun status screen.

   The Find options (Order status/Rerun status) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Order or Rerun status screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Order status screen*, page 5-222
- *Rerun status screen*, page 5-331
- *Find options (Order status/Rerun status) window*, page 5-230
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

View order or rerun status details

Perform this procedure to display the Details for order (Order status/Rerun status) window. From this window you can view details for orders and add comments.

Prerequisite	*Access the Order status screen*, page 5-224,or *Access the Rerun status screen*, page 5-333
Module status	Any
User access level	General operator
Supplies	NA

To view order or rerun status details:

1. Select the desired orders from the table on the Order or Rerun status screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for order (Order status/Rerun status) window displays.

3. Use the **previous**/**next** buttons to display each order if you selected more than one. ***(optional)***
4. Select **Done** to return to the Order status or Rerun status screen.

Related information...

- *Order status screen*, page 5-222
- *Rerun status screen*, page 5-331
- *Details for order (Order status/Rerun status) window - single order view*, page 5-230
- *Details for order (Order status) window - batch (bar coded) view*, page 5-231
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-232
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

Add a comment to an order

Perform this procedure to add a comment to an order.

Prerequisite	*Access the Order status screen*, page 5-224 or *Access the Rerun status screen*, page 5-333
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to an order:

1. Select the desired order(s) from the table on the Order or Rerun status screen, or select **F2 - Select All**.
2. Select **F5 - Details**.

   The Details for order window displays.
3. Enter a comment in the **Comment** data entry box.

   NOTE: Comments are associated with a test and display and/or print with the test. Sample comments also display if entered.

   For batch orders, if the batch status is In process, you cannot enter a comment for the batch order. You must enter a comment when the batch order is created or the batch status is pending.
4. Use the **previous**/**next** buttons to display each order if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Order status screen*, page 5-222
- *Rerun status screen*, page 5-331
- *Details for order (Order status/Rerun status) window - single order view*, page 5-230
- *Sample status screen*, page 5-233
- *Details for order (Order status) window - batch (bar coded) view*, page 5-231
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-232

Delete a test from a patient order

Perform this procedure to delete a test(s) that no longer needs to be processed.

Prerequisite	*Access the Order status screen*, page 5-224 Test status - Pending, In process
Module status	Any
User access level	General operator
Supplies	NA

To delete a test from a patient order:

1. Select the desired test(s) from the table on the Order status screen, or select **F2 - Select all**.
2. Select **F6 - Delete**.

   A confirmation message displays.

   NOTE: If you delete a batch order, tests with a status of Running or Scheduled continue processing. Additional tests for the order do not process.
3. Select **OK** to delete the test(s).

Related information...

- *Order status screen*, page 5-222

Windows - Order status screen

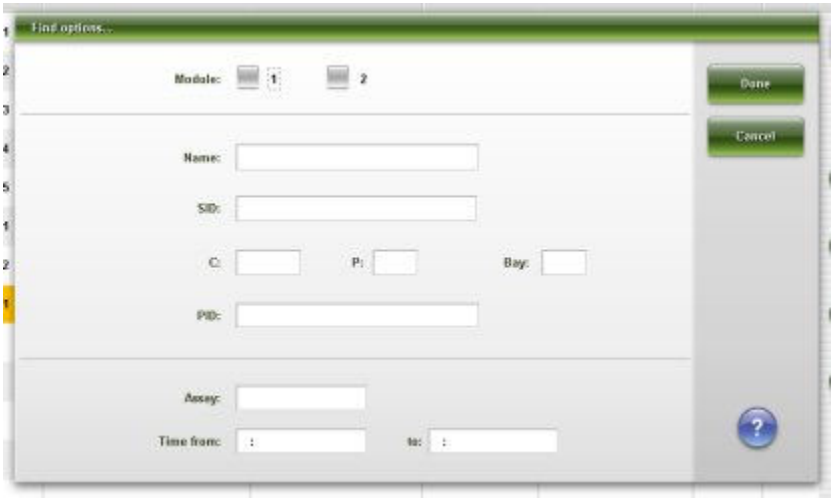
Windows you can access from the Order status screen include:

- *Find options (Order status/Rerun status) window*, page 5-230
- *Details for order (Order status/Rerun status) window - single order view*, page 5-230
- *Details for order (Order status) window - batch (bar coded) view*, page 5-231
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-232

Find options (Order status/Rerun status) window

From the Find options (Order status/Rerun status) window you can search for specific test orders.

Figure 5.58: Find options (Order status/Rerun status) window



For descriptions of these fields, see *Find options (Order status/Rerun status) window field descriptions*, page E-39.

Related procedures…

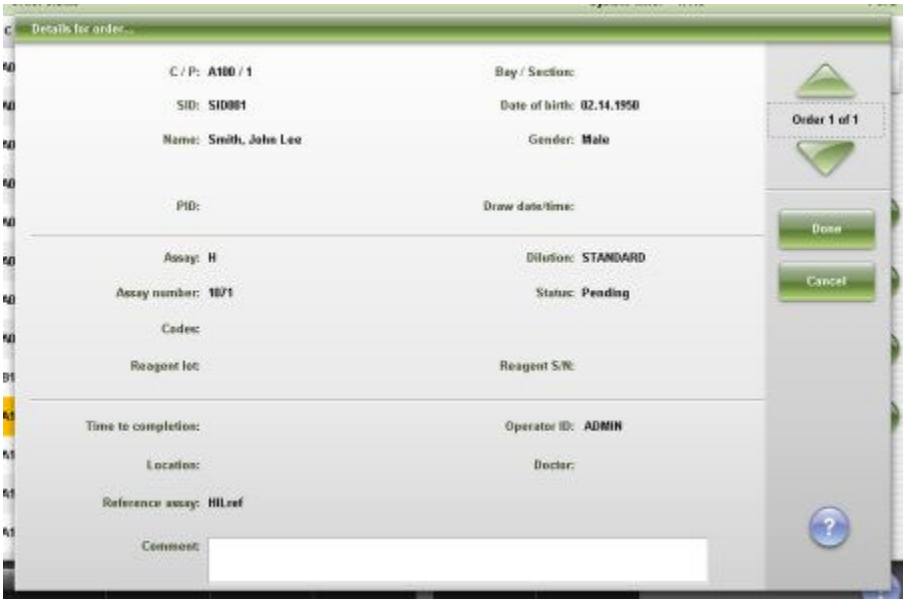
- *Find a specific test order*, page 5-226

Details for order (Order status/Rerun status) window - single order view

From the single order view of the Details for order (Order status/Rerun status) window you can view detailed information for orders and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.59: Details for order (Order status/Rerun status) window - single order view



For descriptions of these fields, see *Details for order (Order status/Rerun status) window - Single order view field descriptions*, page E-40.

Related procedures...

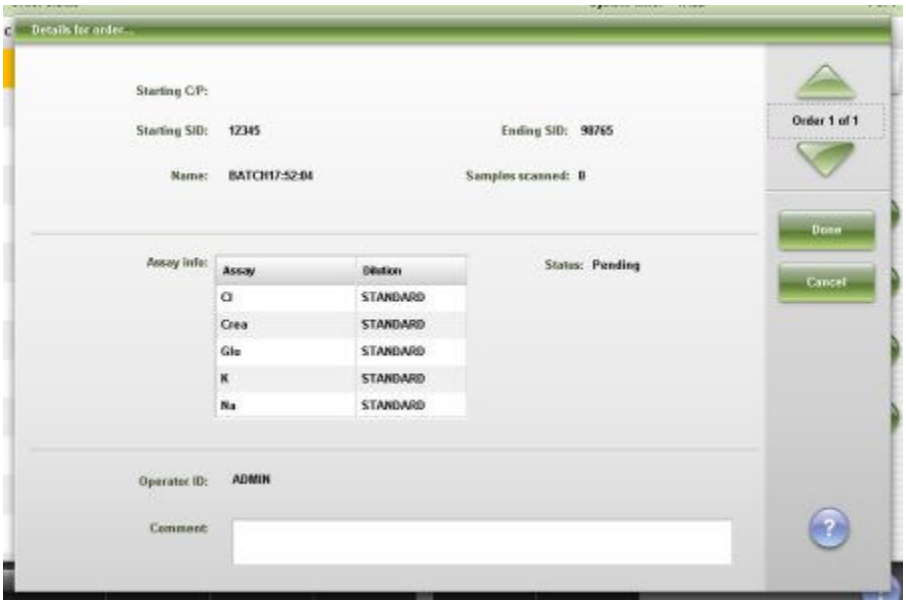
- *View order or rerun status details*, page 5-227
- *Add a comment to an order*, page 5-228
- *View sample status details*, page 5-237

Details for order (Order status) window - batch (bar coded) view

From the batch (bar coded) view of the Details for order (Order status) window you can view information for bar coded batch orders and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.60: Details for order (Order status) window - batch (bar coded) view



For descriptions of these fields, see *Details for order (Order status) window - Batch (bar coded) view field descriptions*, page E-42.

Related procedures...

- *View order or rerun status details*, page 5-227
- *Add a comment to an order*, page 5-228
- *View sample status details*, page 5-237

Details for order (Order status) window - batch (non-bar coded) view

From the batch (non-bar coded) view of the Details for order (Order status) window you can view information for non-bar coded batch orders and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.61: Details for order (Order status) window - batch (non-bar coded) view

For descriptions of these fields, see *Details for order (Order status) window - Batch (non-bar coded) view field descriptions*, page E-43.

Related procedures…

- *View order or rerun status details*, page 5-227
- *Add a comment to an order*, page 5-228
- *View sample status details*, page 5-237

Sample status screen

From the Sample status screen you can view information for patient, control, calibration orders, unreleased patient and control results, and exceptions, which includes:

- Sample name and identification number
- Sample location, identified by carrier ID/position, bay, section, carousel ID/position, or LAS
- Assay name and processing code
- Test status and time to completion or result, date and time of completion, and (where applicable) interpretation

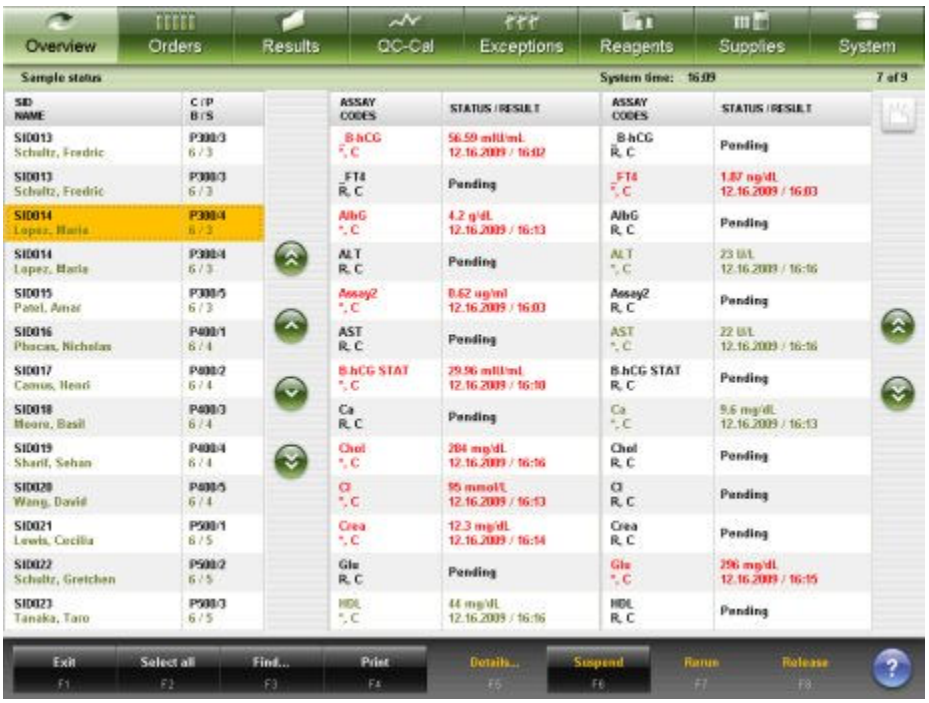
You can also suspend processing on a sample, release a result, and access windows to:

- Find information for specific samples based on specified search criteria
- Print the Sample Status report

- View detailed test information
- Add a comment to an order or result
- Rerun a test

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.62: Sample status screen



For descriptions of these fields, see *Sample status screen field descriptions*, page E-19.

When accessing the Sample status screen, the information sorts by SID with the first SID selected. A new SID may be selected. You cannot deselect a SID, therefore one SID remains selected. To sort columns on this screen, select the desired column heading. The column sorts and continues to display the selected SID. The column sorts are described in the following table.

Column	Sort description
SID and NAME	Alphanumerically in ascending order.
C/P and B/S	Alphanumerically in the following order: • Carrier/position and bay or section • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0 • No carrier or carousel/position
ASSAY and CODES	These columns do not sort.

Column	Sort description
STATUS/RESULT	See *Descriptions of test statuses*, page 5-224 and *Descriptions of processing codes*, page 5-225.

To display this screen, see *Access the Sample status screen*, page 5-235.

Related procedures…

- *View sample status*, page 5-236
- *Find a specific sample*, page 5-236
- *View sample status details*, page 5-237
- *Add a comment to an order*, page 5-228
- *Access a sample with tests in process (RSH - except for c4000/i1000SR / ci4100)*, page 5-290
- *Access a sample with tests in process (RSH - c4000/i1000SR /ci4100)*, page 5-292
- *Print a report*, page 5-403
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Rerun a patient test*, page 5-305
- *Rerun a QC test*, page 5-323
- *Release a patient result*, page 5-307

Access the Sample status screen

Perform this procedure to display the Sample status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Sample status screen:

Select **Overview** from the menu bar, and then select **Sample status**.

The Sample status screen displays.

Related information…

- *Sample status screen*, page 5-233
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

Procedures - Sample status screen

Procedures you can perform from the Sample status screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Access a sample with tests in process (RSH - except for c4000/i1000SR / ci4100)*, page 5-290
- *Access a sample with tests in process (RSH - c4000/i1000SR /ci4100)*, page 5-292
- *Print a report*, page 5-403
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Rerun a patient test*, page 5-305
- *Rerun a QC test*, page 5-323
- *Release a patient result*, page 5-307

Procedures in this sub-section include:

- *View sample status*, page 5-236
- *Find a specific sample*, page 5-236
- *View sample status details*, page 5-237

View sample status

Perform this procedure to access the Sample status screen.

Prerequisite	*Access the Sample status screen*, page 5-235
Module status	Any
User access level	General operator
Supplies	NA

To view sample status:

Select the desired sample from the **SID Name** column on the Sample status screen.

The tests and codes display in the **ASSAY** and **CODES** column. The results and status display in the **STATUS**/**RESULT** column.

Related information…

- *Sample status screen*, page 5-233
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

Find a specific sample

Perform this procedure to search for a specific sample(s) by entering search criteria in one or more fields.

Prerequisite	*Access the Snapshot screen*, page 1-24

	Access the Sample status screen, page 5-235
Module status	Any
User access level	General operator
Supplies	NA

To find a specific sample:

1. Select the **Sample Find** button on the Snapshot screen or select **F3 - Find** on the Sample status screen.

   The Find options (Sample status) window displays.

2. Select the desired **Find sample:** option.

   The **System** option searches for samples in the Sample status screen and the patient and QC stored results screens.

   The **Sample status** option only searches for samples in the Sample status screen.

3. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*****) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry box(es) except position (P).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

4. Select **Done** to initiate the search.

   The Sample status screen displays either ,**Search results: System**" or "**Search results:**" in the title bar depending on the option selected in step 2.

5. Select the **refresh** button to display all records.

Related information…

- *Snapshot screen*, page 1-22
- *Sample status screen*, page 5-233
- *Find options (Sample status) window*, page 5-239
- *Descriptions of test statuses*, page 5-224
- *Descriptions of processing codes*, page 5-225

View sample status details

Perform this procedure to display the Details... window. From this window you can view detailed information for orders, exceptions, and patient and QC results.

Prerequisite	*Access the Sample status screen*, page 5-235

Module status	Any
User access level	General operator
Supplies	NA

To view sample status details:

1. Select the desired sample from the **SID Name** column on the Sample status screen, and then select the desired assay(s) from the **ASSAY** and **CODES** column.
2. Select **F5 - Details**.

   The Details... window displays. Information is dependent on the assay(s) you selected.
3. Use the **previous**/**next** buttons to display each assay if you selected more than one. ***(optional)***
4. Select **Done** to return to the Sample status screen.

Related information...

- *Sample status screen*, page 5-233
- *Details for order (Order status/Rerun status) window - single order view*, page 5-230
- *Details for order (Order status) window - batch (bar coded) view*, page 5-231
- *Details for order (Order status) window - batch (non-bar coded) view*, page 5-232
- *Details for exceptions window - data view (c System)*, page 5-371
- *Details for exceptions window - photometric - graph view (c System)*, page 5-372
- *Details for exceptions window (i System)*, page 5-373
- *Details for exceptions window - calculated view*, page 5-374
- *Details for exceptions window - control view*, page 5-375
- *Details for exceptions window - calibrator view*, page 5-377
- *Find options (Results review) window*, page 5-309
- *Details for result (Results review) window - calculated view*, page 5-309
- *Details for result (Results review) window - data view (c System)*, page 5-310
- *Details for result (Results review) window - photometric - graph view (c System)*, page 5-311
- *Details for result (Results review) window - sample interference index view (c System)*, page 5-312
- *Details for result (Results review) window (i System)*, page 5-313
- *Details for QC result (QC result review) window - data view (c System)*, page 5-326
- *Details for QC result (QC result review) window - photometric - graph view (c System)*, page 5-327

- *Details for QC result (QC result review) window (i System)*, page 5-328

Windows - Sample status screen

The windows you can access from the Sample status screen are listed below.

Windows not in this sub-section include:

- *Rerun options (patient tests) window*, page 5-314
- *Rerun options (QC tests) window*, page 5-330

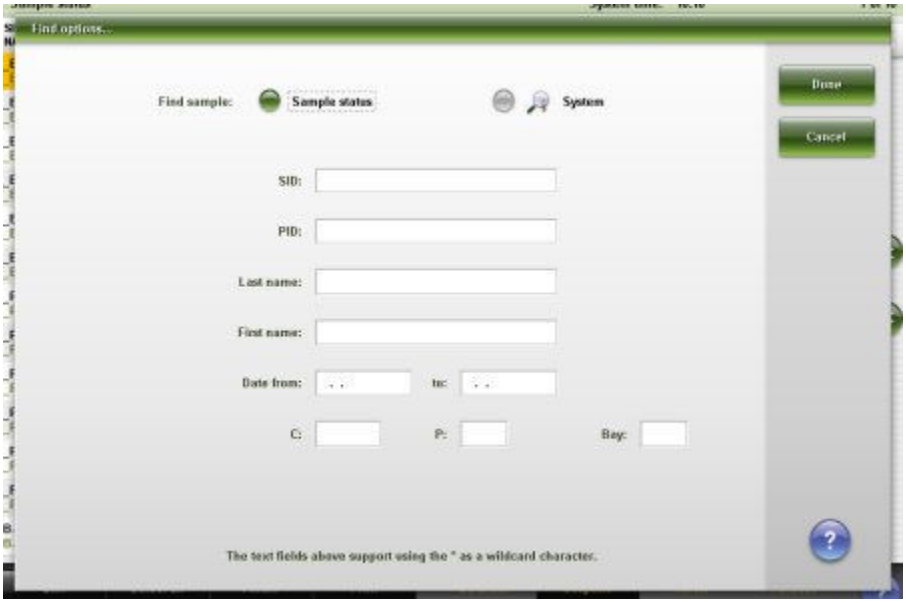
Windows in this sub-section include:

- *Find options (Sample status) window*, page 5-239

Find options (Sample status) window

From the Find options (Sample status) window you can search for specific samples by entering your search criteria in one or more fields.

Figure 5.63: Find options (Sample status) window



For descriptions of these fields, see *Find options (Sample status) window field descriptions*, page E-20.

Related procedures...

- *Find a specific sample*, page 5-236

Sample management

Sample management consists of the activities associated with preparing and loading samples, initiating processing, and unloading samples.

Sample management topics include:

Sample requirements

Be sure you are familiar with sample and sample bar code label requirements before you load samples onto the system.

For information on bar code label requirements, see *Sample bar code label requirements*, page 4-35.

Sample requirements topics include:

Sample cup and/or tube requirements

The following sample cups and/or tubes are acceptable for use on the ARCHITECT System:

- ARCHITECT System sample cups (see *Sample cup*, page 5-241)
- ARCHITECT System sample cups used in conjunction with sample tubes
- Aliquot and primary sample tubes (see *Aliquot and primary sample tube specifications*, page 5-241)

For information on sample volume, see *Sample volume requirements*, page 5-242.

IMPORTANT: Conical tubes can only be used for *c* System whole blood applications. For assay-specific sample cup and/or tube requirements, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Figure 5.64: Sample cup

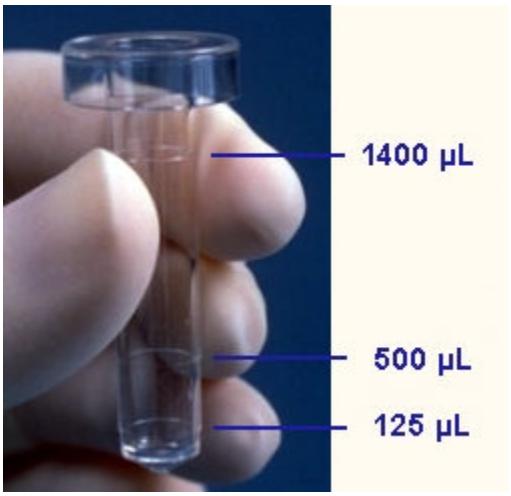
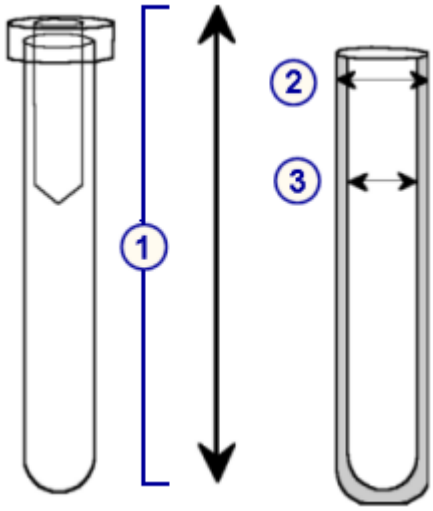


Figure 5.65: Aliquot and primary sample tube specifications



Measurement	Nominal	Extreme limits
1. Height	75 mm - 100 mm	72 mm - 102 mm
2. Outside diameter	10 mm - 16 mm	9.6 mm - 16.1 mm
3. Inside diameter	NA	7.75 mm minimum

NOTE: The sample cup, when used with sample tubes, shall be no greater than:

- 6 mm in height above the maximum tube specification of 102 mm for systems with the RSH (robotic sample handler)
- 12 mm in height above the maximum tube specification of 102 mm for systems with the SSH (standard sample handler)

NOTE: Use of serum filters in sample tubes is acceptable if the opening (inside diameter) and the height of the filter meets the sample tube specifications.

Sample volume requirements

Sample volume requirement depend on the sample vessel type, the onboard sample storage conditions, and the assay(s) ordered.

For assay-specific sample volume requirements, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Sample volume requirements topics include:

Sample cup volumes

The ARCHITECT System calculates the minimum sample cup volume required to test a sample as follows:

- *c* System (with sample saving mode on - recommended):

  50 µL (sample cup dead volume) + 8 µL (over-aspiration volume) + combined sample volume of the ordered assays and replicates

  NOTE: The over-aspiration volume in the sample probe is dispensed into the wash cup after pipetting sample for an assay that requires an onboard dilution or has a sample volume greater than 15 µL. Therefore, each time this occurs, an additional 8 µL over-aspiration volume is aspirated for the next assay from the sample.

- *c* System (with sample saving mode off):

  50 µL (sample cup dead volume) + combined sample volume of the ordered assays and replicates + over-aspiration volume (equal to 20% of the sample volume + 4 µL for each ordered assay and replicate)

- *i* System:

  50 µL (sample cup dead volume) + combined sample volume of the ordered assays and replicates

This volume is printed on the Order List report as "Minimum sample cup volume required:."

NOTE: The minimum sample cup volume for controls and calibrators is valid for the reagent inventory on the processing module(s) in Running status at the time you order the sample.

If the processing module(s) is not in Running status, the indicated volume is for one calibration/control per module.

If the minimum sample cup volume is less than 150 µL, you must priority load the sample to avoid concentration effects due to sample evaporation. If you do not priority load the sample, a minimum volume of 150 µL is required.

IMPORTANT: Sample cups cannot be used on a *c* System with whole blood samples due to the potential for sample probe damage.

IMPORTANT: If you do not use adequate sample volume, reliability of assay results cannot be guaranteed.

To ensure accurate liquid level detection, do not fill the sample cups above the 1400 µL mark.

For sample volume information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: If you load samples on the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, you must ensure there is adequate sample volume to allow for retests.

For information on sample volume requirements for primary or aliquot tubes, see *Primary tube volumes*, page 5-243 or *Aliquot tube volumes*, page 5-243.

Primary tube volumes

When using primary tubes, remove any tube closures and verify at least 8 mm of sample is available above the clot, gel separator, or plasma/red cell interface to avoid contamination of the sample during aspiration.

Use the sample gauge label to verify adequate sample volume. See *Sample gauge label*, page 5-244.

IMPORTANT: If you do not use adequate sample volume, reliability of assay results cannot be guaranteed.

For sample volume information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: If you load samples on the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, you must ensure there is adequate sample volume to allow for retests.

For information on sample volume requirements for aliquot tubes or sample cups, see *Aliquot tube volumes*, page 5-243, or *Sample cup volumes*, page 5-242.

Aliquot tube volumes

When using aliquot tubes, remove any tube closures and verify adequate sample is present in the tube.

Use the sample gauge label to verify at least 8 mm of sample is present in the tube. See *Sample gauge label*, page 5-244.

IMPORTANT: If you do not use adequate sample volume, reliability of assay results cannot be guaranteed.

For sample volume information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

IMPORTANT: If you load samples on the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, you must ensure there is adequate sample volume to allow for retests.

For information on sample volume requirements for primary tubes or sample cups, see *Primary tube volumes*, page 5-243, or *Sample cup volumes*, page 5-242.

Sample gauge label

You use the sample gauge (1 on the following illustration) to verify at least 8 mm of sample is present above the clot, gel separator, or plasma/red cell interface when using primary tubes.

You also use the gauge to verify at least 8 mm of sample is present in an aliquot tube.

IMPORTANT: Do not use the sample gauge to verify aliquot tube volumes for *c* System whole blood applications.

Figure 5.66: Sample gauge on a sample carrier

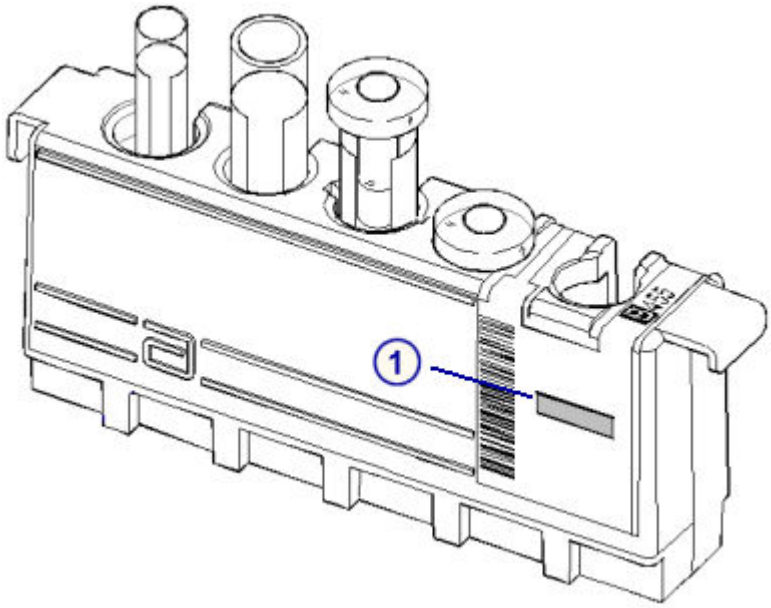
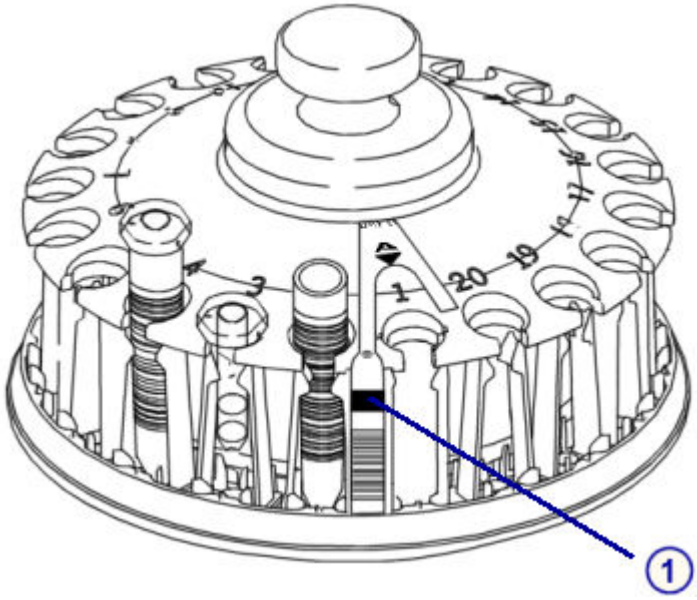


Figure 5.67: Sample gauge on an LAS sample carousel (i2000)



Onboard sample storage

The ARCHITECT System requires a minimum of 150 µL for routine testing of controls and patient samples. This recommendation supports onboard sample storage for three hours under average laboratory conditions without observable concentration effects due to sample evaporation. Reliability of assay results cannot be guaranteed if this recommendation is not followed.

The following table describes the approximate amount of time required to decrease the weight of various starting sample volumes by 5% when measured in sample cups under different environmental conditions.

The high and low temperatures (30˚C and 15˚C) were tested with low humidity. An environment of 25˚C and 45% RH (relative humidity) is considered representative of average laboratory conditions.

"Onboard" time (Hrs)	15˚C 15% RH	25˚C 45% RH	30˚C 15% RH
1	60 µL	60 µL	100 µL
2	70 µL	80 µL	180 µL
3	100 µL	120 µL	280 µL
4	130 µL	160 µL	365 µL
5	160 µL	200 µL	450 µL

Sample integrity

For detailed specimen collection, preparation, and storage information, see *Requirements for handling specimens*, page 7-8, and the reagent

manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

Loading samples (RSH)

Calibrators, controls, and patient samples are loaded on the RSH (robotic sample handler) for routine, priority, or batch processing.

Loading samples (RSH) procedures include:

- *Load samples in sample carriers (RSH)*, page 5-246
- *Load samples for routine processing (RSH - except for c4000/i1000SR / ci4100)*, page 5-248
- *Load samples for priority processing (RSH - except for c4000/i1000SR / ci4100)*, page 5-250
- *Load samples for processing (RSH - c4000/i1000SR /ci4100)*, page 5-252
- *Load bar coded samples for batch processing (RSH - except for c4000/ i1000SR /ci4100)*, page 5-253
- *Load bar coded samples for batch processing (RSH - c4000/i1000SR /ci4100)*, page 5-255
- *Load non-bar coded samples for batch processing (RSH - except for c4000/ i1000SR/ci4100)*, page 5-257
- *Load non-bar coded samples for batch processing (RSH - c4000/i1000SR / ci4100)*, page 5-259

Load samples in sample carriers (RSH)

Perform this procedure to load samples in sample carriers.

To load samples in the sample carousel, see *Load samples and initiate sample processing (sample carousel - c8000/c16000)*, page 5-261.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Samples • Sample carriers

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

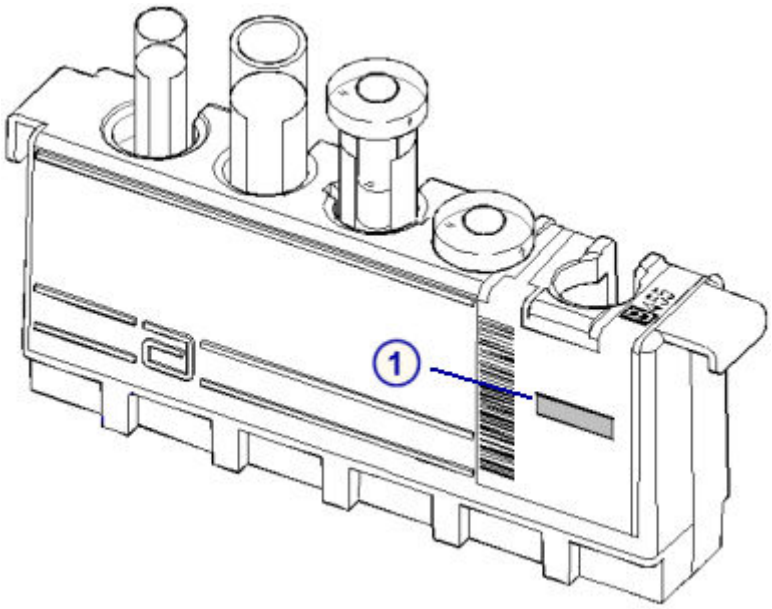
To load samples in sample carriers:

1. Verify the calibrators and controls, if loading, are within the expiration date on the bottle label. DO NOT use the calibrators or controls if the expiration date is exceeded.
2. Determine the minimum sample volume required in the sample cup or tube. See *Sample volume requirements*, page 5-242.

3. Verify adequate sample volume above the separation point in a primary tube by using the sample gauge label (1 on the following illustration).

   a. Hold the primary tube so that the separation point is level with the bottom of the sample gauge label.

   b. Verify the amount of sample above the separation point is at least equivalent to the sample gauge label. This volume is adequate for one test.



4. Verify adequate sample volume in an aliquot tube by using the sample gauge label (1 on the illustration).

   IMPORTANT: Do not use the sample gauge to verify aliquot tube volumes for *c* System whole blood applications.

   a. Hold the bottom of the aliquot tube level with the bottom of the sample gauge label.

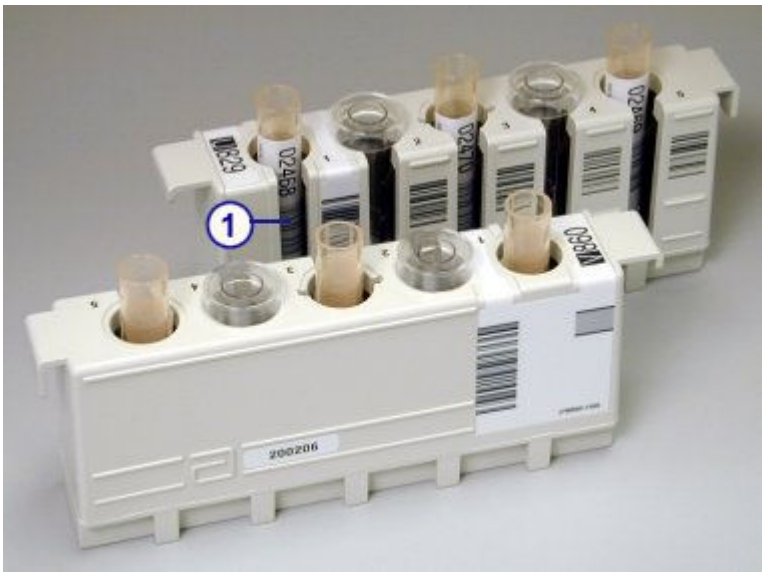
   b. Verify the amount of sample in the aliquot tube is at least equivalent to the sample gauge label. This volume is adequate for one test.

5. Print the Order List report to ensure that you load the samples in the correct C/P (carrier/position). See *Print the Order List report*, page 5-405.

   IMPORTANT: You are responsible for loading the correct sample in the correct position.

   NOTE: This step is optional when using bar code labels on samples for positive ID.

6. Place the sample in the sample carrier so that the bar code, if used, is visible in the sample bar code label window (1 on the following illustration) and the bar code fills the width of the window.



IMPORTANT: When you load sample cups and/or tubes, ensure that you have pushed them completely down into the sample carriers and that they are not tilted.

Avoid splashing outside of the sample cups and/or tubes.

To load sample carriers, see *Load samples for routine processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-248 or *Load samples for priority processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-250

To load sample carriers for the *i*1000SR, see *Load samples for processing (RSH - c4000/i1000SR /ci4100)*, page 5-252.

Related information…

- *Sample cup and/or tube requirements*, page 5-240
- *Sample integrity*, page 5-245
- *Sample bar code label requirements*, page 4-35
- *Sample carriers*, page 1-209
- *Sample gauge label*, page 5-244
- *Order List Report*, page A-54

Load samples for routine processing (RSH - except for *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to load samples in the routine bays of the RSH (robotic sample handler).

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166.

To load samples in the priority bay, see *Load samples for priority processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-250.

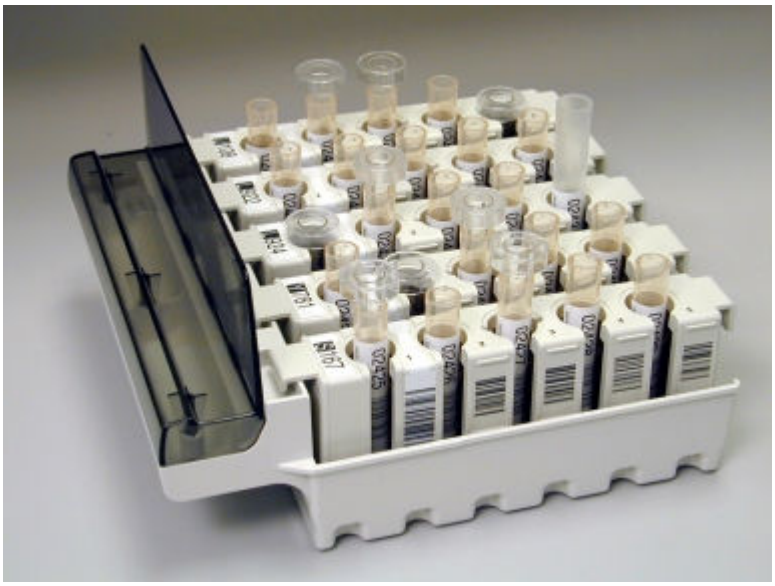
Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246
Module status	Ready or Running
User access level	General operator
Supplies	Carrier trays

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting and loading sample carriers and carrier trays, avoid splashing sample outside of the sample cups and/or tubes.

To load samples for routine processing:

1. Position the sample carrier(s) so that the carrier ID label(s) is at the front of the tray where the handle is located.



2. Verify the sample carrier(s) sits flush with the bottom of the tray.
3. Verify the indicators below the desired bay are both off, which indicates the bay is available.
4. Place the carrier tray in front of the bay and align the tray with the alignment guides.
5. Push the carrier tray into the bay until the green indicator illuminates.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *Sample carriers*, page 1-209
- *Carrier trays (RSH - except for c4000/i1000SR/ci4100)*, page 1-210
- *RSH sample processing (except for - c4000/i1000SR/ci4100)*, page 5-280

Load samples for priority processing (RSH - except for *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to load samples in the priority bay of the RSH (robotic sample handler). Samples that are loaded in the priority bay are pipetted before samples that are loaded in the routine bays. Batch processing is not available in the RSH priority bay.

IMPORTANT: Verify calibrator(s) order status is Scheduled before you load controls in the priority bay to ensure the system does not process controls before the calibration completes.

To view the calibrator order status, see *Access the Order status screen*, page 5-224.

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166.

To load samples in the routine bay(s), see *Load samples for routine processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-248.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246
Module status	Ready or Running
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. Identifies an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting or loading sample carriers and carrier trays, avoid splashing sample outside of the sample cups and/or tubes.

To load samples for priority processing:

1. Verify the indicators below the desired section are off, which indicates the section is available.
2. Position the sample carrier so that the carrier ID label is at the front of the RSH.

3. Load the carrier into the priority section by pushing it in until the indicator illuminates.

   NOTE: You must physically place the carriers with calibrators in the sections in sequential order. Carriers are processed in the order they are placed on the sample handler, not by the position number.

   The indicator illuminates green when the processing module status is Running.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information...

- *Sample carriers*, page 1-209
- *RSH sample processing (except for - c4000/i1000SR/ci4100)*, page 5-280

Load samples for processing (RSH - *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to load samples in the sections of the RSH (robotic sample handler) for routine and priority processing.

IMPORTANT: Verify calibrator(s) in order status is Scheduled before you load controls in the sections of the RSH to ensure the system does not process controls before the calibration completes.

To view the calibrator order status, see *Access the Order status screen*, page 5-224.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246
Module status	Ready or Running
User access level	General operator
Supplies	Sample carriers loaded with samples

CAUTION: Biological RISKS. Identifies an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting or loading sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

To load samples for processing:

1. Verify the indicators below the desired section are off, which indicates the section is available.
2. Position the sample carrier so that the carrier ID label is at the front of the RSH.

3. Load the carrier into a priority section or a routine section by pushing it in until the indicator illuminates.

   NOTE: You must physically place the carriers with calibrators in the sections in sequential order. Carriers are processed in the order they are placed on the sample handler, not by the position number.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *Sample carriers*, page 1-209
- *RSH sample processing (c4000/i1000SR/ci4100)*, page 5-282

Load bar coded samples for batch processing (RSH - except for *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to load bar coded samples for batch processing in the RSH (robotic sample handler).

Batch processing is not available in the RSH priority bay or with samples received from the RSH Extension.

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166.

To load non-bar coded samples for batch processing, see *Load non-bar coded samples for batch processing (RSH - except for c4000/i1000SR/ci4100)*, page 5-257.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246
Module status	Ready or Running
User access level	General operator
Supplies	Carrier trays with sample carriers loaded with samples

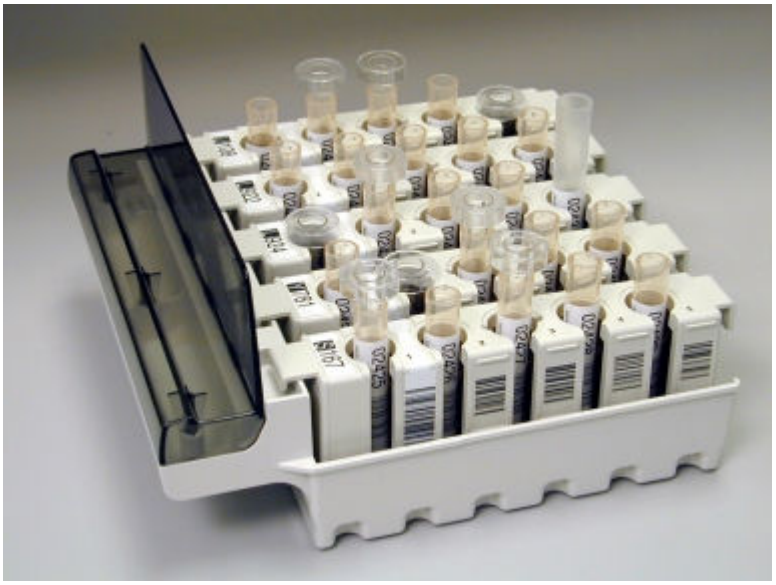
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting and loading sample carriers and carrier trays, avoid splashing sample outside of the sample cups and/or tubes.

When you load samples for batch processing, DO NOT load calibrators or controls within the batch. Also, do not leave an empty space(s) between samples as it will be identified as an invalid sample with error message 0120.

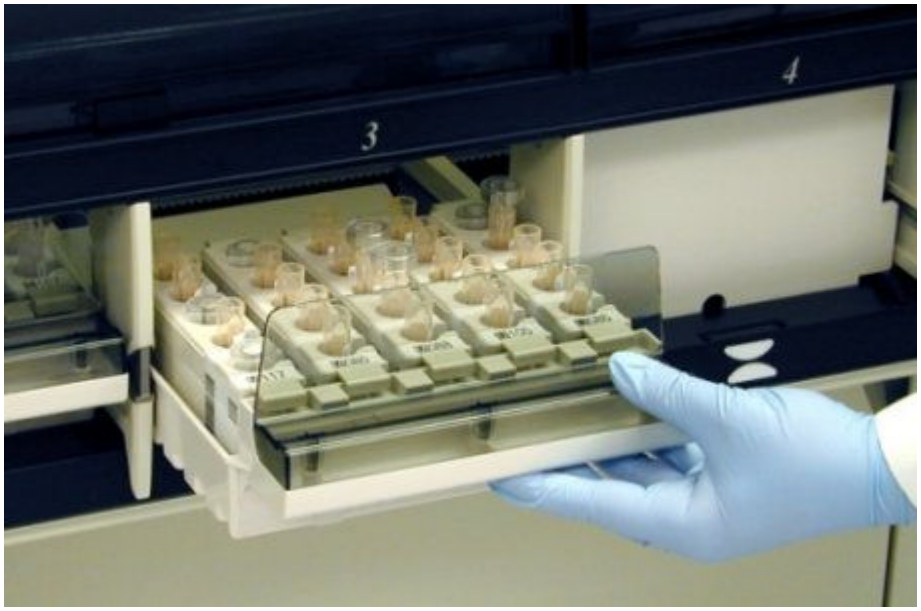
To load bar coded samples for batch processing:

1. Locate the sample carrier that contains the sample with the starting SID (sample identification) that was entered in the batch order.
2. Position the carrier so the carrier ID label is located at the front of the tray where the handle is located.



3. Load the carrier into the farthest position on the left side of the tray.
4. Load additional carriers, from left to right, until the tray is full or all samples are loaded.
5. Verify the carrier(s) sits flush with the bottom of the tray(s).

6. Repeat with additional trays (when more than one is needed) until all samples are loaded.
7. Ensure the sample with the ending SID is loaded at the end of all samples in the batch.
8. Verify the indicators below the routine bay farthest to the left are both off, which indicates the bay is available.
9. Place the carrier tray with the starting SID sample in front of the bay farthest to the left and align the tray with the alignment guides.
10. Push the carrier tray into the bay until the green indicator illuminates.
11. Repeat with additional trays (when more than one is needed) using the next bay to the right, until all samples are loaded.



To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information...

- *Sample carriers*, page 1-209
- *Carrier trays (RSH - except for c4000/i1000SR/ci4100)*, page 1-210
- *Sample bar code label requirements*, page 4-35
- *RSH sample processing (except for - c4000/i1000SR/ci4100)*, page 5-280
- *Batch processing*, page 5-288

Load bar coded samples for batch processing (RSH - *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to load bar coded samples for batch processing in the RSH (robotic sample handler). Batch processing is not available in the RSH priority section(s).

To load non-bar coded samples for batch processing, see *Load non-bar coded samples for batch processing (RSH - c4000/i1000SR /ci4100)*, page 5-259.

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246
Module status	Ready or Running
User access level	General operator
Supplies	Sample carriers loaded with samples

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting and loading sample carriers avoid splashing sample outside of the sample cups and/or tubes.

When you load samples for batch processing, DO NOT load calibrators or controls within the batch. Also, do not leave an empty space(s) between samples as it will be identified as an invalid sample with error message 0120.

To load bar coded samples for batch processing:

1. Locate the sample carrier that contains the sample with the starting SID (sample identification) that was entered in the batch order.
2. Position the carrier so the carrier ID label is located at the front of the RSH.

3. Verify the indicators below the routine section farthest to the left are both off, which indicates the section is available.
4. Load the carrier in the routine section farthest to the left pushing the carrier in until the indicator illuminates.
5. Load additional carriers, from left to right, until all samples are loaded.

6. Ensure the sample with the ending SID is loaded at the end of all samples in the batch.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information...

- *Sample carriers*, page 1-209
- *Sample bar code label requirements*, page 4-35
- *RSH sample processing (c4000/i1000SR/ci4100)*, page 5-282
- *Batch processing*, page 5-288

Load non-bar coded samples for batch processing (RSH - except for *c*4000/*i*1000SR/*ci*4100)

Perform this procedure to load non-bar coded samples for batch processing in the RSH (robotic sample handler). Batch processing is not available in the RSH priority bay.

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166.

To load bar coded samples for batch processing, see *Load bar coded samples for batch processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-253.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246.
Module status	Ready or Running
User access level	General operator
Supplies	Carrier trays with sample carriers loaded with samples

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

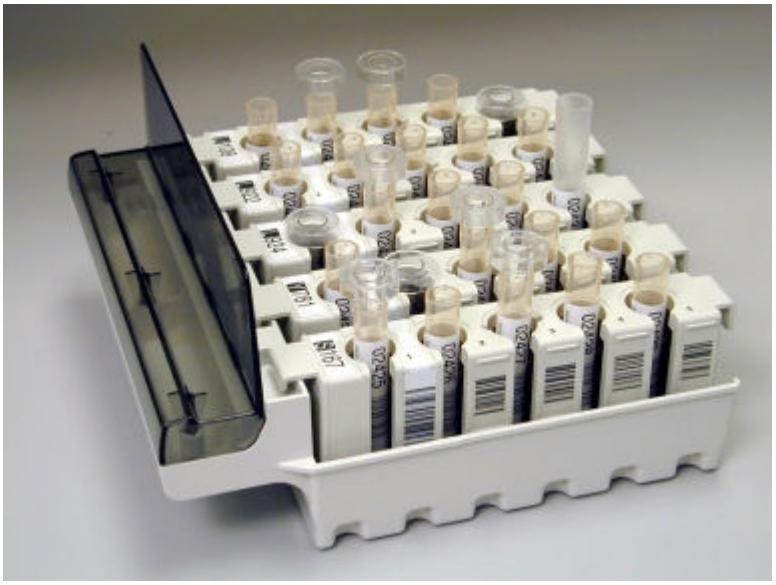
IMPORTANT: When transporting and loading sample carriers and carrier trays, avoid splashing sample outside of the sample cups and/or tubes.

When you load samples for batch processing, DO NOT:

- Load calibrators or controls within the batch
- Leave empty spaces between samples as they will be included in the total number of samples
- Load batch samples in a carrier with tests in process

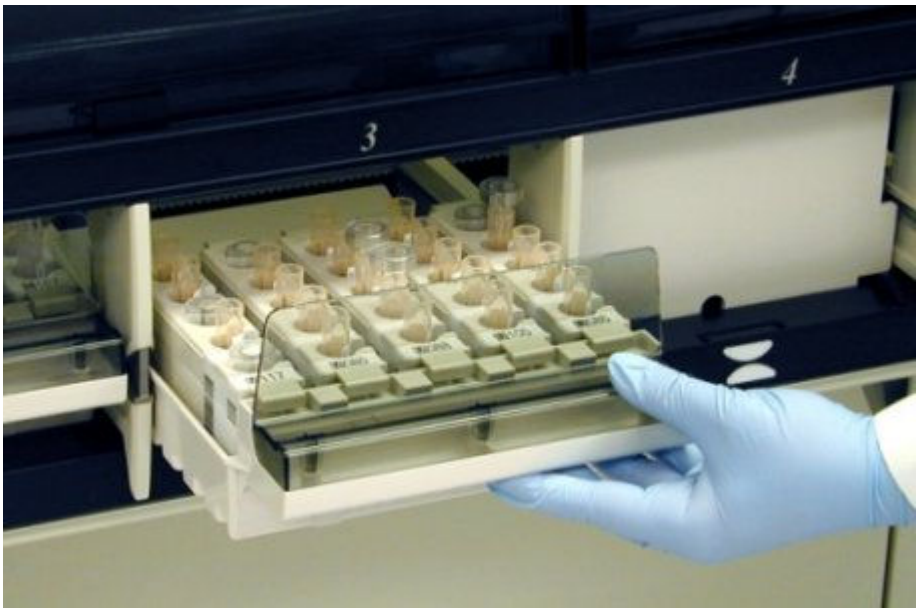
To load non-bar coded samples for batch processing:

1. Locate the sample carrier that contains the sample with the starting carrier and position entered in the batch order.
2. Position the carrier so the carrier ID label is located at the front of the tray where the handle is located.



3. Load the carrier into the farthest position on the left side of the tray.
4. Load additional carriers, from left to right, until the tray is full or all samples are loaded.
5. Verify the carrier(s) sits flush with the bottom of the tray(s).
6. Repeat with additional trays (when more than one is needed) until all samples are loaded.
7. Ensure the number of samples loaded matches the number of samples in the order.

8. Verify the indicators below the routine bay farthest to the left are both off, which indicates the bay is available.
9. Place the carrier tray with the starting carrier and position in front of the bay farthest to the left and align the tray with the alignment guides.
10. Push the carrier tray into the bay until the green indicator illuminates.
11. Repeat with additional trays (when more than one is needed) using the next bay to the right, until all samples are loaded.



To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *Sample carriers*, page 1-209
- *Carrier trays (RSH - except for c4000/i1000SR/ci4100)*, page 1-210
- *RSH sample processing (except for - c4000/i1000SR/ci4100)*, page 5-280
- *Batch processing*, page 5-288

Load non-bar coded samples for batch processing (RSH - *c*4000/i1000SR /*ci*4100)

Perform this procedure to load non-bar coded samples for batch processing in the RSH (robotic sample handler). Batch processing is not available in the RSH priority section(s).

NOTE: Before loading samples, ensure you are familiar with the components of the RSH. See *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171.

To load bar coded samples for batch processing, see *Load bar coded samples for batch processing (RSH - c4000/i1000SR /ci4100)*, page 5-255.

Prerequisite	*Load samples in sample carriers (RSH)*, page 5-246.
Module status	Ready or Running
User access level	General operator
Supplies	Sample carriers loaded with samples

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting and loading sample carriers avoid splashing sample outside of the sample cups and/or tubes.

When you load samples for batch processing, DO NOT:

- Load calibrators or controls within the batch
- Leave empty spaces between samples as they will be included in the total number of samples
- Load batch samples in a carrier with tests in process

To load non-bar coded samples for batch processing:

1. Locate the sample carrier that contains the sample with the starting carrier and position entered in the batch order.
2. Position the carrier so the carrier ID label is located at the front of the RSH.

3. Verify the indicators below the routine section farthest to the left are both off, which indicates the section is available.
4. Load the carrier in the routine section farthest to the left pushing the carrier in until the indicator illuminates.
5. Load additional carriers, from left to right, until all samples are loaded.

6. Ensure the number of samples loaded matches the number of samples in the order.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information...

- *Sample carriers*, page 1-209
- *Sample bar code label requirements*, page 4-35
- *RSH sample processing (c4000/i1000SR/ci4100)*, page 5-282
- *Batch processing*, page 5-288

Loading samples (sample carousel - *c*8000/*c*16000)

You can load samples in the sample carousel for priority processing or when the RSH (robotic sample handler) is unavailable.

Loading samples procedures include:

- *Load samples and initiate sample processing (sample carousel - c8000/c16000)*, page 5-261

Load samples and initiate sample processing (sample carousel - *c*8000/*c*16000)

Perform this procedure to load patient samples, controls, and calibrators in the sample carousel. Samples loaded on the sample carousel are given priority over samples loaded on the RSH (robotic sample handler).

NOTE: Before loading samples, ensure you are familiar with the sample carousel. See *Sample carousel (c8000)*, page 1-59 or *Sample carousel (c16000)*, page 1-79.

Prerequisite	NA
Module status	Ready or Running
User access level	General operator
Supplies	NA

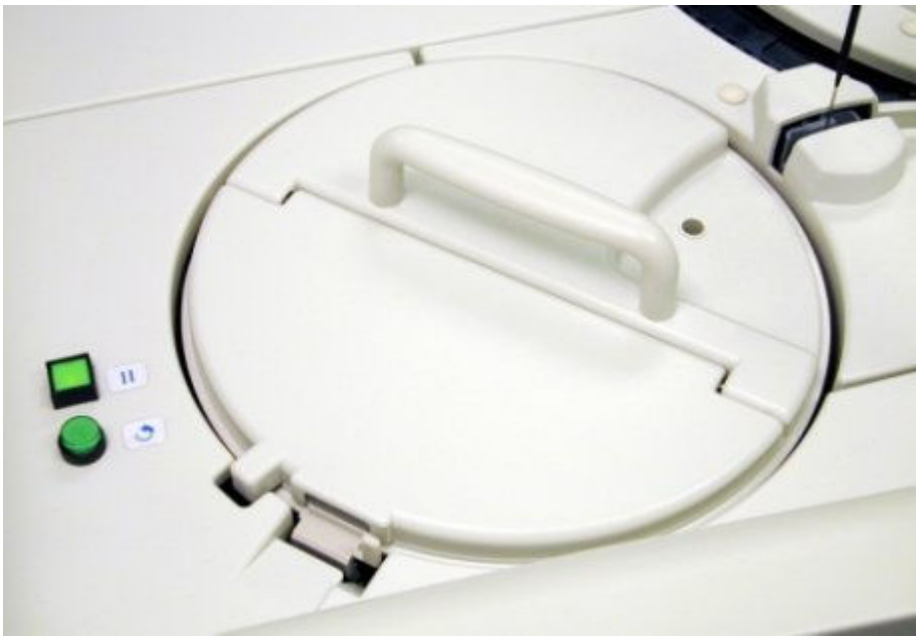
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To load samples and initiate sample processing:

1. Open the processing module cover.
2. Verify that the **sample carousel access** indicator button (square), next to the carousel, is illuminated. If the indicator button is not illuminated, see *Pause the sample carousel (c8000/c16000)*, page 5-18.
3. Press the gray button on the front portion of the sample carousel cover, and then open the cover.

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

   Sample aspiration is paused for the RSH and the sample carousel.

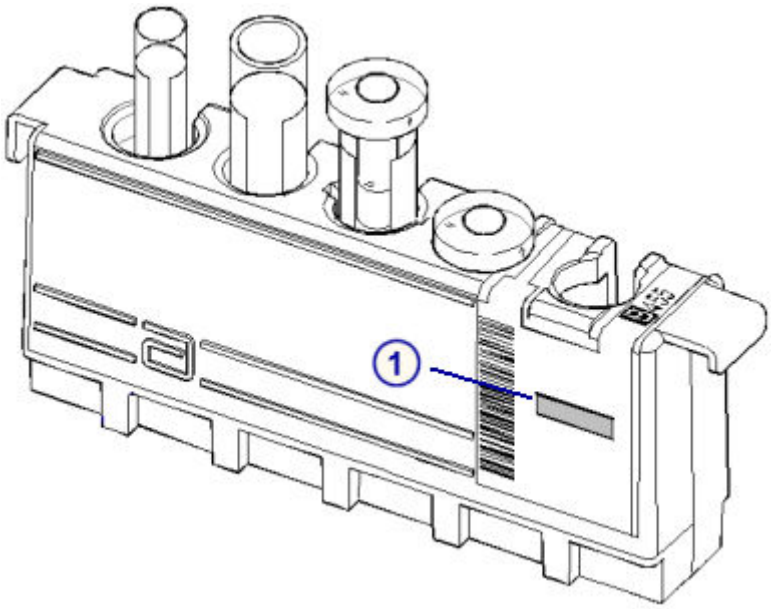


4. Verify the calibrators and controls, if loading, are within the expiration on the bottle label. DO NOT use the calibrators or controls if the expiration date is exceeded.
5. Determine the minimum sample volume required in the sample cup or tube. See *Sample volume requirements*, page 5-242.

6. Verify adequate sample volume above the separation point in a primary tube by using the sample gauge label (1 on the following illustration).

   a. Hold the primary tube so that the separation point is level with the bottom of the sample gauge label.

   b. Verify the amount of sample above the separation point is at least equivalent to the sample gauge label. This volume is adequate for one test.



7. Verify adequate sample volume in an aliquot tube by using the sample gauge label (1 on the illustration).

   IMPORTANT: Do not use the sample gauge to verify aliquot tube volumes for *c* System whole blood applications.

   a. Hold the bottom of the aliquot tube level with the bottom of the sample gauge label.

   b. Verify the amount of sample in the aliquot tube is at least equivalent to the sample gauge label. This volume is adequate for one test.

8. Print the Order List report to ensure that you load the samples in the correct C/P (carousel/position). See *Print the Order List report*, page 5-405.

   IMPORTANT: You are responsible for loading the correct sample in the correct position.

9. Press the **sample carousel advance** indicator button (round) to advance the sample carousel to access the desired position(s).

10. Place the sample in the sample carousel so that the bar code, if used, is positioned to the outside of the carousel.

IMPORTANT: When you load sample cups and/or tubes, ensure that you have pushed them completely down into the sample carousel and that they are not tilted.

Avoid splashing outside of the sample cup and/or tube.

11. Close the sample carousel cover to initiate sample processing by pushing the cover down until you hear a click.

    NOTE: If the processing module is running, sample aspiration resumes once you close the sample carousel cover.

12. Close the processing module cover.

Related information...

- *Sample cup and/or tube requirements*, page 5-240
- *Sample integrity*, page 5-245
- *Sample bar code label requirements*, page 4-35
- *Sample carriers*, page 1-209
- *Sample gauge label*, page 5-244
- *Order List Report*, page A-54
- *Sample carousel sample processing (c8000/c16000)*, page 5-284

Loading samples (SSH)

Calibrators, controls, and patient samples are loaded on the SSH (standard sample handler) for routine, priority, or batch processing.

Loading samples (SSH) topics include:

Load samples in sample carriers (SSH)

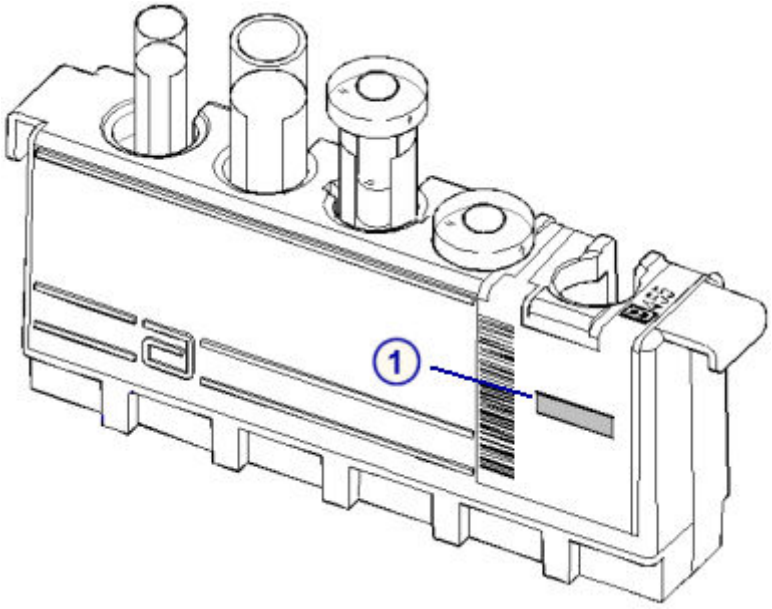
Perform this procedure to load samples in sample carriers.

Prerequisite	NA
Module status	NA
User access level	General operator
Supplies	• Samples • Sample carriers

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To load samples in sample carriers:

1. Verify the calibrators and controls, if loading, are within the expiration date on the bottle label. DO NOT use the calibrators or controls if the expiration date is exceeded.
2. Determine the minimum sample volume required in the sample cup or tube. See *Sample volume requirements*, page 5-242.
3. Verify adequate sample volume above the separation point in a primary tube by using the sample gauge label (1 on the following illustration).
    a. Hold the primary tube so that the separation point is level with the bottom of the sample gauge label.
    b. Verify the amount of sample above the separation point is at least equivalent to the sample gauge label. This volume is adequate for one test.



4. Verify adequate sample volume in an aliquot tube by using the sample gauge label (1 on the illustration).

   a. Hold the bottom of the aliquot tube level with the bottom of the sample gauge label.

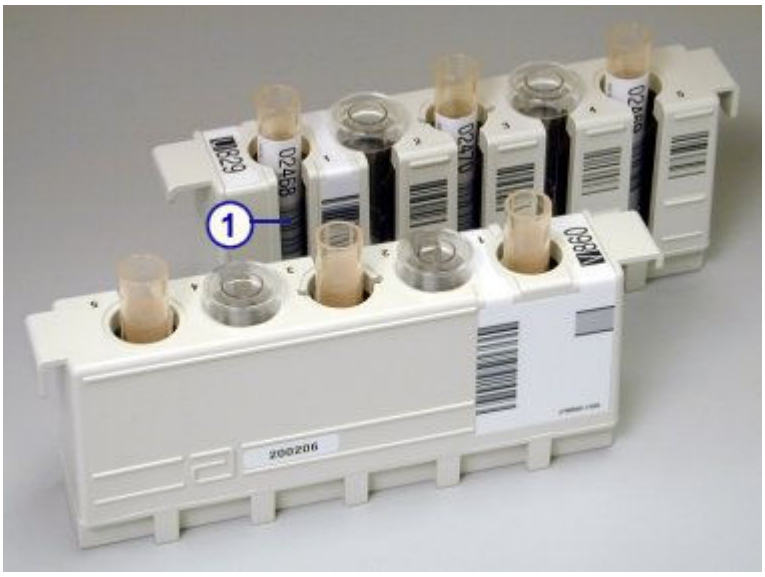
   b. Verify the amount of sample in the aliquot tube is at least equivalent to the sample gauge label. This volume is adequate for one test.

5. Print the Order List report to ensure that you load the samples in the correct C/P (carrier/position). See *Print the Order List report*, page 5-405.

   IMPORTANT: You are responsible for loading the correct sample in the correct position.

   NOTE: This step is optional when using bar code labels on samples for positive ID.

6. Place the sample in the sample carrier so that the bar code, if used, is visible in the sample bar code label window and the bar code fills the width of the window.



IMPORTANT: When you load sample cups and/or tubes, ensure that you have pushed them completely down into the sample carriers and that they are not tilted.

Avoid splashing outside of the sample cups and/or tubes.

To load sample carriers, see *Load samples for routine processing (SSH)*, page 5-267, or *Load samples for priority processing (SSH)*, page 5-269.

Related information...

- *Sample cup and/or tube requirements*, page 5-240
- *Sample integrity*, page 5-245
- *Sample bar code label requirements*, page 4-35
- *Sample carriers*, page 1-209
- *Sample gauge label*, page 5-244
- *Order List Report*, page A-54
- *SSH sample processing (i2000)*, page 5-285

Load samples for routine processing (SSH)

Perform this procedure to load samples in the sample load queue of either a single-lane or double-lane SSH (standard sample handler).

To priority load samples, see *Load samples for priority processing (SSH)*, page 5-269.

NOTE: Before loading samples, ensure you are familiar with the components of the SSH. See *SSH - standard sample handler (i2000)*, page 1-179.

Prerequisite	*Load samples in sample carriers (SSH)*, page 5-265
Module status	Ready or Load queue paused

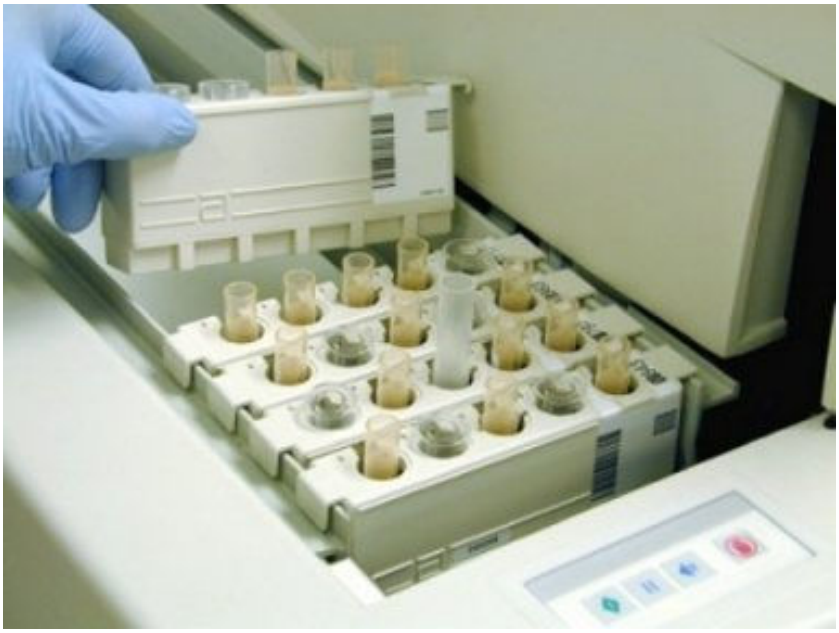
User access level	General operator
Supplies	Carriers loaded with samples

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

To load samples for routine processing:

1. Verify the **pause** indicator on the sample handler keypad is illuminated. If the indicator is not illuminated, see *Pause the sample load queue (SSH)*, page 5-19.
2. Position the sample carrier so that the Abbott is visible from the front of the processing module.



3. Place the sample carrier in the sample load queue by aligning the rail guides over the rails.

   NOTE: For multi-module *i* Systems, you first determine the active lane of the sample load queue, which is identified by the green indicator on the sample handler keypad. Then, you place the sample carrier in the appropriate lane, see *Double load queue lane defaults (i2000)*, page 5-269.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information...

- *SSH - standard sample handler (i2000)*, page 1-179
- *Sample carriers*, page 1-209
- *SSH sample processing (i2000)*, page 5-285

Double load queue lane defaults (*i*2000)

For multi-module *i* Systems, the inside lane is the default active lane. Some events cause the outside lane to become the active lane. The following table shows the active lane defaults for the double load queue.

Table 5.12: Double load queue lane defaults

Event	Active lane
Run key is selected and the status is Ready.	Inside
Inside lane is empty.	Outside
Twenty-five carriers have been transferred from the inside lane to the processing queue.	Outside
Twenty-five carriers have been transferred from the outside lane to the processing queue.	Inside
Processing queue access door is opened while the sample handler is running. The sample handler status changes to Stopped. **NOTE:** Positive sample identification cannot be guaranteed when the processing queue access door is opened. All results for samples on the processing queue become exceptions.	Inside
Stop key on the sample handler keypad is pressed, and then startup and the run key are pressed.	Inside
Run key is selected when the module status is Load queue paused (not requested by the operator).	Inside
Run key is selected when the module status is Load queue paused (requested by the operator).	Lane that was active when the sample handler was paused.

Load samples for priority processing (SSH)

Perform this procedure to priority load sample carriers in the sample load queue of either a single-lane or double-lane SSH (standard sample handler). Samples that are priority loaded are pipetted first.

To load sample carriers that do not need to be priority loaded, see *Load samples for routine processing (SSH)*, page 5-267.

NOTE: Before loading samples, ensure you are familiar with the components of the SSH. See *SSH - standard sample handler (i2000)*, page 1-179.

Prerequisite	*Load samples in sample carriers (SSH)*, page 5-265
Module status	Ready or Load queue paused
User access level	General operator
Supplies	Carriers loaded with samples

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

To priority load sample carriers:

1. Verify that the **pause** indicator on the sample handler keypad is illuminated. If the indicator is not illuminated, see *Pause the sample load queue (SSH)*, page 5-19.
2. Press the **reverse** key on the sample handler keypad.
3. Position the sample carrier so that the Abbott is visible from the front of the processing module.

4. Place the sample carrier in front of the carriers currently loaded in the sample load queue by aligning the rail guides over the rails.

NOTE: For multi-module *i* Systems, place the sample carrier in the active lane of the sample load queue, which is identified by the green indicator on the sample handler keypad. For more information on the active lane, see *Double load queue lane defaults (i2000)*, page 5-269.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *SSH - standard sample handler (i2000)*, page 1-179
- *Sample carriers*, page 1-209
- *SSH sample processing (i2000)*, page 5-285

Load bar coded samples for batch processing (SSH)

Perform this procedure to load bar coded samples for batch processing in the sample load queue of either a single-lane or double-lane SSH (standard sample handler).

To load non-bar coded samples for batch processing, see *Load non-bar coded samples for batch processing (SSH)*, page 5-272.

NOTE: Before loading samples, ensure you are familiar with the components of the SSH. See *SSH - standard sample handler (i2000)*, page 1-179.

Prerequisite	*Load samples in sample carriers (SSH)*, page 5-265
Module status	Ready or Load queue paused
User access level	General operator
Supplies	Carriers loaded with bar coded samples

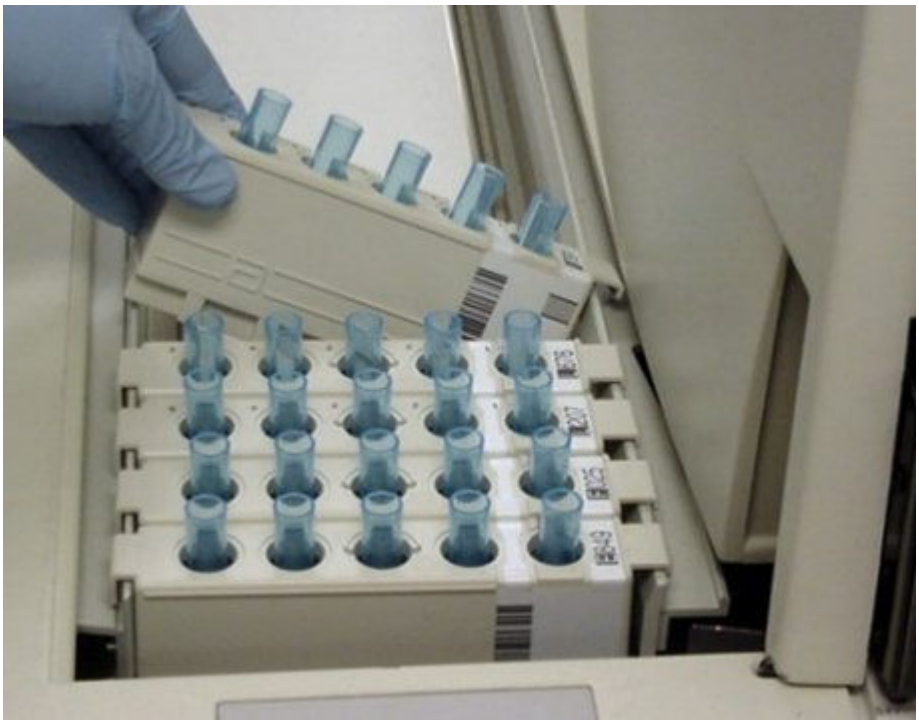
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

NOTE: When you load samples for batch processing DO NOT load calibrators or controls within the batch. Also, do not leave an empty space(s) between samples as it will be identified as an invalid sample with error message 0120.

To load bar coded samples for batch processing:

1. Verify the **pause** indicator on the sample handler keypad is illuminated. If the indicator is not illuminated, see *Pause the sample load queue (SSH)*, page 5-19.
2. Locate the sample carrier with the starting SID (sample identification) that was entered in the batch order.
3. Position the sample carrier so that the Abbott is visible from the front of the processing module.



4. Place the sample carrier in the sample load queue by aligning the rail guides over the rails.

   NOTE: For multi-module *i* Systems, you first determine the active lane of the sample load queue, which is identified by the green indicator on the sample handler keypad. Then, you place the sample carrier in the appropriate lane, see *Double load queue lane defaults (i2000)*, page 5-269.

5. Load additional carriers behind the first carrier until all samples are loaded.
6. Ensure you loaded the sample with the ending SID at the end of the batch.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *SSH - standard sample handler (i2000)*, page 1-179
- *Sample carriers*, page 1-209
- *Sample bar code label requirements*, page 4-35
- *SSH sample processing (i2000)*, page 5-285
- *Batch processing*, page 5-288

Load non-bar coded samples for batch processing (SSH)

Perform this procedure to load non-bar coded samples for batch processing in the sample load queue of either a single-lane or double-lane SSH (standard sample handler).

To load bar coded samples for batch processing, see *Load bar coded samples for batch processing (SSH)*, page 5-271.

NOTE: Before loading samples, ensure you are familiar with the components of the SSH. See *SSH - standard sample handler (i2000)*, page 1-179.

Prerequisite	*Load samples in sample carriers (SSH)*, page 5-265
Module status	Ready or Load queue paused
User access level	General operator
Supplies	Carriers loaded with non-bar coded samples

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

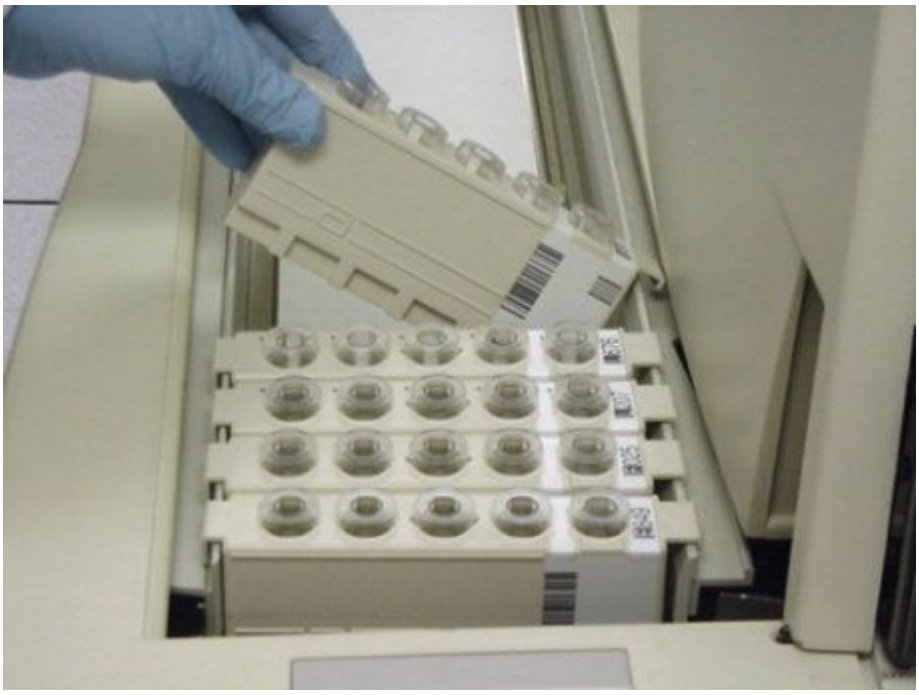
IMPORTANT: When transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

NOTE: When you load samples for batch processing, DO NOT:

- Load calibrators or controls within the batch
- Leave empty spaces between samples as they will be included in the total number of samples
- Load batch samples in a carrier with tests in process

To load non-bar coded samples for batch processing:

1. Verify the **pause** indicator on the sample handler keypad is illuminated. If the indicator is not illuminated, see *Pause the sample load queue (SSH)*, page 5-19.
2. Locate the sample carrier that contains the sample with the starting carrier and position that was entered in the batch order.
3. Position the sample carrier so that the Abbott is visible from the front of the processing module.



4. Place the sample carrier in the sample load queue by aligning the rail guides over the rails.

   NOTE: For multi-module *i* Systems, you first determine the active lane of the sample load queue, which is identified by the green indicator on the sample handler keypad. Then, you place the sample carrier in the appropriate lane, see *Double load queue lane defaults (i2000)*, page 5-269.

5. Load additional carriers behind the first carrier until all samples are loaded.
6. Ensure the number of samples you loaded matches the number of samples in the batch order.

To initiate sample processing, see *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Related information…

- *SSH - standard sample handler (i2000)*, page 1-179
- *Sample carriers*, page 1-209
- *SSH sample processing (i2000)*, page 5-285
- *Batch processing*, page 5-288

Loading samples (LAS carousel sample handler - *i*2000)

Calibrators, controls, and patient samples are loaded on the LAS (laboratory automation system) carousel sample handler for routine or priority processing.

Loading samples (LAS carousel sample handler) procedures include:

- *Load samples and the carousel (LAS carousel sample handler - i2000)*, page 5-275

Load samples and the carousel (LAS carousel sample handler - *i*2000)

Perform this procedure to load samples into the LAS (laboratory automation system) sample carousel and to load the carousel onto the carousel platform.

NOTE: Before loading samples, ensure you are familiar with the components of the LAS carousel sample handler. See *LAS carousel sample handler (i2000)*, page 1-182.

You can load patient samples, controls, and calibrators on the LAS sample carousel and they are given priority over samples loaded on the LAS track.

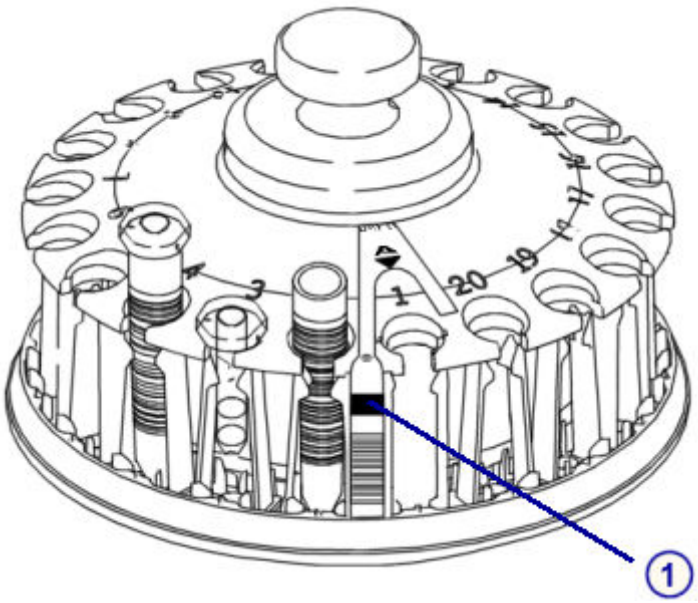
NOTE: Calibrators can only be run on the LAS sample carousel.

Prerequisite	NA
Module status	Ready
User access level	General operator
Supplies	• Samples • LAS sample carousel

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To load samples and the carousel:

1. Verify the calibrators and controls, if loading, are within the expiration date on the bottle label. DO NOT use the calibrators or controls if the expiration date is exceeded.
2. Determine the minimum sample volume required in the sample cup or tube. See *Sample volume requirements*, page 5-242.
3. Verify adequate sample volume above the separation point in a primary tube by using the sample gauge label (1 on the following illustration).



a. Hold the primary tube so that the separation point is level with the bottom of the sample gauge label.

b. Verify the amount of sample above the separation point is at least equivalent to the sample gauge label. This volume is adequate for one test.

4. Verify adequate sample volume in an aliquot tube by using the sample gauge label (1 on the illustration).

   a. Hold the bottom of the aliquot tube level with the bottom of the sample gauge label.

   b. Verify the amount of sample in the aliquot tube is at least equivalent to the sample gauge label. This volume is adequate for one test.

5. Print the Order List report to ensure that you load the samples in the correct C/P (carousel/position). See *Print the Order List report*, page 5-405.

   IMPORTANT: You are responsible for loading the correct sample in the correct position.

6. Place the sample in the LAS sample carousel so that the bar code, if used, is positioned to the outside of the carousel.

   IMPORTANT: When you load sample cups and/or tubes, ensure that you have pushed them completely down into the carousel and that they are not tilted.

   When transporting the LAS sample carousel avoid splashing sample outside of the sample cups and/or tubes.

7. Verify the pause indicator on the sample handler keypad is illuminated. If the indicator is not illuminated, see *Pause the LAS carousel sample handler (i2000)*, page 5-20.

8. Open the carousel cover on the sample handler and place the carousel on the carousel platform.
9. Align the flat edge on the bottom of the carousel with the flat edge of the platform.

   NOTE: When the carousel is correctly aligned on the platform, position 3 is at the front of the module and you cannot easily turn the carousel.
10. Close the carousel cover.

To initiate sample processing, see *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278.

Related information…

- *Sample cup and/or tube requirements*, page 5-240
- *Sample integrity*, page 5-245
- *Sample bar code label requirements*, page 4-35
- *Order List Report*, page A-54
- *LAS carousel sample handler (i2000)*, page 1-182
- *LAS sample handler sample processing (i2000)*, page 5-286

Initiating or resuming sample processing

You must initiate or resume sample processing when:

- Orders have been created and samples have been loaded
- The processing module and/or sample handler have been paused or stopped

Procedures include:

- *Initiate or resume sample processing (RSH and SSH)*, page 5-277
- *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278

Initiate or resume sample processing (RSH and SSH)

Perform this procedure to process a run after ordering and loading samples or to resume sample processing after the module and/or sample handler have been paused or stopped.

This procedure is also used for systems with the RSHx installed.

Prerequisite	*Verify supply and waste inventory*, page 5-54 *Verify reagent inventory on a single module*, page 5-128 *Verify reagent inventory on all modules*, page 5-129 *Access the Snapshot screen*, page 1-24
Module status	Processing module - Ready, Stopped, or Scheduled pause

	Sample handler - Ready, Stopped, Scheduled pause (RSH and RSHx), or Load queue paused (SSH)
User access level	General operator
Supplies	NA

To initiate or resume sample processing:

1. Initialize the processing module, if the status is not Running, by performing one of the following:
   - Press the **run** key on each processing module keypad if available.
   - Select the appropriate **processing module** graphic(s) on the Snapshot screen, and then select **F8 - Run**.
2. Initialize the sample handler, if the status is not Running, by performing one of the following:
   - Press the **run** key on the sample handler keypad if available.
   - Select the **sample handler** graphic on the Snapshot screen, and then select **F8 - Run**.

   NOTE: For systems with the RSHx installed, select the RSH graphic on the Snapshot screen and then select **F8 - Run**.

   IMPORTANT: For *i*2000, do not open the processing queue access door(s) to remove or add samples. Positive sample identification cannot be guaranteed when a processing queue access door is opened. The sample processing queue bar code reader does not verify the sample tube bar code labels read by the load queue bar code reader. If an access door(s) is opened, all tests on samples on the processing queue become exceptions. In addition, all sample carriers on the processing queue are transferred to the sample unload queue.

Related information…

- *Snapshot screen*, page 1-22
- *Processing module keypad (c4000)*, page 1-37
- *Processing module keypad (c8000/c16000)*, page 1-38
- *Processing module keypad (i2000/i2000SR)*, page 1-101
- *RSH keypad (c8000/c16000/i2000SR)*, page 1-171
- *SSH keypad*, page 1-181

Initiate or resume sample processing (LAS carousel sample handler - *i*2000)

Perform this procedure to initialize the processing module to Running status so you can process samples that are on the LAS (laboratory automation system) track.

IMPORTANT: The sample pipettor cover must be installed prior to initiating sample processing. See *i2000 processing module*, page 1-96.

Prerequisite	*Verify supply and waste inventory*, page 5-54 *Verify reagent inventory on a single module*, page 5-128 *Verify reagent inventory on all modules*, page 5-129 *Access the Snapshot screen*, page 1-24
Module status	Processing module - Ready, Stopped, or Scheduled pause
User access level	General operator
Supplies	NA

To initiate or resume sample processing:

Initialize the processing module by performing one of the following:

- Press the **run** key on each processing module keypad.
- Select the appropriate **processing module** graphic(s) on the Snapshot screen, and then select **F8 - Run**.

Once the processing module is in Running status, the *i*2000 is ready to process samples presented at the LAS pipettor position.

IMPORTANT: Do not open the LAS sample carousel cover without pausing the carousel. If you open the cover when the carousel is in Running status, all tests in process become exceptions.

Related information...

- *Snapshot screen*, page 1-22

Sample processing

The progression of samples through the ARCHITECT System differs depending on your system configuration, sample order type (batch vs. single order), and available reagent inventory.

Various hardware components are used to process assays. Not all assay types use every component on the system. The ARCHITECT System continues to process assays when the appropriate hardware component is available. For example, on the ARCHITECT *i*2000SR, if the STAT pipettor is not working, routine assays continue to be processed. Refer to *Approach to troubleshooting*, page 10-2 for information on resolving issues with your system.

Sample processing topics include:

- *Control sample processing*, page 5-280
- *RSH sample processing (except for - c4000/i1000SR/ci4100)*, page 5-280
- *RSH sample processing (c4000/i1000SR/ci4100)*, page 5-282
- *RSH Extension (RSHx) sample processing*, page 5-284
- *Sample carousel sample processing (c8000/c16000)*, page 5-284
- *SSH sample processing (i2000)*, page 5-285

- *LAS sample handler sample processing (i2000)*, page 5-286
- *Batch processing*, page 5-288
- *Reagent inventory processing*, page 5-288

Control sample processing

When multiple reagent kits are loaded on the system and the sampling process for a control order is ready to begin, the system determines which reagent kits to use depending on the configuration of your system. If your system is configured to run controls by:

- Lot (default) - QC will run only on one kit per lot per module
- Kit - QC will run on every kit per module

Controls for constituents of calculated assays are automatically run on one kit on one module (selected by the system software) regardless of the system configuration.

To change the current control run configuration see *Change the option for running controls for onboard reagent kits*, page 2-38.

RSH sample processing (except for - *c*4000/*i*1000SR/*ci*4100)

After you load a sample(s) the sample handler moves the sample(s) to the aspiration location. The prioritization of samples on systems with an RSH (robotic sample handler) differs depending on your processing module configuration:

- On all ARCHITECT Systems:
  - Carriers in the priority bay are processed first in the order they were inserted.
  - Carrier trays in routine bays are then processed in the order they were inserted.
- On an ARCHITECT c*i* 8200/*ci*16200 or *c*8000/*c*16000, samples on the *c*8000/*c*16000 sample carousel take priority over the samples on the RSH.
- On an ARCHITECT c*i* 8200/*ci*16200 or *i*2000SR System, samples with both STAT and routine immunoassays are routed to the STAT pipettor first.
- On an ARCHITECT c*i* 8200/*ci*16200 System samples with both clinical chemistry assay orders and immunoassay orders are routed to the first available module. If both processing modules are available, the system routes the orders to the *c* System first.

Figure 5.68: RSH sample processing

After you load samples onto the RSH and initiate a run:

1. The RSH carrier transport moves to the first carrier as determined by software prioritization, and then picks up a carrier. The RSH indicators turn amber to indicate the carriers are being accessed by the carrier transport.
2. The carrier transport moves the carrier to the RSH bar code reader where the carrier ID and sample ID(s) are read, and then the carrier returns to its original location.
3. The system software determines if an order is present on the SCC for each sample on the carrier. If there are no orders and your system is configured for host query, a query is sent to the host.
4. The carrier is moved to an available position on the carrier positioner if an order exists or a query returns a test order(s). If a location is not available on the positioner, the carrier remains at the bay until a positioner pocket becomes available.

   NOTE: Each processing module has a carrier positioner with four positions:

   - On a *c*8000/*c*16000 positions 1 and 2 are designated for sample carriers from routine bays, position 3 is for sample carriers from priority bays, and position 4 is not used.
   - On an *i*2000SR positions 1 and 2 are designated for sample carriers accessed by the routine sample pipettor and positions 3 and 4 are for sample carriers accessed by the STAT sample pipettor.
5. The appropriate processing module sample pipettor aspirates the sample.

6. The carrier transport picks up the carrier and moves it to the next module or aspiration location, if necessary, and then moves it back to the routine bay or priority bay section.
7. The RSH indicators blink green when all samples within the routine or priority bay section are aspirated.

   If your system is configured to automatically reposition samples for reruns, the indicators remain amber until all reruns are aspirated.

   If you add or rerun tests for a sample before it is unloaded, the indicators for the bay or section change back to amber while the sample is re-aspirated.

Related information…

- *Host order query*, page 5-185
- *Host computer download*, page 5-184
- *Automated control ordering*, page 5-185
- *Auto retest (patient samples)*, page 5-186
- *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166

RSH sample processing (*c*4000/*i*1000SR/*ci*4100)

After you load a sample(s) the sample handler moves the sample(s) to the aspiration location. The prioritization of samples on the system:

- On all ARCHITECT Systems:
  - Carriers in the priority sections are processed first in the order they were inserted.
  - Carriers in the routine sections are then processed in the order they were inserted.
- On an ARCHITECT *ci*4100 System, samples with both chemistry assay orders and immunoassay orders are routed to the first available module. If both processing modules are available, the system routes the orders to the *c* System first.

Figure 5.69: RSH sample processing

After you load samples onto the RSH and initiate a run:

1. The RSH carrier transport moves to the first carrier as determined by software prioritization, and then picks up a carrier. The RSH indicators turn amber to indicate the carriers are being accessed by the carrier transport.
2. The carrier transport moves the carrier to the bar code reader where the carrier ID and sample ID(s) are read, and then the carrier returns to its original location.
3. The system software determines if an order is present on the SCC for each sample on the carrier. If there are no orders and your system is configured for host query, a query is sent to the host.
4. The carrier is moved to the aspiration area if an order exists or a query returns a test order(s).
5. The processing module pipettor aspirates the sample.
6. The carrier is moved to the next carrier position for aspiration, if necessary, and then moves it back to the routine or priority section.
7. The RSH indicators blink green when all samples within the routine or priority section are aspirated.

   If your system is configured to automatically reposition samples for reruns, the indicators remain amber until all reruns are aspirated.

   If you add or rerun tests for a sample before it is unloaded, the indicators for the section change back to amber while the sample is re-aspirated.

Related information…

- *Host order query*, page 5-185
- *Host computer download*, page 5-184

- *Automated control ordering*, page 5-185
- *Auto retest (patient samples)*, page 5-186

RSH Extension (RSHx) sample processing

The RSHx connects the ACCELERATOR *p*540 to a *c*8000 or *c*16000 processing module that may be integrated with an *i*2000SR processing module.

The prioritization of samples on systems with a RSHx is:

- *c*8000 or *c*16000 sample carousel
- RSH priority bay
- RSHx priority bay
- RSH routine bay
- RSHx routine bay

There are 26 ARCHITECT sample carriers available for sample processing. Samples loaded on these carriers must have bar code labels. Ten sample carriers are located in the RSHx empty carrier storage area, and 16 are located in the ACCELERATOR *p*540 sorter module.

The sample carriers move on the RSHx in a closed loop between the ACCELERATOR *p*540 and ARCHITECT System. The RSHx priority bay entrances are blocked with shields. The RSHx trays are designed to remain in the RSHx routine bays. Manual loading of samples is not permitted in the RSHx locations.

The ACCELERATOR *p*540 loads bar coded samples into sample carriers and moves them to the RSHx carrier exchange area. From there, the ARCHITECT RSH carrier transport moves the sample carrier to the RSH bar code reader where the carrier ID and sample ID(s) are read. Then the carriers are loaded in the RSHx priority or RSHx routine bays on the RSH.

The RSH indicators for the RSHx priority and routine bays are green when the RSHx is in Ready status and amber when in the Running status.

You may load samples into the RSH priority and routine bays that are not allocated to the RSHx. Refer to *RSH sample processing (except for - c4000/i1000SR/ci4100)*, page 5-280.

Sample carousel sample processing (*c*8000/*c*16000)

After you load a sample(s), the RSH (robotic sample handler) or LAS (laboratory automation system) moves the sample(s) to the aspiration location. Samples on the *c*8000/*c*16000 sample carousel take priority over the samples on the RSH or LAS.

After you load samples onto the sample carousel and initiate a run:

1. Each position is scanned sequentially.
2. The system software determines if an order is present on the SCC for each patient and control sample on the carousel. If there are no orders and your

system is configured for host query, a query is sent to the host. If an order has not been entered into the host system, the sample carousel moves to the next position.

3. If an order exists, the sample is aspirated before moving to the next carousel position.
4. Once all samples on the carousel are aspirated, samples on the RSH or LAS are processed.

Related information...

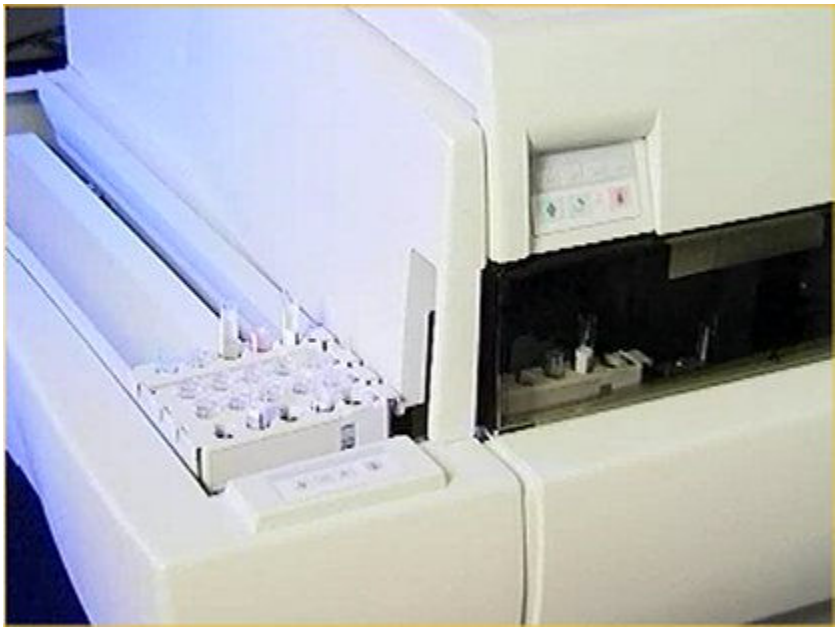
- *Host order query*, page 5-185
- *Host computer download*, page 5-184
- *Automated control ordering*, page 5-185
- *Auto retest (patient samples)*, page 5-186
- *Sample carousel (c8000)*, page 1-59

SSH sample processing (*i*2000)

After you load a sample(s) the sample handler moves the sample(s) to the aspiration location. The progression of samples on systems with an SSH (standard sample handler) differs depending on the number of processing modules in your ARCHITECT *i* System configuration:

- Systems with one processing module have a single lane load and unload queue.
- Systems with more than one processing module have a double lane load and unload queue.

Figure 5.70: SSH sample processing



After you load samples onto the SSH and initiate a run:

1. The sample load queue moves the carriers to the sample load queue bar code reader. If your system is configured with a double lane load queue, the carriers on the active lane are moved first.
2. The sample load queue bar code reader reads the following bar code labels:
   - Sample carrier ID
   - Sample carrier position
   - Sample tube bar code ID
3. The carriers are moved onto the processing queue.
4. The processing queue bar code reader reads the following bar code labels:
   - Sample carrier ID
   - Sample carrier position
5. The system software determines if an order is present on the SCC for each sample on the carrier. If there are no orders and your system is configured for host query, a query is sent to the host. If an order has not been entered into the host system, the carrier is moved to the sample unload queue.
6. The first sample with a test order is aspirated, or moved to another module for processing.

   NOTE: If your system is configured with more than one processing module, the system software determines which module processes the sample.
7. The bar code reader reads the next position.
8. The next sample is aspirated or moved to another module to be processed. This continues until all samples on the carrier are aspirated.
9. When sample processing is complete, the sample carrier is moved to the sample unload queue. If your system is configured with a double lane unload queue, carriers are moved from the left lane to the right lane as the queue fills.

Related information…

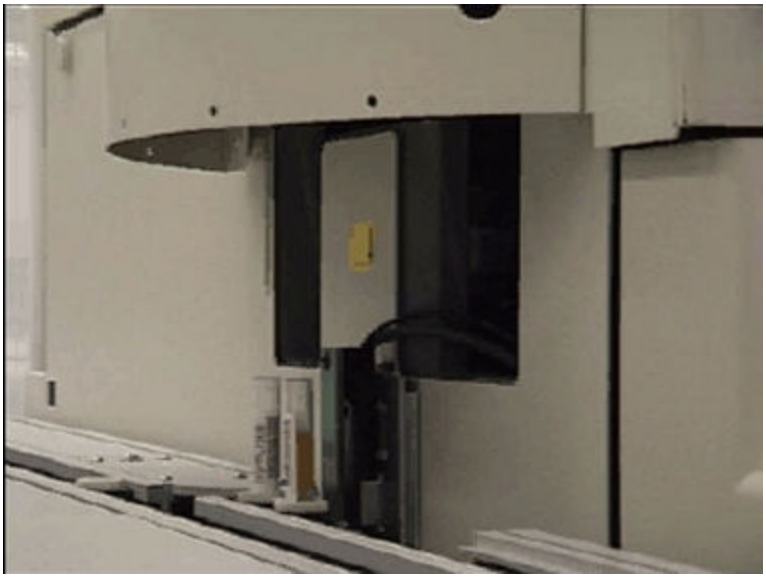
- *Host order query*, page 5-185
- *Host computer download*, page 5-184
- *Automated control ordering*, page 5-185
- *Auto retest (patient samples)*, page 5-186
- *SSH - standard sample handler (i2000)*, page 1-179
- *Double load queue lane defaults (i2000)*, page 5-269

LAS sample handler sample processing (*i*2000)

After you load a sample(s) the sample handler moves the sample(s) to the aspiration location. The progression of samples on the LAS (laboratory

automation system) depends on whether samples are present on the LAS sample carousel.

Figure 5.71: LAS sample handler sample processing



After you load samples onto the LAS sample carousel and initiate a run:

1. The processing queue bar code reader reads the sample carousel ID. Samples placed on the LAS sample carousel take priority over samples on the LAS track.
2. If calibration orders are present on the carousel the positions are scanned to determine if there are patient or control bar code labeled samples present.
3. Calibrators are aspirated by the sample pipettor.
4. Each patient and control sample is scanned sequentially.
5. The system software determines if an order is present on the SCC for each patient and control sample on the carousel. If there are no orders and your system is configured for host query, a query is sent to the host. If an order has not been entered into the host system, the carousel moves the next sample to the aspiration location.
6. If orders exist, the sample is aspirated before moving to the next carousel position.
7. Once all samples on the carousel are aspirated samples on the track are processed. When a sample is present on the track at the LAS pipettor position, the sample bar code is read by the processing queue bar code reader.
8. The system software determines if an order is present on the SCC for each patient and control sample on the LAS track. If there are no orders, a query is sent to the host. If an order has not been entered into the host system, the next sample is moved into position.

9. If an order exists, the sample is aspirated.

Related information…

- *Host order query*, page 5-185
- *Host computer download*, page 5-184
- *Automated control ordering*, page 5-185
- *Auto retest (patient samples)*, page 5-186
- *LAS carousel sample handler (i2000)*, page 1-182

Batch processing

After you load samples the sample handler moves the samples to the sample bar code reader.

NOTE: Batch processing is not available on the sample carousel (*c*8000/*c*16000) or the RSH priority bays or sections.

For bar code labeled batch orders, the starting SID (sample ID) identifies the beginning of the batch run and the ending SID the end of the run. All bar coded samples loaded in between, regardless of SID or sequence, are processed as part of the batch. The batch is terminated when the ending SID is scanned.

For non-bar code labeled batch orders, the starting carrier/position identifies the beginning of the batch run. All non-bar coded samples after the starting carrier/position are processed as part of the batch until the total number of samples equals the number entered.

The only samples that may temporarily interrupt batch processing are patient or control samples loaded in the sample carousel (*c*8000/*c*16000) or priority bay or section on the RSH (robotic sample handler). When loaded on any other sample handler, any samples loaded within the batch become exceptions and are not processed.

Reagent inventory processing

The following criteria is used to determine which reagent kit is used first when multiple kits with active calibration curves are loaded on the system:

- The reagent kit nearest to its stability expiration date.
- The reagent kit nearest to its reagent lot expiration date.
- The reagent kit with the fewest tests remaining.

NOTE: Constituents of calculated assays using the same reagent kit must be run with the same reagent lot.

Unloading samples

To maintain continuous processing you should unload samples on a routine basis.

Procedures include:

Unload samples (RSH - except for *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to unload samples from the priority and/or routine bay(s) of the RSH (robotic sample handler) when they are no longer needed on the system.

NOTE: Review the Exception status and Rerun status screens to determine if the sample(s) is still needed on the system. See *Access the Exception status screen*, page 5-366, or *Access the Rerun status screen*, page 5-333.

Prerequisite	Bay/section indicator: • blinking green • solid green • alternating green/amber
Module status	Any
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When unloading and transporting sample carriers and carrier trays, do not splash sample outside of the sample cups and/or tubes.

To unload samples:

1. Remove the sample carrier or carrier tray by performing one of the following:
   - Lift the sample carrier out of the section when unloading from the priority bay.
   - Grasp the carrier tray handle, and then lift up and pull the carrier tray out when unloading from the routine bay.
2. Remove the samples from the sample carrier.
3. Dispose of sample cups in a biohazardous waste container.

4. Store remaining samples according to laboratory guidelines.

Related information…

- *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166

Access a sample with tests in process (RSH - except for *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to suspend a bay on the RSH (robotic sample handler) when you need to immediately access a sample that is being processed.

NOTE: When you suspend processing for a section and/or bay, the processing module stops aspirations on all samples associated with that location. Any scheduled tests not aspirated become exceptions and are not processed.

Prerequisite	*Access the Sample status screen*, page 5-235
Module status	Running
User access level	General operator
Supplies	NA

To access a sample with tests in process:

1. Select **F3 - Find** on the Sample status screen to locate the sample to be accessed.

   The Find options (Sample status) window displays.

   a. Enter the sample name, sample ID, and/or patient ID in the appropriate data entry boxes.

   b. Select **Done** to initiate the search.

      The Sample status screen displays with the text "Search results:" in the title bar.

2. Select the sample from the **SID Name** column, and then select **F6 - Suspend**.

   A confirmation message displays.

3. Select **OK** to suspend processing.

   The RSH returns the carrier(s) to its original location.

   NOTE: For ARCHITECT Systems connected to the ACCELERATOR *p*540, carriers are returned to the RSHx, and the ACCELERATOR *p*540 returns the samples to the appropriate location.

4. *Unload samples (RSH - except for c4000/i1000SR /ci4100)*, page 5-289.

To reload the sample(s), see *Load samples for routine processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-248, or *Load samples for priority processing (RSH - except for c4000/i1000SR /ci4100)*, page 5-250.

Related information...

- *Sample status screen*, page 5-233
- *Find options (Sample status) window*, page 5-239
- *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166

Unload samples (RSH - *c*4000/*i*1000SR/*ci*4100)

Perform this procedure to unload samples from the priority and/or routine section(s) of the RSH (robotic sample handler) when they are no longer needed on the system.

NOTE: Review the Exception status and Rerun status screens to determine if the sample(s) is still needed on the system. See *Access the Exception status screen*, page 5-366, or *Access the Rerun status screen*, page 5-333.

Prerequisite	Section indicator: • blinking green • solid green • alternating green/amber
Module status	Any
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When unloading and transporting sample carriers and carrier trays, do not splash sample outside of the sample cups and/or tubes.

To unload samples:

1. Remove the sample carrier sliding the sample carrier out of the section.

2. Remove the samples from the sample carrier.
3. Dispose of sample cups in a biohazardous waste container.
4. Store remaining samples according to laboratory guidelines.

Related information...

- *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171

Access a sample with tests in process (RSH - *c*4000/*i*1000SR /*ci*4100)

Perform this procedure to suspend a section on the RSH (robotic sample handler) when you need to immediately access a sample that is being processed.

NOTE: When you suspend processing for a section, the processing module stops aspirations on all samples associated with that location. Any scheduled tests not aspirated become exceptions and are not processed.

Prerequisite	*Access the Sample status screen*, page 5-235
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To access a sample with tests in process:

1. Select **F3 - Find** on the Sample status screen to locate the sample to be accessed.

   The Find options (Sample status) window displays.

   a. Enter the sample name, sample ID, and/or patient ID in the appropriate data entry boxes.

b. Select **Done** to initiate the search.

The Sample status screen displays with the text "Search results:" in the title bar.

2. Select the sample from the **SID Name** column, and then select **F6 - Suspend**.

A confirmation message displays.

3. Select **OK** to suspend processing.

The RSH returns the carrier(s) to its original location.

4. *Unload samples (RSH - c4000/i1000SR/ci4100)*, page 5-291.

To reload the sample(s), see *Load samples for processing (RSH - c4000/i1000SR /ci4100)*, page 5-252.

Related information...

- *Sample status screen*, page 5-233
- *Find options (Sample status) window*, page 5-239
- *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171

Unload samples (sample carousel - *c*8000/*c*16000)

Perform this procedure to unload samples from the sample carousel when they are no longer needed on the system.

NOTE: Review the Exception status and Rerun status screens to determine if the sample(s) is still needed on the system. See *Access the Exception status screen*, page 5-366, or *Access the Rerun status screen*, page 5-333.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

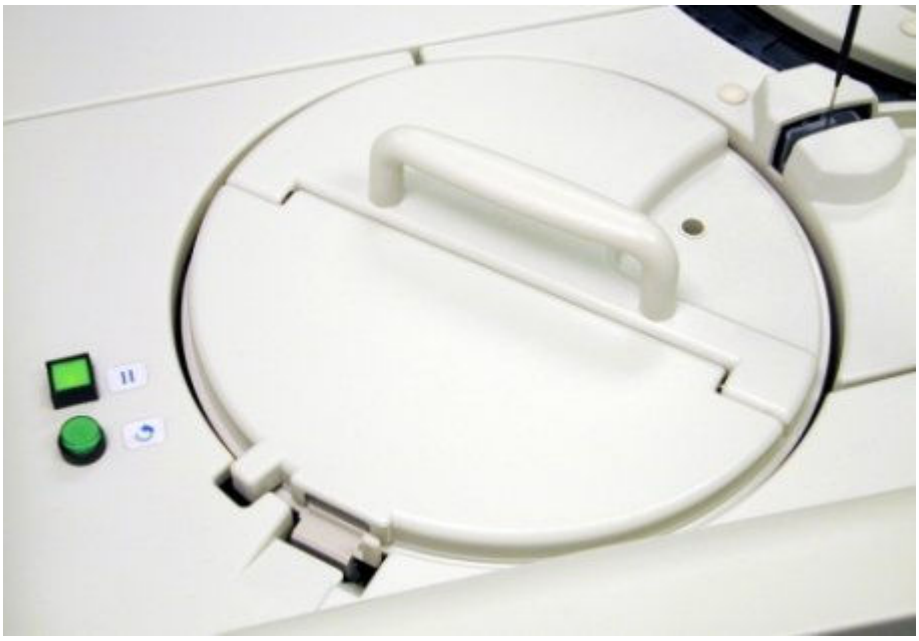
IMPORTANT: When unloading and transporting samples, do not splash sample outside of the sample cups and/or tubes.

To unload samples:

1. Open the processing module cover.
2. Verify that the **sample carousel access** indicator button (square), next to the carousel, is illuminated. If the indicator button is not illuminated, see *Pause the sample carousel (c8000/c16000)*, page 5-18.

3. Press the gray button on the front portion of the sample carousel cover to open.

   CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.



4. Press the **sample carousel advance** indicator button (round) to advance the sample carousel to access the desired position(s).
5. Remove the samples from the carousel.
6. Dispose of sample cups in a biohazardous waste container.
7. Store remaining samples according to your laboratory guidelines.
8. Close the sample carousel cover by pushing the cover down until you hear a click.

   NOTE: Sample processing does not resume unless the sample carousel cover is closed.
9. Close the processing module cover.

Related information…

- *Sample carousel and indicator lights (c8000)*, page 1-60
- *Sample carousel and indicator lights (c16000)*, page 1-80

Unload samples (SSH)

Perform this procedure to unload sample carriers and samples when the SSH (standard sample handler) unload queue is full or the samples are no longer needed on the system.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When unloading and transporting sample carriers, do not splash sample outside of the sample cups and/or tubes.

To unload samples:

1. Lift the sample carrier carefully out of the sample unload queue.
2. Remove the samples from the sample carrier.
3. Dispose of sample cups in a biohazardous waste container.
4. Store remaining samples according to laboratory guidelines.

Related information...

- *SSH - standard sample handler (i2000)*, page 1-179

Unload samples (LAS carousel sample handler)

Perform this procedure to unload an LAS (laboratory automation system) carousel sample handler and samples when the samples are no longer needed on the system.

Prerequisite	NA
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

IMPORTANT: When unloading and transporting samples, do not splash sample outside of the sample cups and/or tubes.

To unload samples:

1. Open the LAS carousel cover, and then carefully lift the LAS carousel straight up from the LAS carousel platform.

   NOTE: You may remove samples from the LAS sample carousel without removing the carousel from the sample handler. Press the **carousel advance** key on the sample handler keypad to advance the LAS sample carousel to provide access to all positions.

2. Remove the samples from the sample carousel.
3. Dispose of sample cups in a biohazardous waste container.
4. Store remaining samples according to laboratory guidelines.

Related information…

- *LAS carousel sample handler (i2000)*, page 1-182

Patient and QC results review, rerun, and release

Once patient and QC sample processing are complete, you can view the results to determine whether to release them or rerun the tests.

Patient and QC results review, rerun, and release topics include:

- *Patient results review and release*, page 5-297
- *QC result review and release*, page 5-315
- *Patient results, QC results, and exceptions rerun review*, page 5-331

Patient results review and release

Review patient results to determine whether to rerun the tests, release, or delete them.

Patient results review and release topics include:

- *Results review screen*, page 5-297
- *Descriptions of patient result flags*, page 5-299
- *Procedures - Results review screen*, page 5-301
- *Windows - Results review screen*, page 5-308

Results review screen

From the Results review screen you can view information for unreleased patient results, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name and result
- Flags and codes

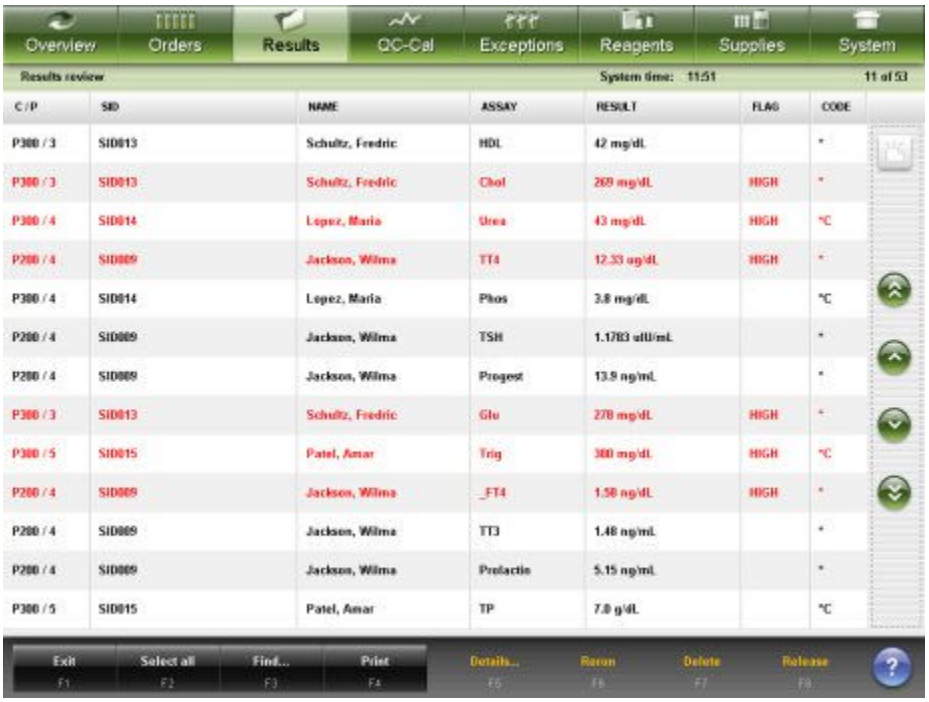
You can also release or delete a result and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Absorbance Data report, Patient report, Result Details report, Results List report, and Sample report
- View detailed result information
- Add a comment to a result
- Rerun a test

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For results that have been released, see *Stored results screen*, page 5-336.

Figure 5.72: Results review screen



For descriptions of these fields, see *Results review screen field descriptions*, page E-46.

When accessing the Results review screen the information sorts by time the result was generated from the most recent to the oldest result.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
SID and NAME	Alphanumerically in ascending order.
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
RESULT	Based on interpretation.
FLAG and CODE	See *Descriptions of patient result flags*, page 5-299 and *Descriptions of processing codes*, page 5-225.

To display this screen, see *Access the Results review screen*, page 5-299.

Related procedures…

- *View all patient results*, page 5-301
- *Find a specific patient result*, page 5-302
- *Print a report*, page 5-403
- *View patient result details*, page 5-302
- *Add a comment to a patient result*, page 5-303
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Rerun a patient test*, page 5-305
- *Delete a patient result*, page 5-307
- *Release a patient result*, page 5-307
- *Cancel pending transmission*, page 5-417

Access the Results review screen

Perform this procedure to display the Results review screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Results review screen:

Select **Results** from the menu bar, and then select **Results review**.

The Results review screen displays.

Related information…

- *Results review screen*, page 5-297
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

Descriptions of patient result flags

Flags provide additional information about a result and indicate that you may need to review the result. When a patient result has a flag, the information displays in red on the Results review and Stored results screens. The system displays one or more of the following result flags, when applicable, for a test result. When you select the FLAG column heading, the flags sort in the following order.

Table 5.13: Patient result flags

Flag	Description
EDIT (*c* System)	The result was manually edited by the operator and was not calculated by the system.
EXP*	The result was measured using an expired: • ICT module • reagent • bulk solution • control material (flag occurs after midnight of expiration date)
EXPC*	The result was calculated using an expired calibration curve or expired calibrators.
A#1 (*c* System)	The result was calculated using the only read, out of all reads in the main read window, with measured absorbance within the defined absorbance range. This condition can occur when the result concentration is high or the sample is lipemic. See *Sample results observed problems (c System)*, page 10-531.
A#2 (*c* System)	The result was calculated using only two reads, out of all reads in the main or flex read window, with measured absorbance within the defined absorbance range. This condition can occur when the result concentration is high or the sample is lipemic. See *Sample results observed problems (c System)*, page 10-531.
CNTL*	The result was calculated after the quality control failed. The flag continues to appear on subsequent results until the failed quality control result is rerun for the same control name and control level and the result is within acceptable limits. Archiving and deleting out of range QC results will not remove the CNTL flag from patient results. **NOTE:** Only Westgard rules configured as a failure produce a CNTL flag for a patient result.
< or >	The result is outside the dynamic or linear range. **NOTE:** For *c* System assays, the displayed value is the result of adjustment by the sample dilution factor. Additionally, the displayed > value reflects adjustment by the entered correlation factor and intercept for assays with non-linear calibration methods when the sample absorbance exceeds the highest calibrator absorbance.
FLEX (*c* System)	The result was calculated using the read data measured during the flex read time. See *Sample results observed problems (c System)*, page 10-531.
LL or HH**	The result is outside the defined extreme range.
PSHH (*c* System ICT assays)	The result may be affected by the ICT sample that was measured immediately prior to this sample. Rerun the sample to verify that there was no affect. See *Sample results observed problems (c System)*, page 10-531.

Flag	Description
LOW or HIGH**	The result is outside the defined normal range.

***** Indicates these flags carry over from a constituent result to a calculated result.

****** Indicates a result is rounded to the reporting number of decimals for an assay, and then compared against the range.

Procedures - Results review screen

Procedures you can perform from the Results review screen and its related windows include:

- *View all patient results*, page 5-301
- *Find a specific patient result*, page 5-302
- *View patient result details*, page 5-302
- *Add a comment to a patient result*, page 5-303
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Rerun a patient test*, page 5-305
- *Delete a patient result*, page 5-307
- *Release a patient result*, page 5-307

View all patient results

Perform this procedure to display the Results review screen. From this screen you can view information on unreleased patient results.

To view information for released patient results, see *View all stored patient results*, page 5-338.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all patient results:

Select **Results** on the menu bar, and then select **Results review**.

The Results review screen displays.

Related information...

- *Results review screen*, page 5-297
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

Find a specific patient result

Perform this procedure to search for specific unreleased patient results by entering your search criteria in one or more fields.

Prerequisite	*Access the Results review screen*, page 5-299
Module status	Any
User access level	General operator
Supplies	NA

To find a specific patient result:

1. Select **F3 - Find** on the Results review screen.

   The Find options (Results review) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

   A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (P).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Results review screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information…

- *Results review screen*, page 5-297
- *Find options (Results review) window*, page 5-309
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

View patient result details

Perform this procedure to display the Details for result window. From this window you can view details for unreleased patient results and add comments.

To view the assay reaction graph and absorbance data for patient results, see *View the reaction graph and absorbance data for a result (c System)*, page 5-304.

To view details for released patient results, see *View stored patient results details*, page 5-340.

Prerequisite	*Access the Results review screen*, page 5-299
Module status	Any
User access level	General operator
Supplies	NA

To view patient result details:

1. Select the desired result(s) from the table on the Results review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result (Results review) window displays.
3. Use the **previous**/**next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the Results review screen.

Related information...

- *Results review screen*, page 5-297
- *Details for result (Results review) window - calculated view*, page 5-309
- *Details for result (Results review) window - data view (c System)*, page 5-310
- *Details for result (Results review) window - photometric - graph view (c System)*, page 5-311
- *Details for result (Results review) window - sample interference index view (c System)*, page 5-312
- *Details for result (Results review) window (i System)*, page 5-313
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

Add a comment to a patient result

Perform this procedure to add a comment to an unreleased patient result(s).

Prerequisite	*Access the Results review screen*, page 5-299
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a patient result:

1. Select the desired result(s) from the table on the Results review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result (Results review) window displays.
3. Enter a comment in the **Comment** data entry box.

4. Use the **previous**/**next** buttons to display each result if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Results review screen*, page 5-297
- *Details for result (Results review) window - calculated view*, page 5-309
- *Details for result (Results review) window - data view (c System)*, page 5-310
- *Details for result (Results review) window - sample interference index view (c System)*, page 5-312
- *Details for result (Results review) window (i System)*, page 5-313

View the reaction graph and absorbance data for a result (*c* System)

Perform this procedure to view the reaction graph and absorbance data for a result.

Prerequisite	*Access the Sample status screen*, page 5-235 *Access the Results review screen*, page 5-299 *Access the Stored results screen*, page 5-338 *Access the QC result review screen*, page 5-318 *Access the Stored QC results screen*, page 5-353
Module status	Any
User access level	General operator
Supplies	NA

To view the reaction graph and absorbance data for a result:

1. Select the desired photometric assay result(s) on the appropriate screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result window - photometric - data view displays.
3. Select the **graph** button.

   The Details for result window - photometric - graph view displays.
4. Enter the desired range in the **Y axis scale** data entry boxes, and then select **Rescale** to change the absorbance scale. ***(optional)***

   An updated view of the reaction graph displays.
5. Select **Done** to return to the previous screen.

   Your changes to the Y axis scale are not saved.

Related information...

- *Sample status screen*, page 5-233

- *Results review screen*, page 5-297
- *Stored results screen*, page 5-336
- *QC result review screen*, page 5-316
- *Stored QC results screen*, page 5-351
- *Details for result (Results review) window - data view (c System)*, page 5-310
- *Details for result (Results review) window - photometric - graph view (c System)*, page 5-311
- *Details for QC result (QC result review) window - data view (c System)*, page 5-326
- *Details for QC result (QC result review) window - photometric - graph view (c System)*, page 5-327
- *Details for result (Stored results) window - data view (c System)*, page 5-346
- *Details for result (Stored results) window - photometric - graph view (c System)*, page 5-347
- *Details for QC result (Stored QC results) window - data view (c System)*, page 5-359
- *Details for QC result (Stored QC results) window - photometric - graph view (c System)*, page 5-359

Rerun a patient test

Perform this procedure to rerun a patient test or an exception. If additional tests are required, you must create a new order. See *Add a test to a patient order*, page 5-201.

Prerequisite	*Access the Sample status screen*, page 5-235 *Access the Results review screen*, page 5-299 *Access the Exception status screen*, page 5-366
Module status	Any
User access level	General operator
Supplies	NA

NOTE: To rerun a calculated assay, perform one of the following:

- Select the calculated assay only. The system automatically reruns the assays required to complete the calculation but does not release or report these results.

  Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

- Select the calculated assay and the desired constituent assay(s) to rerun. The system uses the existing valid constituent results to complete the calculation. The system releases and reports results not automatically ordered by the system.

- Select the calculated assay and all of its constituent assays. The system releases and reports all results.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To rerun a patient test:

1. Retrieve the original sample and verify:
   - Volume is sufficient. See *Sample volume requirements*, page 5-242.
   - Sample integrity is acceptable. See *Sample integrity*, page 5-245.
2. Return the sample to its position.
3. Select the desired test(s) on the appropriate screen.
4. Select one of the following:
   - **F6 - Rerun** from the Results review or Exception status screen.
   - **F7 - Rerun** from the Sample status screen.

   The Rerun options window displays.
5. Specify the desired rerun options. ***(optional)***
   a. Select the **carrier** or **carousel** button, and then enter a carrier or carousel ID in the **C** data entry box, if displayed.
   b. Enter a position in the **P** data entry box.

      NOTE: Steps 5a and 5b are not required if using a bar coded sample.
   c. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/number of replicates** data entry box.

      NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
   d. Select the **Module selection: Manual** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

      NOTE: Overriding the system module scheduler may impact overall throughput.
   e. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 5a through 5d for each. ***(optional)***
6. Select **Done** to save your changes and schedule the rerun.

You can view the tests scheduled for rerun on the Order status, Rerun status, and Sample status screens. The R (rerun) code is assigned to the test(s).

NOTE: If the sample is still onboard the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, the system repositions and re-aspirates the sample automatically.

To print the Order List report, see *Print the Order List report*, page 5-405.

Related information…

- *Sample status screen*, page 5-233
- *Results review screen*, page 5-297
- *Exception status screen*, page 5-364
- *Rerun options (patient tests) window*, page 5-314
- *Loading samples (RSH)*, page 5-246
- *Loading samples (sample carousel - c8000/c16000)*, page 5-261
- *Loading samples (SSH)*, page 5-264
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274

Delete a patient result

Perform this procedure to delete a patient result(s) that does not meet release requirements.

Prerequisite	*Access the Results review screen*, page 5-299
Module status	Any
User access level	General operator
Supplies	NA

To delete a patient result:

1. Select the desired patient result(s) from the table on the Results review screen, or select **F2 - Select all**.
2. Select **F7 - Delete**.

   A confirmation message displays.
3. Select **OK** to delete the result(s).

Related information…

- *Results review screen*, page 5-297
- *Stored results screen*, page 5-336

Release a patient result

Perform this procedure to release a patient result(s) that has been reviewed.

Prerequisite	*Access the Sample status screen*, page 5-235 *Access the Results review screen*, page 5-299
Module status	Any
User access level	General operator
Supplies	NA

To release a patient result:

1. Select the desired patient result(s) or select **F2 - Select all**.

   NOTE: No more than 10,000 records can be transmitted (pending transmission and new selections) at once.

2. Select **F8 - Release** to release the result(s).

   NOTE: The **F8 - Release** button is not available if any of the selected items on the Sample status screen are exceptions (red text) or released results (blue text). Deselect the exceptions and/or released results to make the button available.

You can view result information on the Stored results screen. If your system interfaces with a host computer, the results transmit to the host and the number of tests pending transmission display on the LIS communication window.

To cancel a pending transmission, see *Cancel pending transmission*, page 5-417.

Related information…

- *Snapshot screen*, page 1-22
- *Results review screen*, page 5-297
- *Stored results screen*, page 5-336
- *Sample status screen*, page 5-233

Windows - Results review screen

Windows you can access from the Results review screen include:

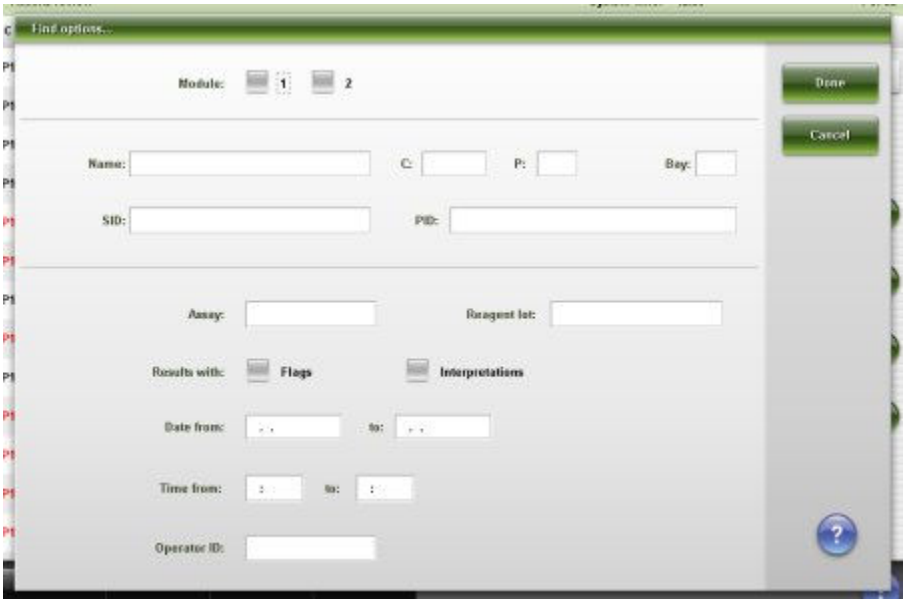
- *Find options (Results review) window*, page 5-309
- *Details for result (Results review) window - calculated view*, page 5-309
- *Details for result (Results review) window - data view (c System)*, page 5-310
- *Details for result (Results review) window - photometric - graph view (c System)*, page 5-311
- *Details for result (Results review) window - sample interference index view (c System)*, page 5-312
- *Details for result (Results review) window (i System)*, page 5-313
- *Rerun options (patient tests) window*, page 5-314
- *Edit result window (c System)*, page 5-315

Find options (Results review) window

From the Find options (Results review) window you can search for specific unreleased patient results by entering your search criteria in one or more fields.

For patient results that have been released, see *Find options (Stored results) window*, page 5-344.

Figure 5.73: Find options (Results review) window



For descriptions of these fields, see *Find options (Results review) window field descriptions*, page E-47.

Related procedures...

- *Find a specific patient result*, page 5-302

Details for result (Results review) window - calculated view

From the calculated view of the Details for result (Results review) window you can view detailed information for unreleased calculated patient results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.74: Details for result (Results review) window - calculated view

For descriptions of these fields, see *Details for result (Results review) window - Calculated view field descriptions*, page E-48.

Related procedures...

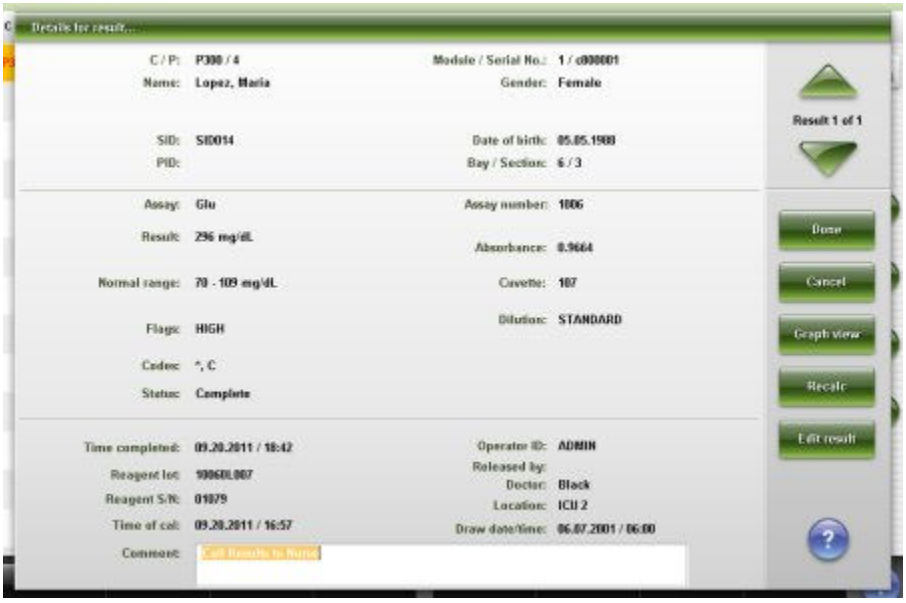
- *View patient result details*, page 5-302
- *Add a comment to a patient result*, page 5-303

Details for result (Results review) window - data view (*c* System)

From the data view of the Details for result (Results review) window you can view detailed information for unreleased patient results and add comments. The information that displays depends on the assay type (photometric or potentiometric) for the result selected.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.75: Details for result (Results review) window - data view (c System)



For descriptions of these fields, see *Details for result (Results review) window - Data view (c System) field descriptions*, page E-50.

Related procedures...

- *View patient result details*, page 5-302
- *Add a comment to a patient result*, page 5-303
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for result (Results review) window - photometric - graph view (*c* System)

From the photometric - graph view of the Details for result (Results review) window you can view the assay reaction graph and associated absorbance data for unreleased patient results.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.76: Details for result (Results review) window - photometric - graph view (c System)

For descriptions of these fields, see *Details for result (Results review) window - Photometric - graph view (c System) field descriptions*, page E-51.

Related procedures...

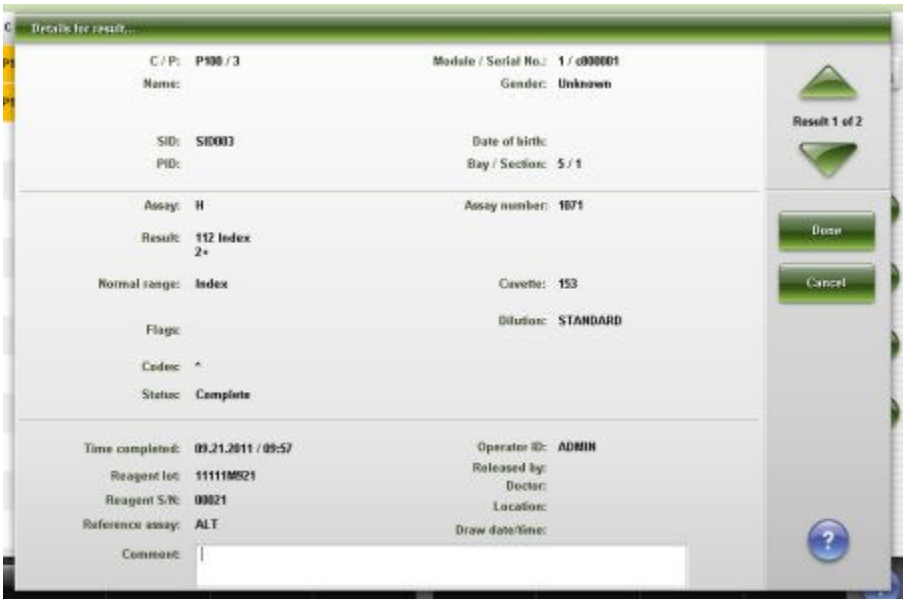
- *View patient result details*, page 5-302
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for result (Results review) window - sample interference index view (*c* System)

From the sample interference index view of the Details for result (Results review) window you can view detailed information for patient results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.77: Details for result (Results review) window - sample interference index view (c System)



For descriptions of these fields, see *Details for result (Results review) window - Sample interference index view (c System) field descriptions*, page E-53.

Related procedures…

- *View patient result details*, page 5-302
- *Add a comment to a patient result*, page 5-303

Details for result (Results review) window (*i* System)

From the Details for result (Results review) window (*i* System) you can view detailed information for unreleased patient results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.78: Details for result (Results review) window (i System)

For descriptions of these fields, see *Details for result (Results review) window (i System) field descriptions*, page E-54.

Related procedures...

- *View patient result details*, page 5-302
- *Add a comment to a patient result*, page 5-303

Rerun options (patient tests) window

From the Rerun options window you can order a rerun for a patient test and change the following:

- Carrier ID and position or the carousel position
- Automated dilution factor
- Number of replicates
- Module for processing the test (multi-module *i* System)

Figure 5.79: Rerun options (patient tests) window

For descriptions of these fields, see *Rerun options (patient tests) window field descriptions*, page E-56.

Related procedures...

- *Rerun a patient test*, page 5-305

Edit result window (*c* System)

From the Edit result window the system administrator can edit an assay result.

Figure 5.80: Edit result window (c System)

QC result review and release

Review control results to determine whether to rerun the tests, release, or delete them.

QC result review and release topics include:

- *QC result review screen*, page 5-316

- *Descriptions of quality control result flags*, page 5-318
- *Procedures - QC result review screen*, page 5-319
- *Windows - QC result review screen*, page 5-325

QC result review screen

From the QC result review screen you can view information for unreleased control results, which includes:

- Sample location, identified by sample carrier ID/position, sample carousel ID/position, or LAS
- Control name, level, and identification number
- Assay name and result
- Flags

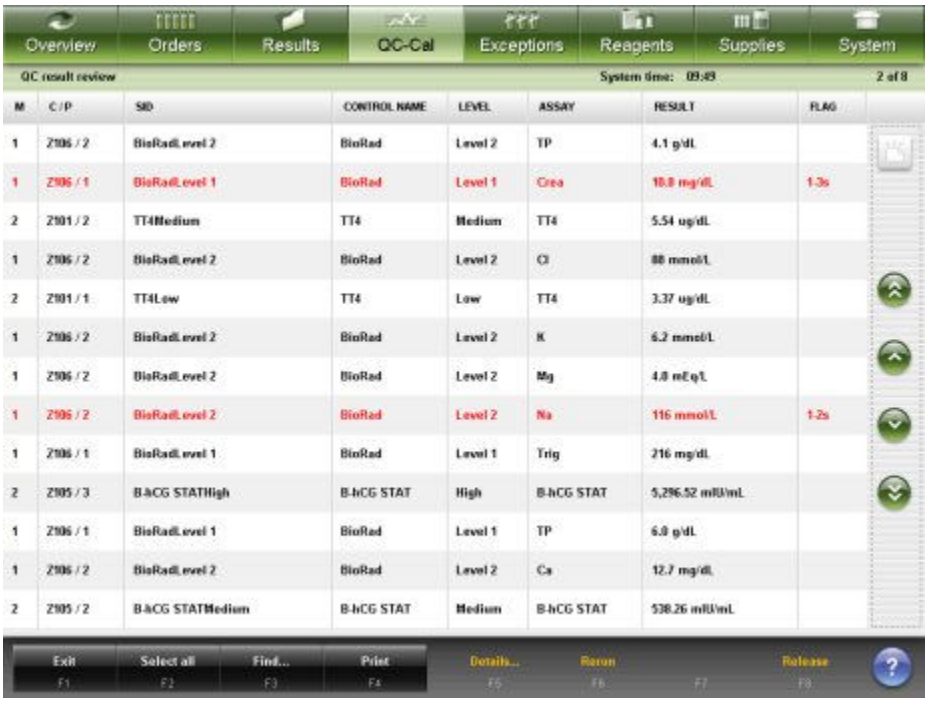
You can also release a control result and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Absorbance Data report, QC Result Details report, and the QC Results List report
- View detailed control result information
- Add a comment to a control result
- Rerun a test

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For control results that have been released, see *Stored QC results screen*, page 5-351.

Figure 5.81: QC result review screen



For descriptions of these fields, see *QC result review screen field descriptions*, page E-69.

When accessing the QC result review screen the information sorts by time the result was generated from the most recent to the oldest result.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
M	Numerically in ascending order.
SID, CONTROL NAME, LEVEL, and ASSAY	Alphanumerically in ascending order.
RESULT	This column does not sort.
FLAG	See *Descriptions of quality control result flags*, page 5-318.

To display this screen, see *Access the QC result review screen*, page 5-318.

Related procedures…

- *View all control results*, page 5-320

- *Find a specific control result*, page 5-320
- *Print a report*, page 5-403
- *View control result details*, page 5-321
- *Add a comment to a control result*, page 5-322
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Rerun a patient test*, page 5-305
- *Release a control result*, page 5-323
- *Cancel pending transmission*, page 5-417

Access the QC result review screen

Perform this procedure to display the QC result review screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the QC result review screen:

Select **QC - Cal** from the menu bar, and then select **QC result review**.

The QC result review screen displays.

Related information...

- *QC result review screen*, page 5-316
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225

Descriptions of quality control result flags

Flags provide additional information about a quality control result and indicate that you may need to review the result. When a control result has a flag, the information displays in red on the QC result review, Stored QC results, and QC summary review screens. The system displays one or more of the following quality control result flags, when applicable, for a quality control result. When you select the FLAG column header, the flags sort in the following order.

Table 5.14: Quality control result flags

Flag	Description
CNTL	The quality control result is outside the minimum and maximum control level range.
Westgard rule	The quality control result failed a Westgard rule. See *Westgard rule descriptions*, page 5-383.

Flag	Description
EXP	The quality control result was measured using an expired: • ICT module • reagent • bulk solution • control material
EXPC	The quality control result was calculated using an expired calibration curve or expired calibrators.
A#1 (*c* System)	The quality control result was calculated using the only read, out of all reads in the main read window, with measured absorbance within the defined absorbance range. See *Sample results observed problems (c System)*, page 10-531.
A#2 (*c* System)	The quality control result was calculated using only two reads, out of all reads in the main or flex read window, with measured absorbance within the defined absorbance range. See *Sample results observed problems (c System)*, page 10-531.
< or >	The quality control result is outside the dynamic or linear range. **NOTE:** For *c* System assays, the displayed value is the result of adjustment by the sample dilution factor. Additionally, the displayed > value reflects adjustment by the entered correlation factor and intercept for assays with non-linear calibration methods when the sample absorbance exceeds the highest calibrator absorbance.
FLEX (*c* System)	The quality control result was calculated using the read data measured during the flex read time. See *Sample results observed problems (c System)*, page 10-531.
PSHH (*c* System ICT assays)	The quality control result may be affected by the ICT sample that was measured immediately prior to this sample. Rerun the sample to verify that there was no affect. See *Sample results observed problems (c System)*, page 10-531.

Procedures - QC result review screen

Procedures you can perform from the QC result review screen and its related windows are listed below.

Procedures not in this sub-section include:

- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Procedures in this sub-section include:

- *View all control results*, page 5-320
- *Find a specific control result*, page 5-320
- *View control result details*, page 5-321
- *Add a comment to a control result*, page 5-322
- *Release a control result*, page 5-323

- *Rerun a QC test*, page 5-323

View all control results

Perform this procedure to display the QC result review screen. From this screen you can view information on unreleased control results.

To view information for released control results, see *View all stored control results*, page 5-354.

To view a summary of statistical data for controls, see *View QC data summary*, page 5-396.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all control results:

Select **QC-Cal** icon from the menu bar, and then select **QC result review**.

The QC result review screen displays.

Related information…

- *QC result review screen*, page 5-316
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225
- *Westgard rule descriptions*, page 5-383

Find a specific control result

Perform this procedure to search for specific unreleased control results by entering your search criteria in one or more fields.

Prerequisite	*Access the QC result review screen*, page 5-318
Module status	Any
User access level	General operator
Supplies	NA

To find a specific control result:

1. Select **F3 - Find** on the QC result review screen.

   The Find options (QC result review) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (p).

Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The QC result review screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information…

- *QC result review screen*, page 5-316
- *Find options (QC result review) window*, page 5-326
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225
- *Westgard rule descriptions*, page 5-383

View control result details

Perform this procedure to display the Details for QC result window. From this window you can view details for unreleased control results and add comments.

To view the assay reaction graph and absorbance data for control results, see *View the reaction graph and absorbance data for a result (c System)*, page 5-304.

To view details for released control results, see *View stored control result details*, page 5-355.

Prerequisite	*Access the QC result review screen*, page 5-318
Module status	Any
User access level	General operator
Supplies	NA

To view control result details:

1. Select the desired result(s) from the table on the QC result review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC result (QC result review) window displays.

   NOTE: A code C may display for a Levey-Jennings point comment and a QC result details comment.

3. Use the **previous**/**next** buttons to display each result if you selected more than one. ***(optional)***

4. Select **Done** to return to the QC result review screen.

Related information...

- *QC result review screen*, page 5-316
- *Details for QC result (QC result review) window - data view (c System)*, page 5-326
- *Details for QC result (QC result review) window - photometric - graph view (c System)*, page 5-327
- *Details for QC result (QC result review) window (i System)*, page 5-328
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225
- *Westgard rule descriptions*, page 5-383

Add a comment to a control result

Perform this procedure to add a comment to an unreleased control result(s).

Prerequisite	*Access the QC result review screen*, page 5-318
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a control result:

1. Select the desired result(s) from the table on the QC result review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC result (QC result review) window displays.
3. Enter a comment in the **Comment** data entry box.

   NOTE: Both the QC result comment and the Levey-Jennings point comment print on the QC Result Details report.
4. Use the **previous**/**next** buttons to display each result if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *QC result review screen*, page 5-316
- *Details for QC result (QC result review) window - data view (c System)*, page 5-326
- *Details for QC result (QC result review) window - photometric - graph view (c System)*, page 5-327
- *Details for QC result (QC result review) window (i System)*, page 5-328

Release a control result

Perform this procedure to release a control result(s) that has been reviewed.

Prerequisite	*Access the QC result review screen*, page 5-318
Module status	Any
User access level	General operator
Supplies	NA

To release a control result:

1. Select the desired control result(s) from the table on the QC result review screen, or select **F2 - Select all**.

   NOTE: No more than 10,000 records can be transmitted (pending transmission and new selections) at once.
2. Select **F8 - Release** to release the result(s).

You can view result information on the Stored QC results screen and the Levey-Jennings graph screen. If your system interfaces with a host computer and is configured for transmitting approved QC results to the host, the results transmit to the host and the number of tests pending transmission display on the LIS (laboratory information system) communication window.

To cancel a pending transmission, see *Cancel pending transmission*, page 5-417.

Related information…

- *Snapshot screen*, page 1-22
- *QC result review screen*, page 5-316
- *Stored QC results*, page 5-351

Rerun a QC test

Perform this procedure to rerun a control test or exception.

Prerequisite	*Access the Sample status screen*, page 5-235 *Access the QC result review screen*, page 5-318 *Access the Exception status screen*, page 5-366
Module status	Any
User access level	General operator
Supplies	NA

NOTE: To rerun a calculated assay, perform one of the following:

- Select the calculated assay only. The system automatically reruns the assays required to complete the calculation but does not release or report these results.

  Constituent assays for some calculated assays installed from an assay disk (assay numbers 3000 - 3999) cannot be automatically ordered by the

system and must be ordered separately. Refer to the *i* System assay-package insert for specific assay requirements.

- Select the calculated assay and the desired constituent assay(s) to rerun. The system uses the existing valid constituent results to complete the calculation. The system releases and reports results not automatically ordered by the system.
- Select the calculated assay and all of its constituent assays. The system releases and reports all results.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To rerun a QC test:

1. Retrieve the original sample and verify:
   - Volume is sufficient. See *Sample volume requirements*, page 5-242.
   - Sample integrity is acceptable. See *Sample integrity*, page 5-245.
2. Return the sample to its position.
3. Select the desired test(s) on the appropriate screen.

   NOTE: Rerun only one control level replicate.
4. Select one of the following:
   - **F6 - Rerun** from the QC result review or Exception status screen.
   - **F7 - Rerun** from the Sample status screen.

   The Rerun options window displays.
5. Specify the desired rerun options. ***(optional)***
   a. Select the **carrier** or **carousel** button, and then enter a carrier or carousel ID in the **C** data entry box, if displayed.
   b. Enter a position in the **P** data entry box.

      NOTE: Steps 5a and 5b are not required if using a bar coded sample.
   c. Delete replicate values that are not required, and then enter the number of replicates for the desired dilution(s) in the **Dilution protocols/number of replicates** data entry box.

      NOTE: You cannot run all assays with an automated dilution protocol. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
   d. Select the **Kit selection** list box and then select the desired reagent kit to override the system scheduler. ***(optional)***

NOTE: The rerun test uses the same reagent kit assigned to the original test. If the rerun is an exception and a reagent kit has not been assigned the Reagent selection will default to Auto.

e. Select the **Reagent selection: Module** option, and then select the appropriate module check box(es) to override the system module scheduler (multi-module *i* System).

NOTE: Overriding the system module scheduler may impact overall throughput.

f. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat steps 5a through 5d for each. ***(optional)***

6. Select **Done** to save your changes and schedule the rerun.

You can view the tests scheduled for rerun on the Order status, Rerun status, and Sample status screens. The R (rerun) code is assigned to the test(s).

NOTE: If the sample is still onboard the RSH (robotic sample handler) and the RSH is configured to automatically reposition samples for retest, the system repositions and re-aspirates the sample automatically.

To print the Order List report, see *Print the Order List report*, page 5-405.

Related information…

- *Sample status screen*, page 5-233
- *QC result review screen*, page 5-316
- *Exception status screen*, page 5-364
- *Rerun options (QC tests) window*, page 5-330
- *Loading samples (RSH)*, page 5-246
- *Loading samples (sample carousel - c8000/c16000)*, page 5-261
- *Loading samples (SSH)*, page 5-264
- *Loading samples (LAS carousel sample handler - i2000)*, page 5-274

Windows - QC result review screen

Windows you can access from the QC result review screen include:

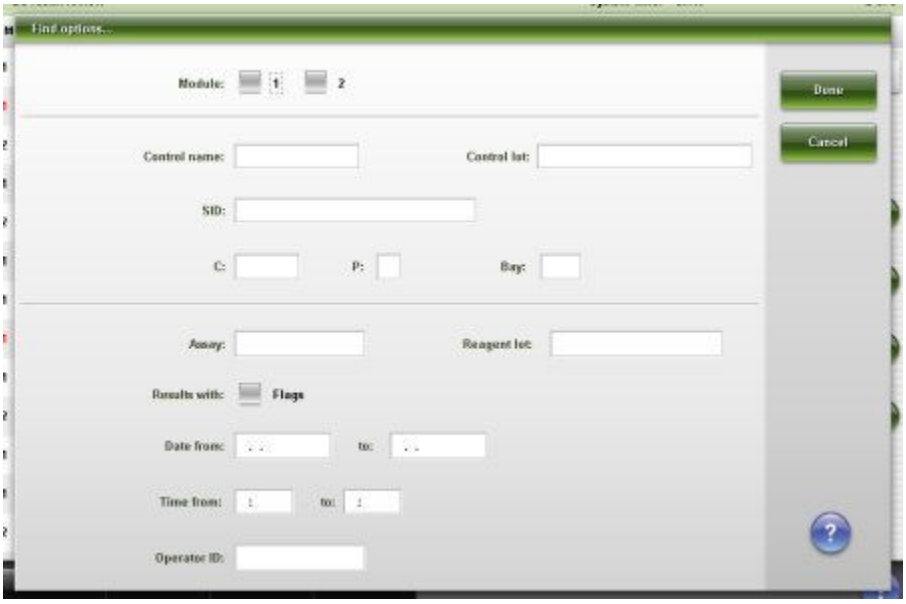
- *Find options (QC result review) window*, page 5-326
- *Details for QC result (QC result review) window - data view (c System)*, page 5-326
- *Details for QC result (QC result review) window - photometric - graph view (c System)*, page 5-327
- *Details for QC result (QC result review) window (i System)*, page 5-328
- *Details for QC result (QC result review) window - Calculated view*, page 5-329
- *Rerun options (QC tests) window*, page 5-330

Find options (QC result review) window

From the Find options (QC result review) window you can search for specific unreleased control results by entering your search criteria in one or more fields.

For control results that have been released, see *Find options (Stored QC results) window*, page 5-358.

Figure 5.82: Find options (QC result review) window



For descriptions of these fields, see *Find options (QC result review) window field descriptions*, page E-70.

Related procedures...

- *Find a specific control result*, page 5-320

Details for QC result (QC result review) window - data view (*c* System)

From the data view of the Details for QC result (QC result review) window you can view detailed information for unreleased control results and add comments. The information that displays depends on the assay type (photometric or potentiometric) for the result selected.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.83: Details for QC result (QC result review) window - data view (c System)

For descriptions of these fields, see *Details for QC result (QC result review) window - Data view (c System) field descriptions*, page E-71.

Related procedures...

- *View control result details*, page 5-321
- *Add a comment to a control result*, page 5-322
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for QC result (QC result review) window - photometric - graph view (*c* System)

From the photometric - graph view of the Details for QC result (QC result review) window you can view the assay reaction graph and associated absorbance data for unreleased control results.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.84: Details for QC result (QC result review) window - photometric - graph view (c System)

For descriptions of these fields, see *Details for QC result (QC result review) window - Photometric - graph view (c System) field descriptions*, page E-73.

Related procedures...

- *View control result details*, page 5-321
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for QC result (QC result review) window (*i* System)

From the *i* System view of the Details for QC result (QC result review) window you can view detailed information for unreleased control results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.85: Details for QC result (QC result review) window (i System)

For descriptions of these fields, see *Details for QC result (QC result review) window (i System) field descriptions*, page E-74.

Related procedures...

- *View control result details*, page 5-321
- *Add a comment to a control result*, page 5-322

Details for QC result (QC result review) window - Calculated view

From the calculated view of the Details for QC result (QC result review) window you can view detailed information for unreleased control results and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.86: Details for QC result (QC result review) window - Calculated view

For descriptions of these fields, see *Details for QC result (QC result review) window - Calculated view field descriptions*, page E-76.

Related procedures...

- *View control result details*, page 5-321
- *Add a comment to a control result*, page 5-322

Rerun options (QC tests) window

From the Rerun options (QC tests) window you can order a rerun for a control test and change the following:

- Carrier ID and position or the carousel position
- Automated dilution factor
- Number of replicates
- Select a kit for processing the test
- Module for processing the test (multi-module *i* System)

Figure 5.87: Rerun options (QC tests) window

For descriptions of these fields, see *Rerun options (QC tests) window field descriptions*, page E-77.

Related procedures...

- *Rerun a patient test*, page 5-305

Patient results, QC results, and exceptions rerun review

A rerun is a test order created by the operator or automatically by the system. You use the Rerun status screen to review and manage patient results, QC results, and exceptions that are scheduled for rerun.

NOTE: You can not rerun calibration exceptions.

Patient, QC, and exception rerun review topics include:

- *Rerun status screen*, page 5-331
- *Procedures - Rerun status screen*, page 5-334

Rerun status screen

From the Rerun status screen you can view information for the tests scheduled for rerun and delete a rerun. These tests are ordered by the operator or created automatically by the system and display until the rerun is complete.

NOTE: Tests scheduled for rerun also display on the Order status and Sample status screens.

Information includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number

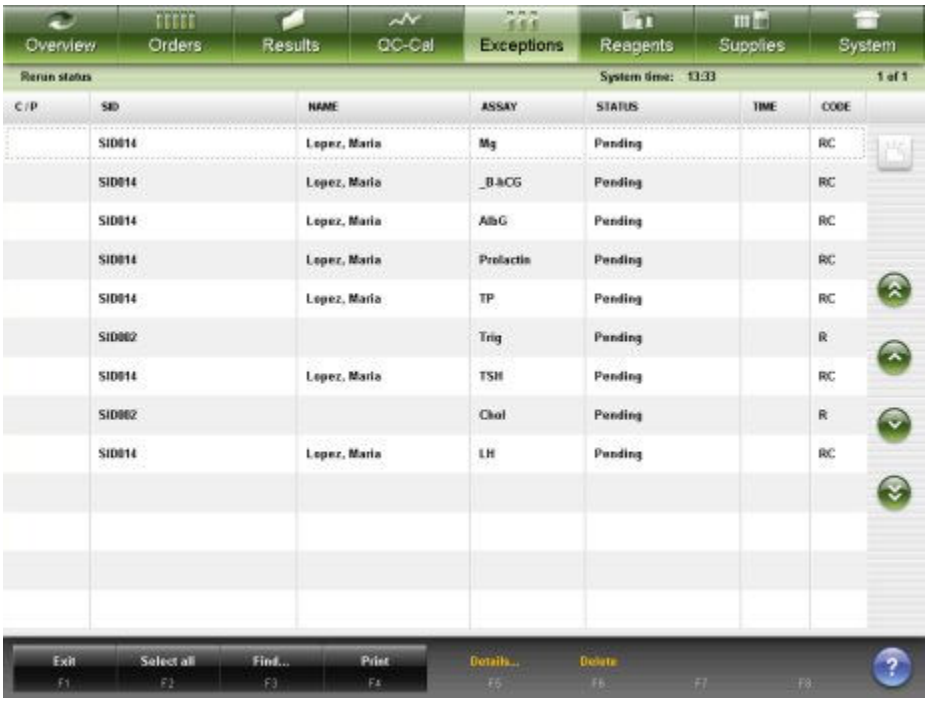
- Assay name, status, and time of completion
- Processing codes

You can also access windows to:

- Find information for specific reruns based on specified search criteria
- Print the Rerun list report
- View detailed rerun information
- Add a comment to a rerun
- Delete a test scheduled for rerun

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

Figure 5.88: Rerun status screen



For descriptions of these fields, see *Rerun status screen field descriptions*, page E-114.

When accessing the Rerun status screen the information sorts by completion time, first to last to complete. Reruns with no completion time sort to the bottom.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position

Column	Sort description
	• CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
TIME	Last to first to complete.
STATUS and CODE	See *Descriptions of test statuses*, page 5-224 and *Descriptions of processing codes*, page 5-225.

To display this screen, see *Access the Rerun status screen*, page 5-333.

Related procedures…

- *View the status of tests scheduled for rerun*, page 5-334
- *Find a specific test order*, page 5-226
- *Print a report*, page 5-403
- *View order or rerun status details*, page 5-227
- *Add a comment to an order*, page 5-228
- *Delete a test from a rerun order*, page 5-334

Access the Rerun status screen

Perform this procedure to display the Rerun status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Rerun status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Reruns status** button.

Select **Exceptions** from the menu bar, and then select **Rerun status**.

The Rerun status screen displays.

Related information…

- *Snapshot screen*, page 1-22
- *Rerun status screen*, page 5-331
- *Descriptions of processing codes*, page 5-225
- *Descriptions of test statuses*, page 5-224

Procedures - Rerun status screen

Procedures you can perform from the Rerun status screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Find a specific test order*, page 5-226
- *View order or rerun status details*, page 5-227
- *Add a comment to an order*, page 5-228

Procedures in this sub-section include:

- *View the status of tests scheduled for rerun*, page 5-334
- *Delete a test from a rerun order*, page 5-334

View the status of tests scheduled for rerun

Perform this procedure to access the Rerun status screen. From this screen you can view information for the tests scheduled for rerun and delete a rerun. These tests are ordered by the operator or created automatically by the system and display until the rerun is complete.

NOTE: Tests scheduled for rerun also display on the Order status and Sample status screens.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view the status of tests scheduled for rerun:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Reruns status** button.

Select **Exceptions** from the menu bar, and then select **Rerun status**.

The Rerun status screen displays.

Related information…

- *Snapshot screen*, page 1-22
- *Rerun status screen*, page 5-331
- *Descriptions of processing codes*, page 5-225
- *Descriptions of test statuses*, page 5-224

Delete a test from a rerun order

Perform this procedure to delete a test(s) that no longer needs to be rerun.

Prerequisite	*Access the Rerun status screen*, page 5-333 Rerun order status - Pending
Module status	Any
User access level	General operator
Supplies	NA

To delete a test from a rerun order:

1. Select the desired test(s) from the table on the Rerun status screen, or select **F2 - Select all**.
2. Select **F6 - Delete**.

   A confirmation message displays.
3. Select **OK** to delete the test(s).

Related information…

- *Rerun status screen*, page 5-331

Patient and QC stored results

This subsection describes how to view and archive patient and QC results that have been released.

Patient and QC stored results topics include:

Patient stored results

Patient results that have been released remain in stored results until you archive or delete them, or system capacity is reached. See *System capacities*, page 4-6.

Patient stored results topics include:

Stored results screen

From the Stored results screen you can view information for released patient results, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name and result
- Flags and codes

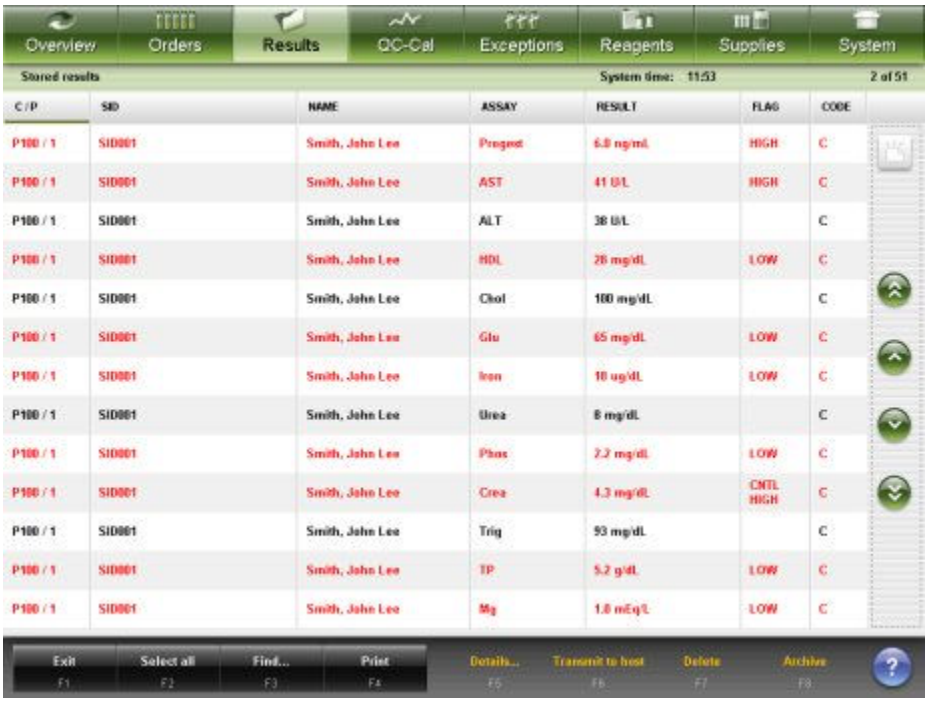
You can also retransmit, archive, or delete a stored result and access windows to:

- Find information for specific stored results based on specified search criteria
- Print the Absorbance Data report, Patient report, Result Details report, Results List report, and the Sample report
- View detailed information for stored results

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For results that have not been released, see *Results review screen*, page 5-297.

Figure 5.89: Stored results screen



For descriptions of these fields, see *Stored results screen field descriptions*, page E-57.

When accessing the Stored results screen the information sorts by time the result was generated from the most recent to the oldest result.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
RESULT	Based on interpretation.
FLAG and CODE	See *Descriptions of patient result flags*, page 5-299 and *Descriptions of processing codes*, page 5-225.

To display this screen, see *Access the Stored results screen*, page 5-338.

Related procedures...

- *View all stored patient results*, page 5-338

- *Find a specific stored patient result*, page 5-339
- *Print a report*, page 5-403
- *View stored patient results details*, page 5-340
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Retransmit a stored patient result to the host*, page 5-341
- *Delete a stored patient result*, page 5-341
- *Archive stored patient results*, page 5-342
- *Cancel pending transmission*, page 5-417

Access the Stored results screen

Perform this procedure to display the Stored results screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Stored results screen:

Select **Results** from the menu bar, and then select **Stored results**.

The Stored results screen displays.

Related information...

- *Stored results screen*, page 5-336
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

Procedures - Stored results screen

Procedures you can perform from the Stored results screen and its related windows include:

- *View all stored patient results*, page 5-338
- *Find a specific stored patient result*, page 5-339
- *View stored patient results details*, page 5-340
- *Retransmit a stored patient result to the host*, page 5-341
- *Delete a stored patient result*, page 5-341
- *Archive stored patient results*, page 5-342
- *Descriptions of archive messages*, page 5-343

View all stored patient results

Perform this procedure to display the Stored results screen. From this screen you can view information on released patient results.

To view information for unreleased patient results, see *View all patient results*, page 5-301.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all stored patient results:

Select **Results** on the menu bar, and then select **Stored results**.

The Stored results screen displays.

Related information...

- *Stored results screen*, page 5-336
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

Find a specific stored patient result

Perform this procedure to search for specific released patient results by entering your search criteria in one or more fields.

Prerequisite	*Access the Stored results screen*, page 5-338
Module status	Any
User access level	General operator
Supplies	NA

To find a specific stored patient result:

1. Select **F3 - Find** on the Stored results screen.

   The Find options (Stored results) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

   A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (P).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Stored results screen displays with the text "Search results:" in the title bar.

NOTE: Select the **refresh** button to display all records.

Related information...

- *Stored results screen*, page 5-336
- *Find options (Stored results) window*, page 5-344
- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

View stored patient results details

Perform this procedure to display the Stored results screen. From this screen you can view details for released patient results.

To view the assay reaction graph and absorbance data for patient results, see *View the reaction graph and absorbance data for a result (c System)*, page 5-304.

To view details for unreleased patient results, see *View patient result details*, page 5-302.

Prerequisite	*Access the Stored results screen*, page 5-338
Module status	Any
User access level	General operator
Supplies	NA

To view stored patient results details:

1. Select the desired result(s) from the table on the Stored results screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for result (Stored results) window displays.
3. Use the **previous**/**next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the Stored results screen.

Related information...

- *Stored results screen*, page 5-336
- *Details for result (Stored results) window - calculated view*, page 5-345
- *Details for result (Stored results) window - data view (c System)*, page 5-346
- *Details for result (Stored results) window - photometric - graph view (c System)*, page 5-347
- *Details for result (Stored results) window - sample interference index view (c System)*, page 5-348
- *Details for result (Stored results) window (i System)*, page 5-349

- *Descriptions of patient result flags*, page 5-299
- *Descriptions of processing codes*, page 5-225

Retransmit a stored patient result to the host

Perform this procedure to retransmit a released patient result(s) to the host.

Prerequisite	*Access the Stored results screen*, page 5-338 Must be configured for bidirectional host communications. See *Configure host interface settings*, page 2-6.
Module status	Any
User access level	General operator
Supplies	NA

To retransmit a stored patient result to the host:

1. Select the desired patient result(s) from the table on the Stored results screen, or select **F2 - Select all**.

   NOTE: No more than 10,000 records can be transmitted (pending transmission and new selections) at once.

2. Select **F6 - Transmit to Host**.

   A confirmation message displays.

3. Select **OK** to transmit the result(s).

To cancel a transmission to the host computer, see *Cancel pending transmission*, page 5-417.

Related information...

- *Stored results screen*, page 5-336

Delete a stored patient result

Perform this procedure to delete a released patient result(s) that is no longer needed on the system.

Prerequisite	*Access the Stored results screen*, page 5-338 Result is not pending transmission or pending collation
Module status	Any
User access level	General operator
Supplies	NA

To delete a stored patient result:

1. Select the desired patient result(s) from the table on the Stored results screen, or select **F2 - Select all**.

NOTE: Results with a status of pending transmission or pending collation cannot be deleted. Wait until the results have been transmitted or all results have been released before deleting them.

2. Select **F7 - Delete**.

   A confirmation message displays.

3. Select **OK** to delete the result(s).

Related information…

- *Stored results screen*, page 5-336

Archive stored patient results

Perform this procedure to store released patient results on a CD to create a backup for long-term storage.

NOTE: The results are archived in a delimited ASCII format so you can import them into a spreadsheet. You cannot use the ARCHITECT System to retrieve the information.

Prerequisite	*Access the Stored results screen*, page 5-338
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	• CD-R (compact disk recordable) or • Unformatted CD-RW (compact disk Recordable/ ReWritable)

To archive stored patient results:

1. Disable the screen timeout if the database is full and you are archiving a large amount of data. See *Change the screen timeout setting*, page 2-22. ***(optional)***
2. Insert a CD-R or CD-RW into the CD drive.

   NOTE: If an archive message displays, see *Descriptions of archive messages*, page 5-343.

3. Select the desired patient result(s) from the table on the Stored results screen, or select **F2 - Select all**.

   NOTE: You can also select **F3 - Find** to search for and select results. See *Find a specific stored patient result*, page 5-339.

4. Select **F8 - Archive**.

   The Archive results window displays.

5. Verify the CD drive read indicator light is off.
6. Deselect **Delete records after archive** check box. ***(optional)***

   NOTE: If you choose to delete results, results with a status of Pending transmission or Pending collation are not deleted.

7. Select **Done** to archive the results.

   NOTE: An archive routinely takes less than four minutes, but with a full database it may take longer. You can cancel an archive when the system is collecting archive data and creating a temporary archive data file. A progress indicator displays with a Cancel button. You can cancel an archive prior to it being 50% complete.

   Do not navigate to a different screen or window until the "0519 Data Archive Complete" message displays.

8. Select the **refresh** button, if available, to display all records.

Related information...

- *Stored results screen*, page 5-336
- *Archive results window*, page 5-350

Descriptions of archive messages

The following table lists the archive messages and their meanings.

Table 5.15: Descriptions of archive messages

Message	Description
Insufficient disk space for archive	The disk does not have enough space to archive the requested record. See error code 0180. **NOTE:** A minimum of 40 megabytes of disk space is required to initiate an archive.
No disk or incorrect disk type detected	• You did not place a disk in the CD drive. • You used an incorrect disk type. • You inserted the disk upside down. • The archive disk is not a Recordable/ ReWritable disk. See error code 0181.
No CD drive is detected	• A CD-RW drive is not installed on the SCC. • A cabling problem exists on the CD drive. • The CD drive had a hardware failure. See error code 0182.
CD drive is initializing	You selected the Done button before initialization is complete. See error code 0183.
The disk is read-only	The archive disk is not a Recordable/ ReWritable disk. See error code 0184.

Message	Description
	NOTE: A CD that has been previously used to write information other than archive information cannot be used to archive additional information.
Busy	The CD is in the process of reading, writing, or initializing. See error code 0185.

Windows - Stored results screen

Windows you can access from the Stored results screen include:

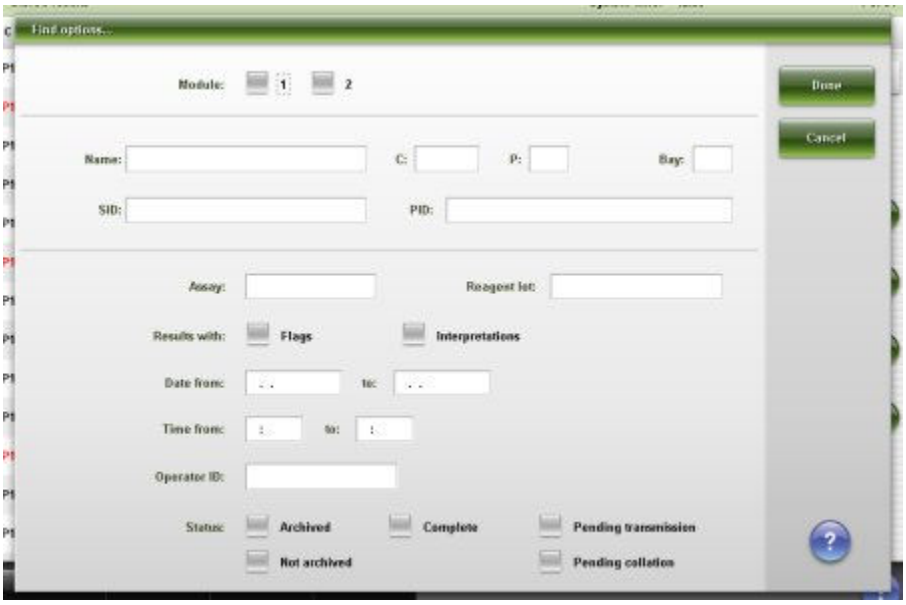
- *Find options (Stored results) window*, page 5-344
- *Details for result (Stored results) window - calculated view*, page 5-345
- *Details for result (Stored results) window - data view (c System)*, page 5-346
- *Details for result (Stored results) window - photometric - graph view (c System)*, page 5-347
- *Details for result (Stored results) window - sample interference index view (c System)*, page 5-348
- *Details for result (Stored results) window (i System)*, page 5-349
- *Archive results window*, page 5-350

Find options (Stored results) window

From the Find options (Stored results) window you can search for specific released patient results by entering your search criteria in one or more fields.

For patient results that have not been released, see *Find options (Results review) window*, page 5-309.

Figure 5.90: Find options (Stored results) window



For descriptions of these fields, see *Find options (Stored results) window field descriptions*, page E-57.

Related procedures...

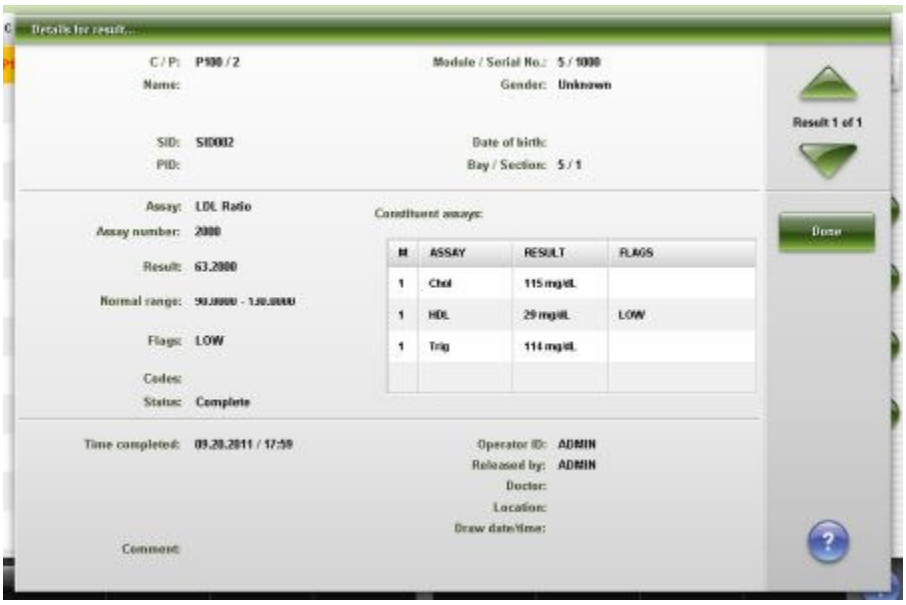
- *Find a specific stored patient result*, page 5-339

Details for result (Stored results) window - calculated view

From the calculated view of the Details for result (Stored results) window you can view detailed information for released patient results.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.91: Details for result (Stored results) window - calculated view



For descriptions of these fields, see *Details for result (Stored results) window - Calculated view field descriptions*, page E-59.

Related procedures…

- *View stored patient results details*, page 5-340

Details for result (Stored results) window - data view (*c* System)

From the data view of the Details for result (Stored results) window you can view detailed information for released patient results. The information that displays depends on the assay type (photometric or potentiometric) for the result selected.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.92: Details for result (Stored results) window - data view (c System)

For descriptions of these fields, see *Details for result (Stored results) window - Data view (c System) field descriptions*, page E-61.

Related procedures...

- *View stored patient results details*, page 5-340
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for result (Stored results) window - photometric - graph view (*c* System)

From the photometric - graph view of the Details for result (Stored results) window you can view the assay reaction graph and associated absorbance data for released patient results.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.93: Details for result (Stored results) window - photometric - graph view (c System)

For descriptions of these fields, see *Details for result (Stored results) window - Photometric - graph view (c System) field descriptions*, page E-63.

Related procedures...

- *View stored patient results details*, page 5-340
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for result (Stored results) window - sample interference index view (*c* System)

From the sample interference index view of the Details for result (Stored results) window you can view detailed information for released patient results.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.94: Details for result (Stored results) window - sample interference index view (c System)

For descriptions of these fields, see *Details for result (Stored results) window - Sample interference index view (c System) field descriptions*, page E-64.

Related procedures…

- *View stored patient results details*, page 5-340

Details for result (Stored results) window (*i* System)

From the Details for result (Stored results) window (*i* System) you can view detailed information for released patient results.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.95: Details for result (Stored results) window (i System)

For descriptions of these fields, see *Details for result (Stored results) window (i System) field descriptions*, page E-66.

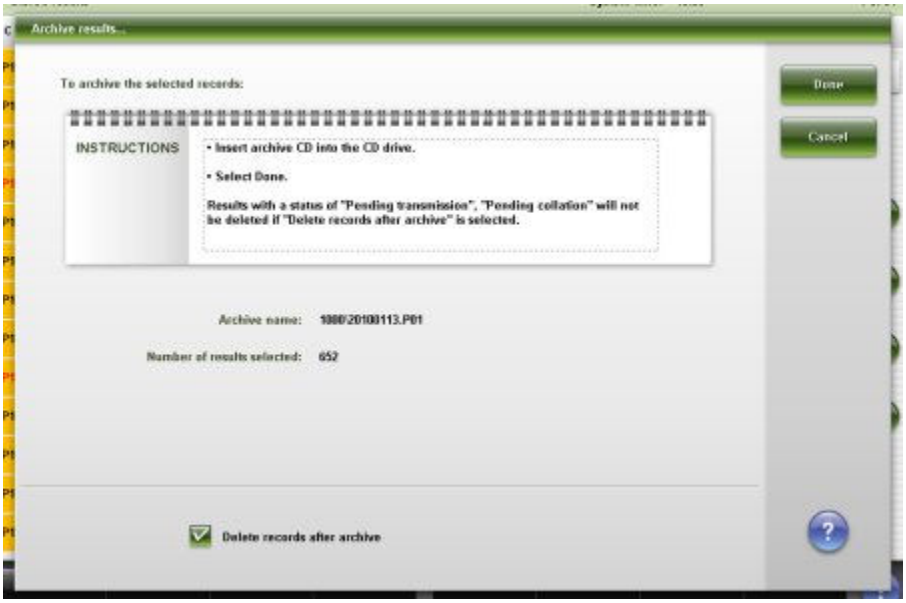
Related procedures...

- *View stored patient results details*, page 5-340

Archive results window

From the Archive results window you can archive released patient results to a CD.

Figure 5.96: Archive results window



For descriptions of these fields, see *Archive results window field descriptions*, page E-67.

Related procedures…

- *Archive stored patient results*, page 5-342

Stored QC results

QC results that have been released remain in stored results until you archive and delete them.

Stored QC results topics include:

- *Stored QC results screen*, page 5-351
- *Procedures - Stored QC results screen*, page 5-353
- *Windows - Stored QC results screen*, page 5-358

Stored QC results screen

From the Stored QC results screen you can view information for released control results, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Control name, level, and identification number
- Assay name and result
- Flags

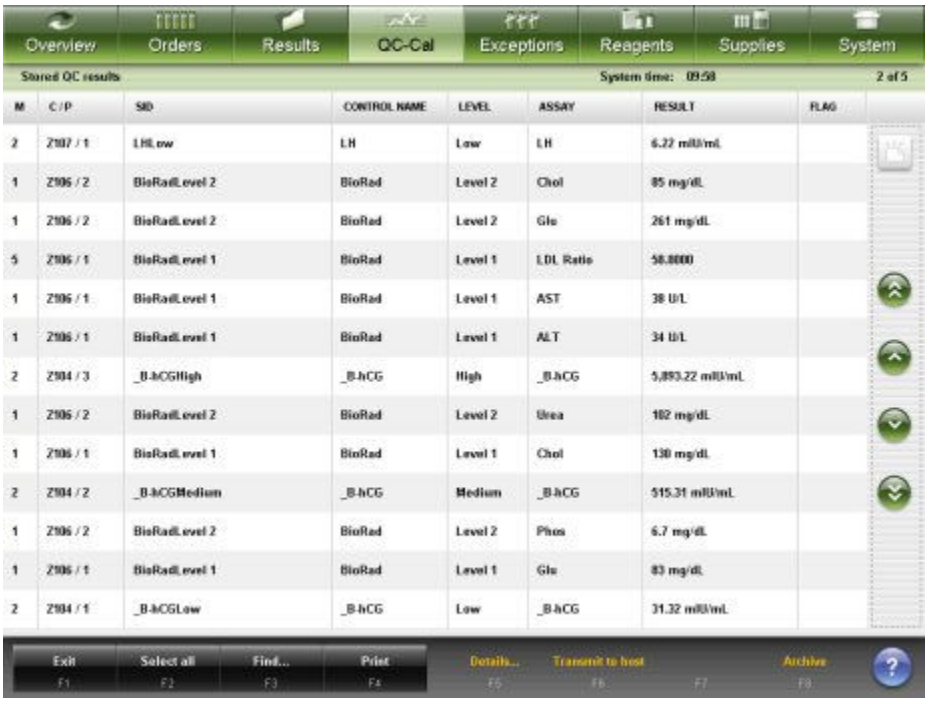
You can also retransmit or archive a stored control result and access windows to:

- Find information for specific tests based on specified search criteria
- Print the Absorbance Data report, QC Result Details report, and QC Results List report
- View detailed stored control result information

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

For control results that have not been released, see *QC result review screen*, page 5-316.

Figure 5.97: Stored QC results screen



For descriptions of these fields, see *Stored QC results screen field descriptions*, page E-91.

When accessing the Stored QC results screen the information sorts by time the result was generated from the most recent to the oldest result.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • No carrier or carousel/position
M	Numerically in ascending order.
SID, CONTROL NAME, LEVEL, and ASSAY	Alphanumerically in ascending order.
RESULT	This column does not sort.
FLAG	See *Descriptions of quality control result flags*, page 5-318.

To display this screen, see *Access the Stored QC results screen*, page 5-353.

Related procedures…

- *View all stored control results*, page 5-354

- *Find a specific stored control result*, page 5-354
- *Print a report*, page 5-403
- *View stored control result details*, page 5-355
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Retransmit a stored control result*, page 5-356
- *Cancel pending transmission*, page 5-417
- *Archive stored control results*, page 5-356

Access the Stored QC results screen

Perform this procedure to display the Stored QC results screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Stored QC results screen:

Select **QC - Cal** from the menu bar, and then select **Stored QC results**.

The Stored QC results screen displays.

Related information…

- *Stored QC results screen*, page 5-351
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225

Procedures - Stored QC results screen

Procedures you can perform from the Stored QC results screen and its related windows are listed below.

Procedures not in this sub-section include:

- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Procedures in this sub-section include:

- *View all stored control results*, page 5-354
- *Find a specific stored control result*, page 5-354
- *View stored control result details*, page 5-355
- *Retransmit a stored control result*, page 5-356
- *Archive stored control results*, page 5-356

View all stored control results

Perform this procedure to display the Stored QC results screen. From this screen you can view information for released control results.

To view information for unreleased control results, see *View all control results*, page 5-320.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view all stored control results:

Select **QC - Cal** icon from the menu bar, and then select **Stored QC results**.

The Stored QC results screen displays.

Related information...

- *Stored QC results screen*, page 5-351
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225
- *Westgard rule descriptions*, page 5-383

Find a specific stored control result

Perform this procedure to search for specific released control results by entering your search criteria in one or more fields.

Prerequisite	*Access the Stored QC results screen*, page 5-353
Module status	Any
User access level	General operator
Supplies	NA

To find a specific stored control result:

1. Select **F3 - Find** on the Stored QC results screen.

   The Find options (Stored QC results) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: Do not enter multiple dates when searching for a specific time interval.

   A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all fields except position (p).

Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, and 12347.

3. Select **Done** to initiate the search.

   The Stored QC results screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *Stored QC results screen*, page 5-351
- *Find options (Stored QC results) window*, page 5-358
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225
- *Westgard rule descriptions*, page 5-383

View stored control result details

Perform this procedure to display the Details for QC result (Stored QC results) window. From this screen you can view details for released control results and add comments.

To view the assay reaction graph and absorbance data for control results, see *View the reaction graph and absorbance data for a result (c System)*, page 5-304.

To view details for unreleased control results, see *View control result details*, page 5-321.

Prerequisite	*Access the Stored QC results screen*, page 5-353
Module status	Any
User access level	General operator
Supplies	NA

To view stored control result details:

1. Select the desired result(s) from the table on the Stored QC results screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC result (Stored QC results) window displays.
3. Use the **previous**/**next** buttons to display each result if you selected more than one. ***(optional)***
4. Select **Done** to return to the Stored QC results screen.

Related information...

- *Stored QC results screen*, page 5-351

- *Details for QC result (Stored QC results) window - data view (c System)*, page 5-359
- *Details for QC result (Stored QC results) window - photometric - graph view (c System)*, page 5-359
- *Details for QC result (Stored QC results) window (i System)*, page 5-360
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225

Retransmit a stored control result

Perform this procedure to retransmit a released control result(s) to the host.

Prerequisite	*Access the Stored QC results screen*, page 5-353 Must be configured for bidirectional host communications. See *Configure host interface settings*, page 2-6.
Module status	Any
User access level	General operator
Supplies	NA

To retransmit a stored control result to the host:

1. Select the desired control result(s) from the table on the Stored QC results screen, or select **F2 - Select all**.

   NOTE: No more than 10,000 records can be transmitted (pending transmission and new selections) at once.

2. Select **F6 - Transmit to Host**.

   A confirmation message displays.

3. Select **OK** to transmit the result(s).

To cancel a transmission to the host computer, see *Cancel pending transmission*, page 5-417.

Related information…

- *Stored QC results screen*, page 5-351

Archive stored control results

Perform this procedure to store released control results on a CD to create a backup for long-term storage.

NOTE: The results are archived in a delimited ASCII format so you can import them into a spreadsheet. You cannot use the ARCHITECT System to retrieve the information.

Prerequisite	*Access the Stored QC results screen*, page 5-353
Module status	Stopped, Warming, or Ready

User access level	General operator
Supplies	• CD-R (compact disk recordable) or • Unformatted CD-RW (compact disk read/write)

To archive stored control results:

1. Disable the screen timeout if the database is full and you are archiving a large amount of data. See *Change the screen timeout setting*, page 2-22. ***(optional)***
2. Insert a CD-R or CD-RW into the CD drive.

   NOTE: If an archive message displays, see *Descriptions of archive messages*, page 5-343.
3. Select the desired control results from the table on the Stored QC results screen, or select **F2 - Select all**.

   NOTE: You can also select **F3 - Find** to search for and select results. See *Find a specific stored control result*, page 5-354.
4. Select **F8-Archive**.

   The Archive QC results window displays.
5. Verify the CD drive read indicator light is off.
6. Deselect **Delete records after archive** check box. ***(optional)***

   NOTE: If you delete QC results, the result values continue to be used in the cumulative module or system data. However, deleted QC results are deleted from the current Westgard analysis. Before deleting QC results, verify that all results you do not want included in the cumulative data have been excluded. See *Exclude or include a Levey-Jennings point*, page 5-390. Once the archive is complete and the QC results have been deleted, you cannot access the result to exclude it.

   Deleting out of range QC results will not remove the CNTL flag from patient results. Before deleting, verify all QC results are within acceptable limits.

   If you choose to delete results, results with a status of Pending transmission or Pending collation are not deleted.
7. Select **Done** to archive the results.

   NOTE: An archive routinely takes less than four minutes, but with a full database it may take longer. You can cancel an archive when the system is collecting archive data and creating a temporary archive data file. A progress indicator displays with a Cancel button. You can cancel an archive prior to it being 50% complete. Do not navigate to a different screen or window until the "0519 Data Archive Complete" message displays.
8. Select the **refresh** button, if available, to display all records.

Related information…

- *Stored QC results screen*, page 5-351
- *Archive QC results window*, page 5-362

Windows - Stored QC results screen

Windows you can access from the Stored QC results screen include:

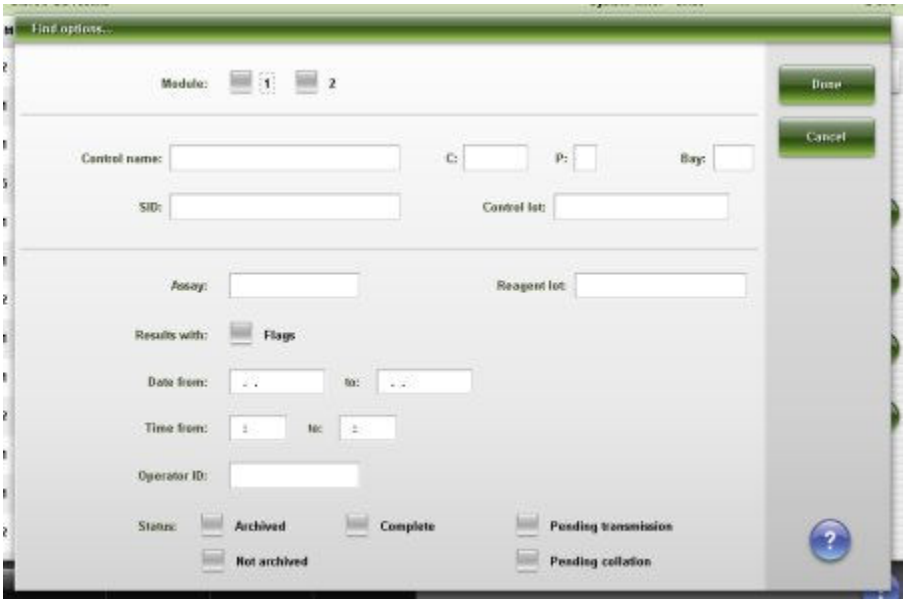
- *Find options (Stored QC results) window*, page 5-358
- *Details for QC result (Stored QC results) window - data view (c System)*, page 5-359
- *Details for QC result (Stored QC results) window - photometric - graph view (c System)*, page 5-359
- *Details for QC result (Stored QC results) window (i System)*, page 5-360
- *Details for QC result (Stored QC results) window - calculated view*, page 5-361
- *Archive QC results window*, page 5-362

Find options (Stored QC results) window

From the Find options (Stored QC results) window you can search for specific released control results by entering your search criteria in one or more fields. The information that displays depends on the assay type (photometric or potentiometric) for the result selected.

For unreleased control results, see *Find options (QC result review) window*, page 5-326.

Figure 5.98: Find options (Stored QC results) window



For descriptions of these fields, see *Find options (Stored QC results) window field descriptions*, page E-92.

Related procedures…

- *Find a specific stored control result*, page 5-354

Details for QC result (Stored QC results) window - data view (*c* System)

From the data view of the Details for QC result (Stored QC results) window you can view detailed information for released control results. The information that displays depends on the assay type (photometric or potentiometric) for the result selected.

Figure 5.99: Details for QC result (Stored QC results) window - data view (c System)

For descriptions of these fields, see *Details for QC result (Stored QC results) window - Data view (c System) field descriptions*, page E-93.

Related procedures…

- *View stored control result details*, page 5-355
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for QC result (Stored QC results) window - photometric - graph view (*c* System)

From the photometric - graph view of the Details for QC result (Stored QC results) window you can view the assay reaction graph and associated absorbance data for released control results.

Figure 5.100: Details for QC result (Stored QC results) window - photometric - graph view (c System)

For descriptions of these fields, see *Details for QC result (Stored QC results) window - Photometric - graph view (c System) field descriptions*, page E-95.

Related procedures...

- *View stored control result details*, page 5-355
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for QC result (Stored QC results) window (*i* System)

From the *i* System view of the Details for QC result (Stored QC results) window you can view detailed information for released control results.

Figure 5.101: Details for QC result (Stored QC results) window (i System)

For descriptions of these fields, see *Details for QC result (Stored QC results) window (i System) field descriptions*, page E-96.

Related procedures...

- *View stored control result details*, page 5-355

Details for QC result (Stored QC results) window - calculated view

From the calculated view of the Details for QC result (Stored QC results) window you can view detailed information for released control results.

Figure 5.102: Details for QC result (Stored QC results) window - calculated view

For descriptions of these fields, see *Details for QC result (Stored QC results) window - Calculated view field descriptions*, page E-98.

Related procedures…

- *View stored control result details*, page 5-355

Archive QC results window

From the Archive QC results window you can archive released control results to a CD.

Figure 5.103: Archive QC results window

For descriptions of these fields, see *Archive QC results window field descriptions*, page E-99.

Related procedures...

- *Archive stored control results*, page 5-356

Exception management

An exception is a test order that failed to complete. Results are not reported and operator intervention is required. You use the Exception status screen to review and manage exceptions.

When an exception(s) occurs:

- The Exceptions status button displays on the Snapshot screen and indicates the number of exceptions. You can select this button to display the Exception status screen.
- The Exceptions icon on the menu bar blinks to indicate new exceptions exist. You can select this icon, and then Exception status, to display the Exception status screen.

Exception management topics include:

Exception status screen

From the Exception status screen you can view information for patient, control, and calibration exceptions, which includes:

- Sample location, identified by sample carrier ID/position, carousel ID/position, or LAS
- Sample name and identification number
- Assay name
- Error code
- Module identifier

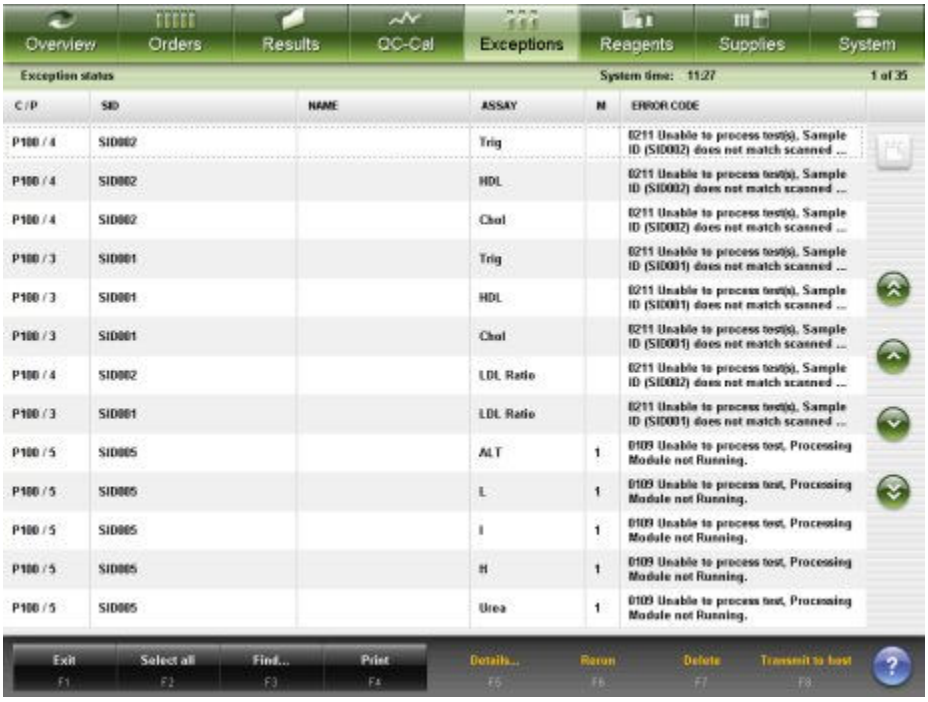
You can also transmit an exception to the host, delete an exception, and access windows to:

- Find information for specific exceptions based on specified search criteria
- Print the Exception Details, Exception Status, and Absorbance Data reports
- View detailed information for exceptions
- View probable causes and corrective actions for the error code
- Add a comment to an exception
- Rerun an exception

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.104: Exception status screen



For descriptions of these fields, see *Exception status screen field descriptions*, page E-103.

When accessing the Exception status screen the information sorts by time the exception was generated from the most recent to the oldest exception.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0 • No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
M	Numerically in ascending order.
ERROR CODE	Numerically in ascending order.

To display this screen, see *Access the Exception status screen*, page 5-366.

Related procedures…

- *View all exceptions*, page 5-367
- *Find a specific exception*, page 5-367
- *Print a report*, page 5-403
- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Rerun a patient test*, page 5-305
- *Rerun a QC test*, page 5-323
- *Transmit an exception to the host*, page 5-369
- *Delete an exception*, page 5-370

Access the Exception status screen

Perform this procedure to display the Exception status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Exception status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Exceptions status** button.

Select **Exceptions** from the menu bar, and then select **Exception status**.

The Exception status screen displays.

Related information…

- *Snapshot screen*, page 1-22
- *Exception status screen*, page 5-364

Procedures - Exception status screen

Procedures you can perform from the Exception status screen are listed below.

Procedures not in this sub-section include:

- *Rerun a patient test*, page 5-305
- *Rerun a QC test*, page 5-323

Procedures in this sub-section include:

- *View all exceptions*, page 5-367

- *Find a specific exception*, page 5-367
- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369
- *Transmit an exception to the host*, page 5-369
- *Delete an exception*, page 5-370

View all exceptions

Perform this procedure to display the Exception status screen. From this screen you can view a list of all tests that have failed to complete.

To find specific exceptions, see *Find a specific exception*, page 5-367.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

NOTE: You may also access this screen from the Snapshot screen by selecting the **Exceptions status** button.

To view all exceptions:

Select **Exceptions** from the menu bar, and then select **Exception status**.

The Exception status screen displays.

Related information...

- *Snapshot screen*, page 1-22
- *Exception status screen*, page 5-364

Find a specific exception

Perform this procedure to search for a specific exception(s) by entering your search criteria in one or more fields.

Prerequisite	*Access the Exception status screen*, page 5-366 or *Stored exceptions screen*, page 5-378
Module status	Any
User access level	General operator
Supplies	NA

To find a specific exception:

1. Select **F3 - Find** on the Exception status or Stored exceptions screen.

   The Find options (Exception status) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

3. Select **Done** to initiate the search.

   The Exception status or Stored exceptions screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information…

- *Exception status screen*, page 5-364
- *Stored exceptions screen*, page 5-378
- *Find options (Exception status/Stored exceptions) window*, page 5-371

View exception details

Perform this procedure to display the Details for exceptions window. From this window you can view detailed information for exceptions that you can use in troubleshooting.

Prerequisite	*Exception status screen*, page 5-364 or *Stored exceptions screen*, page 5-378
Module status	Any
User access level	General operator
Supplies	NA

To view exception details:

1. Select the desired exception(s) from the table on the Exception status or Stored exceptions screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for exceptions window displays.
3. Use the **previous**/**next** buttons to display each exception if you selected more than one. ***(optional)***
4. Select **Done** to return to the Exception status or Stored exceptions screen.

Related information…

- *Exception status screen*, page 5-364
- *Stored exceptions screen*, page 5-378
- *Details for exceptions window - calculated view*, page 5-374
- *Details for exceptions window - data view (c System)*, page 5-371
- *Details for exceptions window - photometric - graph view (c System)*, page 5-372
- *Details for exceptions window (i System)*, page 5-373
- *Details for exceptions window - control view*, page 5-375
- *Details for exceptions window - calibrator view*, page 5-377

Add a comment to an exception

Perform this procedure to add a comment to an exception(s).

Prerequisite	*Access the Exception status screen*, page 5-366
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to an exception:

1. Select the desired exception(s) from the table on the Exception status screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for exceptions window displays.
3. Enter a comment in the **Comment** data entry box.

   NOTE: Comments are associated with a test and display and/or print with the test. Sample comments also display if entered.

   Exception comments are not transmitted to the host.
4. Use the **previous**/**next** buttons to display each exception if you selected more than one, and then enter a comment for each. ***(optional)***
5. Select **Done** to save your changes.

Related information...

- *Exception status screen*, page 5-364
- *Details for exceptions window - calculated view*, page 5-374
- *Details for exceptions window - data view (c System)*, page 5-371
- *Details for exceptions window - photometric - graph view (c System)*, page 5-372
- *Details for exceptions window (i System)*, page 5-373
- *Details for exceptions window - control view*, page 5-375

Transmit an exception to the host

Perform this procedure to transmit a control or patient exception(s) to the host when exceptions are managed on a host system.

Prerequisite	*Access the Exception status screen*, page 5-366 Must be configured for bidirectional host communications. See *Configure host interface settings*, page 2-6.
Module status	Any
User access level	General operator
Supplies	NA

To transmit an exception to the host:

1. Select the desired exception(s) from the table on the Exception status screen, or select **F2 - Select all**.

   NOTE: No more than 10,000 records can be transmitted (pending transmission and new selections) at once.

2. Select **F8 - Transmit to Host** to transmit the exceptions.

   Once the transmission completes, the exception(s) no longer displays on the Exception status screen. Exceptions transmitted to the host may be viewed on the Stored exceptions screen.

To cancel the exception transmission, see *Cancel pending transmission*, page 5-417.

Related information…

- *Exception status screen*, page 5-364

Delete an exception

Perform this procedure to delete an exception(s) that is no longer needed for troubleshooting.

Prerequisite	*Access the Exception status screen*, page 5-366 or *Stored exceptions screen*, page 5-378
Module status	Any
User access level	General operator
Supplies	NA

To delete an exception:

1. Select the desired exception(s) from the table on the Exception status or Stored exceptions screen, or select **F2 - Select all**.
2. Select **F7 - Delete**.

   A confirmation message displays.

3. Select **OK** to delete the exception(s).

   NOTE: Exceptions that are pending transmission or pending collation are not deleted until transmission completes.

Related information…

- *Exception status screen*, page 5-364
- *Stored exceptions screen*, page 5-378

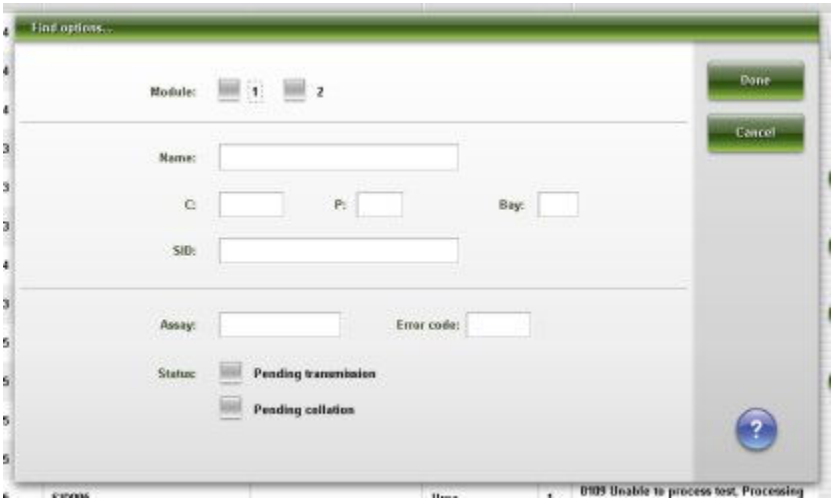
Windows - Exception status screen

Windows you can access from the Exception status screen include:

Find options (Exception status/Stored exceptions) window

From the Find options (Exception status/Stored exceptions) window you can search for specific exceptions by entering your search criteria in one or more fields.

Figure 5.105: Find options (Exception status/Stored exceptions) window



For descriptions of these fields, see *Find options (Exception status/Stored exceptions) window field descriptions*, page E-103.

Related procedures…

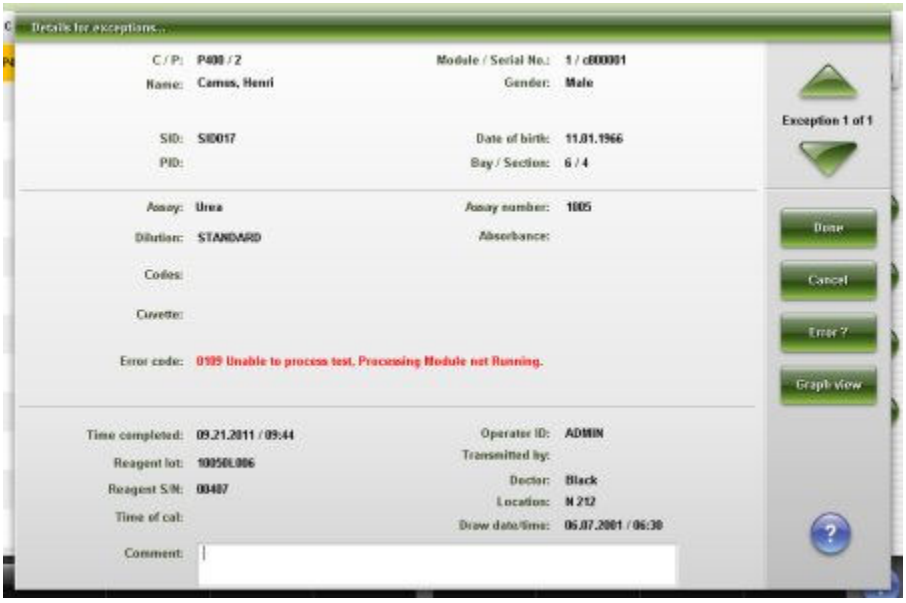
- *Find a specific exception*, page 5-367

Details for exceptions window - data view (*c* System)

From the data view of the Details for exceptions window you can view detailed information for exceptions and add comments. The information that displays depends on the assay type (photometric, potentiometric, or sample interference index) for the exception selected.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.106: Details for exceptions window - data view (c System)



For descriptions of these fields, see *Details for exceptions window - Data view (c System) field descriptions*, page E-104.

Related procedures...

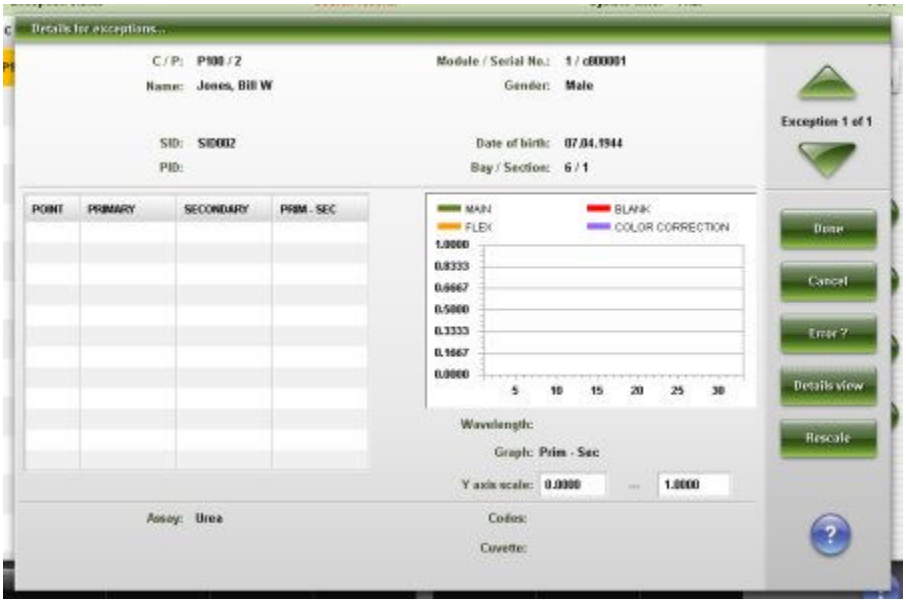
- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for exceptions window - photometric - graph view (*c* System)

From the photometric - graph view of the Details for exceptions window you can view the assay reaction graph and associated absorbance data for results. This view is not available for tests that are unable to complete all photometric measurements.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.107: Details for exceptions window - photometric - graph view (c System)



For descriptions of these fields, see *Details for exceptions window - Photometric - graph view (c System) field descriptions*, page E-106.

Related procedures...

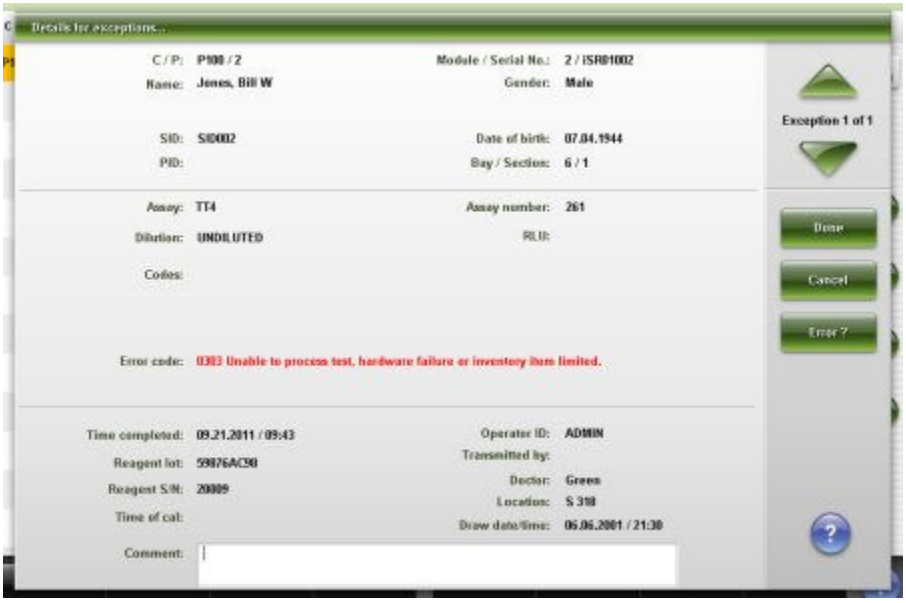
- *View exception details*, page 5-368
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304

Details for exceptions window (*i* System)

From the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.108: Details for exceptions window (i System)



For descriptions of these fields, see *Details for exceptions window (i System) field descriptions*, page E-107.

Related procedures...

- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369

Details for exceptions window - calculated view

From the calculated view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.109: Details for exceptions window - calculated view

For descriptions of these fields, see *Details for exceptions window - Calculated view field descriptions*, page E-109.

Related procedures...

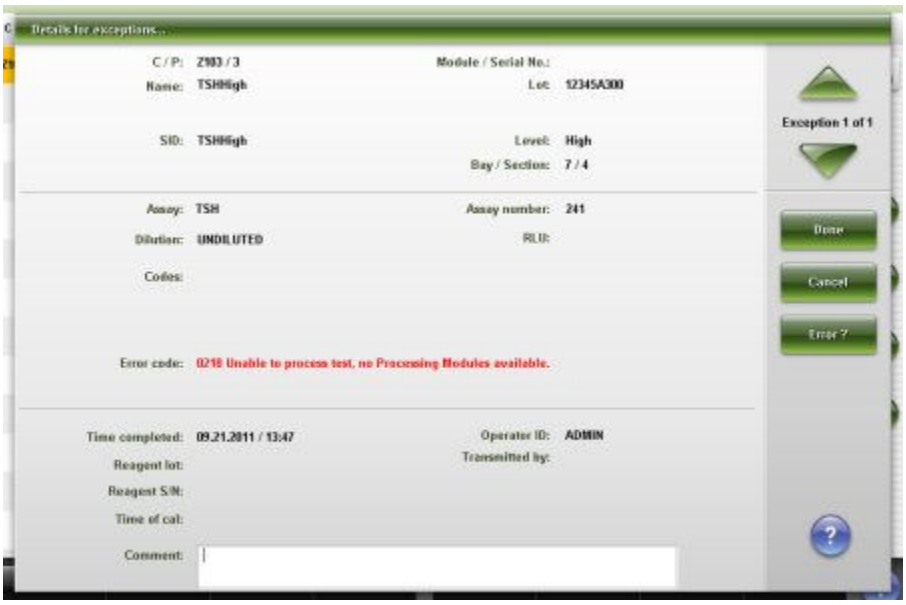
- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369

Details for exceptions window - control view

From the control view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.110: Details for exceptions window - control view



For descriptions of these fields, see *Details for exceptions window - Control view field descriptions*, page E-110.

Related procedures…

- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369

Details for exceptions window - calculated control view

From the calculated control view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status screen. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.111: Details for exceptions window - calculated control view

For descriptions of these fields, see *Details for exceptions window - Calculated control view field descriptions*, page E-112.

Related procedures...

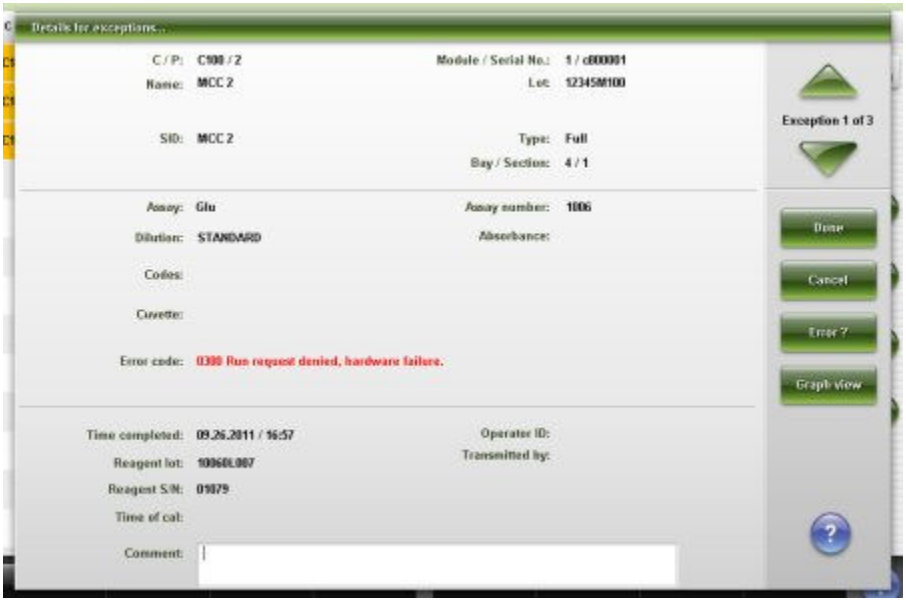
- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369

Details for exceptions window - calibrator view

From the calibrator view of the Details for exceptions window you can view detailed information for exceptions and add comments.

NOTE: The title of this window is Details... when you access it from the Sample status window. Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.112: Details for exceptions window - calibrator view



For descriptions of these fields, see *Details for exceptions window - Calibrator view field descriptions*, page E-113.

Related procedures...

- *View exception details*, page 5-368
- *Add a comment to an exception*, page 5-369

Stored exceptions screen

From the Stored exceptions screen you can view patient and control exceptions that:

- have been automatically transmitted to the host
- have been requested for rerun

The exceptions include:

- Sample location identified by sample carrier ID/position or LAS
- Sample name and identification number
- Assay name
- Error code
- Module identifier

The exceptions remain in the stored exceptions screen for 24 hours from the time the result is released and then are automatically deleted.

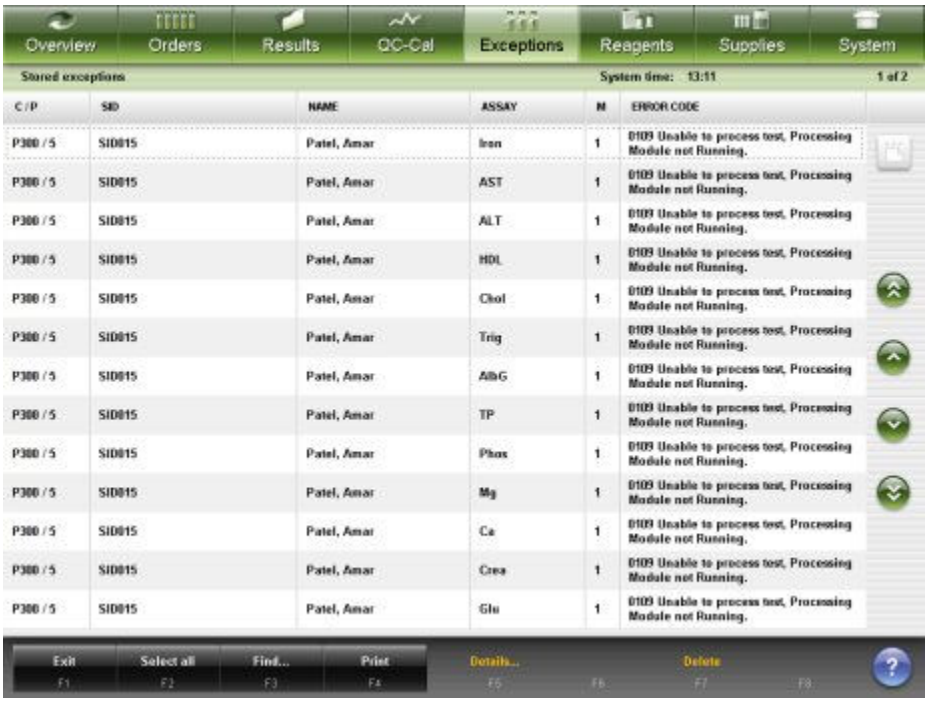
You can also delete an exception and access windows to:

- Find information for specific exceptions based on specified search criteria
- Print the Exception Details, Exception Status, and Absorbance Data reports
- View detailed information for exceptions
- View probable causes and corrective actions for the error code

An ellipsis (...) displays when the system cannot display all data on a screen or a window. View the details window to see all data.

NOTE: Some data fields may not display all data if the data you entered is maximum character length.

Figure 5.113: Stored exceptions screen



For descriptions of these fields, see *Stored exceptions screen field descriptions*, page E-115.

When accessing the Stored exceptions the information sorts by time the exception was generated from the most recent to the oldest exception.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
C/P	Alphanumerically in the following order: • Carrier/position • CRSL (carousel)/position • LAS • LAS carousel/position • WTR (water)/0

Column	Sort description
	• No carrier or carousel/position
SID, NAME, and ASSAY	Alphanumerically in ascending order.
M	Numerically in ascending order.
ERROR CODE	Numerically in ascending order.

To display this screen, see *Access the stored exceptions screen*, page 5-380.

Related procedures…

- *View stored exceptions*, page 5-381
- *Find a specific exception*, page 5-367
- *Print a report*, page 5-403
- *View exception details*, page 5-368
- *View the reaction graph and absorbance data for a result (c System)*, page 5-304
- *Delete an exception*, page 5-370

Access the stored exceptions screen

Perform this procedure to display the Stored exceptions screen.

Prerequisite	N/A
Module status	Any
User access level	General operator
Supplies	N/A

To access the Stored exceptions screen:

Select **Exceptions** from the menu bar, and then select **Stored exceptions**.

The Stored exceptions status screen displays.

Related information…

- *Snapshot screen*, page 1-22
- *Stored exceptions screen*, page 5-378

Procedures - Stored exceptions screen

Procedures you can perform from the Stored exceptions screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Find a specific exception*, page 5-367
- *View exception details*, page 5-368
- *Delete an exception*, page 5-370

Procedures in this sub-section include:

- *View stored exceptions*, page 5-381

View stored exceptions

Perform this procedure to display the Stored exceptions screen. From this screen you can view exceptions that have been automatically transmitted to the host and exceptions requested for rerun for patient and control exceptions.

To find specific exceptions, see *Find a specific exception*, page 5-367

Prerequisite	N/A
Module status	Any
User access level	General operator
Supplies	N/A

To view stored exceptions:

Select **Exceptions** from the menu bar, and then select Stored exceptions screen.

The Exception status screen displays.

Related information…

- *Stored exceptions screen*, page 5-378

Quality control analysis

Quality control analysis is the process of monitoring control activity. The ARCHITECT System allows you to monitor control activity using standard Levey-Jennings graphs, Westgard rules, control range tracking, and QC data summaries. Control data includes both unreleased and released results.

To help ensure quality results and maintain optimal system performance:

- Carefully follow all directions in the Operations Manual and the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
- Never use expired or contaminated consumables.
- Perform maintenance checks and calibration procedures as recommended. See *Maintenance*, page 9-2.

IMPORTANT: You must evaluate and resolve any control issues before running patient samples.

The system evaluates the controls on an assay per control lot basis.

For systems running non-premium software:

If a control fails on one or multiple reagent kits, the control failure on the kit(s) does not prevent the kit(s) from being used.

For systems running premium software:

If a control fails on one or multiple reagent kits, the control failure prevents the kit(s) from being used when the Disable reagent kit on control failure option is configured to On.

Depending on the system configuration, controls may be run on an assay either per reagent lot or per reagent kit. When the system runs the control per reagent kit and the control level fails the individual reagent kit is disabled. When the system runs the control per reagent lot and the control level fails all reagent kits for that lot are disabled. The system enables the reagent kit once the failed quality control result is rerun and the result is within acceptable limits.

For information on configuring the disabling of reagent kits, see *Change the option to disable a reagent kit on a control failure (premium feature)*, page 2-15.

For information on configuring the option for running controls, see *Change the option for running controls for onboard reagent kits*, page 2-38.

The quality control management topics include:

- *Westgard rule application*, page 5-383
- *Levey-Jennings graph screen*, page 5-385
- *QC summary review screen*, page 5-394

- *QC reports screen*, page 5-400

Westgard rule application

When Westgard rules are configured, the ARCHITECT System compares a control result against the expected mean and standard deviation for the control level. Previous results for the same assay are considered.

For information on configuring Westgard rules, see *Configure a Westgard rule*, page 2-157.

Westgard rule application topics include:

- *Westgard rule descriptions*, page 5-383
- *Westgard rule run descriptions*, page 5-384

Westgard rule descriptions

Westgard rules configured as a failure for an assay(s) produce a CNTL (control) flag for each patient result associated with the assay(s). The system compares the control result to the Westgard rules starting with the first rule. Westgard rules are applied in the following order: 1-3s, 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, R-4s, 4-1s 1m, 4-1s xM, 10-x 1M, 10-x xM, 1-2s. When a result fails to meet the criteria of a rule the system generates an error without further evaluation.

Table 5.16: Westgard rule descriptions

Westgard rule	Description
1-2s	Control rule to test whether a control measurement exceeds the control limits of x + 2SD or x - 2SD.
1-3s	Control rule to test whether a control measurement exceeds the control limits of x + 3SD or x - 3SD.
2-2s 1R 1M	Control rule to test whether two consecutive control measurements for the same control material within the same run exceed the same control limit of either x + 2SD or x - 2SD. Both results must fall on the same side of the mean.
2-2s 1R xM	Control rule to test whether two consecutive control measurements across control materials within the same run exceed the same control limit of either x + 2SD or x - 2SD. Both results must fall on the same side of the mean. The two control results must have different control level names.
2-2s xR 1M	Control rule to test whether two consecutive control measurements for the same control material across two different runs exceed the same control limit of either x + 2SD or x - 2SD. Both results must fall on the same side of the mean. The previous consecutive control result can be obtained during any previous run.

Westgard rule	Description
R-4s	Control rule to test whether the range, or difference, between control measurements run within 30 minutes of each other exceeds 4SD. The two control results need not be consecutive. The current control result is compared against each control result, which is older than the current result, by 30 minutes or less. Each result must be greater than 2SD, but in opposite directions.
4-1s 1M	Control rule to test whether four consecutive control measurements for the same control material exceed the same control limit of either x + 1SD or x - 1SD. All four control results must fall on the same side of the mean. The previous control results can be obtained during any run.
4-1s xM	Control rule to test whether four consecutive control measurements across control materials exceed the same control limit of either x + 1SD or x - 1SD. All four results must fall on the same side of the mean. The previous control results can be obtained during any run. (For this rule, both control results with the same or different control level names are considered.)
10-x 1M	Control rule to test whether 10 consecutive control measurements for the same control material fall on the same side of the mean. If a result falls on the mean, the rule does not fail. The previous control results can be obtained during any run.
10-x xM	Control rule to test whether 10 consecutive control measurements across control materials fall on the same side of the mean. If a result falls on the mean, the rule does not fail. The previous control results can be obtained during any run. (For this rule, both control results with the same or different control level names are considered.)

NOTE: To evaluate 1M (one material) rules, the system considers previous control results with the same control name, control level name, and control lot number.

To evaluate xM (across materials) rules, the system considers previous control results with the same control name and control lot number but different control level names.

Westgard rule run descriptions

The following table describes Westgard rules run definitions. For information on configuring Run definitions, see *Configure system control center window*, page 2-50.

Table 5.17: Westgard rules run definitions

Run definitions	Description
First Run Start Hour	The system allows the user to define what a run is on a system-wide basis. Run is defined by specifying a start time (which hour)

Run definitions	Description
	and a time period (how many hours per run). This is the time based run mode. The start hour is an integer between 0 and 23. The "Run Period" is used for Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, 4-1s xM.
Run Period Length	The length of the "Run Period" in hours. The next Run Period begins Run Period Length hours after the current Run Period started. The run period is an integer between 1 and 24. If the 1 day period (24 hours) cannot be divided into equal time runs, the last run shall have the remaining hours. The Run Period is used for Westgard rules 2-2s 1R 1M, 2-2s 1R xM, 2-2s xR 1M, 4-1s 1M, 4-1s xM.

Levey-Jennings graph screen

From the Levey-Jennings graph screen you can view graphs and statistical data that reflect the criteria you specified on the QC selection window. A maximum of six Levey-Jennings graphs, three per page, displays.

You can also access windows to:

- Change the criteria for the graph and data
- Include or exclude points from a graph
- View details for a selected point
- Print the Levey-Jennings report

Figure 5.114: Levey-Jennings graph screen

For descriptions of these fields, see *Levey-Jennings graph screen field descriptions*, page E-78.

An explanation of the graph and statistical data elements on the Levey-Jennings graph screen follows.

Table 5.18: Graph elements

Item	Description
MEAN	Represented by the center line of the graph and indicates the expected control mean.
+ and - 1 SD (standard deviation)	Represented by the first line above and below the mean (green area).
+ and - 2 SD	Represented by the second line above and below the mean (yellow area).
+ and - 3 SD	Represented by the third line above and below the mean (red area).
Cursor (yellow box)	Indicates the selected point. Use the Point cursor controls to move the cursor from one point to the next.
Points	Represent control results and are graphed in the order of completion.
• Normal (black)	Points that fall within the defined control range and do not fail configured Westgard rules.
• Westgard warnings (yellow)	Points that caused a warning condition based on the Westgard analysis.
• Westgard failures (red)	Points that failed Westgard analysis.
• Out of range (blue)	Bar that indicates a control result that is outside of the control range.
• Excluded (white)	Points that have been excluded from the data calculation.

Table 5.19: Levey-Jennings graph statistical data elements

Statistic fields	Description
MEAN	The expected mean value as configured.
SD	The expected standard deviation value as configured.
LEVEL	The control level name you selected.
N	The number of control points for the selected level/lot/assay/module.
COMPARISON MEAN	The mean used to compare to the expected control mean. Information that displays is determined by your selections on the QC selection window. Options are: None - no comparison displayed

Statistic fields	Description
	Manufacturers - mean as configured Module cumulative - calculated for the selected assay/level/lot for the selected module System cumulative - calculated value for the selected assay/level/lot for all modules
COMPARISON SD	The SD (standard deviation) used to compare to the expected control SD. Information that displays is determined by your selections on the QC selection window. Options are: None - no comparison displayed Manufacturers - SD as configured Module cumulative - calculated for the selected assay/level/lot for the selected module System cumulative - calculated value for the selected assay/level/lot for all modules
VISIBLE DATE RANGE	The date range of the displayed points. As you navigate through the graph, the VISIBLE DATE RANGE changes to reflect the points you are viewing.

To display this screen, see *Create a Levey-Jennings graph*, page 5-387.

Related procedures…

- *Display the value for a Levey-Jennings point*, page 5-390
- *Change a Levey-Jennings graph*, page 5-389
- *View details for a Levey-Jennings point*, page 5-391
- *Add a comment to a Levey-Jennings point*, page 5-391
- *Exclude or include a Levey-Jennings point*, page 5-390
- *Recalculate Westgard analysis*, page 5-392
- *Print the Levey-Jennings report*, page 5-406

Procedures - Levey-Jennings graph screen

Procedures you can perform from the Levey-Jennings graph screen include:

- *Create a Levey-Jennings graph*, page 5-387
- *Change a Levey-Jennings graph*, page 5-389
- *Display the value for a Levey-Jennings point*, page 5-390
- *Exclude or include a Levey-Jennings point*, page 5-390
- *View details for a Levey-Jennings point*, page 5-391
- *Add a comment to a Levey-Jennings point*, page 5-391
- *Recalculate Westgard analysis*, page 5-392

Create a Levey-Jennings graph

Perform this procedure to create Levey-Jennings graphs that you can use to monitor control activity.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To create a Levey-Jennings graph:

1. Select **QC - Cal** from the menu bar, and then select **Levey-Jennings graph**.

   The Levey-Jennings graph screen displays in the background with the QC selection window as the active window.

2. Select the desired **Module** option.

   NOTE: Select module 5 for calculated results.

   The control information for the selected module displays.

3. Enter a date range in the **Date range for calculation** data entry box.

   NOTE: The default range includes one month prior to the current date.

4. Select the desired **Comparison type** option:

   - **None** - Does not use a comparison method
   - **Manufacturers** - Compares the expected mean and SD (standard deviation) to the manufacturers mean and SD configured for the control
   - **Module cumulative** - Compares the expected mean and SD to the cumulative mean and SD of the processing module selected in step 2
   - **System cumulative** - Compares the expected mean and SD to the cumulative mean and SD of all modules for a multi-module system

5. Select the desired assay from the **Assay** list.
6. Select the desired control name from the **Control name** list.
7. Select the desired control lot number from the **Control lot** list.
8. Deselect the desired **Control level** check boxes. ***(optional)***

   NOTE: The default setting is all control level check boxes selected.

9. Select **Done** to create the graph.

To view detailed information for a single control result, see *View details for a Levey-Jennings point*, page 5-391.

To change the criteria for your graph, see *Change a Levey-Jennings graph*, page 5-389.

Related information…

- *QC selection window*, page 5-393
- *Levey-Jennings graph screen*, page 5-385

- *Westgard rule application*, page 5-383

Change a Levey-Jennings graph

Perform this procedure to redefine the criteria for a Levey-Jennings graph.

Prerequisite	*Create a Levey-Jennings graph*, page 5-387 *View an assay control level Levey-Jennings graph*, page 5-398
Module status	Any
User access level	General operator
Supplies	NA

To change a Levey-Jennings graph:

1. Select **F2 - QC selection** on the Levey-Jennings graph screen.

   The QC selection window displays.

2. Select the desired **Module** option.

   NOTE: Select module 5 for calculated results.

   The control information for the selected module displays.

3. Enter a date range in the **Date range for calculation** data entry box.

   NOTE: The default range includes one month prior to the current date.

4. Select the desired **Comparison type** option:
   - **None** - Does not use a comparison method
   - **Manufacturers** - Compares the expected mean and SD (standard deviation) to the manufacturers mean and SD configured for the control
   - **Module cumulative** - Compares the expected mean and SD to the cumulative mean and SD of the processing module selected in step 2
   - **System cumulative** - Compares the expected mean and SD to the cumulative mean and SD of all modules for a multi-module system
5. Select the desired assay from the **Assay** list.
6. Select the desired control name from the **Control name** list.
7. Select the desired control lot number from the **Control lot** list.
8. Deselect the desired **Control level** check boxes. ***(optional)***

   NOTE: The default setting is all control level check boxes selected.

9. Select **Done** to save your changes.

   The updated Levey-Jennings graph screen displays.

Related information…

- *Levey-Jennings graph screen*, page 5-385
- *QC selection window*, page 5-393
- *Westgard rule application*, page 5-383

Display the value for a Levey-Jennings point

Perform this procedure to display the result value and date for a specific point(s) on the Levey-Jennings graph screen.

Prerequisite	*Create a Levey-Jennings graph*, page 5-387
Module status	Any
User access level	General operator
Supplies	NA

To display the value for a Levey-Jennings point:

1. Select the desired point from the graph on the Levey-Jennings graph screen.

   The point value and date display in the lower right corner of the screen.

2. Use the **Point** scroll buttons to select another point. ***(optional)***

Related information…

- *Levey-Jennings graph screen*, page 5-385

Exclude or include a Levey-Jennings point

Perform this procedure to exclude a point or include a previously excluded point from the comparison mean and standard deviation.

To recalculate Westgard rules, see *Recalculate Westgard analysis*, page 5-392.

Prerequisite	*Create a Levey-Jennings graph*, page 5-387
Module status	Any
User access level	General operator
Supplies	NA

To exclude or include a Levey-Jennings point:

1. Select the desired point from the graph on the Levey-Jennings graph screen, and then select **F5 - Details**.

   The Point detail window displays.

2. Select the desired **Include/exclude** option.
3. Enter a comment in the **Comment** data entry box.

NOTE: You must enter a comment to include or exclude a point. Both the QC result comment and the Levey-Jennings point comment print on the QC Result Details report.

4. Select the Westgard re-evaluation check box to recalculate the Westgard analysis. ***(optional)***
5. Select **Done** to save your changes.

   The updated Levey-Jennings graph screen displays.

Related information...

- *Levey-Jennings graph screen*, page 5-385
- *Point detail window*, page 5-393
- *Westgard rule application*, page 5-383

View details for a Levey-Jennings point

Perform this procedure to display the Point detail window. From this window you can view detailed information for a control result.

Prerequisite	*Create a Levey-Jennings graph*, page 5-387
Module status	Any
User access level	General operator
Supplies	NA

To view details for a Levey-Jennings point:

Select the desired point from the graph on the Levey-Jennings graph screen, and then select **F5 - Details**.

The Point detail window displays.

To exclude a point on the Levey-Jennings graph, see *Exclude or include a Levey-Jennings point*, page 5-390.

To add a comment, see *Add a comment to a Levey-Jennings point*, page 5-391.

Related information...

- *Levey-Jennings graph screen*, page 5-385
- *Point detail window*, page 5-393
- *Descriptions of quality control result flags*, page 5-318
- *Descriptions of processing codes*, page 5-225

Add a comment to a Levey-Jennings point

Perform this procedure to add a comment to a control point on a Levey-Jennings graph.

Prerequisite	*Create a Levey-Jennings graph*, page 5-387

Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a Levey-Jennings point:

1. Select the desired Levey-Jennings point, and then select **F5 - Details**.

   The Point detail window displays.

2. Enter a comment in the **Comment** data entry box.

   NOTE: Both the QC result comment and the Levey-Jennings point comment print on the QC Result Details report.

3. Select **Done** to save your changes.

Related information…

- *Levey-Jennings graph screen*, page 5-385
- *Point detail window*, page 5-393

Recalculate Westgard analysis

Perform this procedure to recalculate Westgard analysis after:

- Including or excluding a point
- Changing the configured expected mean and/or SD (standard deviation) settings

The analysis is repeated for all rules except 1-3s or 1-2s.

Prerequisite	*Create a Levey-Jennings graph*, page 5-387
Module status	Any
User access level	General operator
Supplies	NA

To recalculate Westgard analysis:

1. Select the desired point from the graph on the Levey-Jennings graph screen, and then select **F5 - Details**.

   The Point detail window displays.

2. Select the desired **Include/exclude** option. ***(optional)***
3. Select the **Westgard re-evaluation** check box.
4. Select **Done** to save your changes.

   The updated Levey-Jennings graph screen displays.

Related information...

- *Levey-Jennings graph screen*, page 5-385
- *Point detail window*, page 5-393
- *Westgard rule descriptions*, page 5-383
- *Descriptions of quality control result flags*, page 5-318

Windows - Levey-Jennings graph screen

Windows you can access from the Levey-Jennings graph screen include:

- *QC selection window*, page 5-393
- *Point detail window*, page 5-393

QC selection window

From the QC selection window you specify the criteria used to create Levey-Jennings graphs and statistical data.

Figure 5.115: QC selection window

For descriptions of these fields, see *QC selection window field descriptions*, page E-79.

Related procedures...

- *Create a Levey-Jennings graph*, page 5-387
- *Change a Levey-Jennings graph*, page 5-389

Point detail window

From the Point detail window you can view detailed information for a point on the Levey-Jennings graph screen. You can also:

- Include or exclude a point
- Recalculate the Westgard analysis
- Add a comment

Figure 5.116: Point detail window

For descriptions of these fields, see *Point detail window field descriptions*, page E-80.

Related procedures…

- *Exclude or include a Levey-Jennings point*, page 5-390
- *Recalculate Westgard analysis*, page 5-392
- *Add a comment to a Levey-Jennings point*, page 5-391

QC summary review screen

From the QC summary review screen you can view statistical data for all assay control levels, which includes:

- Assay name
- Control name, lot number, and level
- Number of control points
- Actual mean, SD, and%CV
- Expected mean and SD

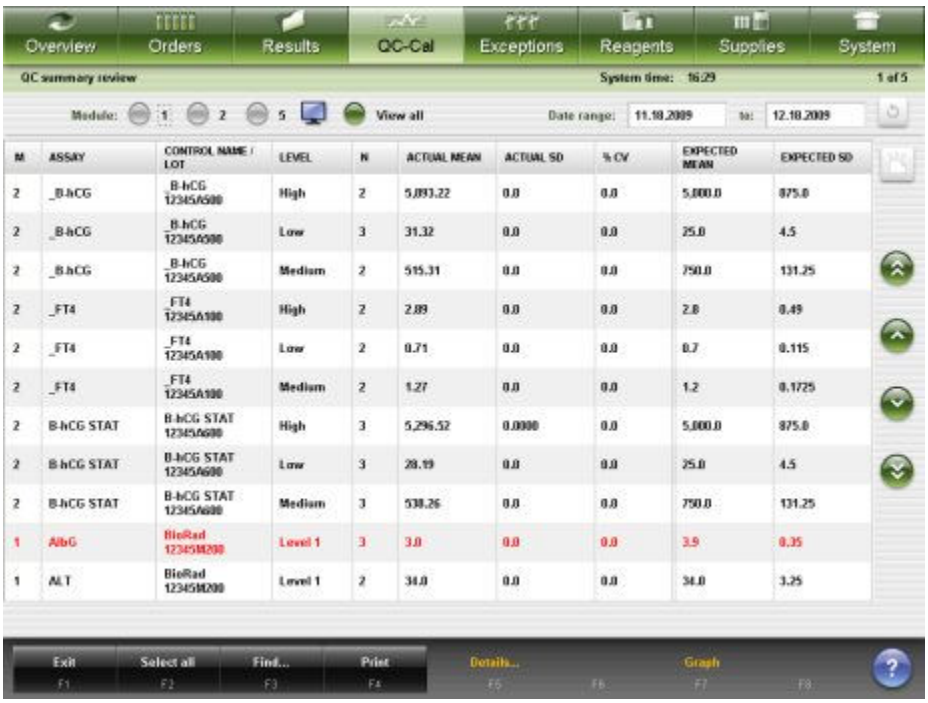
You can also access windows to:

- Find information for specific assay controls based on specified search criteria

- Print the QC Analysis, QC Summary, and Levey-Jennings reports
- View detailed QC data
- View the Levey-Jennings graphs for a selected assay control level

QC summary review data is not generated if the expected mean and SD are not defined when a control is configured.

Figure 5.117: QC summary review screen



For descriptions of these fields, see *QC summary review screen field descriptions*, page E-100.

When accessing the QC summary review screen the information sorts by control name, level, and then by assay.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY	Alphanumerically in ascending order.
CONTROL NAME/LOT	Alphanumerically in ascending order.
LEVEL	Alphanumerically in ascending order.
N	Numerically in descending order.
ACTUAL MEAN ACTUAL SD % CV	These columns do not sort.

Column	Sort description
EXPECTED MEAN EXPECTED SD	

Table 5.20: QC summary review statistical data elements

Statistic fields	Description
N	The number of control points for the level/lot/assay/module used in the calculation.
ACTUAL MEAN	The mean calculated for the level/lot/assay for a processing module and specified date range.
ACTUAL SD	The SD calculated for the level/lot/assay for a processing module and specified date range.
% CV	The percent coefficient of variation calculated for the level/lot/assay for a processing module and specified date range.
EXPECTED MEAN	The expected mean configured for the control level.
EXPECTED SD	The expected SD configured for the control level.

When a control result has a flag, the QC summary information displays in red on this screen. Once a control result completes without a flag, the information displays in black. See *Descriptions of quality control result flags*, page 5-318.

To display this screen, see *View QC data summary*, page 5-396.

Related procedures…

- *Find the summary for specific QC data*, page 5-397
- *View QC data details*, page 5-398
- *View an assay control level Levey-Jennings graph*, page 5-398
- *Print the Levey-Jennings report*, page 5-406
- *Print the QC Analysis report*, page 5-407
- *Print the QC Summary report*, page 5-407

Procedures - QC summary review screen

Procedures you can perform from the QC summary review screen include:

- *View QC data summary*, page 5-396
- *Find the summary for specific QC data*, page 5-397
- *View QC data details*, page 5-398
- *View an assay control level Levey-Jennings graph*, page 5-398

View QC data summary

Perform this procedure to display the QC summary review screen. From this screen you can view a summary of control data.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view QC data summary:

1. Select the **QC-Cal** icon from the menu bar and then select **QC summary**.

   The QC summary review screen displays.

2. Select the desired **Module** option. ***(optional)***

   The control information for the selected module displays.

3. Enter a date range in the **Date range:** data entry box and then select the update button to update the data. ***(optional)***

   NOTE: The default range includes one month prior to the current date.

Related information…

- *QC summary review screen*, page 5-394

Find the summary for specific QC data

Perform this procedure to search for specific QC data by entering your search criteria in one or more fields.

Prerequisite	*View QC data summary*, page 5-396
Module status	Any
User access level	General operator
Supplies	NA

To find the summary for specific QC data:

1. Select **F3-Find** on the QC summary review screen.

   The Find options (QC summary review) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wild card search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

   Example: If you enter 123* in the SID data entry box, all results starting with 123 display. This list could include 12345, 12346, 12347.

3. Select **Done** to initiate the search.

   The QC summary review screen displays with the text "Search results:" in the title bar.

NOTE: Select the **refresh** button to display all records.

Related information...

- *QC summary review screen*, page 5-394
- *Find options (QC summary review) window*, page 5-399

View QC data details

Perform this procedure to display the Details for QC summary window. From this window you can view QC data details for a selected assay control level.

Prerequisite	*View QC data summary*, page 5-396
Module status	Any
User access level	General operator
Supplies	NA

To view QC data details:

1. Select the desired assay control level(s) from the table on the QC summary review screen, or select **F2 - Select all**.
2. Select **F5 - Details**.

   The Details for QC summary window displays.
3. Use the **previous**/**next** buttons to display each assay control level if you selected more than one. ***(optional)***
4. Select **Done** to return to the QC summary review screen.

Related information...

- *QC summary review screen*, page 5-394
- *Details for QC summary window*, page 5-400

View an assay control level Levey-Jennings graph

Perform this procedure to display the Levey-Jennings graph screen. From this screen you can view the Levey-Jennings graph for a selected assay control level.

Prerequisite	*View QC data summary*, page 5-396
Module status	Any
User access level	General operator
Supplies	NA

To view an assay control level Levey-Jennings graph:

1. Select the control level(s) for an assay from the table on the QC summary review screen.

NOTE: The **F7 - Graph** button is not available if more than one assay control lot is selected on the QC summary review screen.

2. Select **F7 - Graph**.

   The Levey-Jennings graph screen displays.

3. Select **F3 - QC summary** to return to the QC summary review screen. ***(optional)***

To redefine the criteria for the Levey-Jennings graph, see *Change a Levey-Jennings graph*, page 5-389.

Related information...

- *QC summary review screen*, page 5-394
- *Levey-Jennings graph screen*, page 5-385

Windows - QC summary review screen

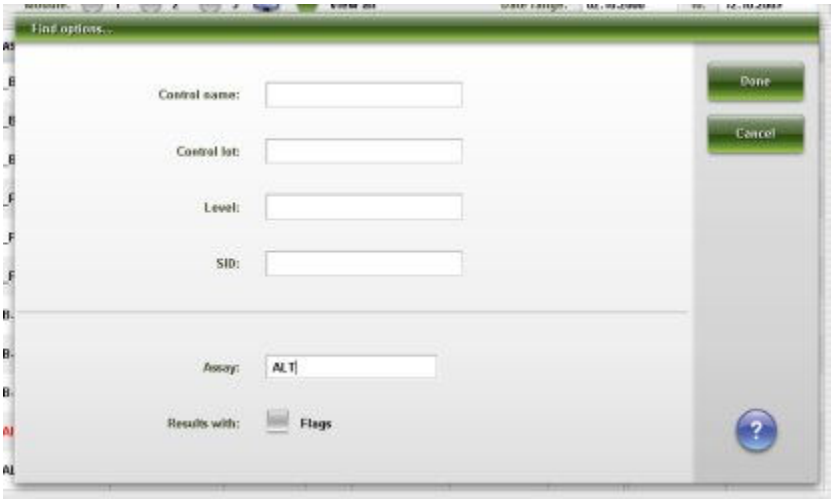
Windows you can access from the QC summary review screen include:

- *Find options (QC summary review) window*, page 5-399
- *Details for QC summary window*, page 5-400

Find options (QC summary review) window

From the Find options (QC summary review) window you can search for specific control data by entering your search criteria in one or more fields.

Figure 5.118: Find options (QC summary review) window



For descriptions of these fields, see *Find options (QC summary review) window field descriptions*, page E-101.

Related procedures...

- *Find the summary for specific QC data*, page 5-397

Details for QC summary window

From the Details for QC summary window you can view QC data details for the selected control level, which includes:

- Expected and Manufacturer mean and SD
- Actual (processing module specific) and System (all processing modules in an *i* System) data for a date range
- Module cumulative (processing module specific) and System cumulative (all processing modules in an *i* System) data

Figure 5.119: Details for QC summary window

For descriptions of these fields, see *Details for QC summary window field descriptions*, page E-101.

Related procedures...

- *View QC data details*, page 5-398

QC reports screen

From the QC reports screen you can specify the information to include in the QC Analysis, QC Summary, and Levey-Jennings reports, and print the reports. This information includes:

- Module
- Assay
- Date range

Figure 5.120: QC reports screen

For descriptions of these fields, see *QC reports screen field descriptions*, page E-100.

To display this screen, see *Access the QC reports screen*, page 5-401.

Related procedures…

- *Print the Levey-Jennings report*, page 5-406
- *Print the QC Analysis report*, page 5-407
- *Print the QC Summary report*, page 5-407

Access the QC reports screen

Perform this procedure to display the QC reports screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the QC reports screen:

Select **QC - Cal** from the menu bar, and then select **QC reports**.

The QC reports screen displays.

To print the Levey-Jennings report, see *Print the Levey-Jennings report*, page 5-406.

To print the QC Analysis report, see *Print the QC Analysis report*, page 5-407.

To print the QC Summary report, see *Print the QC Summary report*, page 5-407.

Related information…

- *QC reports screen*, page 5-400
- *Levey - Jennings Report*, page A-47
- *QC Analysis Report*, page A-68
- *QC Summary Report*, page A-76

Report printing

You can print screen images and reports generated by the ARCHITECT System. Your system may be configured to print some reports automatically. For example, the Procedure, Cal Curve Details, Sample, and Results List reports print upon completion of the related activity.

Report printing procedures and topic include:

Print a report

Perform this procedure to print a report. Reports are available from related screens. For example, you can print the Patient report from both the Results review and Stored results screens. You can print the Order List report from the Order status screen. Report availability is listed in the following table.

NOTE: Your system may be configured to print some reports automatically. For more information see *Configure report settings*, page 2-7.

A Patient ID is required to print patient data. If the selected test result does not contain a PID the report will print the header information and no data.

To print the…	Access the…
Absorbance Data Report (c System), page A-3	Results review screen Stored results screen QC result review screen Stored QC results screen

To print the…	Access the…
	Exception status screen
Assay Parameter Report (c System), page A-6 *Assay Parameter Report (i System)*, page A-15	Configuration screen
Cal Curve Details Report - Potentiometric (c System), page A-20 *Cal Curve Details Report - Linear (c System)*, page A-23 *Cal Curve Details Report - Use Cal Factor/ Blank (c System)*, page A-26 *Cal Curve Details Report - Adjust (i System)*, page A-29 *Cal Curve Details Report - Full (i System)*, page A-32 *Cal Curve Details Report - Index (i System)*, page A-35	Calibration status screen Calibration history screen
Cal Curve Summary Report, page A-38	Calibration status screen Calibration history screen
Downloaded PDF	Abbott mail screen
Exception Details Report, page A-40 *Exception Status Report*, page A-43	Exception status screen
Levey - Jennings Report, page A-47	Levey-Jennings graph screen QC reports screen QC summary review screen
Maintenance History Report, page A-50	Maintenance log screen
Message History Log Report, page A-52 *Inventory Log Report (premium feature)*, page A-45	System logs screen
Order List Report, page A-54 *Order Status Report*, page A-56	Order status screen
Patient Report, page A-58	Results review screen Stored results screen
Plan My Day Report (premium feature), page A-60	Plan my day screen
Procedure Report, Basic, page A-64 *Procedure Report, Columnar*, page A-66	Maintenance screen Diagnostics screen
QC Analysis Report, page A-68 *QC Summary Report*, page A-76	QC reports screen QC summary review screen
QC Result Details Report, page A-71 *QC Results List Report*, page A-74	QC result review screen Stored QC results screen
Reagent Load Error Report, page A-80	Reagent status screen

To print the…	Access the…
Reagent Status Report (i1000SR), page A-84	
Rerun List Report, page A-86	Rerun status screen
Result Details Report, page A-88 *Results List Report*, page A-91	Results review screen Stored results screen
Sample Laboratory Report, page A-95 *Sample Report*, page A-93	Results review screen Stored results screen
Sample Status Report, page A-97	Sample status screen
Temporary Message Log Report, page A-99 *TSB Installation Log Report*, page A-101	System logs screen

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To print a report:

1. Select the item(s) to include in the report. ***(optional)***

   NOTE: Items print in the order they are displayed on the screen. If you do not select a specific item(s)/category, all items print.

2. Select **F4 - Print**.

   The Print options window displays.

3. Select the desired **Print selection** option.
4. Select the desired report from the **Reports available** list.
5. Enter the number of copies in the **Number of copies** data entry box.
6. Select **Done** to print the report.

Related information…

- *Print options window*, page 5-415
- *Printed report examples*, page A-1

Print the Order List report

Perform this procedure to print an Order List report to assist you in placing a sufficient amount of sample in the assigned position.

Prerequisite	*Access the Order status screen*, page 5-224
Module status	Any, however, if the processing module is not in Running status the volume printed on the Order List report is for one

	calibration/control per module and does not account for multiple reagent lots and kits on a module.
User access level	General operator
Supplies	NA

To print an Order List report:

1. Select **F4 - Print** on the Order status screen.

   The Print options window displays.

2. Select the **Order List** report option.
3. Select **Done** to print the report.

Related information…

- *Order status screen*, page 5-222
- *Print options window*, page 5-415
- *Order List Report*, page A-54

Print the Levey-Jennings report

Perform this procedure to print a Levey-Jennings report for a selected control.

Prerequisite	*Access the QC reports screen*, page 5-401
Module status	Any
User access level	General operator
Supplies	NA

To print a Levey-Jennings report for a selected control:

1. Select the desired **Module** option or for a multi-module *i* System the desired check box(es) on the QC reports screen.

   NOTE: Select module 5 for calculated results.

2. Enter the starting and ending dates in the **Date from** and **to** data entry boxes.
3. Select the desired control(s) from the **Controls** list.
4. Select **F3 - Print**.

   The Print options window displays.

5. Select the desired report from the **Reports available** list.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information…

- *QC reports screen*, page 5-400
- *Print options window*, page 5-415
- *Levey - Jennings Report*, page A-47
- *QC Analysis Report*, page A-68
- *QC Summary Report*, page A-76

Print the QC Analysis report

Perform this procedure to print a QC Analysis report for a selected control.

Prerequisite	*Access the QC reports screen*, page 5-401
Module status	Any
User access level	General operator
Supplies	NA

To print a QC Analysis report for a selected control:

1. Select the desired **Module** option or for a multi-module *i* System the desired check box(es) on the QC reports screen.

   NOTE: Select module 5 for calculated results.

2. Enter the starting and ending dates in the **Date from** and **to** data entry boxes.
3. Select the desired control(s) from the **Controls** list.
4. Select **F3 - Print**.

   The Print options window displays.

5. Select the desired report from the **Reports available** list.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information…

- *QC reports screen*, page 5-400
- *Print options window*, page 5-415
- *Levey - Jennings Report*, page A-47
- *QC Analysis Report*, page A-68

Print the QC Summary report

Perform this procedure to print a QC Summary report for a selected control.

Prerequisite	*Access the QC reports screen*, page 5-401

Module status	Any
User access level	General operator
Supplies	NA

To print a QC Summary report for a selected control:

1. Select the desired **Module** option or for a multi-module *i* System the desired check box(es) on the QC reports screen.

   NOTE: Select module 5 for calculated results.

2. Enter the starting and ending dates in the **Date from** and **to** data entry boxes. ***(optional)***
3. Select the desired control(s) from the **Controls** list.
4. Select **F3 - Print**.

   The Print options window displays.

5. Select the desired report from the **Reports available** list.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information…

- *QC reports screen*, page 5-400
- *Print options window*, page 5-415
- *Levey - Jennings Report*, page A-47
- *QC Summary Report*, page A-76

Print a Maintenance History report for a specified month

Perform this procedure to print a Maintenance History report that includes the maintenance procedures (scheduled and/or performed) for a specified month.

To print a report for all procedures, see *Print a Maintenance History report for a specific procedure*, page 5-409.

Prerequisite	*Access the Maintenance log screen*, page 9-15
Module status	Any
User access level	General operator
Supplies	NA

To print a Maintenance History report for a specified month:

1. Select the desired **Module** option on the Maintenance log screen.
2. Use the **previous**/**next** buttons to display the desired month. ***(optional)***
3. Select **F3 - Print**.

The Print options window displays.

4. Ensure the **All items** option is selected.
5. Select **Done** to print the Maintenance History report for the selected month.

   NOTE: For procedures that were scheduled but not performed, 00.00.00 prints in the time column.

Related information…

- *Maintenance log screen*, page 9-13
- *Print options window*, page 5-415
- *Maintenance History Report*, page A-50

Print a Maintenance History report for a specific procedure

Perform this procedure to print a Maintenance History report for a specific procedure for a specific month (scheduled and/or performed) stored on the system. The system stores procedures for the last twelve months.

To print a report for a selected month, see *Print a Maintenance History report for a specified month*, page 5-408.

Prerequisite	*Access the Maintenance log screen*, page 9-15
Module status	Any
User access level	General operator
Supplies	NA

To print a Maintenance History report for all procedures:

1. Select the desired **Module** option on the Maintenance log screen.
2. Select the desired procedure.
3. Select **F3 - Print**.

   The Print options window displays.
4. Select the **Selected items** option.
5. Select **Done** to print the Maintenance History report.

   NOTE: For procedures that were scheduled but not performed, 00:00:00 prints in the time column.

Related information…

- *Maintenance log screen*, page 9-13
- *Print options window*, page 5-415

Print a Procedure report

Perform this procedure to:

- Print a Procedure report if your system is not configured to automatically print one after a maintenance procedure is performed
- Print a Procedure report after a diagnostic procedure is performed
- Reprint a Procedure report

For information on enabling automatic report printing, see *Change the automatic report printing settings*, page 2-17.

Prerequisite	*Access the Maintenance screen*, page 9-4, or *Access the Diagnostics screen*, page 10-623
Module status	Stopped, Warming, Ready, or Maintenance
User access level	General operator
Supplies	NA

To print a Procedure report:

1. Select the desired **Module** option.
2. Select the desired tab to display the maintenance or diagnostic procedures for that category.
3. Select a procedure from the **MAINTENANCE PROCEDURES** or **DIAGNOSTIC PROCEDURES** list. ***(optional)***

   NOTE: If you do not select a specific procedure, all available reports print for all performed procedures in the selected category.

   To print a Procedure report for a procedure currently in process, you must return to the Maintenance perform window. See *Return to a maintenance procedure in process*, page 9-9.
4. Select **F4 - Print**.

   The Print Options window displays.
5. Select the desired **Print selection** option.
6. Enter the number of copies in the **Number of copies** data entry box.
7. Select **Done** to print the report.

Related information…

- *Maintenance screen*, page 9-3
- *Diagnostics screen*, page 10-622
- *Print options window*, page 5-415
- *Procedure Report, Basic*, page A-64
- *Procedure Report, Columnar*, page A-66

Print the Message History Log report

Perform this procedure to print the Message History Log report.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	NA

To print the Message History Log report:

1. Select the **Log selection** list button on the System logs screen, and then select **Message history log**.
2. Select the item(s) to include in the report. ***(optional)***

   NOTE: Items print in the order you select them. If you do not select a specific item(s), all items print.
3. Select **F4 - Print**.

   The Print options window displays.
4. Select the desired **Print selection** option.
5. Enter the number of copies in the **Number of copies** data entry box.
6. Select **Done** to print the report.

Related information...

- *System logs screen*, page 10-9
- *Print options window*, page 5-415

Print the Inventory Log report (premium feature)

Perform this procedure to print the Inventory Log report.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	N/A

To print the Inventory Log report:

1. Select the **Log selection** list button on the System logs screen, and then select **Inventory log**.
2. Select the item(s) to include in the report. ***(optional)***

   NOTE: Items print in the order you select them. If you do not select a specific item(s), all items print.
3. Select **F4 - Print**.

   The Print options window displays.
4. Select the desired **Print selection** option.

5. Enter the number of copies in the **Number of copies** data entry box.
6. Select **Done** to print the report.

Related information…

- *System logs screen*, page 10-9
- *Print options window*, page 5-415

Print an Assay Parameter report for specified assays

Perform this procedure to print an Assay Parameter report for selected assays.

To print an Assay Parameter report for all assays, see *Print an Assay Parameter report for all assays*, page 5-412.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Any
User access level	General operator
Supplies	NA

To print an Assay Parameter report for specified assays:

1. Select the assay(s) to include in the report from the **Assays** list on the Configuration screen.

   NOTE: The Assay Parameter report prints in the order you select the assays.
2. Select **F2 - Print**.

   The Print options window displays.
3. Enter the number of copies in the **Number of copies** data entry box.
4. Select **Done** to print the report.

Related information…

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Print options window*, page 5-415
- *Assay Parameter Report (c System)*, page A-6
- *Assay Parameter Report (i System)*, page A-15

Print an Assay Parameter report for all assays

Perform this procedure to print an Assay Parameter report for all assays.

To print an Assay Parameter Report for selected assays, see *Print an Assay Parameter report for specified assays*, page 5-412.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Any
User access level	General operator
Supplies	NA

To print an Assay Parameter report for all assays:

1. Select **F2 - Print** on the Configuration screen.

   The Print options window displays.
2. Enter the number of copies in the **Number of copies** data entry box.
3. Select **Done** to print the report.

Related information...

- *Configuration screen - Assay settings - Assay parameters view*, page 2-67
- *Print options window*, page 5-415
- *Assay Parameter Report (c System)*, page A-6
- *Assay Parameter Report (i System)*, page A-15

View a print job in the print queue

Perform this procedure to view the status of a print request that is in the print queue.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	General operator
Supplies	NA

To view a print job in the print queue:

1. Select the **Printer** button on the Snapshot screen.

   The Printer window displays.
2. View the status of the desired print job in the **Printer queue** list.
3. Select **Done** to return to the Snapshot screen.

Related information...

- *Snapshot screen*, page 1-22
- *Printer window*, page 5-415

Delete a print job

Perform this procedure to delete a report that is printing or waiting to be printed.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	General operator
Supplies	NA

To delete a print job:

1. Select the **Printer** button on the Snapshot screen.

   The Printer window displays.

2. Select the desired print job from the **Printer queue** list.
3. Select **Delete** to delete the print job or **Delete all** to delete all jobs in the printer queue.

   NOTE: When deleting a print request with a status of printing, wait until the printer starts printing the report before selecting Delete.

4. Select **Done** to return to the Snapshot screen.

Related information…

- *Snapshot screen*, page 1-22
- *Printer window*, page 5-415

Print a screen image

Perform this procedure to print a screen image to preserve graphical or troubleshooting information such as:

- The Maintenance log
- A Levey-Jennings graph
- An alert and/or information message

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To print a screen image:

Access the desired screen image, and then simultaneously press the **ALT+Print Screen** keys on the keyboard.

The screen image prints.

NOTE: General printing errors can occur when you attempt to print multiple screen images. Do not attempt to print more than three screen images at one time or to print a screen image while printing reports.

Windows - Report printing

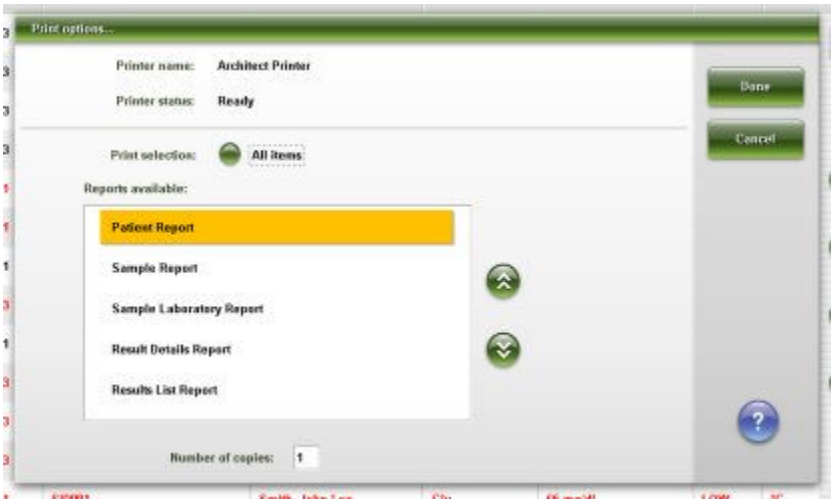
Windows you can access include:

- *Print options window*, page 5-415
- *Printer window*, page 5-415

Print options window

From the Print options window you can choose the report to print, specify the data to include, and enter the number of copies.

Figure 5.121: Print options window



For descriptions of these fields, see *Print options window field descriptions*, page E-233.

Related procedures...

- *Print a report*, page 5-403
- *Print the Levey-Jennings report*, page 5-406
- *Print the QC Analysis report*, page 5-407
- *Print the QC Summary report*, page 5-407
- *Print a Maintenance History report for a specific procedure*, page 5-409
- *Print a Procedure report*, page 5-409
- *Print the Message History Log report*, page 5-410
- *Print the Inventory Log report (premium feature)*, page 5-411
- *Print an Assay Parameter report for specified assays*, page 5-412
- *Print an Assay Parameter report for all assays*, page 5-412

Printer window

From the Printer window you can check the printer status and delete a print job.

Figure 5.122: Printer window

For descriptions of these fields, see *Printer window field descriptions*, page E-233.

Related procedures…

- *View a print job in the print queue*, page 5-413
- *Delete a print job*, page 5-413

LIS management

LIS (laboratory information system) management consists of the activities associated with managing transmission between the ARCHITECT System and the LIS.

LIS management topics include:

- *Cancel pending transmission*, page 5-417
- *Enable or disable the host or secondary HL7 connections*, page 5-417
- *LIS communication window*, page 5-418

Cancel pending transmission

Perform this procedure to clear all queued messages (including results) that are pending transmission to the host or secondary HL7 connections.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	General operator
Supplies	NA

To cancel pending transmission:

1. Select the **LIS** status button from the Snapshot screen.

   The LIS communication window displays.

2. Select the desired **Disable** button.
3. Select the desired **Clear queue** button.

   A message displays when there are messages that are pending transmission.

4. Select **OK** to clear the queue.
5. Select the desired **Enable** button to re-establish the connection.

Related information...

- *LIS communication window*, page 5-418

Enable or disable the host or secondary HL7 connections

Perform this procedure to enable or disable the host or secondary connections.

Prerequisite	*Access the Snapshot screen*, page 1-24
Module status	Any
User access level	General operator

Supplies	NA

To enable or disable host or secondary HL7 connections:

1. Select the **LIS** status button from the Snapshot screen.

   The LIS communication window displays.

2. Select the desired **Disable** or **Enable** button.
3. Select **Done**.

Related information…

- *LIS communication window*, page 5-418

LIS communication window

From the LIS communication window, you can perform these actions:

- Enable/disable the host or secondary HL7 connections
- Clear queued messages (including results) pending transmission
- View the communication error message

Figure 5.123: LIS communication window

For a description of these fields, see *LIS communication window field descriptions*, page E-18.

Related procedures…

- *Cancel pending transmission*, page 5-417
- *Enable or disable the host or secondary HL7 connections*, page 5-417

Introduction

Prior to running patient and control samples you must calibrate your assay(s).

Before attempting to calibrate the system you should be familiar with the hardware components of your system and the fundamental principles of the software user interface. See *Use or function*, page 1-1.

Calibration topics include:

- *Assay calibration*, page 6-2
  Provides descriptions of calibration methods and types and descriptions of the Calibration order screen with instructions for performing calibration order procedures.
- *Calibration review*, page 6-16
  Provides descriptions of the Calibration status and Calibration history screens with instructions for viewing and archiving calibration curves.

Assay calibration

Calibration is analyzing samples of known concentrations, recording the instrument response value(s), and plotting the measured value(s) against the known concentration to create a curve for evaluating unknown samples.

Assay calibration topics include:

Calibration guidelines

After you install an assay(s) that requires a calibration, you must generate an active calibration curve. You do not need to recalibrate assays every time they are run; however, certain variables make recalibration necessary.

NOTE: It is recommended that you run all levels of appropriate controls whenever you calibrate an assay.

For more information, see:

Mandatory assay calibration

You must perform a calibration when:

- A new reagent lot number is used
- Documentation accompanying a new version of an existing assay file states calibration is required
- A new assay file that requires a calibration is installed
- The calibration curve has expired

Optional assay calibration

You may need to perform a calibration when:

- Assay control values are out of specification. For specific information regarding quality control, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
- Certain system maintenance/component replacement procedures are performed.
- Certain errors occur. To determine whether recalibration is necessary when an error occurs, see assay-specific error codes.

Automated assay calibration

Automated assay calibration is the process the system uses to automatically order calibrations by associating an SID (sample ID) with a predefined calibrator(s). For automated assay calibration you use a bar code label for each calibrator level. See diagnostic procedure *6029 Assay Information*, page 10-698 for more information on generating calibrator bar code labels. Assays using the Factor calibration method that use water as a blank do not require a bar coded calibrator. The water required for blanking is dispensed by the sample probe.

When a bar code is scanned and recognized as a configured calibrator the system automatically processes the test(s) configured for that SID. You can view the order on the Order status screen.

For the c8000 and c16000 processing modules bar coded calibrator samples can be loaded on the sample carousel, which can be configured to scan at predefined intervals while processing patient samples. When no new patient samples are loaded on the RSH (robotic sample handler) the automated sample carousel scan is suspended. The automated scan is activated prior to processing new samples.

NOTE: You must establish the calibrator onboard stability intervals for your laboratory if you use this feature.

Bar coded calibrator samples and water blank samples are automatically processed in the following conditions:

- Onboard reagent lots do not have an Active or Pending QC calibration curve.
- A calibration is not in progress.
- The expired calibration has not been overridden.
- An Active calibration curve will expire in less time than the sample carousel auto scan interval.

Calibration sampling rules

When multiple reagent lots for an assay are loaded on the system and the sampling process for a calibration order is ready to begin, the system determines the lots to calibrate using the following rules.

For the ARCHITECT System:

- If all reagent lots for the assay do not currently have a calibration status of Active or Pending QC, the system calibrates all reagent lots loaded on the system.
- If all reagent lots for the assay currently have a calibration status of Active or Pending QC, the system recalibrates all reagent lots loaded on the system.
- If some reagent lots for the assay have a calibration status of Active or Pending QC and some do not, the system calibrates only the reagent lots loaded on the system without an active calibration.

For the *c*16000 the calibration status is specific to one line. If a reagent with an Active calibration status is moved from one line (A or B line) to the other and then scanned, the calibration status for the reagent in its current location is No Cal. To avoid recalibration:

- do not move reagents from one line to another
- do not load on a different line when replacing reagents

Calibration methods (photometric - *c* System)

The *c* System calibration methods are methods used to measure absorbance values and to plot a calibration curve or determine a cutoff value. One of six different mathematical methods is used to calculate results:

- *Absorbance method (photometric - c System)*, page C-2
- *Factor method (photometric - c System)*, page C-2
- *Linear method (photometric - c System)*, page C-3
- *Logit-4 method (photometric - c System)*, page C-4
- *Spline method (photometric - c System)*, page C-6
- *Use factor and blank method (photometric - c System)*, page C-7

c System calibration methods are assay-specific and are defined in the assay parameter file. You define the calibration method for non-Abbott assays on the *Configure assay parameters window - Calibration - Calibrators view (photometric - c System)*, page 2-128.

Calibration method (potentiometric - *c* System)

A potentiometric calibration method is the method used for calculating ICT assays (electrolytes). Either serum or urine calibrators are used. Serum calibrators are a protein-based material with known concentrations of sodium (Na^+), potassium (K^+), and chloride (Cl^-). Urine calibrators are aqueous-based and span a greater range of concentration.

There are three components to the potentiometric method:

- *Electromotive force measurement (potentiometric - c System)*, page C-8
- *Slope calculation (potentiometric - c System)*, page C-9
- *Sample measurement (potentiometric - c System)*, page C-10

The mV (millivolts) measured by each electrode in the ICT module are plotted against the known concentration of electrolyte in the calibrator. The slope of the calibration is expressed as a percentage of the ideal slope. Electrolyte determinations are made at 37°C; therefore, the ideal slope of the electrode is 100% (61.5mV/decade).

NOTE: The potentiometric calibration method is assay-specific and is defined in the assay parameter file.

Calibration methods (*i* System)

Calibration methods are data reduction methods used by ARCHITECT *i* Systems to measure RLU (relative light unit) values and to plot a calibration curve or cutoff value. One of five different mathematical methods is used to calculate results:

- *Point to point method (i System)*, page C-13
- *Linear regression method (i System)*, page C-13
- *4PLC methods (i System)*, page C-15
- *Cutoff assay method (i System)*, page C-17
- *Reference method (i System)*, page C-18

i System calibration methods are assay-specific and are defined in the assay parameter file. You can view the method on the Details for assay parameters window - Calibration view (*i* System).

For more information on the mathematical methods, See *i System data reduction methods*, page C-13.

Calibration types (*c* System)

Calibration types pertain to photometric assays only and indicate whether a calibration curve is created or adjusted.

NOTE: See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for information on required calibration types.

Two calibration types are available:

- *Full calibration*, page 6-6
- *Adjustment calibration*, page 6-6

Full calibration

A full calibration is the measurement of a reagent blank and all data points specified for an assay plotted against known concentrations to create a curve for evaluating unknown samples. The system software analyzes the data points on the Calibration - calibrators view of the Configure assay parameters window to generate the new calibration curve.

NOTE: A full calibration is required to update the full calibration interval.

Adjustment calibration

An adjustment calibration is a new measurement of a blank and/or specific point(s) of a full calibration curve. For the 1-point and 2-point adjustment options the system software calculates a ratio comparing the new measurements to previously measured absorbances, adjusts all other calibrators using the calculated ratio, and then generates a new calibration curve.

NOTE: You can perform either a full calibration or the designated adjustment calibration to update the adjustment calibration interval.

The following adjustment options are available on the Configure assay parameters window:

- None
- Blank adjustment
- 1-point adjustment
- 2-point adjustment

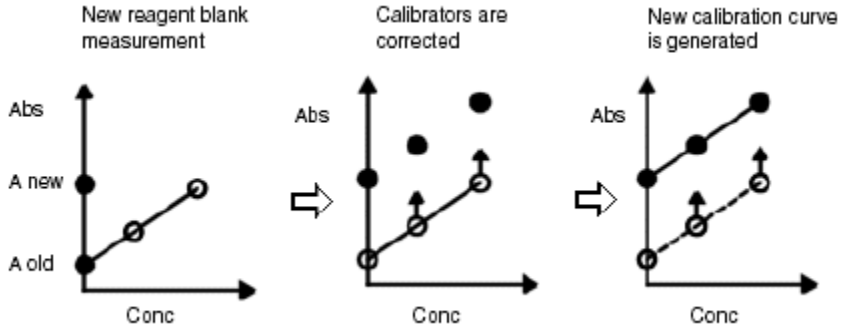
Adjustment calibration topics include:

- *Blank adjustment*, page 6-6
- *1-point adjustment*, page 6-7
- *2-point adjustment*, page 6-7

Blank adjustment

In a blank adjustment, the system reanalyzes the reagent blank only. The following table shows the process for adjusting the calibration curve with the new reagent blank data.

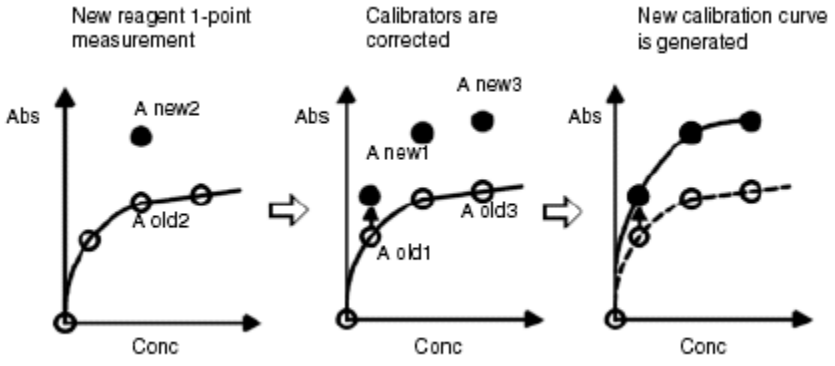
Step	Description
1	The system performs the new measurement for the reagent blank.
2	The value of the reagent blank absorbance obtained in the new measurement replaces the value obtained in the previous measurement.
3	The curve adjusts up or down, based on the change in the reagent blank.



1-point adjustment

In a 1-point adjustment the system reanalyzes a single calibrator. The calibrator used is defined on the *Configure assay parameters window - Calibration - Calibrators view (photometric - c System)*, page 2-128. The following table shows the procedure for adjusting the calibration curve with the new calibrator data.

Step	Description
1	The system performs the new measurement for the calibrator.
2	A ratio calculates comparing the new and previous absorbance data. $\text{Ratio} = \frac{\text{New measured absorbance}}{\text{Previously measured absorbance}}$
3	All other calibrators (except the reagent blank) adjust using the calculated ratio.
4	A new calibration curve generates using the data points after adjustment.

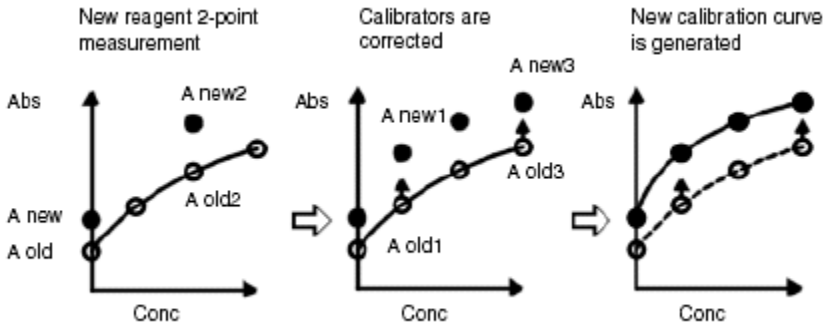


2-point adjustment

In a 2-point adjustment the system reanalyzes both the reagent blank and a single calibrator. The calibrator used is defined on the *Configure assay parameters window - Calibration - Calibrators view (photometric - c System)*,

page 2-128. The following table shows the procedure for adjusting the calibration curve with the new calibrator data.

Step	Description
1	The system performs the new measurement for the reagent blank and the calibrator.
2	The value of the reagent blank absorbance obtained in the new measurement replaces the value obtained in the previous measurement.
3	The curve adjusts up or down based on the change in the reagent blank.
4	A ratio calculates comparing the new and previous absorbance data. $\text{Ratio} = \frac{\text{New measured absorbance}}{\text{Previously measured absorbance}}$
5	All other calibrators (except the reagent blank) adjust using the calculated ratio.
6	A new calibration curve generates using the data points after adjustment.



Calibration types (*i* System)

The calibration type indicates whether a new calibration curve is created, a master reference curve is adjusted, or a cutoff value is created for *i* System assays on a processing module. The type is defined in the assay parameter file and is assay-specific.

NOTE: Calibration type is assay-specific. For a detailed description of the assay calibrator(s) and calibration type for each assay, see the ARCHITECT *i* System assay-specific package insert.

The calibration types are as follows:

- *Adjust calibration*, page 6-9
- *Full calibration*, page 6-9

- *Index calibration*, page 6-9

Adjust calibration

A calibration adjustment is a new measurement of 2 points of a master reference curve specified for an assay. This 2-point calibration generates a processing module-specific calibration curve for quantitative assays by adjusting the master calibration data.

A 2-point calibration adjustment assay has master calibration data encoded within the 2D bar code on the microparticle bottle label. After you load a reagent kit on a processing module, the system performs a scan and stores master calibration data in the system software. The data stored is specific for the assay but must be adjusted to fit the specific processing module. Therefore, the operator must run two calibrators.

Full calibration

A full calibration is the measurement of 6 points specified for a quantitative assay plotted against known concentrations to generate a processing module-specific calibration curve for evaluating unknown samples.

Index calibration

An index calibration is the measurement of 1 point or 2 points specified for a qualitative assay and generates a processing module-specific index (cutoff).

The system software uses the index value to generate all cutoff values defined for an index or screening assay.

Calibration curve storage

The ARCHITECT System stores active, inactive, and failed calibration curves.

For more information on calibration curve statuses, see *Descriptions of calibration statuses*, page 6-18.

For more information on curve storage, see:

- *Active calibration curve storage*, page 6-9
- *Inactive calibration curve storage*, page 6-10
- *Failed calibration curve storage*, page 6-10

Active calibration curve storage

The system stores active curves as follows:

NOTE: A calibration with a status of Pending QC is considered an active curve which can not be used to process tests until at least one level of control completes.

- Stores the processing module-specific calibration as the active curve for that reagent lot

- Replaces the previous calibration curve, which becomes inactive
- Automatically defaults to the active curve for the onboard reagent lot
- Stores one active curve for up to four different reagent lots for each assay on a processing module
- Replaces the oldest active curve if a fifth reagent lot calibrates successfully

NOTE: You may manually fail an active calibration curve by selecting the Fail Curve button on the Calibration curve window.

Inactive calibration curve storage

The system stores the previous curve as inactive when a new calibration curve is generated for the reagent lot. Inactive curves are stored for up to 3 months. All calibration curves are removed from the system when the last kit of a reagent master lot is deleted. Deletion of reagents occur when the reagent kit storage capacity is exceeded or, for user-defined **c** System assays, when deleted manually.

Failed calibration curve storage

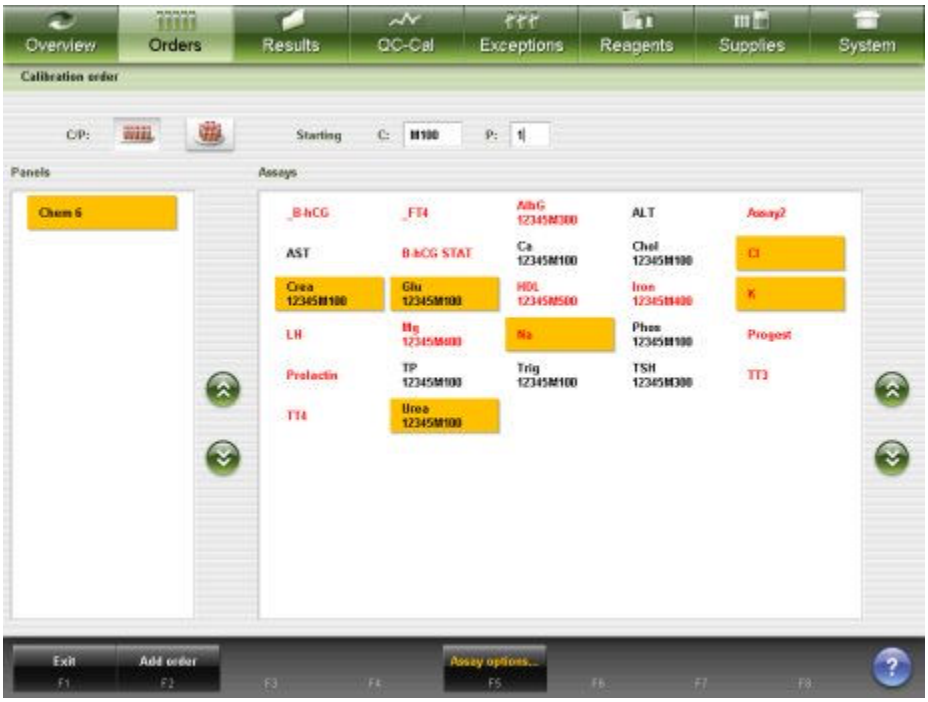
The system stores a failed calibration curve until an active curve or another failed curve is generated for the reagent lot.

For details on how to resolve errors for failed curves, see *Assay specific error codes (1000-1999)*, page 10-114.

Calibration order screen

From the Calibration order screen you can order assay calibrations and access a window to specify calibration options.

Figure 6.1: Calibration order screen



For descriptions of these fields, see *Calibration order screen field descriptions*, page E-44.

To display this screen, see *Access the Calibration order screen*, page 6-11.

Related procedures...

- *Create a calibration order*, page 6-12

Access the Calibration order screen

Perform this procedure to display the Calibration order screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Calibration order screen:

Select **Orders** from the menu bar, and then select **Calibration order**.

The Calibration order screen displays.

Related information...

- *Calibration order screen*, page 6-10

Procedure - Calibration order screen

The procedure you can perform from the Calibration order screen is:

- *Create a calibration order*, page 6-12

Create a calibration order

Perform this procedure to order a calibration when one or more assays require a new calibration and bar coded calibrators are not being used.

You may disable a reagent kit(s) for patient samples and still allow manual ordering of calibrations and controls. See *Disable or enable a reagent kit*, page 5-134.

Prerequisite	*Access the Calibration order screen*, page 6-11
Module status	Any
User access level	General operator
Supplies	Consecutively numbered carriers

To create a calibration order:

1. Select the **carrier** or **carousel** button on the Calibration order screen, if displayed.

   NOTE: When you select multiple assays, the software automatically assigns the calibrators in sequential carriers and/or positions:

   – If you select carrier, the system does not increment to more than five sequential carriers.

   – If you select carousel, the system does not increment beyond the last position in the sample carousel.

2. Enter a carrier ID or carousel ID (LAS carousel sample handler) in the **C** data entry box, if displayed.
3. Enter a position in the **P** data entry box, if displayed.
4. Select the desired panel(s) from the **Panels** list and/or select assay(s) from the **Assays** list.

   NOTE: When a panel is selected, all assays in that panel are selected except for calculated assays.

5. Select **F5 - Assay options** to specify calibration options. (***optional*** unless running the calibration on a disabled kit)

   The Assay options (Calibration order) window displays.

   NOTE: For *i* System assays the last calibrator lot number and expiration date entered display.

   For *c* System assays the configured default calibrator lot number and expiration date display.

The calibrator lot number and expiration date display on the Calibration curve window and the Cal Curve Details report.

a. Enter a calibrator lot number in the **Lot** data entry box, and then enter a date in the **Expiration date** data entry box (*i* System). ***(optional)***

   NOTE: If your system is configured to track calibration lot and lot expiration (premium feature), a lot number and expiration date must be entered to order the calibration. Assays displayed in red without the calibration lot number are missing a calibration lot and expiration date. Assays displaying a calibration lot in red are expired.

   Select the **Lot** number list button and then select the desired lot (*c* System). ***(optional)***

b. Select the **Calibration type** list button, if displayed, and then select the calibration type (*c* System). ***(optional)***

c. Select the **Reagent selection: Select kit** option, the **Kit selection** list button, and then select the desired reagent kit to override the system scheduler. (***optional*** if the reagent kit is not disabled)

d. Select the **Reagent selection: Module** option, and then select the appropriate module check box(es) to override the system scheduler (multi-module *i* System). ***(optional)***

e. Use the **previous**/**next** buttons to display each assay if you selected more than one, and then repeat Steps 5a - 5c for each. ***(optional)***

f. Select **Done** to save your changes and/or return to the Calibration order screen.

6. Select **F2 - Add order** to add the calibration order.

   Orders can be viewed from the Order status screen.

To print the Order List report, see *Print the Order List report*, page 5-405.

To load samples, see *Loading samples (RSH)*, page 5-246.

To load samples, see *Loading samples (sample carousel - c8000/c16000)*, page 5-261.

To load samples, see *Loading samples (SSH)*, page 5-264.

To load samples, see *Loading samples (LAS carousel sample handler - i2000)*, page 5-274.

Related information…

- *Calibration order screen*, page 6-10
- *Assay options (Calibration order) window*, page 6-14
- *Order List Report*, page A-54

Window - Calibration order screen

Windows in this sub-section include:

- *Assay options (Calibration order) window*, page 6-14

Assay options (Calibration order) window

From the Assay options (Calibration order) window you can:

- Enter a calibrator lot number and expiration date (*i* System) or select a lot other than the default lot (*c* System).

  This information displays on the Calibration curve window and in the Cal Curve Details report.

  NOTE: If your system is configured to track calibration lot and lot expiration (premium feature), this information is required to order a calibration.

- Change the type of calibration to run (*c* System).
- Specify the processing module to use (multi-module *i* System).

Figure 6.2: Assay options (Calibration order) window (i System)

Figure 6.3: Assay options (Calibration order) window (c System)

For descriptions of these fields, see *Assay options (Calibration order) window field descriptions*, page E-44.

Related procedures…

- *Create a calibration order*, page 6-12

Calibration review

The assay calibration run must pass calibration verification before the system stores the calibration. The status of each calibration displays on the Calibration status and/or Calibration history screens.

Calibration review topics include:

Calibration verification

After you process calibrators, the system verifies the results by comparing them to the assay-specific calibration parameter specifications. If the results of a calibration fall within the specified range for that assay, the new calibration curve replaces any previous calibration curve and the previous calibration curve status changes to inactive. If the results of a calibration do not fall within the specified range, then the new calibration curve is assigned a status of failed; if there is an existing calibration curve for that assay, it is not replaced. The assigned status of a calibration displays on the Calibration status and/or Calibration history screens and includes:

- Active - the values fall within the specifications. The system software calculates patient and control test results from this curve.
- Pending QC (premium feature) - the values fall within specification. The system is configured to require QC to run after a calibration and at least one control level has not completed. When one control has completed an active curve status displays.

  NOTE: A completed control does not require the control result to be within configured specifications.
- Failed - the values fall outside of the specifications. If an active curve exists for a reagent lot, the system software calculates patient and control test results from the existing active curve.
- Inactive - this is an older, previously active curve that has been superseded by a more recent calibration. An inactive curve status displays only on the Calibration history screen.

See *Configure assay parameters window - General - Validity checks view (photometric - c System) field descriptions*, page E-197 for a description of available calibration validity checks.

Calibration status screen

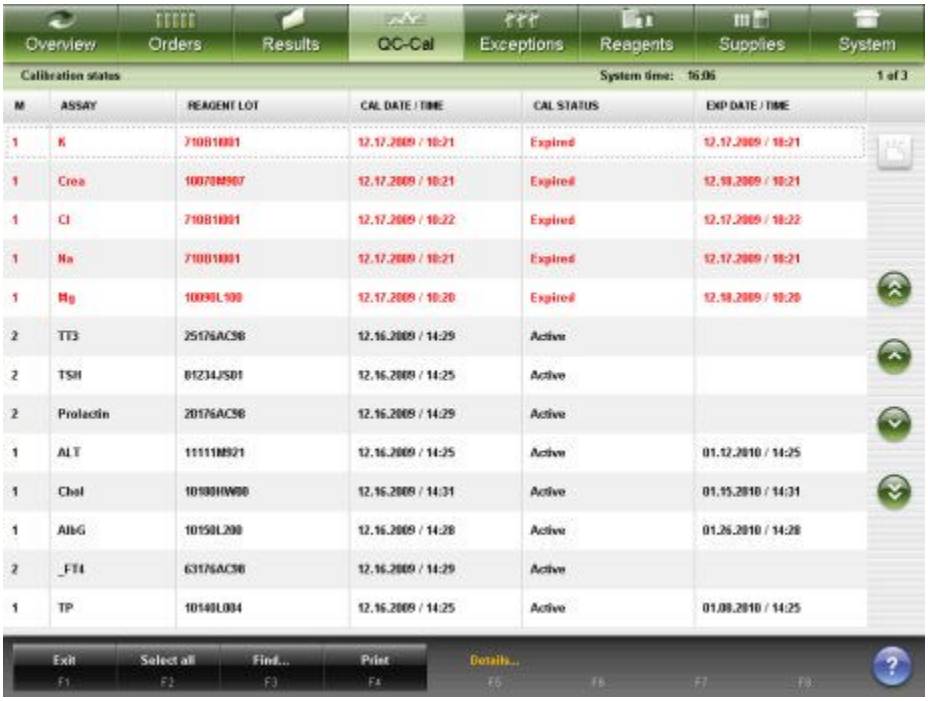
From the Calibration status screen you can view a summary list of the calibration statuses for each assay and reagent lot currently loaded on the system.

You can also access windows to:

- Find information for specific calibrations based on specified search criteria
- View detailed calibration curve information
- Fail a calibration curve
- Override an expired calibration curve
- Print the Cal Curve Summary and Cal Curve Details reports

To view information about previously performed calibrations, see *Calibration history screen*, page 6-26.

Figure 6.4: Calibration status screen



For descriptions of these fields, see *Calibration status screen field descriptions*, page E-81.

When accessing the Calibration status screen the information sorts by calibration status. See *Descriptions of calibration statuses*, page 6-18 for calibration status sort order.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY and REAGENT LOT	Alphanumerically in ascending order.
CAL DATE / TIME	Chronologically in descending order.
CAL STATUS	See *Descriptions of calibration statuses*, page 6-18.
EXP DATE / TIME	Chronologically in ascending order

To display this screen, see *Access the Calibration status screen*, page 6-18.

Related procedures…

- *View assay calibration status*, page 6-30
- *Find a specific calibration*, page 6-31
- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33
- *Print a report*, page 5-403

Access the Calibration status screen

Perform this procedure to display the Calibration status screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Calibration status screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **Calibration status** button on the *c* System processing module graphic.

Select **QC-Cal** from the menu bar, and then select **Calibration status**.

The Calibration status screen displays.

Related information…

- *Calibration status screen*, page 6-17

Descriptions of calibration statuses

You can use calibration status information to determine the status of each calibration curve. The system displays one of the following calibration statuses for each calibration curve. The table below displays the calibration statuses in the order in which they sort.

Table 6.1: Calibration statuses

Status	Description
Failed	One of the following occurred: • The calibration failed curve validity checks. • The calibration did not complete successfully due to a hardware error. • The user manually failed the calibration.
Expired	The full or adjustment interval has been exceeded.
No Cal	One of the following occurred: • The reagent lot was never calibrated. • A parameter in a *c* System assay file was edited, which caused the system to delete the calibration curve. • For the *c*16000 the calibration status is specific to one line. This status occurs if a reagent with an Active calibration status is moved from one line (A or B) to the other and scanned. • The reagent settings configuration was changed to Calibration by lot or Calibration by kit.
Pending QC	The system is configured to require QC to run after a calibration. A calibration curve has been generated but at least one level of control has not completed. **NOTE:** A completed control does not require the control result to be within configured specifications.
Overridden	The operator has overridden an expired calibration.
Overridden Lot	The operator has overridden an expired calibrator lot.
In Process	The calibration is currently in process.
Active	The calibration completed successfully and, for *c* System assays, the calibration is not expired.
Inactive	A previously active curve which was replaced by a new active curve. Inactive calibration curves display only on the Calibration history screen.

Windows - Calibration status screen

Windows and views of windows that you can access from the Calibration status screen include:

- *Find options (Calibration status) window*, page 6-20
- *Calibration curve window - factor, linear, and non-linear assay views (c System)*, page 6-20
- *Calibration curve window - use cal factor/blank assay view (c System)*, page 6-21
- *Calibration curve window - potentiometric assay view (c System)*, page 6-22
- *Calibration curve window - adjust assay view (i System)*, page 6-23
- *Calibration curve window - index assay view (i System)*, page 6-24

- *Calibration curve window - full assay view (i System)*, page 6-25

Find options (Calibration status) window

From the Find options (Calibration status) window you can search for specific calibration records.

Figure 6.5: Find options (Calibration status) window

For descriptions of these fields, see *Find options (Calibration status and Calibration history) window field descriptions*, page E-81.

Related procedures…

- *Find a specific calibration*, page 6-31

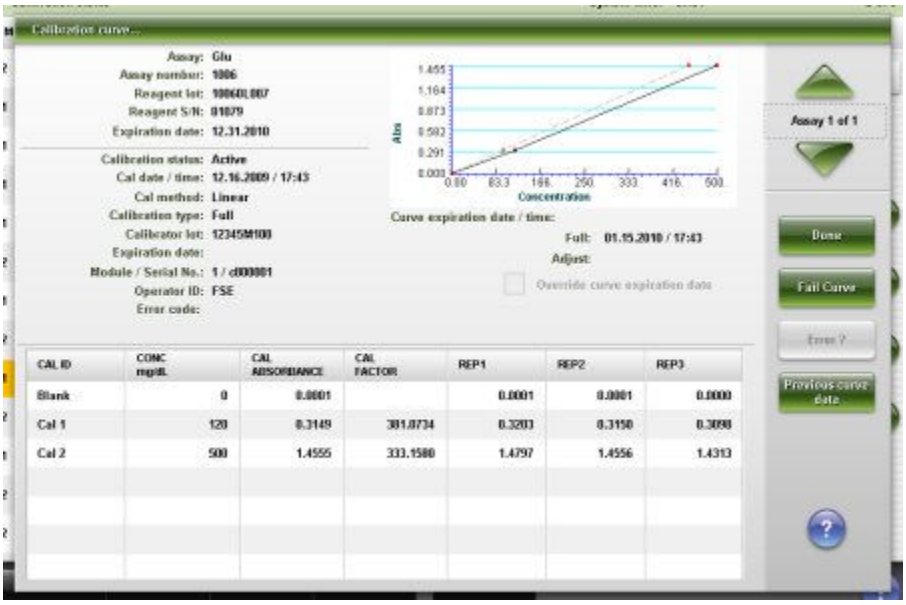
Calibration curve window - factor, linear, and non-linear assay views (*c* System)

From the factor, linear, and non-linear assay views of the Calibration curve window you can view information such as:

- Calibrator name and concentration
- Calibrator lot number and expiration date, if entered
- Calibrator absorbance for all replicates and the calibration factor(s)
- Corrected mean absorbance value
- Current and previous calibration (premium feature) curve graph (linear and non-linear views only)
- Calibration curve data from a previous inactive curve (premium feature)

You can also manually fail a curve(s) or override the curve expiration date.

Figure 6.6: Calibration curve window - Linear assay view (c System)



For descriptions of these fields, see *Calibration curve window - Linear assay view (c System) field descriptions*, page E-82.

Related procedures...

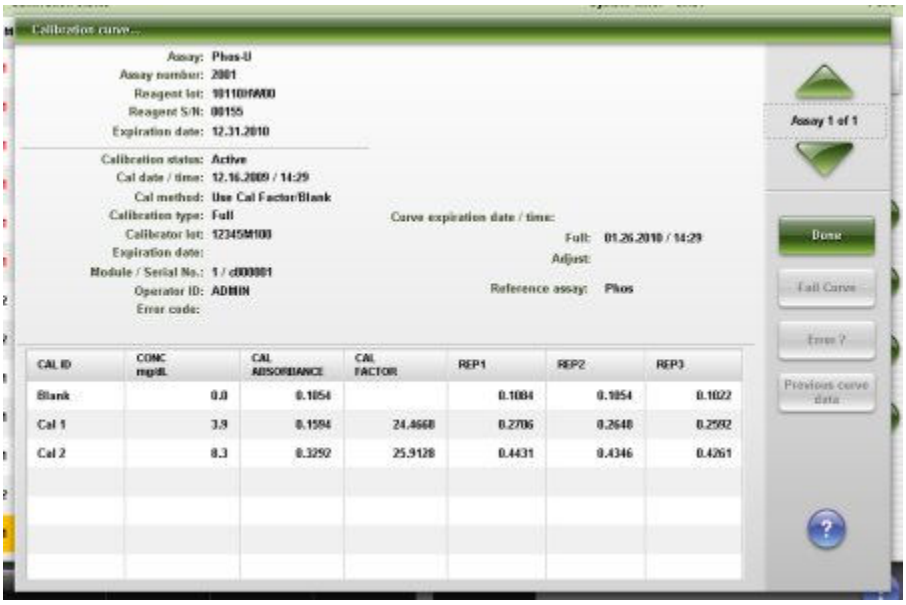
- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33

Calibration curve window - use cal factor/blank assay view (*c* System)

From the use cal factor/blank assay view of the Calibration curve window you can view information from the reference assay such as:

- Reference assay name
- Calibrator name and concentration
- Calibrator lot number and expiration date, if entered
- Calibrator absorbance for all replicates and the calibration factor(s)
- Corrected mean absorbance value
- Calibration curve data from a previous inactive curve (premium feature)

Figure 6.7: Calibration curve window - Use cal factor / blank view (c System)



For descriptions of these fields, see *Calibration curve window - Use cal factor / blank assay view (c System) field descriptions*, page E-83.

Related procedures...

- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33

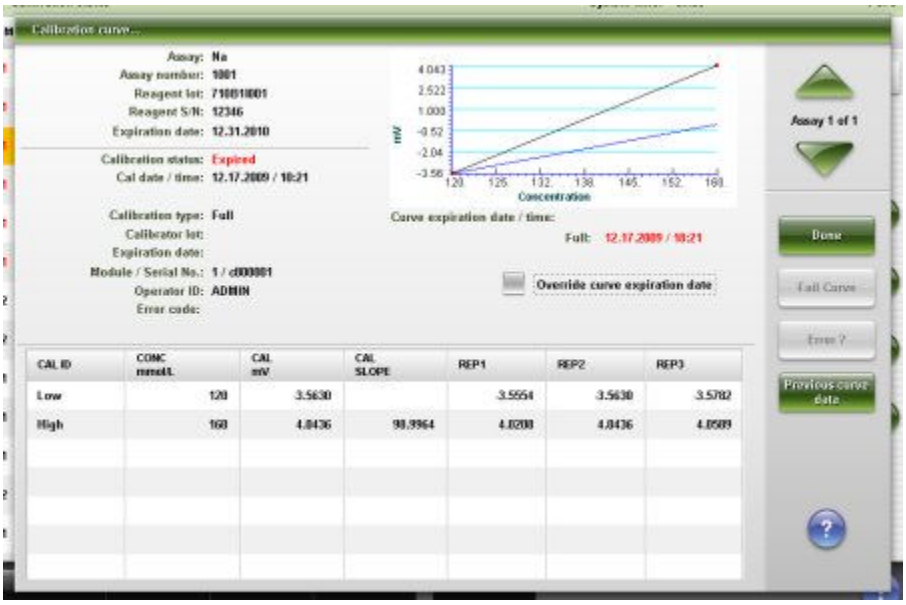
Calibration curve window - potentiometric assay view (*c* System)

From the potentiometric assay view of the Calibration curve window you can view information such as:

- Calibrator name and concentration
- Calibrator lot number and expiration date, if entered
- Calibrator mV (millivolt) response for all replicates and the calibration slope
- Current and previous (premium feature) calibration curve graph
- Calibration curve data from a previous inactive curve (premium feature)

You can also manually fail a curve(s) or override the curve expiration date.

Figure 6.8: Calibration curve window - Potentiometric assay view (c System)



For descriptions of these fields, see *Calibration curve window - Potentiometric assay view (c System) field descriptions*, page E-84.

Related procedures...

- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33

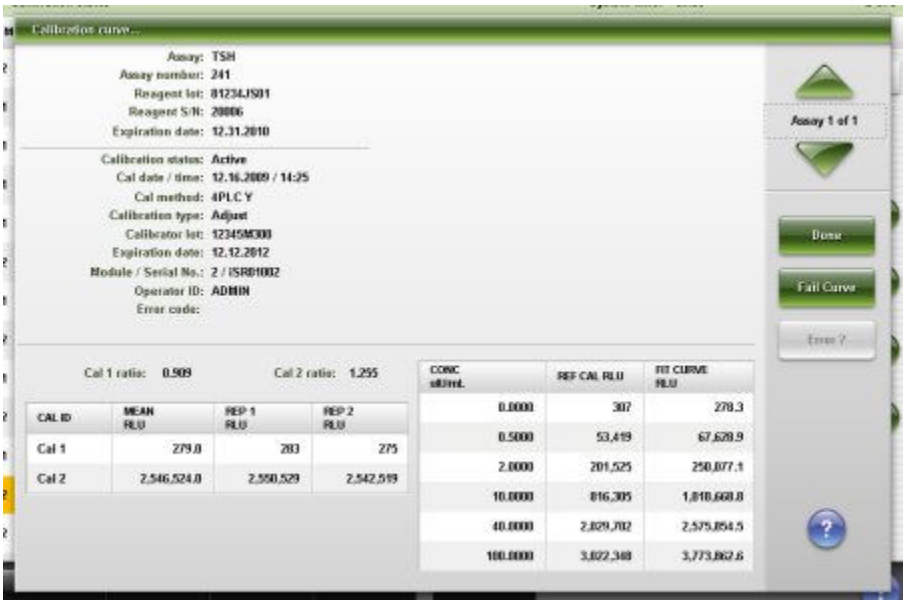
Calibration curve window - adjust assay view (*i* System)

From the adjust assay view of the Calibration curve window you can view information such as:

- Calibrator name
- Calibrator lot number and expiration date, if entered
- Calibrator RLU (relative light units) response for all replicates, mean RLU, and the calibration adjustment ratio(s)
- Reference calibrator concentration, RLU response, and the fit curve RLU response for each calibrator

You can also manually fail a curve(s) or override the expiration date if a calibration interval is defined. Refer to the *i* System assay package insert for more information.

Figure 6.9: Calibration curve window - Adjust assay view (i System)



For descriptions of these fields, see *Calibration curve window - Adjust assay view (i System) field descriptions*, page E-86.

Related procedures...

- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33

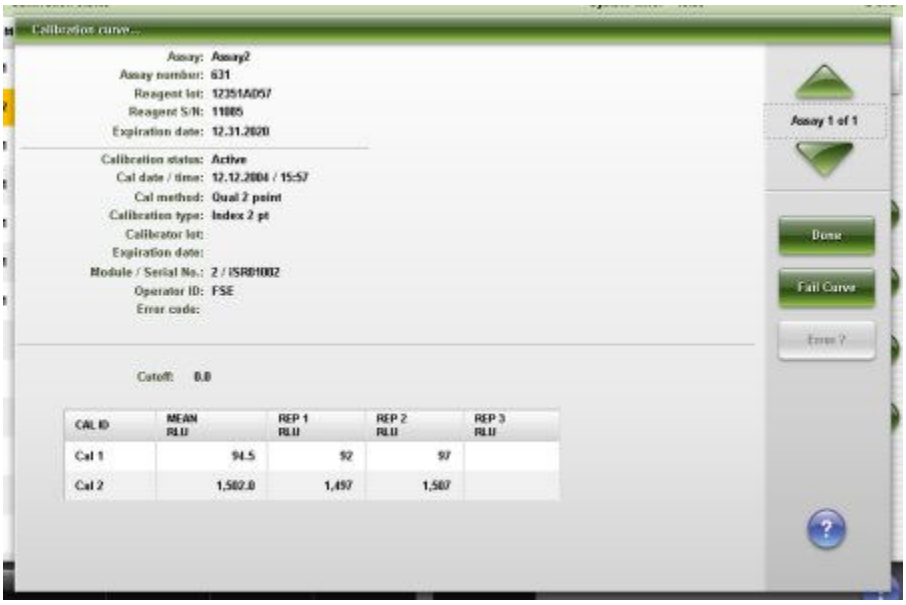
Calibration curve window - index assay view (*i* System)

From the index assay view of the Calibration curve window you can view information such as:

- Calibrator name
- Calibrator lot number and expiration date, if entered
- Calibrator RLU (relative light units) response for all replicates, mean RLU, and cutoff value

You can also manually fail a curve(s) or override the expiration date if a calibration interval is defined. Refer to the *i* System assay package insert for more information.

Figure 6.10: Calibration curve window - Index assay view (i System)



For descriptions of these fields, see *Calibration curve window - Index assay view (i System) field descriptions*, page E-87.

Related procedures...

- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33

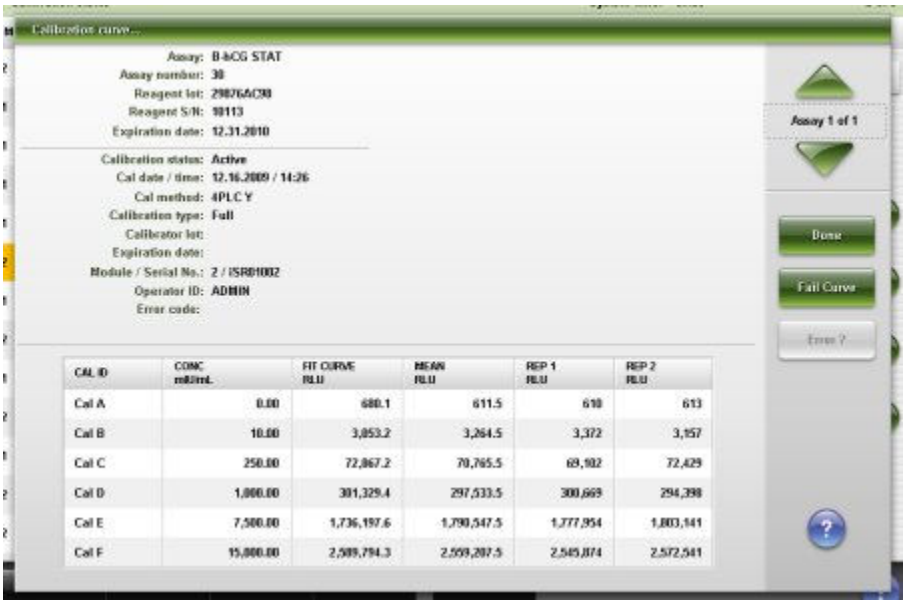
Calibration curve window - full assay view (*i* System)

From the full assay view of the Calibration curve window you can view information such as:

- Calibrator name and concentration
- Calibrator lot number and expiration date, if entered
- Calibrator RLU (relative light units) response for all replicates, mean RLU, and the fit curve RLU response for each calibrator

You can also manually fail a curve(s) or override the expiration date if a calibration interval is defined. Refer to the *i* System assay package insert for more information.

Figure 6.11: Calibration curve window - Full assay view (i System)



For descriptions of these fields, see *Calibration curve window - Full assay view (i System) field descriptions*, page E-89.

Related procedures...

- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33

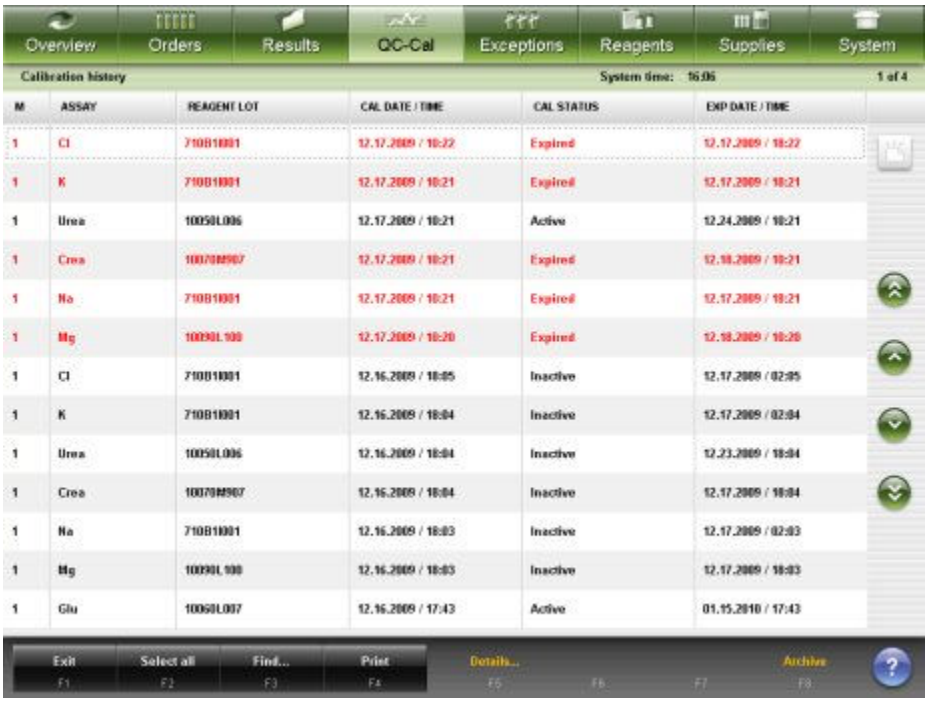
Calibration history screen

From the Calibration history screen you can view a summary list of the calibration statuses for current and previously performed calibrations.

You can also access windows to:

- Find information for specific calibrations based on specified search criteria
- View detailed calibration curve information
- Fail a calibration curve
- Override an expired calibration curve
- Print the Cal Curve Summary and Cal Curve Details reports
- Archive calibration curve information

Figure 6.12: Calibration history screen



For descriptions of these fields, see *Calibration history screen field descriptions*, page E-90.

When accessing the Calibration history screen the information sorts by the time the calibration curve was generated from the most recent to the oldest calibration.

To sort columns on this screen, select the desired column heading. The information sorts as described in the following table.

Column	Sort description
M	Numerically in ascending order.
ASSAY and REAGENT LOT	Alphanumerically in ascending order.
CAL DATE / TIME	Chronologically in descending order.
CAL STATUS	See *Descriptions of calibration statuses*, page 6-18.
EXP DATE / TIME	Chronologically in ascending order

To display this screen, see *Access the Calibration history screen*, page 6-28.

Related procedures…

- *View assay calibration history*, page 6-31
- *View calibration curve information*, page 6-32
- *Find a specific calibration*, page 6-31
- *Fail a calibration curve*, page 6-33

- *Print a report*, page 5-403
- *Archive calibration curves*, page 6-34

Access the Calibration history screen

Perform this procedure to display the Calibration history screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Calibration history screen:

Select **QC-Cal** from the menu bar, and then select **Calibration history**.

The Calibration history screen displays.

Related information...

- *Calibration history screen*, page 6-26

Windows - Calibration history screen

Windows and views of windows that you can access from the Calibration history screen are listed below.

Windows not in this sub-section include:

- *Calibration curve window - factor, linear, and non-linear assay views (c System)*, page 6-20
- *Calibration curve window - use cal factor/blank assay view (c System)*, page 6-21
- *Calibration curve window - potentiometric assay view (c System)*, page 6-22
- *Calibration curve window - adjust assay view (i System)*, page 6-23
- *Calibration curve window - index assay view (i System)*, page 6-24
- *Calibration curve window - full assay view (i System)*, page 6-25

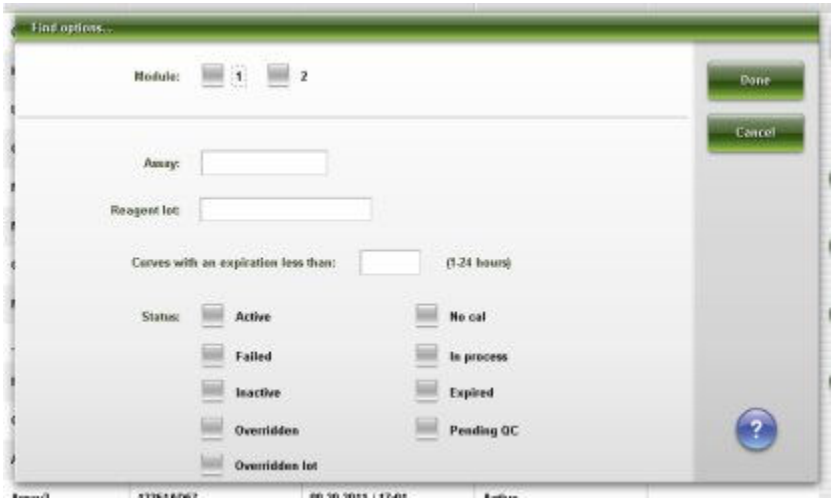
Windows in this sub-section include:

- *Find options (Calibration history) window*, page 6-28
- *Archive calibration curves window*, page 6-29

Find options (Calibration history) window

From the Find options (Calibration history) window you can search for specific calibration records.

Figure 6.13: Find options (Calibration history) window



For descriptions of these fields, see *Find options (Calibration status and Calibration history) window field descriptions*, page E-81.

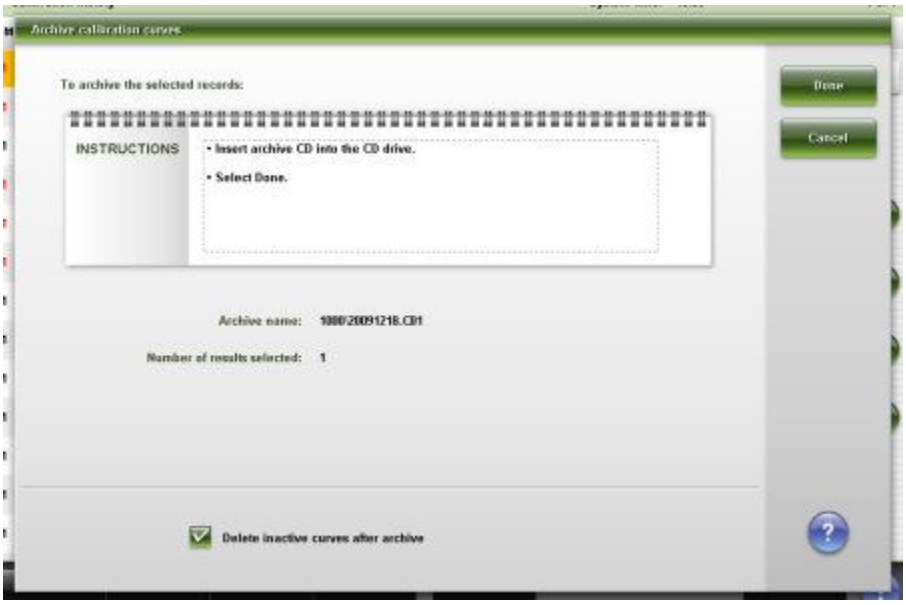
Related procedures...

- *Find a specific calibration*, page 6-31

Archive calibration curves window

From the Archive calibration curves window you can archive calibration curves to a CD.

Figure 6.14: Archive calibration curves window



For descriptions of these fields, see *Archive calibration curves window field descriptions*, page E-90.

Related procedures…

- *Archive calibration curves*, page 6-34

Procedures - Calibration review

Procedures you can perform from the Calibration status and/or Calibration history screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Print a report*, page 5-403

Procedures in this sub-section include:

- *View assay calibration status*, page 6-30
- *View assay calibration history*, page 6-31
- *Find a specific calibration*, page 6-31
- *View calibration curve information*, page 6-32
- *Fail a calibration curve*, page 6-33
- *Archive calibration curves*, page 6-34

View assay calibration status

Perform this procedure to display the Calibration status screen. From this screen you can view a summary list of the calibration statuses for each assay and reagent lot currently loaded on the system.

To find specific calibrations, see *Find a specific calibration*, page 6-31.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view assay calibration status:

NOTE: You may also access this screen from the Snapshot screen by selecting the **CAL STATUS** button on the *c* System processing module graphic.

Select **QC-Cal** from the menu bar, and then select **Calibration status**.

The Calibration status screen displays.

Related information…

- *Calibration status screen*, page 6-17
- *Descriptions of calibration statuses*, page 6-18

View assay calibration history

Perform this procedure to display the Calibration history screen. From this screen you can view a summary list of the calibration statuses for current and previously performed calibrations.

To find specific calibrations, see *Find a specific calibration*, page 6-31.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To view assay calibration history:

Select **QC-Cal** from the menu bar, and then select **Calibration history**.

The Calibration history screen displays.

Related information...

- *Calibration history screen*, page 6-26
- *Descriptions of calibration statuses*, page 6-18

Find a specific calibration

Perform this procedure to search for a specific calibration by entering your search criteria in one or more fields.

Prerequisite	*Access the Calibration status screen*, page 6-18 *Access the Calibration history screen*, page 6-28
Module status	Any
User access level	General operator
Supplies	NA

To find a specific calibration:

1. Select **F3 - Find** on the Calibration status or Calibration history screen.

   The Find options (Calibration status or Calibration history) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

   NOTE: A wildcard search allows you to type a partial entry followed by an asterisk (*) to begin a search when you do not know the entire entry. You can use the asterisk (*) wildcard character in all data entry boxes except position (P).

   Example: If you enter 123* in the Reagent lot data entry box, all the reagent lots starting with 123 display. This list could include 12345M100, 12346M100, or 12347M100.

3. Select **Done** to initiate the search.

   The Calibration status or Calibration history screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information…

- *Find options (Calibration status) window*, page 6-20
- *Find options (Calibration history) window*, page 6-28

View calibration curve information

Perform this procedure to display the Calibration curve window. From this window you can view detailed information for a calibration curve(s) such as:

- Calibrator name, concentration, lot number, and expiration date
- Current active calibrator graph and curve data
- Previous inactive calibrator graph and curve data (premium feature)

Prerequisite	*Access the Calibration status screen*, page 6-18 *Access the Calibration history screen*, page 6-28
Module status	Any
User access level	General operator
Supplies	NA

To view calibration curve information:

1. Select the desired calibration(s) from the table on the Calibration status or Calibration history screen, or select **F2- Select all**.
2. Select **F5 - Details**.

   The Calibration curve window displays. The view is dependent on the calibration(s) you selected.

   Both the current and previous curves display:

   – Current active curve - displays as a solid black line

   – Previous curve - displays as a dashed gray line (premium feature)
3. Use the curve data buttons to toggle between the two curves. (***optional***, premium feature)

   a. Select the **Previous curve** data button to display the previous inactive curve data.

   b. Select the **Current curve** data button to return to the active curve data.
4. Use the **previous**/**next** buttons to display each calibration if you selected more than one. ***(optional)***

   The active curve data displays for each assay.

5. Select **Done** to return to the Calibration status or Calibration history screen.

Related information…

- *Calibration curve window - factor, linear, and non-linear assay views (c System)*, page 6-20
- *Calibration curve window - use cal factor/blank assay view (c System)*, page 6-21
- *Calibration curve window - potentiometric assay view (c System)*, page 6-22
- *Calibration curve window - adjust assay view (i System)*, page 6-23
- *Calibration curve window - index assay view (i System)*, page 6-24
- *Calibration curve window - full assay view (i System)*, page 6-25

Fail a calibration curve

Perform this procedure to fail an Active or Pending QC calibration curve so that subsequent control or patient orders are not calculated from the curve.

Prerequisite	*Access the Calibration status screen*, page 6-18 *Access the Calibration history screen*, page 6-28
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To fail a calibration curve:

1. Select the desired calibration(s) from the table on the Calibration status or Calibration history screen.
2. Select **F5 - Details**.

   The Calibration curve window displays.
3. Select **Fail Curve**.

   A confirmation message displays.
4. Select **OK** to fail the calibration curve.
5. Use the **previous**/**next** buttons to display each calibration if you selected more than one, and then repeat steps 3 and 4 for each. ***(optional)***
6. Select **Done** to return to the Calibration status or Calibration history screen.

Related information…

- *Calibration curve window - factor, linear, and non-linear assay views (c System)*, page 6-20
- *Calibration curve window - use cal factor/blank assay view (c System)*, page 6-21
- *Calibration curve window - potentiometric assay view (c System)*, page 6-22

- *Calibration curve window - adjust assay view (i System)*, page 6-23
- *Calibration curve window - index assay view (i System)*, page 6-24
- *Calibration curve window - full assay view (i System)*, page 6-25

Archive calibration curves

Perform this procedure to store calibration curves on a CD to create a backup for long-term storage.

NOTE: The calibration curves are archived in a delimited ASCII format so you can import them into a spreadsheet. You cannot use the ARCHITECT System to retrieve the information.

Prerequisite	*Access the Calibration history screen*, page 6-28
Module status	Offline, Stopped, or Ready
User access level	General operator
Supplies	• CD-R (compact disk recordable) or • Unformatted CD-RW (compact disk Recordable/ ReWritable)

To archive calibration curves:

1. Disable the screen timeout if the database is full and you are archiving a large amount of data. See *Change the screen timeout setting*, page 2-22. ***(optional)***
2. Insert a CD-R or CD-RW into the CD drive.

   NOTE: If an archive message displays, see *Descriptions of archive messages*, page 5-343.
3. Select the desired calibration curves from the table on the Calibration history screen, or select **F2 - Select all**.

   NOTE: You can also select **F3 - Find** to search for and select calibration curves. See *Find a specific calibration*, page 6-31.
4. Select **F8 - Archive**.

   The Archive calibration curves window displays.
5. Verify the CD drive read indicator light is off.
6. Deselect **Delete inactive curves after archive** check box. ***(optional)***

   NOTE: If you choose to delete calibration curves, only curves with a status of No Cal (if the reagent is not onboard) or Inactive will be deleted.
7. Select **Done** to archive the calibration curves.

   NOTE: An archive routinely takes less than four minutes, but with a full database it may take longer. You can cancel an archive when the system is collecting archive data and creating a temporary archive data file. A progress indicator displays with a Cancel button. You can cancel an archive prior to it being 50% complete.

Do not navigate to a different screen or window until the "0519 Data Archive Complete" message displays.

8. Select the **refresh** button, if available.

Related information…

- *Calibration history screen*, page 6-26
- *Archive calibration curves window*, page 6-29

NOTES

Introduction

Operational requirements, precautions, and limitations are provided to ensure operator safety and accurate assay results. Not following these requirements or taking these precautions can impact system and assay performance and may cause damage to the system or adversely affect assay results.

Operational precautions and limitations topics include:

- *General requirements*, page 7-2
  Lists the requirements for system environment, maintenance, and troubleshooting to ensure proper system performance.
- *Precautions and requirements for system operation*, page 7-3
  Lists the precautions you should take and the requirements you should follow before and during system operation.
- *Requirements for handling consumables*, page 7-5
  Lists the requirements for storing and using consumables such as reagents, calibrators, controls, bulk solutions, and onboard solutions.
- *Requirements for handling specimens*, page 7-8
  Lists the requirements for collecting, preparing, and storing specimens.
- *Limitations of result interpretation*, page 7-10
  Discusses the other factors you should consider when interpreting patient test results.

General requirements

You MUST follow these general ARCHITECT System requirements to help ensure proper system performance:

- Contact your Abbott representative to install your ARCHITECT System.
- Ensure the system is out of direct sunlight, heat and drafts, and away from any heat generating device. Exposure to heat and drafts can interfere with the ability of the system to maintain an operating temperature that is within the acceptable range.
- Maintain the required space on all sides of the system. For more information about space requirements, see *System clearances*, page 4-17. This space buffer is essential for:
  - Adequate cooling of electrical components
  - Accurate temperature control of the processing center
  - Easy access for maintenance
  - Easy access for disconnecting the power cord when required
- Leave the system power on continuously unless instructed otherwise in a maintenance or troubleshooting procedure, or unless an emergency situation occurs.
- Perform maintenance procedures as recommended in Section 9, Service and maintenance.
- Do not attempt any maintenance or repairs that are not specified in documentation provided by Abbott Laboratories.

Precautions and requirements for system operation

You MUST take these precautions and follow these requirements when operating the ARCHITECT System. Failure to do so may cause damage to the system and may adversely affect test results.

Precautions before operation

Before you begin operating the system, you should:

- Read this manual thoroughly to understand full functionality of the system and associated hazards.
- Read the sections of the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) that are associated with:
  - Warnings and precautions
  - Safety precautions
  - Handling precautions

Requirements before operation

Before you begin operating the system, you should:

- Verify that supplies are loaded.
- Load *c* System reagents into the appropriate section of the reagent supply center.
- Load *i* System reagents, with septums installed, in the appropriate section of the reagent carousel or reagent carrier.

  IMPORTANT: You must use septums to prevent reagent evaporation and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if you do not use septums as instructed in this manual and the assay-specific package insert.

  Once you have placed a septum on a reagent bottle, do not invert the bottle. Inverting the bottle results in reagent leakage and may compromise assay results. Do not remove septums once they have been installed on reagent bottles.
- Verify the *c* System ICT module is installed before running potentiometric assays.

Precautions during operation

While operating the system, take the following precautions:

- Keep all processing module and sample handler doors closed and covers in place unless instructed otherwise in a maintenance or troubleshooting procedure.
- Do not disconnect any electrical connection while the power is on.
- Shutdown the system control center if the main power source is interrupted. You have a maximum of ten minutes to perform the shutdown before losing backup power from the UPS (uninterruptible power supply). See *Power off the SCC*, page 5-4.
- Respond to system notifications relating to waste levels during processing. Dispose of all liquid waste according to local, state, and federal regulations.
- Stop the RSH (robotic sample handler) before losing power from the UPS (uninterruptible power supply) if the main power source to the processing module(s) is interrupted. Stop the RSH by performing one of the following:
  - Press the stop key on the sample handler keypad, if available.
  - Select the sample handler graphic on the Snapshot screen, and then select F6 - Stop.
- Discard all sample cups and/or tubes on the sample carrier if a carrier is in the RSH carrier transport when you perform an emergency shutdown. Samples and the surrounding area may be contaminated by sample splashing as the RSH carrier transport motor loses power.

  For proper recovery information for the *c*8000, *c*16000, *i*2000, *i*2000SR, *ci*8200, and *ci*16200, see *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715.

  For proper recovery information for the *c*4000/*i*1000SR/*ci*4100, see *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716.

Requirements for handling consumables

You MUST follow these requirements when handling consumables to help ensure your safety and accurate assay results. For detailed information, see the manufacturer's assay-specific documentation (such as a package insert or reagent application sheet), the specific product label, or the Safety Data Sheet.

Requirements for storage

Follow these requirements for storing cuvettes, reaction vessels, sample cups, and reagent cartridges:

- Keep all consumables clean and free of dust.
- Store all consumables in their original containers so that you can obtain information such as expiration dates and lot numbers if necessary.

Follow these requirements for storing reagents, calibrators, controls, bulk solutions, and onboard solutions:

- Store reagents, calibrators, and controls according to directions in the manufacturer's documentation (such as a package insert or reagent application sheet).
- Store bulk solutions and onboard solutions as instructed on their labels or in the product's documentation (such as a package insert or reagent application sheet).
- Store *i* System reagents off the system in an UPRIGHT position according to the directions in the assay-specific package insert.

Contact your Abbott Customer Support if you receive reagents, calibrators, controls, bulk solutions, or onboard solutions that are in a condition contrary to the product's documentation (such as a package insert or reagent application sheet) or label recommendation, or that are damaged.

Requirements for use

Follow these requirements for using reaction vessels, sample cups, and reagent cartridges:

- Do not reuse or substitute. Abbott Laboratories cannot accept responsibility for system performance and assay results when consumables are reused or have been manufactured by anyone other than Abbott Laboratories.
- Use caution when handling to prevent contamination and operator exposure.
- Use within their specified dating periods.
- Consider all used reaction vessels, sample cups, and reagent cartridges as potentially infectious. Follow appropriate procedures for handling.

Follow these requirements for using reagents, calibrators, controls, bulk solutions, and onboard solutions:

- Do not substitute. Abbott Laboratories manufactures substances and components to rigidly controlled quality standards. Substitution of materials may affect ARCHITECT System performance, assay results, safety, and equipment life.
- Avoid excessive mixing or shaking of liquids to minimize formation of foam and bubbles.
- Do not pipette by mouth.
- Do not smoke, eat, drink, apply cosmetics, or handle contact lenses in areas where specimens, reagents, calibrators, controls, bulk solutions, or onboard solutions are handled.
- Use caution when handling reagents, calibrators, controls, bulk solutions, and onboard solutions to prevent contamination and operator exposure.
- Wear clean gloves to avoid contamination and operator exposure when placing an uncapped reagent bottle or cartridge on the processing module.
- Wear clean gloves to avoid contamination and operator exposure when placing a septum on an uncapped *i* System reagent bottle or when handling a *c* System reagent cartridge.
- Do not invert the *i* System reagent bottle once you have placed a septum on it. Inverting the bottle results in reagent leakage and may compromise assay results.

  IMPORTANT: You must use septums to prevent reagent evaporation and contamination and to ensure reagent integrity. Reliability of assay results cannot be guaranteed if you do not use septums as instructed in this manual and the assay-specific package insert. Do not remove septums once they have been installed on reagent bottles.
- Verify that all necessary assay components are present in the kit when loading new reagents.
- Verify the lot number and expiration date of each reagent kit component before you load the components in the reagent supply centers.
- Do not use reagents, calibrators, controls, bulk solutions, and onboard solutions beyond their expiration dates.
- Do not use reagents on board the system beyond the maximum number of cumulative days as stated in the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
- Verify that bulk solutions and onboard solutions are loaded in the appropriate positions to ensure that results are not adversely affected.
- Make sure Pre-Trigger Solution and Trigger Solution are loaded in the correct locations in the tray. Placing concentrated wash buffer in place of trigger or pre-trigger will adversely affect results.
- Do not mix reagents, calibrators, controls, or *c* System bulk and onboard solutions within a lot or between lots.
- Do not mix reagents, calibrators, controls, or Pre-Trigger Solution and Trigger Solution within a lot or between lots.

- Use of R2 reagents containing elevated amounts of serum protein (greater than or equal to 20% w/w) can cause protein build up in the reagent probe(s). This build up may cause reagent carryover which results in elevated or depressed assay results. Refer to the Abbott assay-specific package insert to identify reagents containing elevated amounts of protein. The operator should ensure that non-Abbott reagents are appropriately categorized as potential serum protein contributors.

  To identify reagent carryover on the ARCHITECT *c* System, refer to the following:

  – *Reagent carryover corrective action procedures*, page 10-729 for Abbott assays.

  – Reagent carryover evaluation in the ARCHITECT *c* System Assay Applications Guide for non-Abbott assays.

  For troubleshooting elevated or depressed assay results, refer to *Sample results observed problems (c System)*, page 10-531.

Requirements for handling specimens

See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for detailed, assay-specific information about specimen collection, preparation, and storage. Consider all clinical specimens, reagents, controls, and calibrators that contain human-sourced materials as potentially infectious. Consider all system surfaces or components that have come in contact with human-sourced materials as potentially infectious. Refer to *Biological hazards*, page 8-5 for additional information.

CAUTION: Biological RISKS. Identifies an activity or area where you may be exposed to potentially infectious material.

Requirements for collection

Follow these requirements for collecting specimens:

- Follow all usual precautions for collecting blood by venipuncture to avoid specimen hemolysis.
- See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for the appropriate specimen type for each assay.

  NOTE: Only human specimens have been tested and approved for analysis on the ARCHITECT System. Performance has not been established using cadaver specimens or body fluids other than those specified in the Abbott product assay-specific documentation (such as a package insert or reagent application sheet).
- Verify the correct specimen type(s) is used. The ARCHITECT System does not verify specimen type.

Requirements for preparation and storage

Follow these requirements for preparing and storing specimens:

- Ensure that serum specimens collected in tubes containing a gel separator have 8 mm of serum above the gel to avoid contamination of the specimen during pipetting.
- Inspect all samples for bubbles. Remove bubbles with a clean applicator stick prior to analysis. Use a new applicator stick for each sample to prevent cross contamination.
- Verify serum and plasma specimens are free of fibrin, red blood cells, or other particulate matter.
- Ensure that complete clot formation in serum specimens has taken place prior to centrifugation. Some specimens, especially those from patients receiving anticoagulant or thrombolytic therapy may exhibit increased

clotting times. If the specimen is centrifuged before a complete clot forms, the presence of fibrin may cause erroneous results.

- See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for sample volume information.
- Separate the serum or plasma from the clot, serum separator, or red blood cells prior to freezing.
- Mix and centrifuge serum or plasma samples after any freeze/thaw cycle or to remove red blood cells or particulate matter. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for limitations and interfering substances.
- Avoid multiple freeze-thaw cycles. After you thaw a specimen, you MUST mix it thoroughly by low speed vortexing or by gently inverting it to ensure consistency in the results.
- Remove closures from specimen tubes prior to loading them on the sample handler.
- Minimize evaporation effects after you load samples on the system by processing them within the number of hours specified in the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet). For detailed information on evaporation effects, see *Sample volume requirements*, page 5-242.
- Mix whole blood samples completely prior to placing on the system and after any freeze/thaw cycle.
- Do not centrifuge whole blood samples to perform serum testing after they have been sampled for whole blood applications. See the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet) for limitations and interfering substances.

Limitations of result interpretation

Assay results MUST be used with other clinical data, for example, symptoms, other test results, patient history, clinical impressions, information available from clinical evaluation, and other diagnostic procedures. All data MUST be considered for patient care management.

If assay results are inconsistent with clinical evidence, additional testing is suggested to confirm the result.

The ARCHITECT System has been validated for its intended use. However, errors can occur due to potential operator errors and ARCHITECT System technology limitations.

Introduction

Attention to hazard and safety information minimizes the potential of harm to personnel and damage to the laboratory environment. This section is for information only and should supplement, not supersede, your workplace safety requirements. It is, however, recommended that you review any significant differences between this information and your workplace safety requirements with your management or workplace safety representative.

Hazard and safety topics include:

Operator responsibility

You are responsible for using the ARCHITECT System only as designed. Operators must be trained before being allowed to operate the system. Failure to follow safe use instructions could cause injury to you, harm to the environment, damage to the system, or adversely affect assay results. See *Operational precautions and limitations*, page 7-1.

Safety icons

Safety icons are used in ARCHITECT System documentation and on ARCHITECT Systems to identify potentially dangerous conditions. You MUST recognize these icons and understand the type and degree of potential hazard.

The following icons may be used with text or in lieu of text. If text accompanies the icon, it describes the nature of the hazard and is labeled with **WARNING** or **CAUTION**.

WARNING indicates a condition that could result in moderate to serious personal injury.

CAUTION indicates a condition that could result in minor injury or interfere with proper functioning of the system.

Table 8.1: Safety icons and descriptions

Icon	Description
 	**WARNING: Potential Biohazard** Identifies an activity or area where you may be exposed to potentially infectious material. For more information, see *Biological hazards*, page 8-5.
	**WARNING: Electrical Shock Hazard** Indicates the possibility of electrical shock if procedural or engineering controls are not observed. For more information, see *Electrical hazards*, page 8-15.
	**CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.** Warns against direct viewing of the beam or reflections from the beam. For more information, see *Laser light*, page 8-18.
	**WARNING: Hot Surface** Identifies an activity or area where you may be exposed to hot surfaces. For more information, see *Hot objects*, page 8-22.
	**WARNING: Probe Stick Hazard** Identifies an activity or area where you may be exposed to probes. For more information, see *Probes and other sharps*, page 8-18.

Icon	Description
	**CAUTION** When used in this manual, it is accompanied by a description of the hazard and a reference to the related safety content in this section. Examples include: **CAUTION: Lifting Hazard** Identifies an activity where you may be required to lift or move a heavy object. For more information, see *Heavy objects*, page 8-21. **CAUTION: Moving Parts** Identifies an activity or area where you may be exposed to moving parts. For more information, see *Mechanical hazards*, page 8-16. **CAUTION: Chemical Hazard** Identifies an activity or area where you may be exposed to hazardous chemicals. For more information, see *Chemical hazards*, page 8-7.

Table 8.2: ARCHITECT iARM Safety icons and descriptions

Icon	Description
	**CAUTION** When used on the ARCHITECT *i*ARM accessory, the icon indicates that water inlet pressure is not to exceed 30 psig.
	**CAUTION: No Step** Identifies a surface that is unsuitable for stepping onto.
	**CAUTION: No Sitting** Identifies a surface that is unsuitable for sitting on.
	**CAUTION: Protective earth ground required** Identifies a terminal that is intended for connection to an external conductor or the terminal of a protective earth (ground) electrode, for protection against electrical shock in case of a fault.

Biological hazards

When performing the following activities, you may be exposed to potentially infectious materials:

- Handling samples, reagents, calibrators, and controls
- Cleaning spills
- Handling and disposing of waste
- Moving the system
- Performing maintenance procedures
- Performing cleaning or decontamination procedures
- Performing component replacement procedures

The following information is presented to help you minimize the impact of this exposure.

Precautions

You should consider all clinical samples, reagents, calibrators, controls, and used RVs (reaction vessels) that contain human-sourced material as potentially infectious. No known test method can offer complete assurance that products derived from human-sourced material will not transmit infection. Therefore, all products derived from human-sourced materials, and all system surfaces and components that have come in contact with human-sourced materials, should be considered potentially infectious.

It is recommended that you handle all potentially infectious materials in accordance with the OSHA Standard on Bloodborne Pathogens[1]. You should use Biosafety Level 2[2] or appropriate biosafety practices[3,4] for materials that contain or are suspected of containing infectious agents. Precautions include, but are not limited to the following:

- Wear gloves, lab coats, and protective eye wear when handling human-sourced material or contaminated system components. Wear a face shield if a splash hazard exists.
- Do not pipette by mouth.
- Do not eat, drink, smoke, apply cosmetics, or handle contact lenses when handling human-sourced material or contaminated system components.
- Clean spills of potentially infectious materials and contaminated system components with a detergent followed by an appropriate disinfectant, such as 0.1% sodium hypochlorite or other suitable disinfectant.

  NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.
- Decontaminate and dispose of all samples, reagents, and other potentially contaminated materials in accordance with local, state, and national regulations.

If you are exposed to biohazardous or potentially infectious materials, take steps immediately to cleanse the affected area:

- Eyes - Rinse with water for 15 minutes.
- Mouth - Rinse with water.
- Skin - Wash the affected area with soap and water. Apply an antiseptic such as alcohol, povidone iodine, chlorhexidine, etc.
- Puncture wound - Allow to bleed freely. Wash the affected area with soap and water.

Seek medical attention as soon as possible for appropriate follow-up.

1. US Department of Labor, Occupational Safety and Health Administration, *29 CFR Part 1910.1030, Bloodborne Pathogens*.

2. US Department of Health and Human Services. *Biosafety in Microbiological and Biomedical Laboratories*. 5th ed. Washington, DC: US Government Printing Office, January 2007.

3. World Health Organization. *Laboratory Biosafety Manual*. 3rd ed. Geneva: World Health Organization, 2004.

4. Sewell DL, Bove KE, Callihan DR, et al. *Protection of Laboratory Workers from Occupationally Acquired Infections: Approved Guideline - Third Edition*. (M29-A3). Wayne, PA: Clinical and Laboratory Standards Institute, 2005.

Chemical hazards

You may be exposed to hazardous chemicals when handling reagents, calibrators, controls, bulk solutions, bleach, and onboard solutions, including the optional liquid waste container.

Your exposure to hazardous chemicals is minimized by following instructions provided in the following documentation:

- Product package insert
- Specific product label
- Safety Data Sheet (SDS)

Exposure levels are further reduced by the design features of the instrument when it is installed and used properly.

ARCHITECT System products are classified and labeled according to the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) as implemented in regional regulations such as the US OSHA Hazard Communication Standard (HCS) and European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP).

Pictograms (red-bordered diamonds), signal words (such as Warning), hazard statements (H) and precautionary statements (P) appear on respective product labeling. Other country-specific warnings and precautions may also be included on product labeling. Safety Data Sheets are available on www.abbottdiagnostics.com or contact your local representative.

General precautions

In general, observe the following precautions when handling chemicals:

- Consult the Safety Data Sheet(s) for safe use instructions and precautions.
- Avoid contact with skin and eyes. If contact with material is anticipated, wear impervious gloves, protective eye wear, and clothing.
- Maintain good housekeeping. Do not eat, drink, or store food and beverages in areas where chemicals are used.
- Clean spilled fluids immediately.
- Seek medical attention if irritation or signs of toxicity occur after exposure.
- For information related to Article 33 of the EU REACH regulation (EC No. 1907/2006), please refer to pmis.abbott.com. If you have issues logging into the website, contact Abbott at abbott.REACH@abbott.com.
- To view the China RoHS 2 Hazardous Substance tables, in accordance with the People's Republic of China Electronic Industry Standard SJ/T 11364-2014, go to abbottdiagnostics.com/registration-ous (select Technical Library > Other Reference Documents > China RoHS Hazardous Substance Tables).

Sodium azide

Some products contain sodium azide. Observe the following precautions when using products or handling waste containing sodium azide:

- Do not use any chemical or product with a pH below 6 to disinfect waste that contains sodium azide or to mix with a product that contains sodium azide. Hydrazoic acid, a very toxic gas, is released when the pH is lower than 6. Normal operation of the system uses small amounts of sodium azide with other reagent components and does not generate hydrazoic acid at levels harmful to the user. The pH of the concentrated wash buffer is greater than 6, and normal operation of the system is not open to the atmosphere.
- Flush drains thoroughly with water several times a day to prevent potentially explosive metal azides from forming on lead, copper, or brass components or on solder in laboratory plumbing if product and/or instrument waste is released to a drain. Detailed information about azides in laboratory drains is available in Current Intelligence Bulletin No.13 *Explosive Azide Hazard* (August 16, 1976), a publication issued by the U.S. National Institute of Occupational Safety and Health (NIOSH). You may access a copy of this bulletin by contacting your local representative or by going to one of the following internet sites:
  - cdc.gov/niosh

    Search on the bulletin title.
  - abbottdiagnostics.com

    Access the International or United States site. Select Support/Technical Library/Other Reference Documents.

Sensitizers

Some products contain low levels of ingredients that are reported to be sensitizers. Sensitizers can stimulate allergic reactions in some people. The allergic reactions may occur with the first exposure, or only after repeated exposures. Methylisothiazolones, used as preservatives in some products, have been associated with stimulating allergic skin reactions (allergic contact dermatitis). Certain enzymatic cleansers may stimulate allergic reactions in the respiratory systems of sensitive people. The following precautions will reduce your potential for exposure to sensitizers:

- Using good laboratory techniques to minimize spatters, spills and other aerosolization of liquids and powders, particularly when pouring or otherwise transferring materials.
- Using impervious gloves and other personal protective equipment appropriate for biomedical laboratories.
- Remove gloves immediately if damaged or contaminated.
- Wash hands upon removing gloves, even if you are planning to put on a fresh pair of gloves right away.

- Handle containers at a comfortable height, but below chest level.

Waste handling and disposal

Each facility is responsible for labeling all waste containers and characterizing its waste stream to ensure waste is disposed of in accordance with the appropriate local, state, and national regulations.

Mercury

Reagents, calibrators, and controls may contain thimerosal or mercury and may be considered hazardous per applicable environmental regulatory agencies. See the manufacturer's assay-specific documentation (such as a package insert or reagent application sheet), the product-specific label, or the product-specific instructions in the Safety Data Sheet(s). Check with your local sanitary district to determine limits for mercury in wastewater.

Liquid wastes containing (potentially) infectious materials

Consider the following precautions if you must meet institutional or local requirements for decontaminating or disinfecting liquid wastes containing infectious or potentially infectious materials:

- Select a disinfectant that is effective against bloodborne infectious agents, as well as other microbial agents that may be prevalent in your population. A disinfectant that is effective against Mycobacterium tuberculosis is generally effective against all known viruses and non-sporeforming bacteria, and is suitable for most clinical laboratory situations.
- Select a disinfectant and method that does not bubble, effervesce or otherwise generate aerosols.
- Do not use any chemical or product with a pH below 6. The use of materials with a pH of below 6 will result in the generation of highly toxic hydrazoic acid gas if the waste contains sodium azide.
- Do not use any chemical or product for disinfection that contains any metal in order to prevent the creation of highly explosive metal azides in wastes that may contain sodium azide.
- Obtain and review the manufacturer's safety information before using any disinfectant.
- Use disinfectants according to the manufacturer's directions (for example, do not use excess disinfectant). Failure to follow the manufacturer's directions may have unexpected effects.
- Do not use a disinfectant if you do not have the proper facility, equipment and other appropriate protective measures available to work with it safely.
- Autoclaving is not recommended for materials contaminated with products containing chemicals that are hazardous by inhalation at low concentrations (for example, mercury or cyanides).

Spill clean-up

Clean spills in accordance with established biosafety practices and follow instructions in the Safety Data Sheet(s). In general, safe work practices for cleaning spills include:

1. Wear appropriate personal protective equipment, such as gloves, eye wear, and lab coat.
2. Absorb the spill with absorbent material.
3. Wipe the spill area with detergent solution.
4. Wipe the area clean with an appropriate disinfectant, such as 0.1% sodium hypochlorite.

   NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

Decontamination procedure requirements

General precautions

Sodium hypochlorite (bleach) and other disinfectants are typically hazardous chemicals that react with many chemicals, materials, and living tissues. Obtain and review manufacturer's safety information before using any disinfectant.

Always wear appropriate personal protective equipment (such as gloves, eye wear, and lab coat) while performing decontamination activities.

Routine decontamination

Procedures for decontaminating the ARCHITECT System and specific components are described in *Maintenance*, page 9-2.

The procedure for bleaching the ICT module is described in *Bleach the ICT module (c System)*, page 10-704.

General procedures for decontamination include:

- *6038 External Decontamination*, page 9-108
- *2180 Internal Decontamination (CSC logon)*, page 9-80 (*i*2000/*i*2000SR)
- *2181 Internal Decontamination (FSE logon)*, page 9-38 (*c* System)
- *2190 Internal Decontamination*, page 9-93 (*i*1000SR)

IMPORTANT: It is strongly advised that the appropriate decontamination procedure(s) be used prior to beginning any Component Replacement procedure.

Examples of component-specific decontamination procedures include the following:

Component	Applicable procedure
Sample carrier	*6038 External Decontamination*, page 9-108.
Reagent carrier	*6038 External Decontamination*, page 9-108.
System control center	*6038 External Decontamination*, page 9-108.
Processing module external surfaces	*6038 External Decontamination*, page 9-108.
ICT module (*c* System)	*Bleach the ICT module (c System)*, page 10-704.
Supply and pump center (*c* System)	*6038 External Decontamination*, page 9-108.
High-concentration waste bottle (*c* System)	*6038 External Decontamination*, page 9-108.

Component	Applicable procedure
Wash cups (*c* System)	*2183 Clean Wash Cups*, page 9-38.
ARCHITECT System / ARCHITECT ARM surfaces (*i* System)	*6038 External Decontamination*, page 9-108.
ARCHITECT ARM (*i* System)	*2182 ARM Decontamination (i System) (FSE logon)*, page 9-108.
ARCHITECT *i*ARM	Contact your area customer support.
Supply and waste center (*i* System)	*6038 External Decontamination*, page 9-108.

For information on decontaminating or disinfecting wastes containing infectious or potentially infectious materials, see *Waste handling and disposal*, page 8-10.

Preparation of sodium hypochlorite solutions for decontamination

- To calculate the parts of water required to mix with one part of manufacturer-supplied sodium hypochlorite solution, use the following formula:

$$X = \frac{B - A}{A}$$

Where:

A	=	% of sodium hypochlorite solution desired
B	=	% of sodium hypochlorite (active or available chlorine) in manufacturer-supplied solution
X	=	number of parts of water required to mix with one part of manufacturer-supplied sodium hypochlorite (active or available chlorine) solution

Example:

A = 0.5%

B = 5%

$$X = \frac{5\% - 0.5\%}{0.5\%} = 9$$

Mix one (1) part sodium hypochlorite with nine (9) parts water.

- To calculate the volume of sodium hypochlorite required to make a specific volume of sodium hypochlorite solution, see as-needed maintenance procedure 6100 NA Hypochlorite Calculator or use the following formula:

$$V1 = \frac{A \times V2}{B}$$

Where:

A	=	% of sodium hypochlorite solution desired
B	=	% of sodium hypochlorite (active or available chlorine) in manufacturer-supplied solution
V1	=	Volume of manufacturer-supplied sodium hypochlorite
V2	=	Total volume desired

Example:

A = 0.5%

B = 5%

V2 = 1000 mL (1 liter)

$$V1 = \frac{0.5\% \times 1000\ mL}{5\%} = 100\ mL$$

Mix 100 mL of manufacturer-supplied sodium hypochlorite solution with 900 mL of water to make up one liter of sodium hypochlorite solution.

Sodium hypochlorite stability

Use a sodium hypochlorite solution for decontamination that is prepared fresh daily to ensure that the solution contains a sufficient quantity of active compound (for example, chlorine) to be effective. The amount of active chlorine in sodium hypochlorite solutions, for example, is reduced by the following factors:

- The presence of organic matter in the water used for dilution
- The temperature at which the solution is stored
- The type and size of the container and closure
- The frequency and nature of use

If a facility has data that demonstrates a longer shelf-life is valid under the specific conditions of solution preparation and storage in the facility, prepare solutions in advance and store them.

For more information, see LINK LIBRARY FOR LABORATORIES, HOSPITALS and OTHER INSTITUTIONS, Daily Preparations of Bleach Solutions, Recommendations for Daily Preparation of Diluted Sodium Hypochlorite Bleach Disinfectant Solutions at activatebleach.com/docs/LINK_LIBRARY_Daily_Preparations_of_Bleach_Solutions.pdf.

When hypochlorite solution is used for cleaning in the following maintenance and diagnostic procedures, the stability of the solution is 30 days:

- 6041 Daily Maintenance
- 6043 WZ Probe Cleaning - Bleach
- 6445 Pipettor/WZ Probe Cleaning

Electrical hazards

The ARCHITECT System does not pose uncommon electrical hazards to operators if it is installed and operated without alteration, and is connected to a power source that meets required specifications. See *Electrical specifications and requirements*, page 4-22.

For the ARCHITECT *i*ARM accessory, see *Electrical requirements*, page F-10.

Basic electrical hazard awareness is essential to the safe operation of any system. Only qualified personnel should perform electrical servicing.

Elements of electrical safety include, but are not limited to the following:

- Inspect electrical cabling into and on the ARCHITECT System for signs of wear and damage.
- Use only approved power cords and electrical accessories, such as those supplied with the system, to protect against electric shock.
- Use a properly grounded electrical outlet of correct voltage and current handling capability.
- Determine and correct the cause of a blown fuse or thrown circuit breaker before attempting to resume operation of the system.
- Do not disconnect any electrical connection or service any electrical or internal components while the power is on.
- Unplug the ARCHITECT ARM or *i*ARM accessory before cleaning, servicing, or performing system maintenance.
- Disconnect the processing module power cord before cleaning major liquid spills.
- Keep liquids away from all connectors of electrical or communication components.
- Do not touch any switches or outlets with wet hands.
- Keep the floor dry and clean under and around the ARCHITECT System.
- Use a ground fault circuit interrupter when working in a wet environment.
- Avoid spilling fluids in the electronics bay when using the ARCHITECT ARM or *i*ARM accessory.
- Clean spilled fluids immediately. Remember to turn the power off and disconnect the power cord before cleaning major liquid spills.

Mechanical hazards

The ARCHITECT System is an automated system that operates under computer control. As with most automated equipment, there is potential for injury and bodily harm from moving mechanical components whenever the system is in operation.

The ARCHITECT System minimizes mechanical hazards by providing guards to protect against accidental contact with moving components, and encoding the software with safety features.

The ARCHITECT System requires that you accurately position all samples, reagents, calibrators, controls, and cups and/or tubes on the system. It is very important that you correctly position sample cups and/or tubes, reaction vessels, and reagent containers before initiating any operation.

Although the ARCHITECT System is equipped with safety features to stop the lowering of the probes, it is NEVER acceptable for you to reach into the processing module's working area when the system is in operating mode. Should your intervention be necessary during a run, interrupt the run according to instructions defined in Section 5, Operating instructions.

During operation of the ARCHITECT System, you may be exposed to moving mechanical components, such as:

- Sample and reagent arm(s)
- Pipettor(s) and probe(s)
- Sample handler
- RV load assembly
- Wash aspiration probe(s)
- Sample carousel
- Reagent supply center(s)
- Reaction carousel
- Mixer unit
- Cuvette washer
- ICT unit/probe

Basic elements of mechanical safety include, but are not limited to:

- Never bypass or override a safety device.
- Keep all protective covers and barriers in place.
- Never perform manual tasks on the work surface of the system.
- Never allow any part of your body to enter a range of mechanical movement during system operation.

- Do not wear articles of clothing or accessories that could catch on the system.
- Keep pockets free of items that could fall into the system.
- Open the covers to the reagent supply center(s) and the *c*8000 and *c*16000 sample carousel if and only if the access indicator lights are illuminated. If you open the covers when access is not indicated, the mechanical components do not stop moving immediately because the system attempts to return the components to their home positions.
- Do not operate the ARCHITECT ARM or *i*ARM accessory with the covers open.
- Be aware that in the event of a system malfunction or an unexpected sequence of movements, reflex actions could occur, causing injury.
- Use caution when performing adjustment, maintenance, cleaning, or repair procedures.
- Use caution when loading sample carriers into the sample handler.
- Use caution when loading the sample carousel on the *c*8000 and c 16000 processing module.
- Use caution when loading the LAS sample carousel on the *i*2000 processing module.
- Use caution when loading reagents into the reagent supply center(s) and when moving full waste containers.

Physical hazards

Safe practices should be used to avoid injury when exposed to the following potential physical hazards.

Probes and other sharps

Probes are sharp and may be contaminated with infectious material. Avoid contact with the tips of probes. Although the ARCHITECT System is equipped with machine guarding features to stop the lowering of the probes, you should never reach into the processing module while it is operating.

The cuvette pair leaf springs (*c*16000) are very sharp; handle cautiously to prevent injury.

In general, minimize use of sharps and glassware. Use mechanical means to remove contaminated broken glassware. Dispose of sharps in an appropriately labeled, puncture-resistant, and leakproof container before treatment and disposal.

Laser light

	**CAUTION:** Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

All the ARCHITECT Systems are classified as Class 1 Laser Products with embedded Class 2 Laser bar code readers.

The bar code readers of the sample handler, *c*8000 and *c*16000 sample carousel, *c*8000 reagent carousels (depending on the age of the module), and the *i*2000 and *i*2000SR reagent carousel use a low-power, visible laser diode and emit laser light. Because of normal human aversion response such as blinking, eye movement, and so forth, these lasers normally do not present a hazard to eyes.

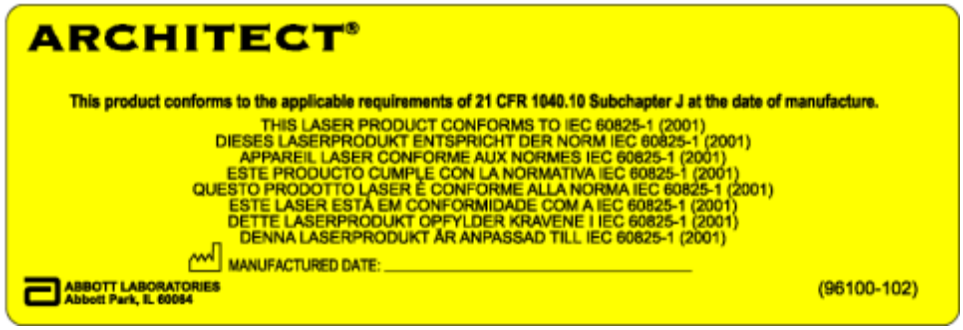
Although momentary exposure to a Class 2 laser (1mW maximum power, 650-675 nm, 500-600 scans per second) is not known to be harmful, failure to follow proper procedures may result in a hazardous condition.

- Do not look into the aperture.
- Do not remove the bar code reader covers or bypass interlocks.
- Do not stare directly into the beam.
- Do not place any objects into the beam.

Only Abbott field service representatives should service the laser. The protective covers should be removed only by trained operators or Abbott field service representatives.

The following laser caution labels are affixed to the ARCHITECT System:

Figure 8.1: Manufacturer laser certification label



The label you have on your system depends on the date of manufacture.

The locations of these manufacturer laser certification labels are presented in the following table.

Table 8.3: Laser certification label locations

Instrument	Location
***i*1000SR**	Affixed on the inside of the right front door of the processing center.
***i*2000SR**	Affixed on the underside of the rear processing center cover.
***c*4000**	Affixed on the inside of the right front door of the processing center.
***c*8000**	Affixed on the side wall of the processing module to the right of the reagent supply center 1 (R1).

Instrument	Location
***c*16000**	Affixed on the side wall of the processing module to the right of the reagent supply center 1 (R1).

Figure 8.2: System laser caution label

The system laser caution label identifies the bar code reader and laser aperture locations, which can differ depending on the age of the module.

The locations of the system laser caution label are presented in the following table.

Table 8.4: System laser caution label locations

Instrument	Location
***i*1000SR**	Affixed near the sample bar code reader under the RSH cover on the left side.
***i*2000SR**	Affixed to the Reagent Carousel Cover. Affixed near the sample bar code reader under the RSH cover on the left side.
***c*4000**	Affixed near the sample bar code reader under the RSH cover on the left side.
***c*8000**	Affixed to the Sample Carousel Cover. For some dates of manufacture it is also affixed to the Reagent Supply Center Cover (R1 and R2). Affixed near the sample bar code reader under the RSH cover on the left side.
***c*16000**	Affixed to the Sample Carousel Cover. Affixed near the sample bar code reader under the RSH cover on the left side.

Figure 8.3: Laser radiation symbol

The locations of the laser radiation symbol label are presented in the following table.

Table 8.5: Laser radiation symbol label location

System	Location
***i* System** and ***c* System**	For some dates of manufacture, instead of the system laser caution label, an optional laser radiation symbol label is affixed near the sample barcode reader under the RSH cover on the left side.

Do not remove, damage, or obliterate any of the laser warning labels. If any of them become illegible, notify your Abbott field service representative to have them replaced.

Heavy objects

The system is heavy and has unsupported sections of the shell. Ensure that you have adequate help before attempting to move the system. Push only on solid sections of the housing; do not exert pressure on unsupported sections of the shell.

Perform *2185 Wash Buffer Unload*, page 9-81 to empty the *i*2000/*i*2000SR wash buffer reservoir prior to removing it from the system.

Obtain assistance with lifting and/or use mechanical devices to move and/or lift heavy items such as those listed below:

- *c* System high-concentration waste bottle (heavy when full)
- *i*1000SR liquid waste container (heavy when full)
- ARCHITECT ARM accessory
- ARCHITECT *i*ARM

Do not place any object on the *i*ARM except a maximum of two cubitainers of ARCHITECT Concentrated Wash Buffer (10 L). Remove concentrated wash buffer cubitainers before moving the *i*ARM.

Techniques that may be used to reduce the risk of injury when lifting objects include:

- Keep your head up and your back straight; bend at the hips and knees
- Bring the load as close to you as possible and keep the load directly in front of your body
- Tighten your abdominal muscles and push the feet down into the ground as you straighten your knees (i.e., "Lift with your legs, not your back")
- Do not reach to the side or lift while twisting - instead, move your feet to turn your body
- Bend at the knees, using only your leg muscles, and place the load in the appropriate location

- Try to perform lifts at waist height with your elbows close to your body

Hot objects

The lamp and lamp housing may be hot. Before replacing the lamp, turn off the power, and then allow the lamp and lamp housing to cool. Use temperature-resistant gloves if necessary.

Trip hazards

The ARCHITECT System is equipped with power cords and various computer connectors. To avoid a tripping hazard, ensure cords in high-traffic areas are properly stowed.

Introduction

Proper service and maintenance of your ARCHITECT System is one of the most important aspects of a complete quality assurance program. A thorough service and maintenance program:

- Minimizes down time
- Maintains records for inspection and accreditation
- Maintains optimal system operation to provide optimal test results

Service and maintenance topics include:

- *Maintenance*, page 9-2
  Provides a description of all maintenance procedures, the software screens and windows associated with maintenance activities, associated graphics for some maintenance procedures, and step-by-step instructions for performing related procedures.
- *Component replacement*, page 9-117
  Provides step-by-step instructions and graphics for replacing system components.

Maintenance

The ARCHITECT System software provides a user-friendly interface for performing and tracking your maintenance activities.

The Maintenance screen displays procedures that are scheduled to be performed. Once you initiate a procedure, step-by-step instructions walk you through its completion.

Performance of a procedure is tracked in the online Maintenance log.

Maintenance topics include:

Maintenance suggestions

Proper maintenance of your ARCHITECT System is important. These suggestions, which are especially useful for integrated and multi-module systems, are provided to help you determine efficient strategies for performing maintenance procedures and reducing downtime.

When scheduling and performing maintenance procedures:

- Schedule maintenance procedures during times of slower workflow.
- Verify adequate supplies are on board the system, or available to load, prior to initiating a maintenance procedure.
- Perform procedures within the weekly, monthly, and quarterly maintenance categories on different shifts or days. To avoid having these procedures scheduled for the same day, perform some of them early to stagger the schedule.

  NOTE: You must complete all maintenance procedures on or before the day they are due.
- Use the additional graphics provided in the online help to assist you with performing maintenance procedures. Access Help? by selecting the **help** button on the Maintenance perform window, and then select one of the following hypertext links to view a list of available graphics:
  - *c4000 processing module associated maintenance graphics*, page 9-42
  - *c8000 processing module associated maintenance graphics*, page 9-53

- *c16000 processing module associated maintenance graphics*, page 9-63
- *i2000/i2000SR processing modules associated maintenance graphics*, page 9-83
- *i1000SR processing module associated maintenance graphics*, page 9-95
- *RSH associated maintenance graphics (except for c4000/i1000SR/ci4100)*, page 9-102
- *RSH associated maintenance graphics (c4000/i1000SR/ci4100)*, page 9-104

NOTE: Not all maintenance procedures have additional graphics.

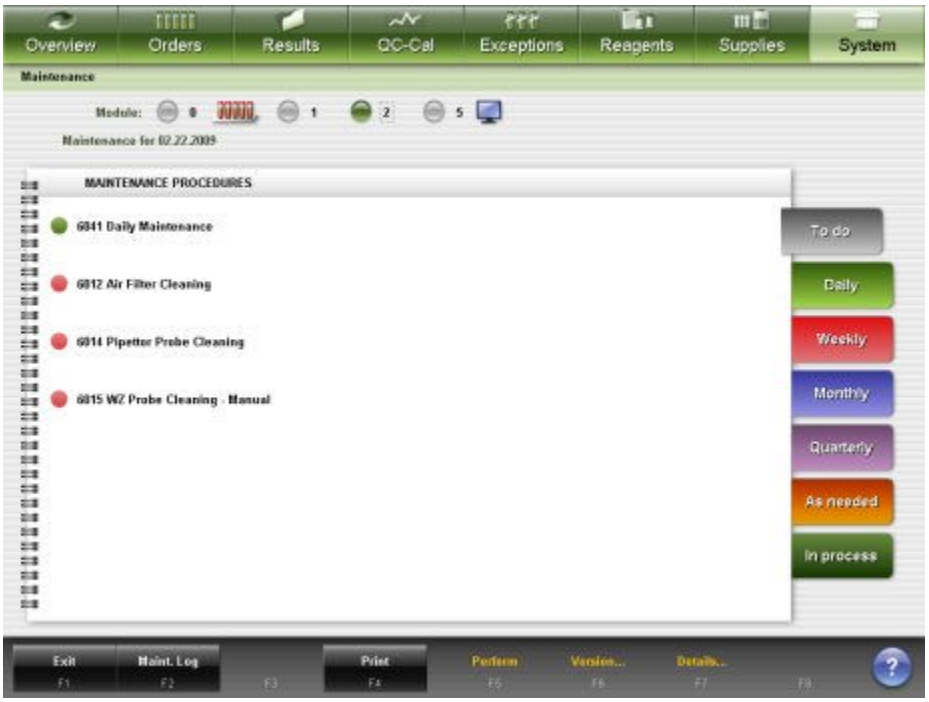
Maintenance screen

From the Maintenance screen you can view information for maintenance procedures and initiate a procedure. You can also access windows to view version and detail information for each procedure, and print the Procedure report.

The procedures display by module and by maintenance category:

- The To do tab displays procedures that are scheduled to be performed on a module from the Daily, Weekly, Monthly, and Quarterly maintenance categories. Circles that precede the procedure name are color-coded to match the appropriate maintenance category.
- The Daily, Weekly, Monthly, Quarterly, and As needed tabs display the non-scheduled procedures for a module and also show the:
  - LAST PERFORMED: date and time a procedure was last performed
  - OPERATOR ID: ID of the operator who last performed the procedure
- The In process tab displays any procedure currently in process on the selected module and also shows the:
  - PROCEDURE STATUS: Current status of the procedure in process
  - TIME STARTED: time the procedure was started

Figure 9.1: Maintenance screen



For descriptions of these fields, see *Maintenance screen field descriptions*, page E-144.

To display this screen, see *Access the Maintenance screen*, page 9-4.

Related procedures…

- *View maintenance procedure information*, page 9-5
- *Perform a maintenance procedure*, page 9-6
- *Perform concurrent maintenance procedures or other tasks*, page 9-8
- *Return to a maintenance procedure in process*, page 9-9
- *View details for a maintenance procedure*, page 9-10
- *Print a Procedure report*, page 5-409
- *Access the Maintenance log screen*, page 9-15

Access the Maintenance screen

Perform this procedure to display the Maintenance screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Maintenance screen:

Select **System** from the menu bar, and then select **Maintenance**.

The Maintenance screen displays with the To do tab selected.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance categories and procedure descriptions*, page 9-19

Procedures - Maintenance screen

Procedures you can perform from the Maintenance screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Print a Procedure report*, page 5-409

Procedures in this sub-section include:

- *View maintenance procedure information*, page 9-5
- *Perform a maintenance procedure*, page 9-6
- *Perform concurrent maintenance procedures or other tasks*, page 9-8
- *Return to a maintenance procedure in process*, page 9-9
- *View details for a maintenance procedure*, page 9-10

View maintenance procedure information

Perform this procedure to display the Version details for procedure (maintenance) window. From this window, you can view information for a maintenance procedure prior to performing it. This information includes the version number, required module status, and required user access level.

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	All except Maintenance
User access level	General operator
Supplies	NA

To view maintenance procedure information:

1. Select the desired **Module** option on the Maintenance screen.

   The scheduled maintenance procedures for the selected module display on the To do tab.

2. Select the **Daily**, **Weekly**, **Monthly**, **Quarterly**, or **As needed** tab. ***(optional)***

   The non-scheduled maintenance procedures for the selected category display.

3. Select the desired procedure from the **MAINTENANCE PROCEDURES** box, and then select **F6 - Version**.

   The Version details for procedure (maintenance) window displays.

Related information…

- *Maintenance screen*, page 9-3
- *Version details for procedure (maintenance) window*, page 9-12
- *Maintenance categories and procedure descriptions*, page 9-19

Perform a maintenance procedure

Perform this procedure to do scheduled or non-scheduled maintenance on your ARCHITECT System.

CAUTION: Moving Parts. Maintenance procedures may expose operators to moving parts that can potentially cause personal injury. Untrained operators should not perform these procedures.

Prerequisite(s)	*Access the Maintenance screen*, page 9-4
Module status	Procedure dependent
User access level	Procedure dependent
Supplies	Procedure dependent

To perform a maintenance procedure:

1. Select the desired **Module** option on the Maintenance screen.

   The scheduled maintenance procedures for the selected module display on the To do tab.

2. Select the **Daily**, **Weekly**, **Monthly**, **Quarterly**, or **As needed** tab. ***(optional)***

   The non-scheduled maintenance procedures for the selected category display.

3. Select the desired procedure from the **MAINTENANCE PROCEDURES** box, and then select **F5 - Perform**.

   A confirmation message displays.

4. Select **OK** to perform the procedure.

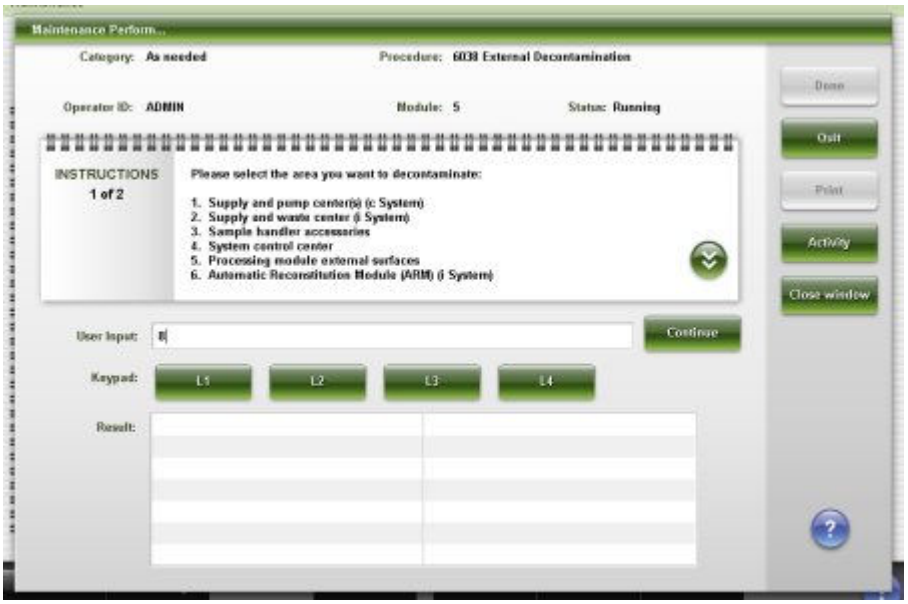
   The Maintenance Perform window displays. A description of the procedure displays in the **INSTRUCTIONS** box.

5. Select **Proceed**, and then follow the instructions in the **INSTRUCTIONS** box.

   You are prompted to enter information if the procedure requires additional data.

   Some maintenance procedures have pictures and/or videos to use as an aid in performing the procedure. Select the desired button. Promptly close the picture and video windows as they may obscure alert messages.

6. Enter the required information in the **User input** data entry box, and then select **Continue**.

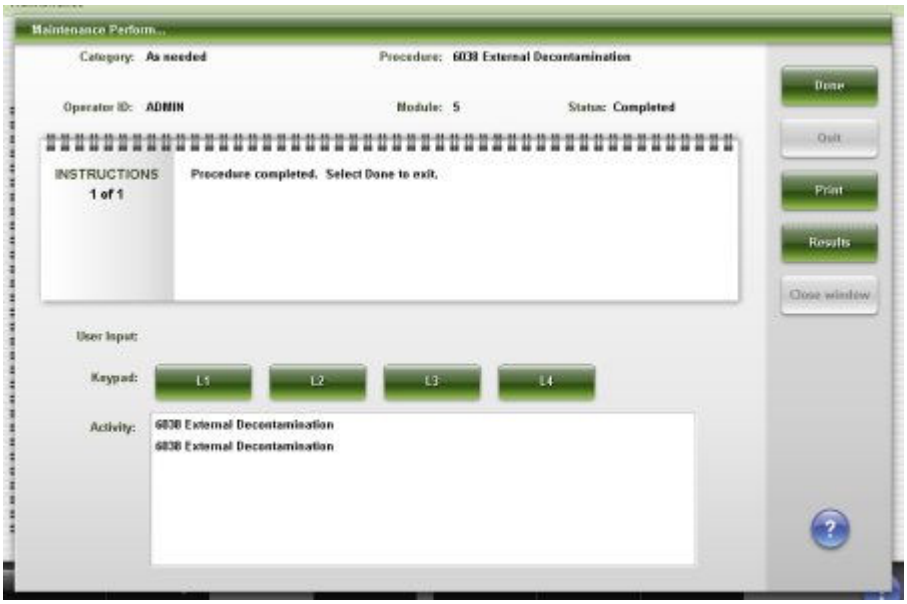


NOTE: You can select the Close window button at anytime to close the Maintenance Perform window to perform a maintenance procedure on

another module or access other screens and windows. See *Perform concurrent maintenance procedures or other tasks*, page 9-8.

7. Select **Activity** to view the progress of the procedure. ***(optional)***

   The activity of the module displays in the **Activity** list. To return to the Result list, select **Results**.



8. Select **Print** to print the Procedure report. ***(optional)***
9. Select **Done** to return to the Maintenance screen.

Related information...

- *Maintenance screen*, page 9-3
- *Maintenance Perform window*, page 9-10
- *Maintenance categories and procedure descriptions*, page 9-19
- *Procedure Report, Basic*, page A-64
- *Procedure Report, Columnar*, page A-66

Perform concurrent maintenance procedures or other tasks

Perform this procedure to close the Maintenance Perform window when a maintenance procedure is in process. This allows you to perform a maintenance procedure on another module or to access other screens and windows.

Prerequisite(s)	*Perform a maintenance procedure*, page 9-6
Module status	Maintenance
User access level	General operator
Supplies	NA

To perform concurrent maintenance procedures or other tasks:

1. Select **Close window** on the Maintenance perform window.

   The Maintenance screen displays with the In process tab selected.

2. Select the desired **Module** option to perform another maintenance procedure.

   Or

   Access any other screen to perform another task.

To return to an in-process maintenance procedure when user input is required or to complete the procedure, see *Return to a maintenance procedure in process*, page 9-9.

Related information…

- *Maintenance screen*, page 9-3
- *Maintenance Perform window*, page 9-10
- *Maintenance categories and procedure descriptions*, page 9-19

Return to a maintenance procedure in process

Perform this procedure to return to the Maintenance Perform window of an in-process maintenance procedure. You must return to this window to provide user input, when required, or to complete the procedure.

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	Maintenance
User access level	General operator
Supplies	NA

To return to a maintenance procedure in process:

1. Select the desired **Module** option on the Maintenance screen.

   The procedure displays on the In process tab.

2. Select the procedure from the **MAINTENANCE PROCEDURES** box, and then select **F5 - Continue**.

   The Maintenance Perform window for the selected in-process procedure displays.

3. Follow the instructions in the **INSTRUCTIONS** box.

Related information…

- *Maintenance screen*, page 9-3
- *Maintenance Perform window*, page 9-10
- *Maintenance categories and procedure descriptions*, page 9-19

View details for a maintenance procedure

Perform this procedure to display the Details for maintenance item window. From this window you can view information for a maintenance procedure that has been performed. This information includes the:

- Date the procedure was performed
- Procedure version used
- ID of the operator who performed the procedure
- Status of the procedure

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	All
User access level	General operator
Supplies	NA

To view details for a maintenance procedure:

1. Select the desired **Module** option on the Maintenance screen.

   The scheduled maintenance procedures for the selected module display on the To do tab.

2. Select the **Daily**, **Weekly**, **Monthly**, **Quarterly**, or **As needed** tab. ***(optional)***

   The non-scheduled maintenance procedures for the selected category display.

3. Select the desired procedure from the **MAINTENANCE PROCEDURES** box, and then select **F7 - Details**.

   The Details for maintenance item window displays.

Related information...

- *Maintenance screen*, page 9-3
- *Details for maintenance item window*, page 9-12
- *Maintenance categories and procedure descriptions*, page 9-19

Windows - Maintenance screen

Windows you can access from the Maintenance screen include:

- *Maintenance Perform window*, page 9-10
- *Version details for procedure (maintenance) window*, page 9-12
- *Details for maintenance item window*, page 9-12

Maintenance Perform window

From the Maintenance Perform window you can view information about an initiated procedure such as:

- Procedure category and name
- ID of the operator logged on to the system
- Status of the procedure
- Description of the procedure

  NOTE: The display of the Maintenance Perform window is dependent on the selected module, category, and procedure.

You can then proceed with the procedure, close the window to perform a maintenance procedure on another module or access other screens and windows, or quit the procedure.

For descriptions of maintenance procedures, see *Maintenance categories and procedure descriptions*, page 9-19.

To view an associated maintenance graphic, see:

- *c4000 processing module associated maintenance graphics*, page 9-42
- *c8000 processing module associated maintenance graphics*, page 9-53
- *c16000 processing module associated maintenance graphics*, page 9-63
- *i2000/i2000SR processing modules associated maintenance graphics*, page 9-83.
- *i1000SR processing module associated maintenance graphics*, page 9-95
- *RSH associated maintenance graphics (except for c4000/i1000SR/ci4100)*, page 9-102
- *RSH associated maintenance graphics (c4000/i1000SR/ci4100)*, page 9-104

Figure 9.2: Maintenance Perform window

For descriptions of these fields, see *Maintenance Perform window field descriptions*, page E-144.

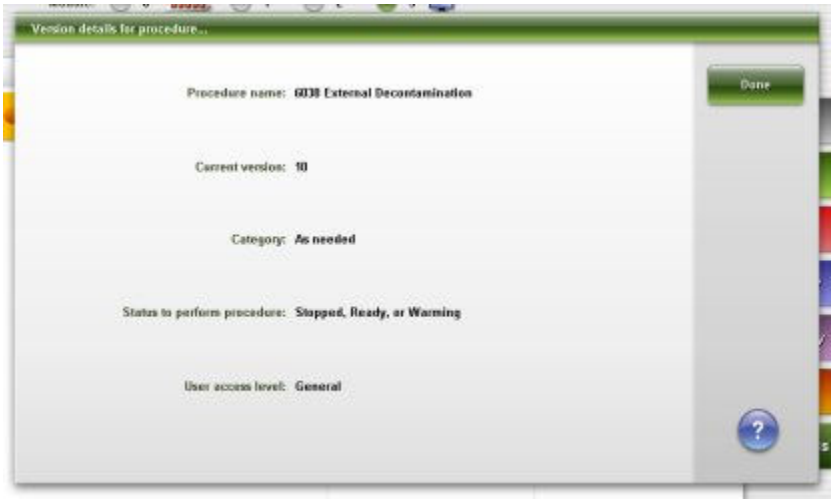
Related procedures...

- *Perform concurrent maintenance procedures or other tasks*, page 9-8

Version details for procedure (maintenance) window

From the Version details for procedure (maintenance) window you can view information for maintenance procedures including version number, required module status, and required user access level.

Figure 9.3: Version details for procedure (maintenance) window



For descriptions of these fields, see *Version details for procedure (maintenance) window field descriptions*, page E-145.

Related procedures...

- *View maintenance procedure information*, page 9-5

Details for maintenance item window

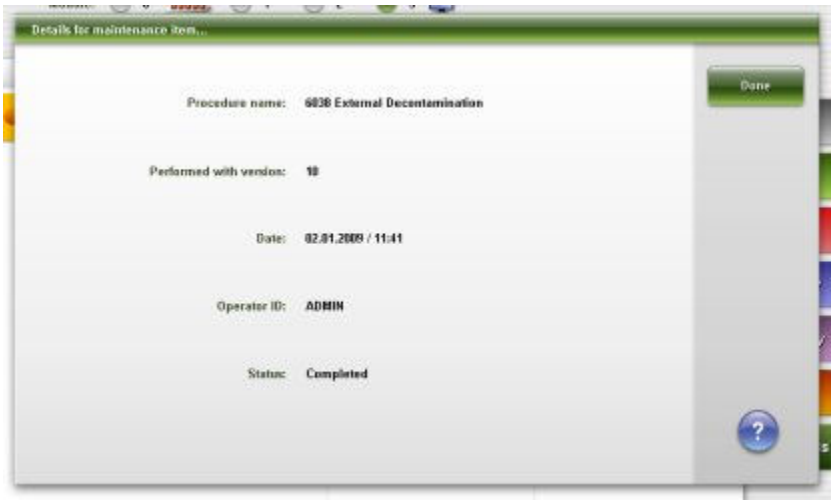
From the Details for maintenance item window you can view detailed information for maintenance procedures.

If the procedure has been performed, this information includes the:

- Version of the procedure
- Date
- ID of the operator logged on to the system
- Status of the procedure when last performed

  NOTE: If a procedure has not been performed or you selected a procedure from the To do tab, only the procedure name displays. All other fields are blank.

Figure 9.4: Details for maintenance item window



For descriptions of these fields, see *Details for maintenance item window field descriptions*, page E-145.

Related procedures...

- *View details for a maintenance procedure*, page 9-10

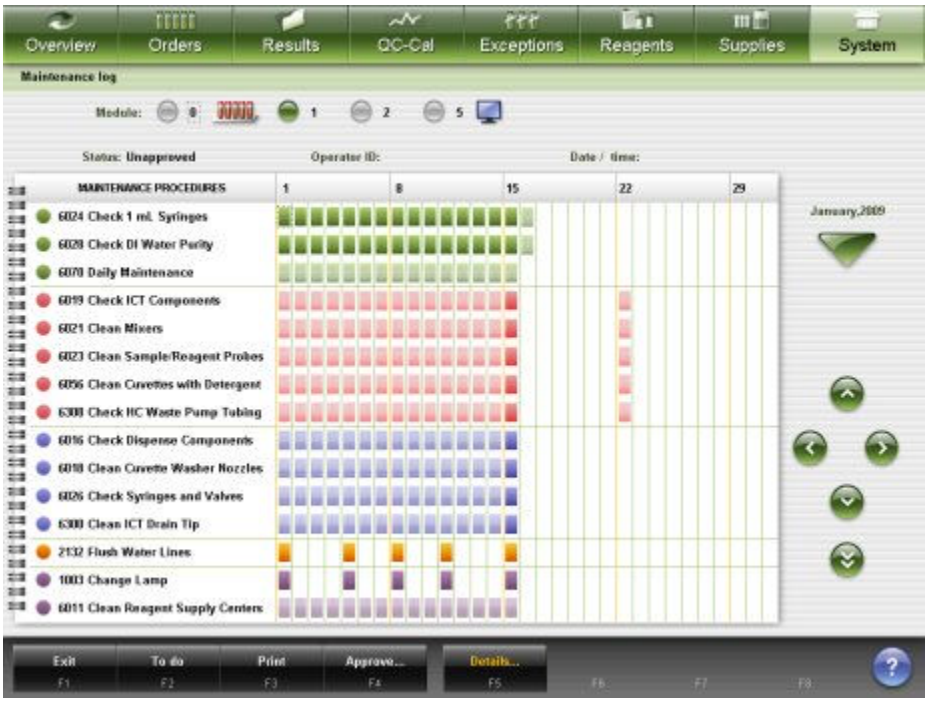
Maintenance log screen

From the Maintenance log screen you can view information about procedures that have been performed. The system stores up to twelve months of data.

You can also access windows to:

- Print the Maintenance History report
- Approve the Maintenance log
- View additional details for procedures
- Add a comment to a procedure

Figure 9.5: Maintenance log screen



For descriptions of these fields, see *Maintenance log screen field descriptions*, page E-146.

An explanation of the descriptive elements of the Maintenance log follows:

Item	Description
Colored circles	Are color-coded to match the appropriate maintenance category tab.
Colored squares	Are color-coded to match the appropriate maintenance category tab.
• Solid (Completed)	Indicate procedures that have been performed and have a status of Completed. If the procedure is performed more than once a day, the status of the last performed procedure displays.
• Shaded (Not completed)	Indicate procedures that are scheduled, are pending, did not complete successfully, or were not performed when scheduled. If the procedure is performed more than once a day, the status of the last performed procedure displays.
☐ Cursor	Indicates the selected field in the procedure row and date column. Use the directional arrows to move the cursor from one procedure to the next and from one day to the next.
*	Indicates a comment was entered for the procedure.
2-9	Indicates the procedure was performed X times on that day.
>	Indicates the procedure was performed more than nine times on that day.

To display this screen, see *Access the Maintenance log screen*, page 9-15.

Related procedures…

- *Approve the Maintenance log*, page 9-15
- *Add a comment to a maintenance procedure*, page 9-16
- *Print a Maintenance History report for a specified month*, page 5-408
- *Print a Maintenance History report for a specific procedure*, page 5-409

Access the Maintenance log screen

Perform this procedure to display the Maintenance log screen.

Prerequisite	*Access the Maintenance screen*, page 9-4
Module status	Any
User access level	General operator
Supplies	NA

To access the Maintenance log screen:

1. Select the desired **Module** option on the Maintenance screen.
2. Select **F2 - Maint. Log**.

   The Maintenance log screen for the selected module displays.

Related information…

- *Maintenance screen*, page 9-3
- *Maintenance log screen*, page 9-13
- *Maintenance categories and procedure descriptions*, page 9-19

Procedures - Maintenance log screen

Procedures you can perform from the Maintenance log screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Print a Maintenance History report for a specified month*, page 5-408
- *Print a Maintenance History report for a specific procedure*, page 5-409

Procedures in this sub-section include:

- *Approve the Maintenance log*, page 9-15
- *Add a comment to a maintenance procedure*, page 9-16

Approve the Maintenance log

Perform this procedure to approve the monthly Maintenance log.

NOTE: The Maintenance log cannot be approved until the first day of the next month.

Prerequisite	*Access the Maintenance log screen*, page 9-15
Module status	NA
User access level	System administrator
Supplies	NA

To approve the maintenance log:

1. Use the **previous**/**next** buttons on the Maintenance log screen to display the desired month.
2. Select **F4 - Approve**.

   The Approve maintenance log window for the selected month displays.
3. Select the **Approve log** check box.
4. Select **Done** to approve the Maintenance log.

   The status of the monthly maintenance log changes from unapproved to approved, and displays the Operator ID, date, and time of approval.

Related information…

- *Maintenance log screen*, page 9-13
- *Approve maintenance log window*, page 9-17

Add a comment to a maintenance procedure

Perform this procedure to add a comment to a procedure listed in the Maintenance log. Comments are particularly useful when used to document why a procedure could not be completed when scheduled or why an as-needed procedure was performed.

Prerequisite	*Access the Maintenance log screen*, page 9-15
Module status	Any
User access level	General operator
Supplies	NA

To add a comment to a maintenance procedure:

1. Use the **previous**/**next** buttons on the Maintenance log screen to select the desired month.
2. Use the **up**/**down** arrows to select the desired maintenance procedure.
3. Use the **left**/**right** arrows to select the desired date.
4. Select **F5 - Details**.

   The Details for maintenance log window for the selected procedure and date displays.
5. Enter a comment in the **Comment** data entry box.

6. Select **Done** to save your changes.

Related information…

- *Details for maintenance log window*, page 9-17
- *Maintenance log screen*, page 9-13
- *Maintenance statuses*, page 9-18

Windows - Maintenance log screen

Windows you can access from the Maintenance log screen include:

- *Approve maintenance log window*, page 9-17
- *Details for maintenance log window*, page 9-17

Approve maintenance log window

From the Approve maintenance log window the system administrator can approve the Maintenance log.

Figure 9.6: Approve maintenance log window

For descriptions of these fields, see *Approve maintenance log window field descriptions*, page E-146.

Related procedures…

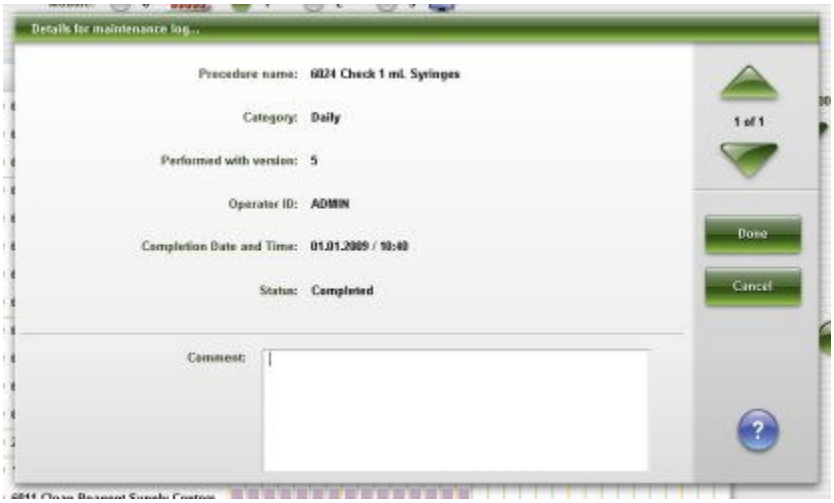
- *Approve the Maintenance log*, page 9-15

Details for maintenance log window

From the Details for maintenance log window you can view detailed information for a maintenance procedure (by date performed) and add a comment.

NOTE: The data displayed is from the last time the procedure was performed on the selected date.

Figure 9.7: Details for maintenance log window



For descriptions of these fields, see *Details for maintenance log screen field descriptions*, page E-147.

Related procedures...

- *Add a comment to a maintenance procedure*, page 9-16

Maintenance statuses

You can use maintenance status information to determine the status of each maintenance procedure.

Table 9.1: Maintenance statuses

Status	Description
Scheduled	A procedure is scheduled on a future date.
Pending	A procedure is scheduled on the current date.
Completed	The procedure is complete and for procedures that produce results, all results passed.
User Canceled	You selected Quit prior to the procedure completing.
Failed	The procedure produced an error or a failed result.
Blank	The procedure has not been performed.
Running	The procedure is in process.
Waiting user response	The procedure in process requires user input.
Stopped with errors	The procedure is complete but errors occurred during execution.
Not performed	The procedure was not performed on the date due.

Maintenance categories and procedure descriptions

Maintenance procedures are grouped by module type and then by category. Each category is represented by a tab on the Maintenance screen.

The To do tab displays the currently scheduled Daily, Weekly, Monthly, and Quarterly procedures for the selected module.

The Daily, Weekly, Monthly, Quarterly, and As needed tabs display all procedures for the selected module. You can perform any of the listed procedures even if they are not currently scheduled.

The In process tab displays any procedure currently in process on the selected module.

The type of processing module and sample handler in your system determine the categories and procedures that are available. Associated graphics are also provided for many of the maintenance procedures.

Topics in this sub-section include:

c System processing module maintenance categories

Maintenance procedures for the *c* System processing module are grouped by category (tab) on the Maintenance screen. Procedures are available for the following categories:

Daily maintenance description (*c* System processing module)

Daily maintenance is required on the processing module only. Perform these procedures daily:

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

For a quick reference describing *c* System consumable solutions used in daily operation, see *Solutions used in daily operations (c4000)*, page 1-196 or *Solutions used in daily operations (c8000/c16000)*, page 1-197.

6024 Check 1mL Syringes

Perform this ***daily*** maintenance procedure to ensure:

- The pump syringe connections on the wash solution pump do not leak
- The syringe plunger interiors do not show evidence of leakage

For the location of the wash solution pump see:

- *ARCHITECT c4000 supply and pump center components*, page 9-153
- *ARCHITECT c8000 supply and pump center components*, page 9-224
- *ARCHITECT c16000 supply and pump center components*, page 9-294

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped or Ready

6028 Check DI Water Purity

Perform this ***daily*** maintenance procedure to check the required purity of the water supply to facilitate accurate patient results.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped or Ready

6070 Daily Maintenance

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***daily*** maintenance procedure to:

- Flush sample and reagent lines
- Inspect the sample and reagent syringes for bubbles and leaks
- Replace sample wash solutions
- Change water in bath
- Add Water Bath Additive
- Wash ICT probe with ICT Cleaning Fluid and ICT Reference Solution
- Drain and fill ICT reference cup
- Clean sample probe exterior (whole blood only)*
- Verify that a backup has been performed in the last thirty (30) days. If it has not, the operator is instructed to perform one.
- Check the database integrity

For preparation instructions see *Prepare ICT cleaning fluid (c System)*, page 9-21.

Estimated time	Materials needed	Required module status
15 minutes	• ICT Cleaning Fluid • ICT sample diluent • Water Bath Additive • Detergent A • 0.5% Acid Wash • Purified water* • Cotton swabs*	Ready

*Required only for systems with whole blood applications and if whole blood samples were analyzed since the previous procedure 6070 Daily Maintenance was performed.

Prepare ICT cleaning fluid (*c* System)

Perform this procedure to prepare a working solution of ICT Cleaning Fluid. The prepared ICT cleaning fluid is used in the 6070 Daily Maintenance procedure and as-needed maintenance procedures 6062 Wash ICT with Cleaning Fluid and 6058 Clean R2 Probe.

Prerequisite	NA
Module status	NA
User access level	NA

Supplies	• ICT Lyophilized Cleaning Solution • ICT Cleaning Fluid • Pipette

To prepare ICT cleaning fluid:

1. Hold the ICT Lyophilized Cleaning Solution bottle right side up and tap on a flat surface before opening to remove excess material from the cap.

   IMPORTANT: Wait a couple of minutes before removing the cap to allow suspended particles to settle.

2. Hold the bottle right side up on a flat surface. Carefully remove the cap.

   IMPORTANT: Minimize the generation of dust by removing the cap in a slow, controlled manner while keeping the bottle steady.

3. Add 12 mL of ICT cleaning fluid to the ICT lyophilized cleaning solution bottle.

   IMPORTANT: Allow the liquid to run down the inside of the bottle to minimize aerosolization of lyophilized material.

4. Replace the cap and mix by gentle inversion. Document the date of preparation.

   NOTE: The prepared, capped ICT cleaning fluid is stable for 14 days when stored at 2°C to 8°C, but no longer than the expiration date.

Prepare water bath additive (*c* System)

Perform this procedure to prepare Water Bath Additive. The prepared additive is dispensed into the water bath during the 6070 Daily Maintenance procedure to prevent and control microbial contamination.

Prerequisite	NA
System status	Any
User access level	General operator
Supplies	• Water bath additive • Appropriate reagent cartridge

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. See product-specific information under *Chemical hazards*, page 8-7.

To prepare water bath additive:

1. Verify water bath additive is within the expiration date on the bottle label. DO NOT use if the expiration date is exceeded.
2. Gently invert to ensure a homogeneous solution.
3. Pour water bath additive into the appropriate container.
4. Label the container with the name (water bath additive) and expiration date. Review the container label for additional information.

Weekly maintenance description (*c* System processing module)

Weekly maintenance for the *c* System is required on the processing module only. Perform these procedures weekly:

- *6019 Check ICT Components*, page 9-23
- *6021 Clean Mixers*, page 9-23
- *6023 Clean Sample/Reagent Probes*, page 9-24
- *6056 Clean Cuvettes with Detergent*, page 9-24
- *6308 Check HC Waste Pump Tubing*, page 9-25

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6019 Check ICT Components

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***weekly*** maintenance procedure to ensure:

- The ICT probe does not drip
- No bubbles are in the ICT tubing
- The pump syringe connections on the ICT aspiration pump and the ICT reference solution pump do not leak

To view the associated graphic, see:

- *6019 Check ICT Components graphic (c4000)*, page 9-45
- *6019 Check ICT Components graphic (c8000)*, page 9-55
- *6019 Check ICT Components graphic (c16000)*, page 9-65

Estimated time	Materials needed	Required module status
2 minutes	None	Ready

6021 Clean Mixers

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***weekly*** maintenance procedure to ensure mixers are free of protein buildup.

Estimated time	Materials needed	Required module status
3 minutes	• 70% isopropyl alcohol • Cotton swabs • DI water	Stopped or Ready

6023 Clean Sample/Reagent Probes

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***weekly*** maintenance procedure to ensure:

- The exterior of the sample and reagent probes are free of protein buildup.
- The probes are not damaged, leaking, or dripping.

NOTE: Required only for systems with whole blood applications and if whole blood samples were analyzed and procedure 6070 Daily Maintenance has not been performed for the sample probe.

Estimated time	Materials needed	Required module status
5 minutes	• Detergent A • Cotton swabs • Purified water • Nozzle cleaning wire (optional)	Stopped or Ready

6056 Clean Cuvettes with Detergent

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***weekly*** maintenance procedure to ensure cuvettes are free of protein buildup and reagent residue.

Estimated time	Materials needed	Required module status
25 minutes	Detergent A	Ready

6308 Check HC Waste Pump Tubing

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***weekly*** maintenance procedure to ensure the high-concentration waste pump tubing is free of blockage.

To view the associated graphic, see:

- *6308 Check HC Waste Pump Tubing graphic (c4000)*, page 9-48
- *6308 Check HC Waste Pump Tubing graphic (c8000)*, page 9-57
- *6308 Check HC Waste Pump Tubing graphic (c16000)*, page 9-67

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped or Ready

Monthly maintenance description (*c* System processing module)

Monthly maintenance for the *c* System is required on the processing module only. Perform these procedures monthly:

- *6016 Check Dispense Components*, page 9-25
- *6018 Clean Cuvette Washer Nozzles*, page 9-26
- *6026 Check Syringes and Valves*, page 9-26
- *6300 Clean ICT Drain Tip*, page 9-26

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6016 Check Dispense Components

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***monthly*** maintenance procedure to ensure:

- Air bubbles are not being introduced into the sample and/or reagent syringes or the sample and/or reagent tubing
- Probe and grounding wire screws are tight

- Reagent probe tubing is not discolored

Estimated time	Materials needed	Required module status
2 minutes	Large slotted screwdriver	Stopped or Ready

6018 Clean Cuvette Washer Nozzles

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***monthly*** maintenance procedure to ensure nozzles are clean and clear of debris to facilitate optimal operation.

IMPORTANT: Incorrect positioning of the cuvette washer on the alignment pins could result in misalignment of the cuvette washer. Such a misalignment can potentially cause cuvette damage or cause the cuvette segment base to detach.

Estimated time	Materials needed	Required module status
5 minutes	Nozzle cleaning wire	Stopped or Ready

6026 Check Syringes and Valves

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***monthly*** maintenance procedure to ensure the syringes, solenoid valves and their connections do not leak.

To view the associated graphic(s), see:

- *6026 Check Syringes and Valves graphic (c4000)*, page 9-49
- *6026 Check Syringes and Valves graphic (c8000)*, page 9-59
- *6026 Check Syringes and Valves graphic (c16000)*, page 9-68

Estimated time	Materials needed	Required module status
3 minutes	None	Stopped or Ready

6300 Clean ICT Drain Tip

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***monthly*** maintenance procedure to ensure ICT aspiration drain tip is free of debris and salt buildup.

To view the associated graphic, see:

- *6300 Clean ICT Drain Tip graphic (c4000)*, page 9-50
- *6300 Clean ICT Drain Tip graphic (c8000)*, page 9-60
- *6300 Clean ICT Drain Tip graphic (c16000)*, page 9-69

Estimated time	Materials needed	Required module status
1 - 2 minutes	• Lint-free tissue • DI water	Stopped or Ready

Quarterly maintenance description (*c* System processing module)

Quarterly maintenance for the *c* System is required on the processing module only. Perform these procedures quarterly:

- *1003 Change Lamp*, page 9-27
- *6011 Clean Reagent Supply Centers (c8000/c16000)*, page 9-28
- *6013 Clean Sample Carousel/Area (c8000/c16000)*, page 9-28
- *6301 Sample Syringe Maintenance*, page 9-29
- *6302 Wash Syringe Maintenance*, page 9-29
- *6303 Reagent Syringe Maintenance*, page 9-30
- *6304 Change 1 mL Syringes*, page 9-31
- *6305 Change ICT Asp Check Valve*, page 9-31
- *6306 Check ICT Ref Check Valves*, page 9-32
- *6307 Check/Clean HC Waste Sensor*, page 9-32

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1003 Change Lamp

CAUTION: Possibility of electric shock. Never remove the lamp or lamp plate with the processing module powered on. See *Electrical hazards*, page 8-15.

CAUTION: Hot Surface. This is an activity or area where you may be exposed to hot surfaces. See *Hot objects*, page 8-22.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to change the lamp.

For graphics associated with this quarterly maintenance procedure, see component replacement procedure:

- *Replace the lamp or lamp plate (c4000)*, page 9-131
- *Replace the lamp or lamp plate (c8000)*, page 9-198
- *Replace the lamp or lamp plate (c16000)*, page 9-269

Estimated time	Materials needed	Required module status
15 minutes **NOTE:** Time does not include lamp warm up (30 minutes)	• Lamp • Phillips screwdriver • Gloves • Lint-free tissue (optional) • Ethanol (optional)	Stopped or Ready

6011 Clean Reagent Supply Centers (*c*8000/*c*16000)

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to ensure reagent supply centers are free of debris and deposits.

Estimated time	Materials needed	Required module status
3 minutes	Lint-free tissue	Ready

6013 Clean Sample Carousel/Area (*c*8000/*c*16000)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to ensure sample carousel and carousel assembly are free of debris and dust.

Estimated time	Materials needed	Required module status
3 minutes	• Lint-free tissue • 0.1% sodium hypochlorite • Purified water	Stopped or Ready

NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

6301 Sample Syringe Maintenance

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform ***quarterly*** maintenance procedure to replace sample syringe o-rings and seal tips 1 and 2.

For graphics associated with this quarterly maintenance procedure, see component replacement procedure:

- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315

Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to prepare for operation on completion of sample syringe maintenance.

Estimated time	Materials needed	Required module status
10 minutes	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel • O-rings and seal tips 1 and 2	Stopped or Ready

6302 Wash Syringe Maintenance

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to replace wash solution syringe o-rings and seal tips 1 and 2.

For graphics associated with this quarterly maintenance procedure, see component replacement procedure:

- *Replace wash solution syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-167

- *Replace wash solution syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-238
- *Replace wash solution syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-308

Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37, to prepare for operation on completion of wash solution syringe maintenance.

Estimated time	Materials needed	Required module status
10 minutes	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel • O-rings and seal tips 1 and 2	Ready

6303 Reagent Syringe Maintenance

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to replace reagent syringe o-rings and seal tips 1 and 2.

For graphics associated with this quarterly maintenance procedure, see component replacement procedure:

- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315

Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to prepare for operation on completion of reagent syringe maintenance.

Estimated time	Materials needed	Required module status
10 minutes	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel • O-rings and seal tips 1 and 2	Stopped or Ready

6304 Change 1 mL Syringes

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to replace 1 mL syringes on:

- ICT reference pump
- Wash solution pump
- ICT aspiration pump

For graphics associated with this quarterly maintenance procedure, see component replacement procedure:

- *Replace the 1 mL syringes (c4000)*, page 9-154
- *Replace the 1 mL syringes (c8000)*, page 9-224
- *Replace the 1 mL syringes (c16000)*, page 9-295

Perform ***as-needed*** maintenance procedure *6063 Flush ICT Module*, page 9-41, to prepare for operation on completion of changing 1 mL syringes for ICT reference and ICT aspiration pumps.

Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37, to prepare for operation on completion of changing 1 mL syringes for the wash solution pump.

Estimated time	Materials needed	Required module status
15 minutes	• Absorbent towel • 1 mL syringes	Stopped or Ready

6305 Change ICT Asp Check Valve

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to replace ICT aspiration check valve.

For graphics associated with this quarterly maintenance procedure, see component replacement procedure:

- *Replace check valves (c4000)*, page 9-158

- *Replace check valves (c8000)*, page 9-228
- *Replace check valves (c16000)*, page 9-299

Perform ***as-needed*** maintenance procedure *6063 Flush ICT Module*, page 9-41, to prepare for operation on completion of changing the ICT aspiration check valve.

Estimated time	Materials needed	Required module status
5 minutes	• Absorbent towel • ICT aspiration pump check valve	Stopped or Ready

6306 Check ICT Ref Check Valves

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to evaluate ICT reference solution check valves and ensure they are functioning. For graphics associated with evaluation instructions, see *Evaluate the check valve (c System)*, page 10-706.

Estimated time	Materials needed	Required module status
3 minutes	• Clamp or large hemostats • Absorbent towel • Beaker large enough to accommodate 1 mL syringes with check valves • DI water	Stopped or Ready

6307 Check/Clean HC Waste Sensor

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***quarterly*** maintenance procedure to:

- Check the high-concentration waste sensor
- Clean high-concentration waste sensor with a diluted bleach solution

Estimated time	Materials needed	Required module status
10 minutes	• Absorbent towel • Beaker large enough to accommodate high-concentration waste sensor • 0.5% sodium hypochlorite	Stopped or Ready

NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

As-needed maintenance description (*c* System processing module)

Perform these recommended as-needed maintenance procedures on the *c* System during troubleshooting/diagnostics or during routine operation when problems are observed:

- *1120 Sample Pipettor Calibration*, page 9-34
- *1121 R1 Pipettor Calibration*, page 9-34
- *1122 R2 Pipettor Calibration*, page 9-35
- *2129 Add Water Bath Additive*, page 9-36
- *2131 Flush ICT Cup*, page 9-36
- *2132 Flush Water Lines*, page 9-37
- *2134 Change Water Bath*, page 9-37
- *2155 Flush Bulk Solutions*, page 9-37
- *2181 Internal Decontamination (FSE logon)*, page 9-38
- *2183 Clean Wash Cups*, page 9-38
- *3525 Temperature Status*, page 9-39
- *3526 Check Water Bath Temperature*, page 9-39
- *6027 Clean Reagent Supply Center (c4000)*, page 9-39
- *6052 Wash Cuvettes*, page 9-39
- *6053 Probe Water Wash*, page 9-40
- *6054 Probe Acid Wash*, page 9-40
- *6055 Detergent B Probe Wash*, page 9-40
- *6057 Detergent A Probe Wash*, page 9-40
- *6058 Clean R2 Probe*, page 9-41
- *6062 Wash ICT with Cleaning Fluid*, page 9-41
- *6063 Flush ICT Module*, page 9-41

- *6064 Clean Reaction Carousel*, page 9-42
- *6310 Clean cuvettes - manually*, page 9-42

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1120 Sample Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to set sample probe positioning for all positions where aspirating and dispensing occurs.

For the associated graphic, see:

- *1120 Sample Pipettor Calibration graphic (c4000)*, page 9-51
- *1120 Sample Pipettor Calibration graphic (c8000)*, page 9-60
- *1120 Sample Pipettor Calibration graphic (c16000)*, page 9-70

Estimated time	Materials needed	Required module status
12 minutes	• Cuvette segment alignment tool • Tap water or saline • Lint-free tissue Additional materials vary depending on sample handler configuration. • RSH: – Carrier calibration tool (RSH) • *c* 8000/*c* 16000: – Pipettor calibration tool (LAS) – SH bar code tool (LAS)	Stopped or Ready

1121 R1 Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to set R1 probe positioning for all positions where aspirating and dispensing reagents with the R1 pipettor occurs.

For the associated graphic, see:

- *1121 R1 Pipettor Calibration graphic (c4000)*, page 9-51
- *1121 R1 Pipettor Calibration graphic (c8000)*, page 9-61
- *1121 R1 Pipettor Calibration graphic (c16000)*, page 9-71

Estimated time	Materials needed	Required module status
7 minutes	• R1 outer segment, 12 position, with pipettor calibration target (*c*8000/ *c*16000) • R1 inner segment, 20 position, with pipettor calibration target (*c*8000/ *c*16000) • Reagent outer and inner segments with the pipettor calibration target (*c*4000) • Cuvette segment alignment tool • Water • Lint-free tissue	Stopped or Ready

1122 R2 Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to set R2 probe positioning for all positions where aspirating and dispensing reagents with the R2 pipettor occurs.

For the associated graphic, see:

- *1122 R2 Pipettor Calibration graphic (c4000)*, page 9-52
- *1122 R2 Pipettor Calibration graphic (c8000)*, page 9-62
- *1122 R2 Pipettor Calibration graphic (c16000)*, page 9-72

Estimated time	Materials needed	Required module status
6 minutes	• R2 outer segment, 12 position, with pipettor calibration target (*c*8000/ *c*16000) • R2 segment, 14 position, with pipettor calibration target (*c*8000) • R2 inner segment, 20 position, with pipettor calibration target (*c*16000) • Reagent outer and inner segments with pipettor calibration tool (*c*4000) • Cuvette segment alignment tool • Water • Lint-free tissue	Stopped or Ready

2129 Add Water Bath Additive

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to add Water Bath Additive to the water bath to prevent and control microbial contamination. Review the container label for additional information.

Estimated time	Materials needed	Required module status
5 minutes	Water Bath Additive	Ready

2131 Flush ICT Cup

Perform this ***as-needed*** maintenance procedure to:

- Drain ICT Reference Solution from the ICT reference solution cup

- Refill the ICT reference solution warming ring from the ICT reference solution bottle

Estimated time	Materials needed	Required module status
1 minute	None	Ready

2132 Flush Water Lines

Perform this ***as-needed*** maintenance procedure to verify water is being flushed through the:

- Wash station tubing
- Sample probe tubing
- R1 and R2 pipettor tubing
- R1 and R2 reagent supply centers (*c*8000/*c*16000)

Estimated time	Materials needed	Required module status
3 minutes	None	Ready

2134 Change Water Bath

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to drain water from water bath and then refill bath with water. Review the container label for additional information.

Estimated time	Materials needed	Required module status
5 minutes	Water Bath Additive	Ready

2155 Flush Bulk Solutions

Perform this ***as-needed*** maintenance procedure to verify the following bulk solution tubings are free of air bubbles:

- ICT Reference Solution
- Alkaline Wash
- Acid Wash

Estimated time	Materials needed	Required module status
2 minutes	None	Ready

2181 Internal Decontamination (FSE logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to clean and decontaminate the following internal components:

- Internal drain tubing
- Open water tank
- Water bath

Estimated time	Materials needed	Required module status
3 hours	• 0.5% sodium hypochlorite • Cotton swabs • Phillips screwdriver • Water Bath Additive • Decontamination kit	Stopped or Ready

2183 Clean Wash Cups

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to clean and decontaminate the pipettor and mixer wash cups.

Estimated time	Materials needed	Required module status
40 minutes	• 2.5% sodium hypochlorite • Lint free tissues • 25 mL syringe • Cotton tip applicator • Water (deionized or tap)	Ready

NOTE: For decontamination purposes, the stability of the sodium hypochlorite solution is 24 hours. For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

3525 Temperature Status

Perform this ***as-needed*** maintenance procedure to check the temperature status of the processing module under the following conditions:

- Taking temperature measurements required by your laboratory
- Troubleshooting certain error codes
- Starting up the system after a long-term shutdown

The system checks and displays the temperature status of the following processing module components:

- Water bath
- Reagent supply center(s)
- Sample carousel (*c*8000/*c*16000)
- Instrument interior

Estimated time	Materials needed	Required module status
1 minute	None	Stopped or Ready

3526 Check Water Bath Temperature

Perform this ***as-needed*** maintenance procedure to measure the temperature of the processing module water bath and compare the reading to an external thermometer for accuracy.

Estimated time	Materials needed	Required module status
5 minutes	Thermometer (reading accuracy ± 0.05˚C at 37˚C)	Stopped or Ready

6027 Clean Reagent Supply Center (*c*4000)

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to clean up spills and ensure the reagent supply center is free of debris and deposits.

Estimated time	Materials needed	Required module status
Variable	Lint-free towel	Ready

6052 Wash Cuvettes

Perform this ***as-needed*** maintenance procedure to wash all cuvettes with Alkaline Wash, Acid Wash, and water.

Estimated time	Materials needed	Required module status
10 minutes (*c*8000/*c*16000) 18 minutes (*c*4000)	None	Ready

6053 Probe Water Wash

Perform this ***as-needed*** maintenance procedure to wash the probes on the sample pipettor, R1 reagent pipettor, and R2 reagent pipettor with water.

Estimated time	Materials needed	Required module status
5 minutes	None	Ready

6054 Probe Acid Wash

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to wash the probes on the sample pipettor, R1 reagent pipettor, and R2 reagent pipettor with a 0.5% dilution of acid wash solution. See *Prepare 0.5% acid wash solution (c System)*, page 5-59.

Estimated time	Materials needed	Required module status
5 minutes	0.5% acid wash	Ready

6055 Detergent B Probe Wash

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to wash the probes on the sample pipettor, R1 reagent pipettor, and R2 reagent pipettor with a 10% dilution of detergent B. For preparation instructions, see *Prepare 10% detergent B solution (c System)*, page 5-61.

Estimated time	Materials needed	Required module status
5 minutes	10% detergent B	Ready

6057 Detergent A Probe Wash

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to wash the probes on the sample pipettor, R1 reagent pipettor, and R2 reagent pipettor with detergent A. For preparation instructions, see *Prepare detergent A (c System)*, page 5-60.

Estimated time	Materials needed	Required module status
5 minutes	Detergent A	Ready

6058 Clean R2 Probe

Perform this maintenance procedure to wash the R2 reagent pipettor probes with ICT Cleaning Fluid to remove internal protein build-up. For preparation instructions, see *Prepare ICT cleaning fluid (c System)*, page 9-21.

The default maintenance category is ***as-needed***. Each laboratory must establish the frequency at which to perform this procedure. To establish the frequency, determine when 3,000 tests of R2 reagents containing elevated amounts of serum protein (greater than or equal to 20% w/w) are run or when R2 reagent carryover is observed. Use the following chart as a guideline. The chart is based on the total tests performed during a month of all Abbott R2 reagent assays with elevated amounts of serum protein (as identified in the Abbott assay-specific package insert). Non-Abbott R2 reagents must be evaluated for inclusion in the test count calculation.

Number of tests run per month on protein-based R2 reagent assays	Suggested frequency
Greater than 3,000	Weekly
1,001-3,000	Monthly
501-1,000	Quarterly
1-500	Every six months
0	Not required

The frequency can be changed to Weekly, Monthly, or Quarterly with utilities diagnostic procedure *6118 Edit Clean R2 Probe Frequency*, page 10-644.

Estimated time	Materials needed	Required module status
8 minutes	ICT Cleaning Fluid	Ready

6062 Wash ICT with Cleaning Fluid

Perform this ***as-needed*** maintenance procedure to wash the ICT probe with cleaning fluid to ensure the ICT probe is free of protein buildup.

For preparation instructions, see *Prepare ICT cleaning fluid (c System)*, page 9-21.

Estimated time	Materials needed	Required module status
3 minutes	ICT Cleaning Fluid	Ready

6063 Flush ICT Module

Perform this ***as-needed*** maintenance procedure to flush the ICT module with ICT Reference Solution.

Estimated time	Materials needed	Required module status
2 minutes	None	Ready

6064 Clean Reaction Carousel

Perform this ***as-needed*** maintenance procedure to clean the reaction carousel to remove any debris.

Estimated time	Materials needed	Required module status
20 minutes	• Lint-free tissue • Purified water	Stopped or Ready

6310 Clean cuvettes - manually

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to manually clean and inspect the cuvettes in the reaction carousel.

NOTE: Gently clean the cuvettes and do not apply significant downward pressure on the cuvette segment base.

IMPORTANT: Inspect each cuvette segment, as well as individual glass cuvettes within the segment, for damage by gently pulling downwards on the segment base at several points along the segment. If damage is discovered, replace the cuvette segment.

Estimated time	Materials needed	Required module status
5 minutes	• Slotted screwdriver • Detergent A • Cotton swabs • Purified water • Gloves • Clean, residue-free container to submerge cuvette segment	Stopped or Ready

*c*4000 processing module associated maintenance graphics

Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

Graphics are available to aid in performing the following *c*4000 processing module maintenance:

Maintenance tab	Graphic reference
Daily	*6024 Check 1 mL Syringes graphics (c4000)*, page 9-43

Maintenance tab	Graphic reference
Weekly	• *6019 Check ICT Components graphic (c4000)*, page 9-45 • *6308 Check HC Waste Pump Tubing graphic (c4000)*, page 9-48
Monthly	• *6026 Check Syringes and Valves graphic (c4000)*, page 9-49 • *6300 Clean ICT Drain Tip graphic (c4000)*, page 9-50
Quarterly	• 1003 Change Lamp see *Replace the lamp or lamp plate (c4000)*, page 9-131 • 6301 Sample Syringe Maintenance see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174 • 6302 Wash Syringe Maintenance see *Replace wash solution syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-167 • 6303 Reagent Syringe Maintenance see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174 • 6304 Change 1 mL Syringes see *Replace the 1 mL syringes (c4000)*, page 9-154 • 6305 Change ICT Asp Check Valve see *Replace check valves (c4000)*, page 9-158 • 6306 Change ICT Ref Check Valve see *Evaluate the check valve (c System)*, page 10-706
As-needed	• *1120 Sample Pipettor Calibration graphic (c4000)*, page 9-51 • *1121 R1 Pipettor Calibration graphic (c4000)*, page 9-51 • *1122 R2 Pipettor Calibration graphic (c4000)*, page 9-52

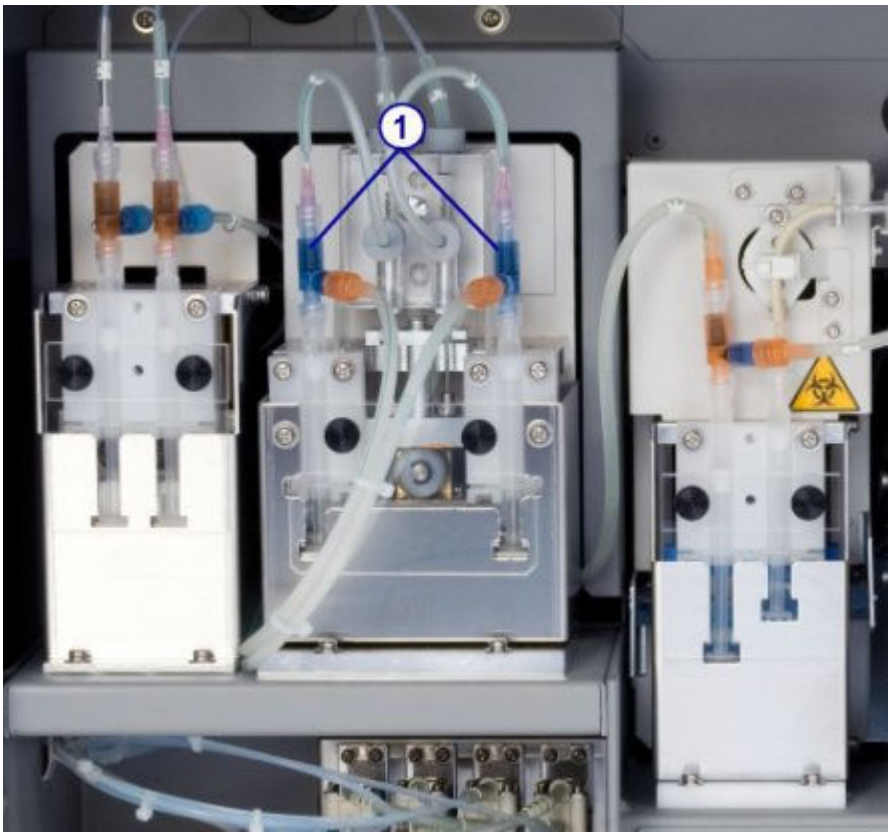
Topics include:

- *6024 Check 1 mL Syringes graphics (c4000)*, page 9-43
- *6019 Check ICT Components graphic (c4000)*, page 9-45
- *6308 Check HC Waste Pump Tubing graphic (c4000)*, page 9-48
- *6026 Check Syringes and Valves graphic (c4000)*, page 9-49
- *6300 Clean ICT Drain Tip graphic (c4000)*, page 9-50
- *1120 Sample Pipettor Calibration graphic (c4000)*, page 9-51
- *1121 R1 Pipettor Calibration graphic (c4000)*, page 9-51
- *1122 R2 Pipettor Calibration graphic (c4000)*, page 9-52

6024 Check 1 mL Syringes graphics (*c*4000)

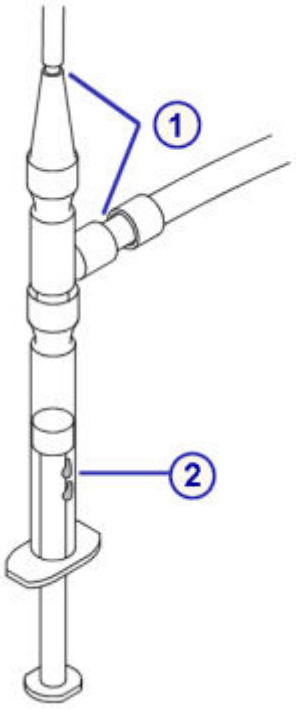
View these daily maintenance procedure graphics to:

- Locate the wash solution pump 1 mL syringes
- Inspect the connections and interior of the 1 mL syringe for leaks



Legend:

1. 1 mL syringes for wash solution pump



Legend:

1. Connections
2. Syringe plunger interior

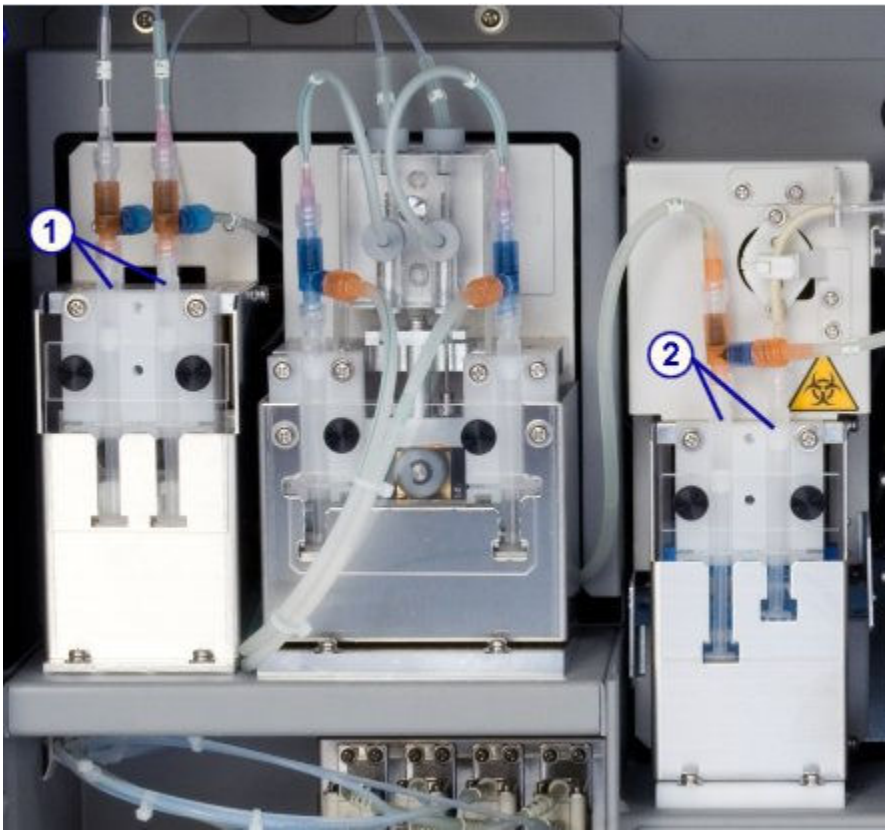
6019 Check ICT Components graphic (*c*4000)

View this weekly maintenance procedure graphic to:

- Check ICT tubing for bubbles
- Inspect the connections and interior of the ICT 1 mL syringes for leaks

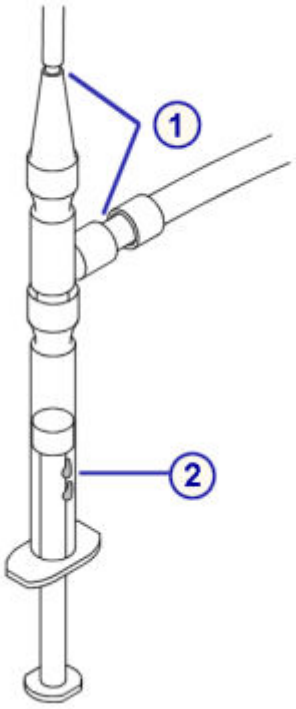
Legend:

1. ICT tubing



Legend:

1. 1 mL syringes for ICT reference pump
2. 1 mL syringes for ICT aspiration pump



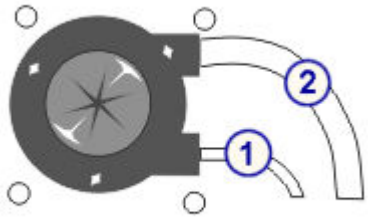
Legend:

1. Connections
2. Syringe plunger interior

6308 Check HC Waste Pump Tubing graphic (*c*4000)

View this weekly maintenance procedure graphic to ensure the high-concentration waste pump tubing is free of blockage.

Figure 9.8: Peristaltic high-concentration waste pump

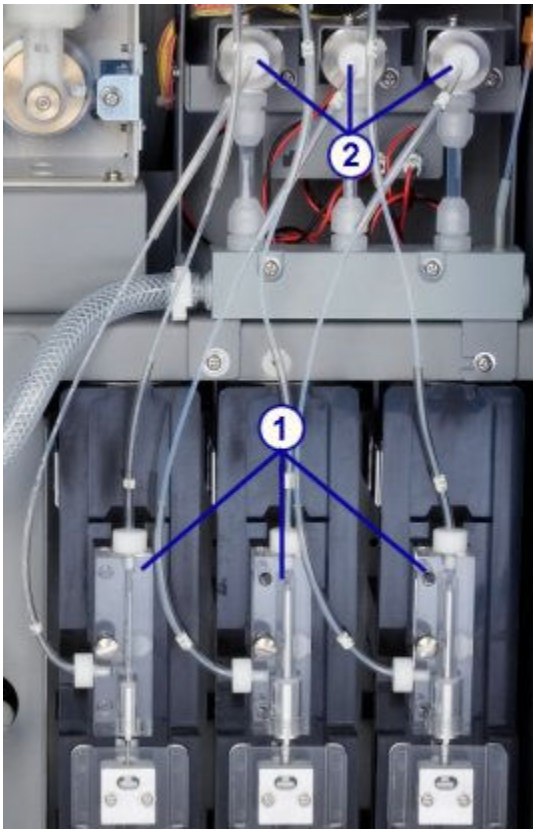


Legend:

1. Input tubing from cuvette washer
2. Output tubing to the high-concentrated waste

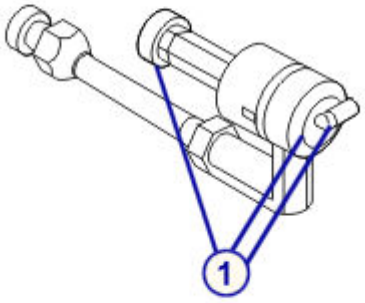
6026 Check Syringes and Valves graphic (*c*4000)

View this monthly maintenance procedure graphic(s) to ensure the syringe, solenoid valves, and their connections do not leak.



Legend:

1. Syringes
2. Solenoid valves

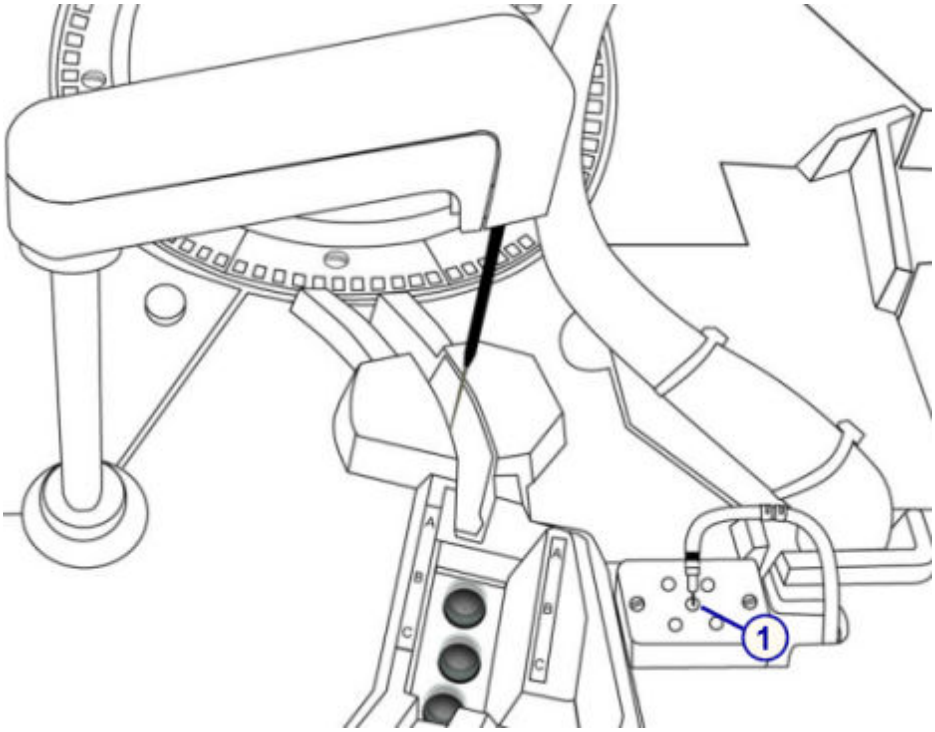


Legend:

1. Solenoid valve connections

6300 Clean ICT Drain Tip graphic (*c*4000)

View this monthly maintenance procedure graphic(s) to locate the ICT drain tip.

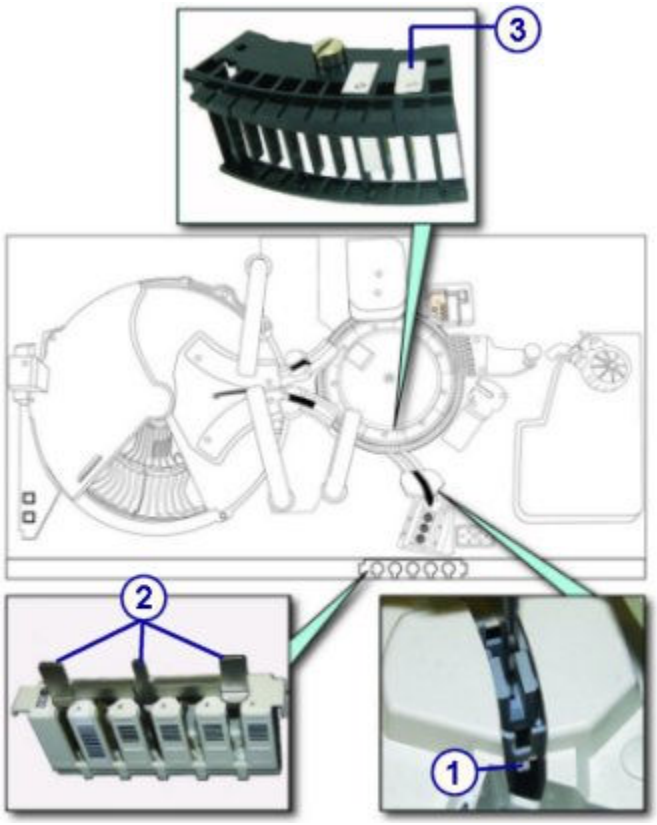


Legend:

1. ICT drain tip

1120 Sample Pipettor Calibration graphic (*c*4000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.

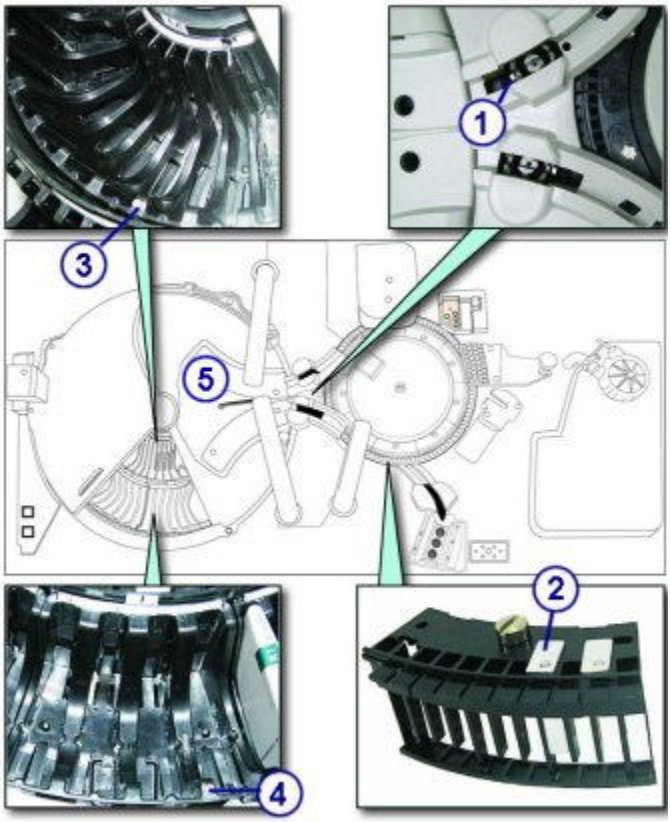


Legend:

1. Sample wash cup calibration target (to the right of the wash cup)
2. Carrier calibration tool target
3. Cuvette segment alignment tool target

1121 R1 Pipettor Calibration graphic (*c*4000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.

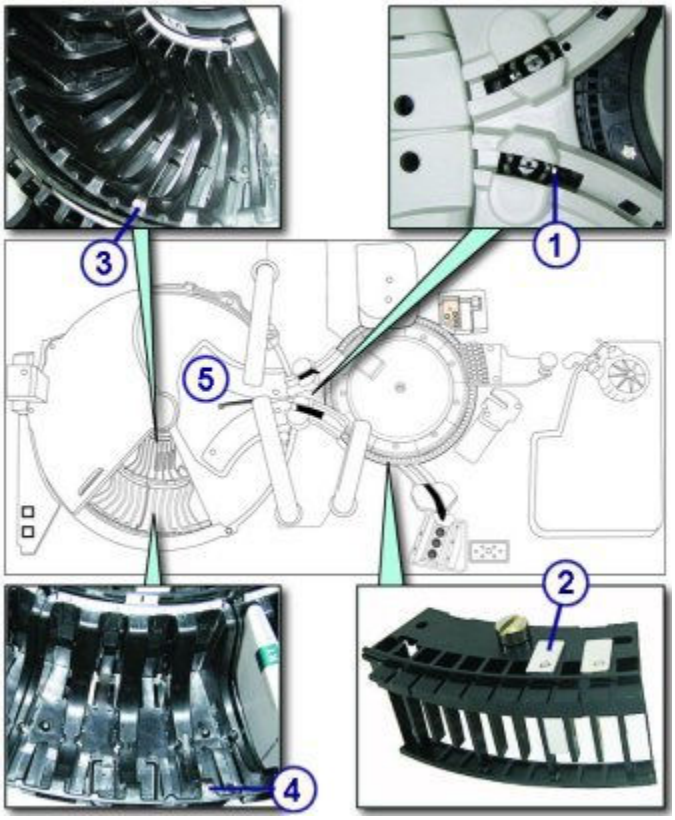


Legend:

1. R1 wash cup calibration target
2. Cuvette segment alignment tool target
3. Reagent supply center inner segment calibration target
4. Reagent supply center outer segment calibration target
5. Reagent supply center maintenance cover

1122 R2 Pipettor Calibration graphic (*c*4000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.



Legend:

1. R2 wash cup calibration target
2. Cuvette segment alignment tool target
3. Reagent supply center inner segment calibration target
4. Reagent supply center outer segment calibration target
5. Reagent supply center maintenance cover

*c*8000 processing module associated maintenance graphics

Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

Graphics are available to aid in performing the following *c*8000 processing module maintenance:

Maintenance tab	Graphic reference
Daily	*6024 Check 1 mL Syringes graphics (c8000)*, page 9-54
Weekly	• *6019 Check ICT Components graphic (c8000)*, page 9-55 • *6308 Check HC Waste Pump Tubing graphic (c8000)*, page 9-57
Monthly	• *6026 Check Syringes and Valves graphic (c8000)*, page 9-59

Maintenance tab	Graphic reference
	• *6300 Clean ICT Drain Tip graphic (c8000)*, page 9-60
Quarterly	• 1003 Change Lamp see *Replace the lamp or lamp plate (c8000)*, page 9-198 • 6301 Sample Syringe Maintenance see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245 • 6302 Wash Syringe Maintenance see *Replace wash solution syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-238 • 6303 Reagent Syringe Maintenance see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245 • 6304 Change 1 mL Syringes see *Replace the 1 mL syringes (c8000)*, page 9-224 • 6305 Change ICT Asp Check Valve see *Replace check valves (c8000)*, page 9-228 • 6306 Change ICT Ref Check Valve see *Evaluate the check valve (c System)*, page 10-706
As-needed	• *1120 Sample Pipettor Calibration graphic (c8000)*, page 9-60 • *1121 R1 Pipettor Calibration graphic (c8000)*, page 9-61 • *1122 R2 Pipettor Calibration graphic (c8000)*, page 9-62

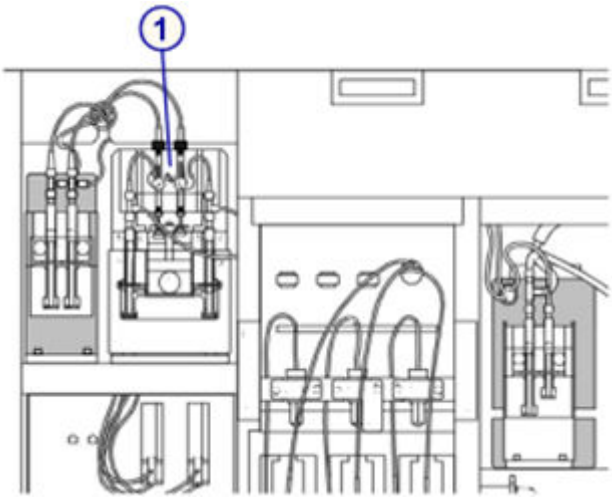
Topics include:

- *6024 Check 1 mL Syringes graphics (c8000)*, page 9-54
- *6019 Check ICT Components graphic (c8000)*, page 9-55
- *6308 Check HC Waste Pump Tubing graphic (c8000)*, page 9-57
- *6026 Check Syringes and Valves graphic (c8000)*, page 9-59
- *6300 Clean ICT Drain Tip graphic (c8000)*, page 9-60
- *1120 Sample Pipettor Calibration graphic (c8000)*, page 9-60
- *1121 R1 Pipettor Calibration graphic (c8000)*, page 9-61
- *1122 R2 Pipettor Calibration graphic (c8000)*, page 9-62

6024 Check 1 mL Syringes graphics (*c*8000)

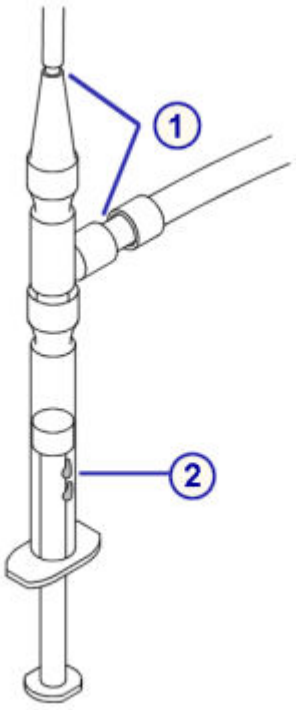
View these daily maintenance procedure graphics to:

- Locate the wash solution pump 1 mL syringes
- Inspect the connections and interior of the 1 mL syringe for leaks



Legend:

1. 1 mL syringes for wash solution pump



Legend:

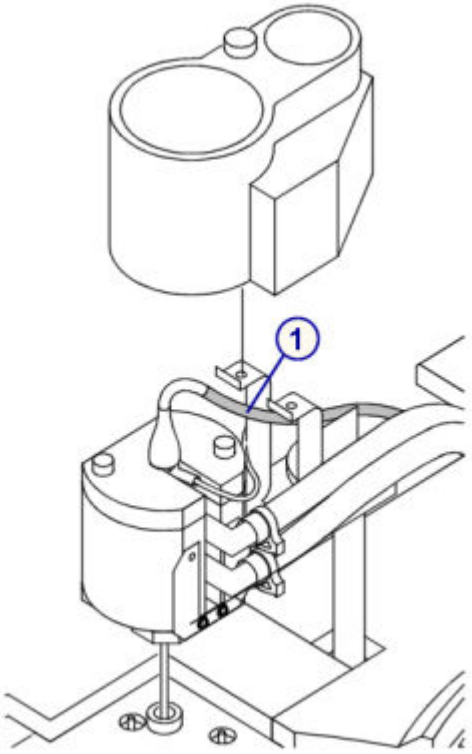
1. Connections
2. Syringe plunger interior

6019 Check ICT Components graphic (*c*8000)

View this weekly maintenance procedure graphic to:

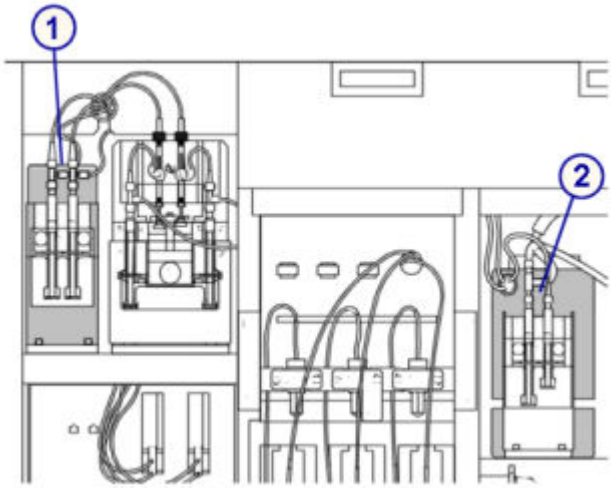
- Check ICT tubing for bubbles

- Inspect the connections and interior of the ICT 1 mL syringes for leaks



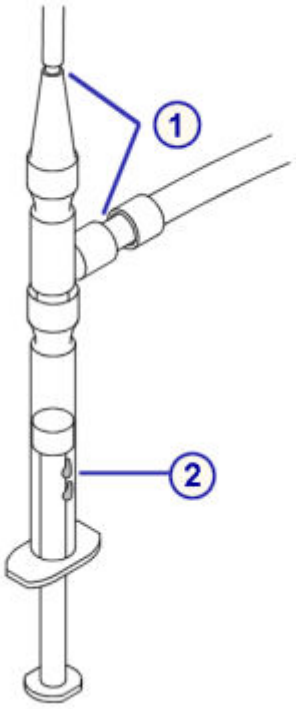
Legend:

1. ICT tubing



Legend:

1. 1 mL syringes for ICT reference pump
2. 1 mL syringes for ICT aspiration pump



Legend:

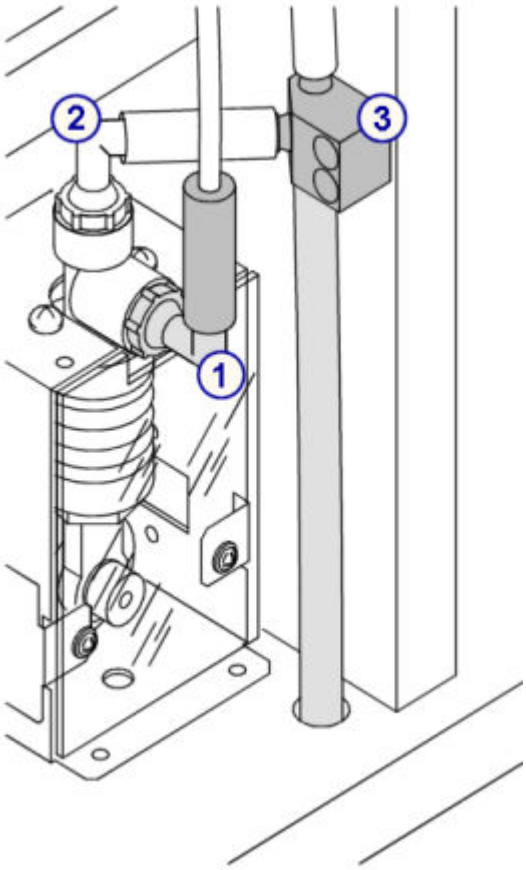
1. Connections
2. Syringe plunger interior

6308 Check HC Waste Pump Tubing graphic (*c*8000)

There are two possible high-concentration waste pump configurations on the *c*8000 processing module.

View the appropriate weekly maintenance procedure graphic to ensure the high-concentration waste pump tubing is free of blockage.

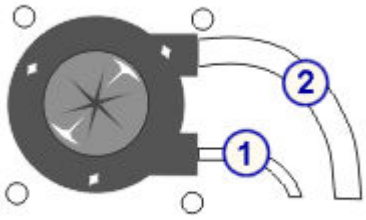
Figure 9.9: Bellows high-concentration waste pump



Legend:

1. Input tubing from cuvette washer
2. Output tubing to the high-concentrated waste T fitting
3. High-concentrated waste T fitting

Figure 9.10: Peristaltic high-concentration waste pump

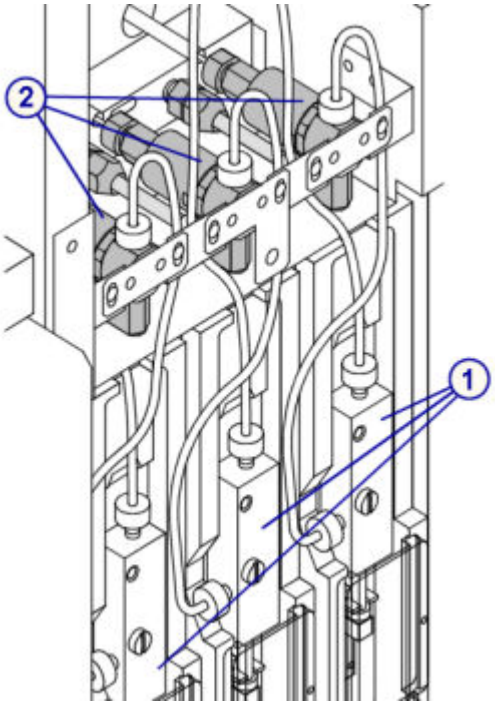


Legend:

1. Input tubing from cuvette washer
2. Output tubing to the high-concentrated waste

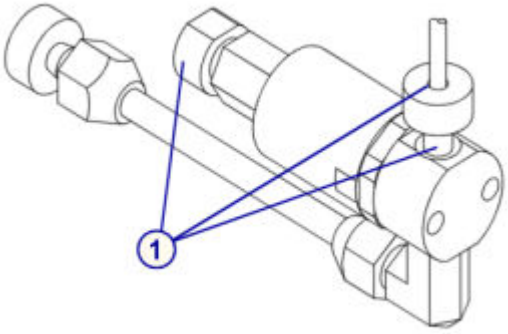
6026 Check Syringes and Valves graphic (*c*8000)

View this monthly maintenance procedure graphic(s) to ensure the syringe, solenoid valves, and their connections do not leak.



Legend:

1. Syringes
2. Solenoid valves

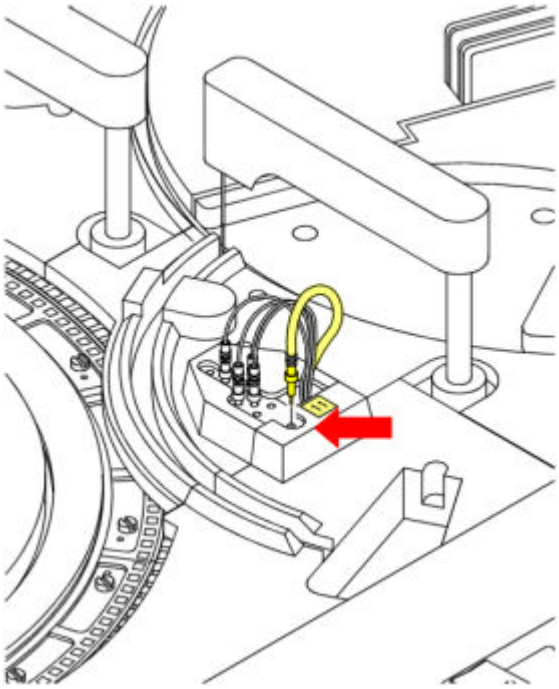


Legend:

1. Solenoid valve connections

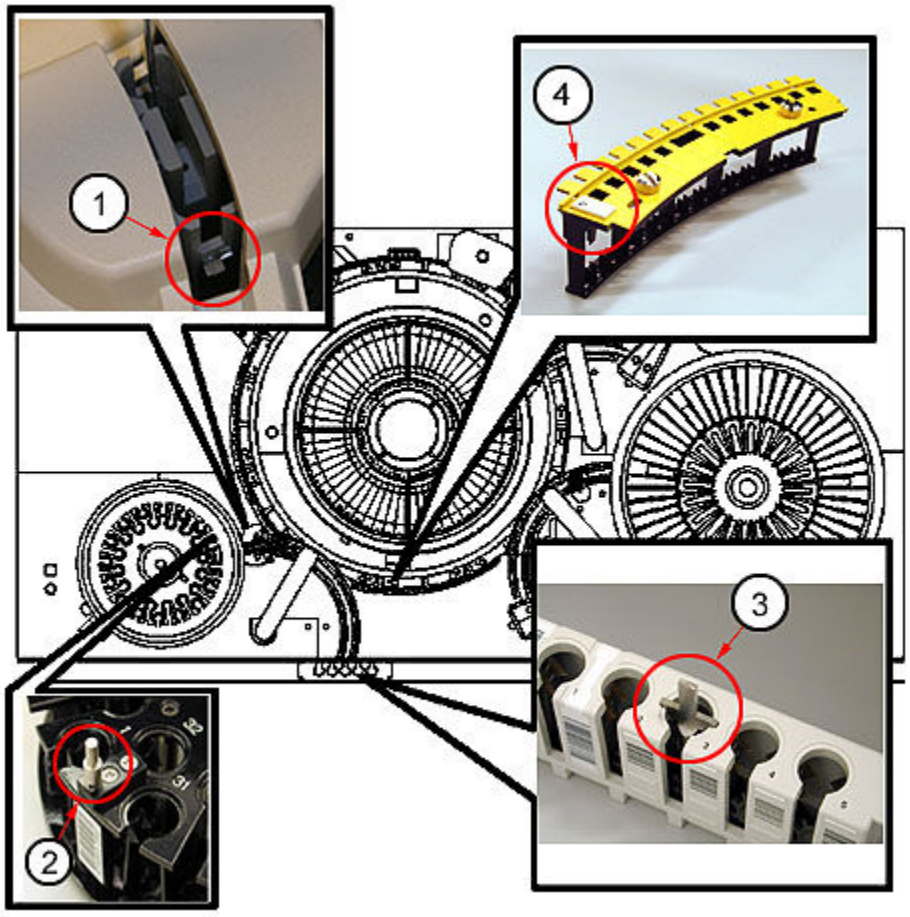
6300 Clean ICT Drain Tip graphic (*c*8000)

View this monthly maintenance procedure graphic(s) to locate the ICT drain tip.



1120 Sample Pipettor Calibration graphic (*c*8000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.

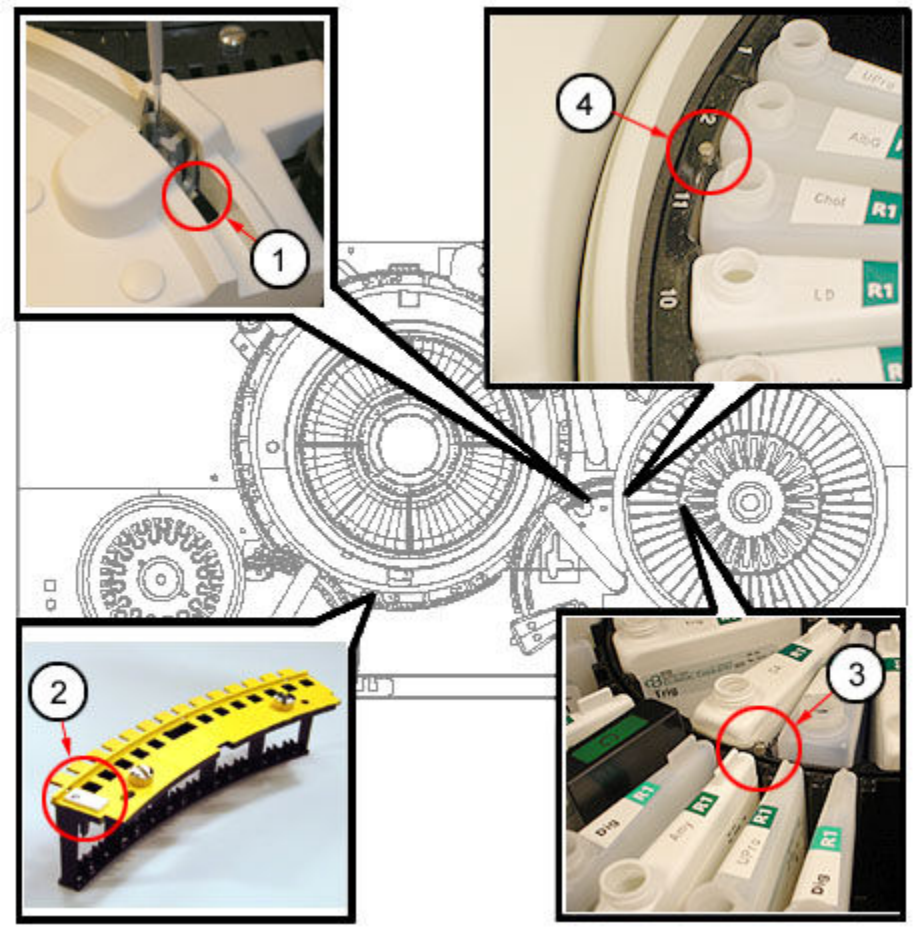


Legend:

1. Sample wash cup calibration target (to the right of the wash cup)
2. Sample carousel calibration target
3. Carrier calibration tool target
4. Cuvette segment alignment tool target

1121 R1 Pipettor Calibration graphic (*c*8000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.

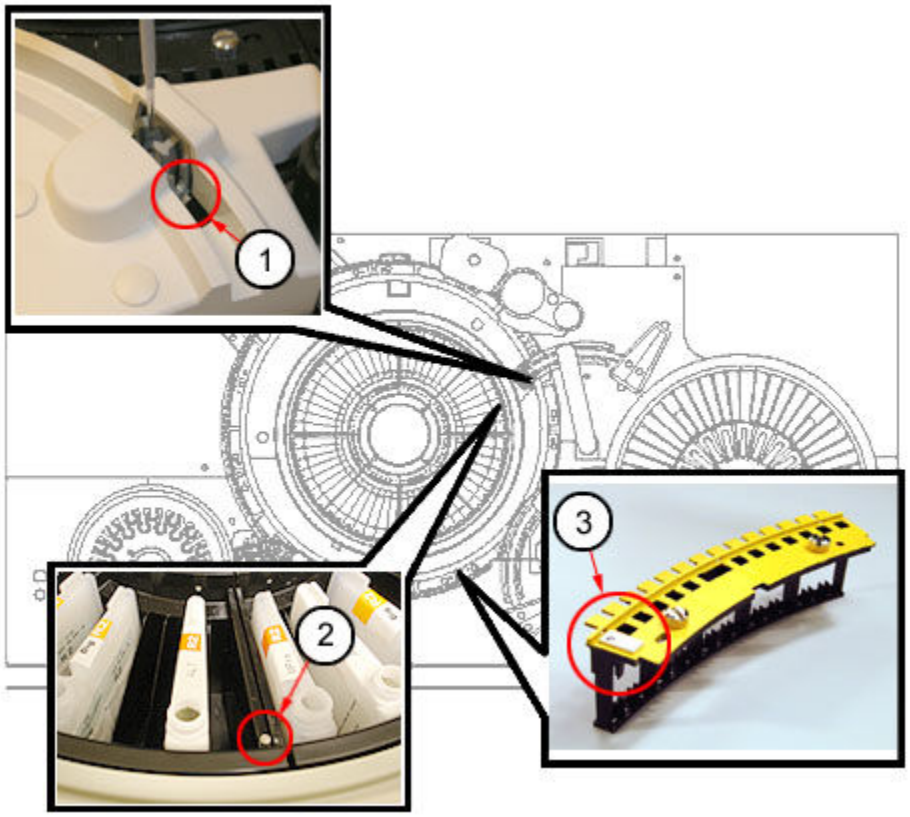


Legend:

1. R1 wash cup calibration target (to the right of the wash cup)
2. Cuvette segment alignment tool target
3. R1 reagent supply center inner segment calibration target
4. R1 reagent supply center outer segment calibration target

1122 R2 Pipettor Calibration graphic (*c*8000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.



Legend:

1. R2 wash cup calibration target (to the right of the wash cup)
2. R2 reagent supply center segment calibration target
3. Cuvette segment alignment tool target

*c*16000 processing module associated maintenance graphics

Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

Graphics are available to aid in performing the following *c*16000 processing module maintenance:

Maintenance tab	Graphic reference
Daily	*6024 Check 1 mL Syringes graphics (c16000)*, page 9-64
Weekly	• *6019 Check ICT Components graphic (c16000)*, page 9-65 • *6308 Check HC Waste Pump Tubing graphic (c16000)*, page 9-67
Monthly	• *6026 Check Syringes and Valves graphic (c16000)*, page 9-68 • *6300 Clean ICT Drain Tip graphic (c16000)*, page 9-69

Maintenance tab	Graphic reference
Quarterly	• 1003 Change Lamp see *Replace the lamp or lamp plate (c16000)*, page 9-269 • 6301 Sample Syringe Maintenance see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315 • 6302 Wash Syringe Maintenance see *Replace wash solution syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-308 • 6303 Reagent Syringe Maintenance see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315 • 6304 Change 1 mL Syringes see *Replace the 1 mL syringes (c16000)*, page 9-295 • 6305 Change ICT Asp Check Valve see *Replace check valves (c16000)*, page 9-299 • 6306 Change ICT Ref Check Valve see *Evaluate the check valve (c System)*, page 10-706
As-needed	• *1120 Sample Pipettor Calibration graphic (c16000)*, page 9-70 • *1121 R1 Pipettor Calibration graphic (c16000)*, page 9-71 • *1122 R2 Pipettor Calibration graphic (c16000)*, page 9-72

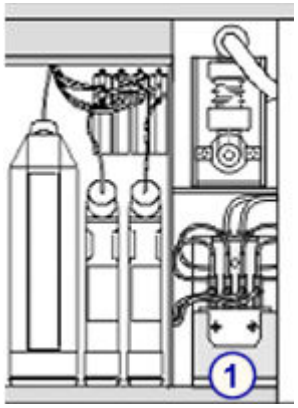
Topics include:

6024 Check 1 mL Syringes graphics (*c*16000)

View these daily maintenance procedure graphics to:

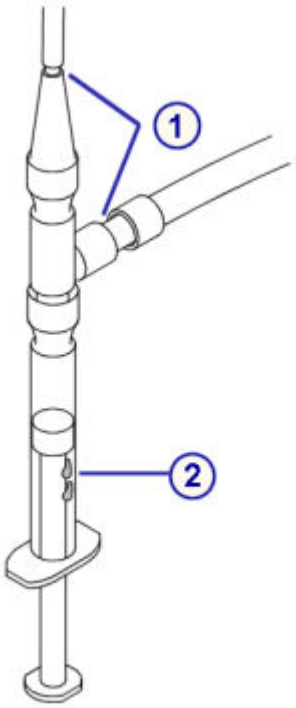
- Locate the wash solution pump 1 mL syringes
- Inspect the connections and interior of the 1 mL syringe for leaks

Figure 9.11: Supply and pump center (front view)



Legend:

1. 1 mL syringes for wash solution pump



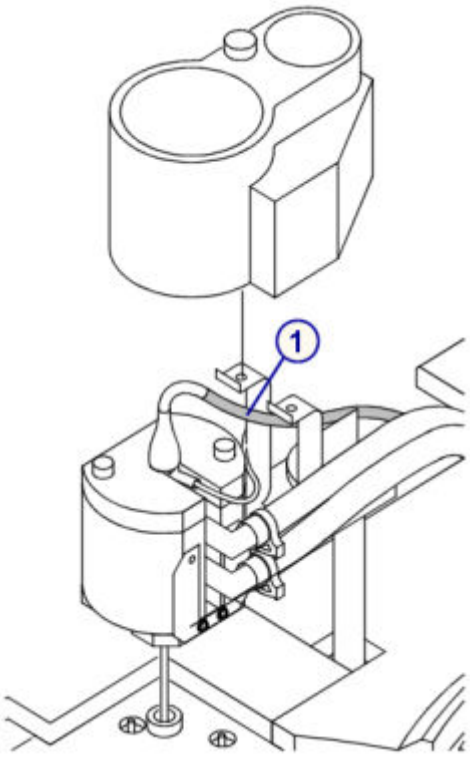
Legend:

1. Connections
2. Syringe plunger interior

6019 Check ICT Components graphic (*c*16000)

View this weekly maintenance procedure graphic to:

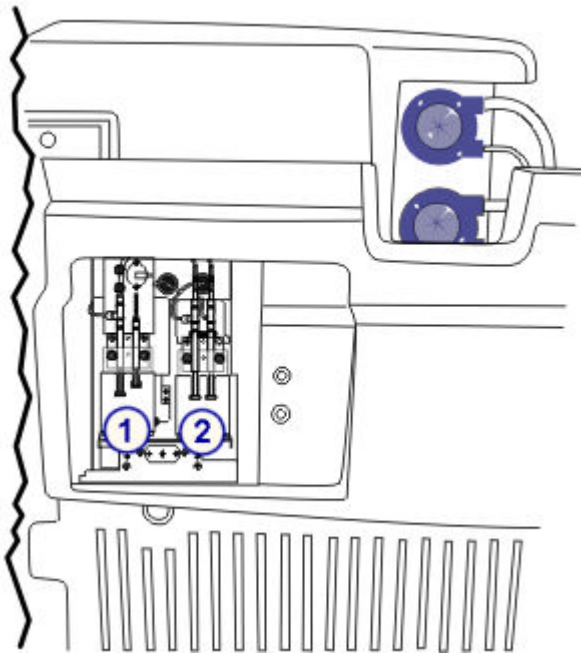
- Check ICT tubing for bubbles
- Inspect the connections and interior of the ICT 1 mL syringes for leaks



Legend:

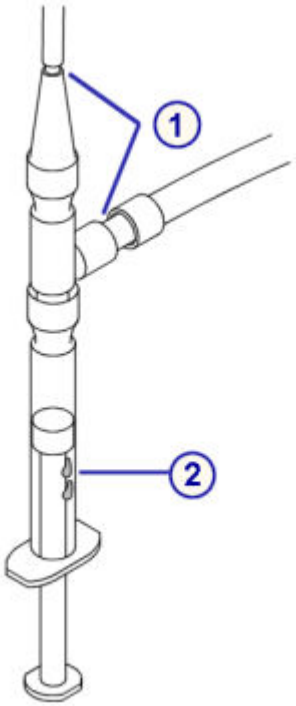
1. ICT tubing

Figure 9.12: Pump center (rear view)



Legend:

1. 1 mL syringes for ICT aspiration pump
2. 1 mL syringes for ICT reference pump

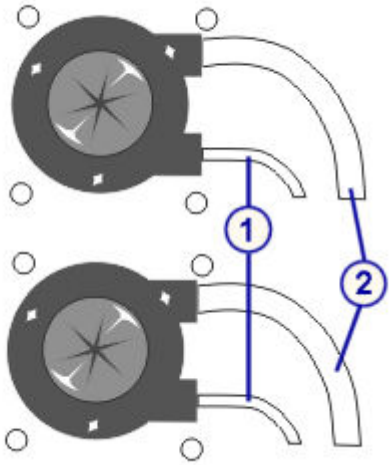


Legend:

1. Connections
2. Syringe plunger interior

6308 Check HC Waste Pump Tubing graphic (*c*16000)

View this weekly maintenance procedure graphic to ensure the high-concentration waste pump tubing is free of blockage.

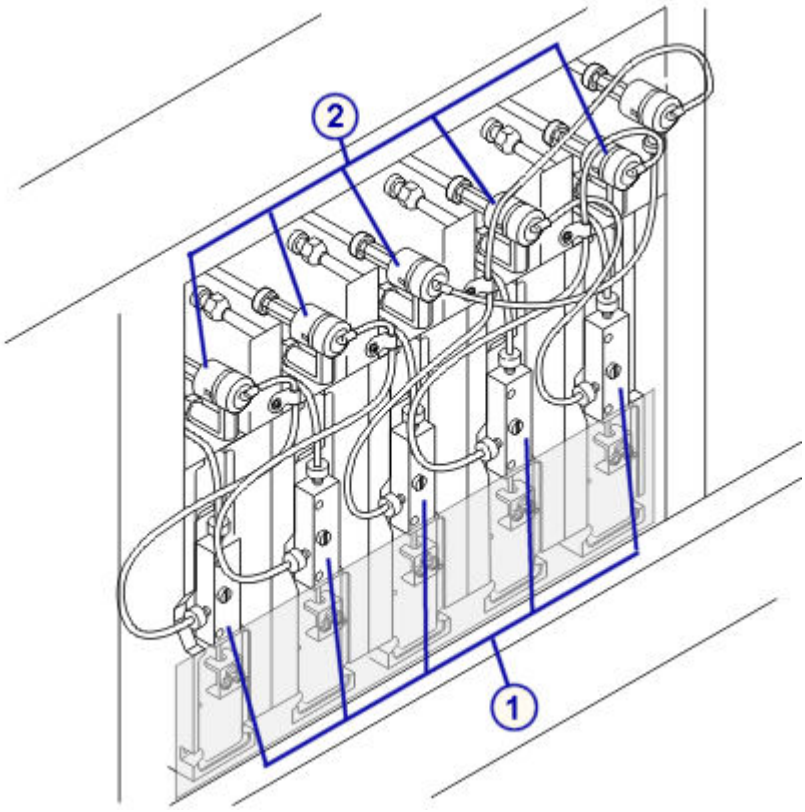


Legend:

1. Input tubing from cuvette washer
2. Output tubing to the high-concentrated waste

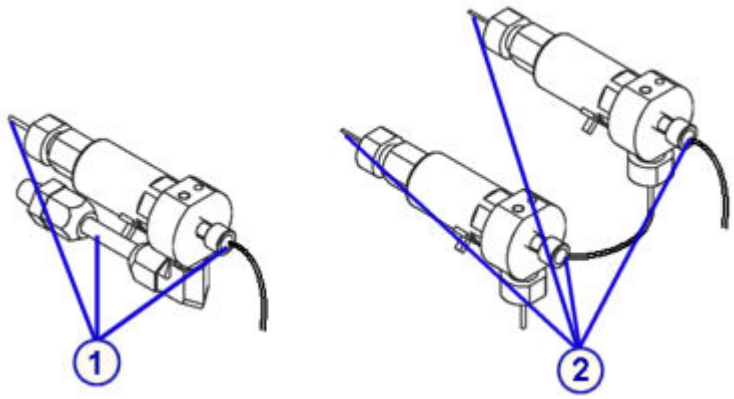
6026 Check Syringes and Valves graphic (*c*16000)

View this monthly maintenance procedure graphic(s) to ensure the syringe, solenoid valves, and their connections do not leak.



Legend:

1. Syringes
2. Solenoid valves

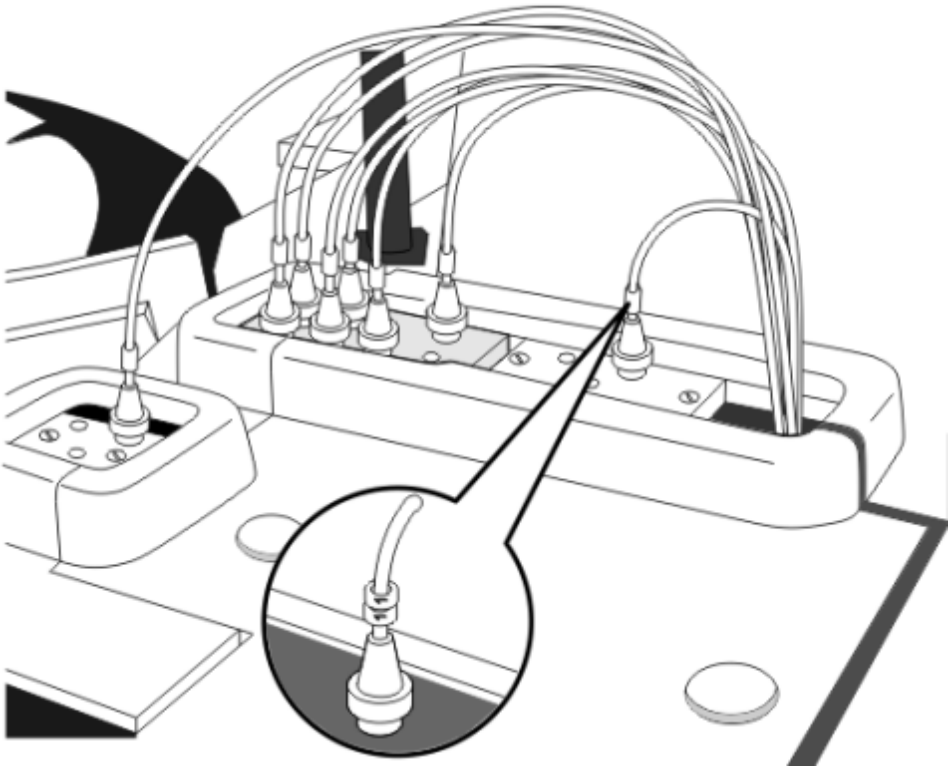


Legend:

1. Reagent solenoid valve connections
2. Sample solenoid valve connnections

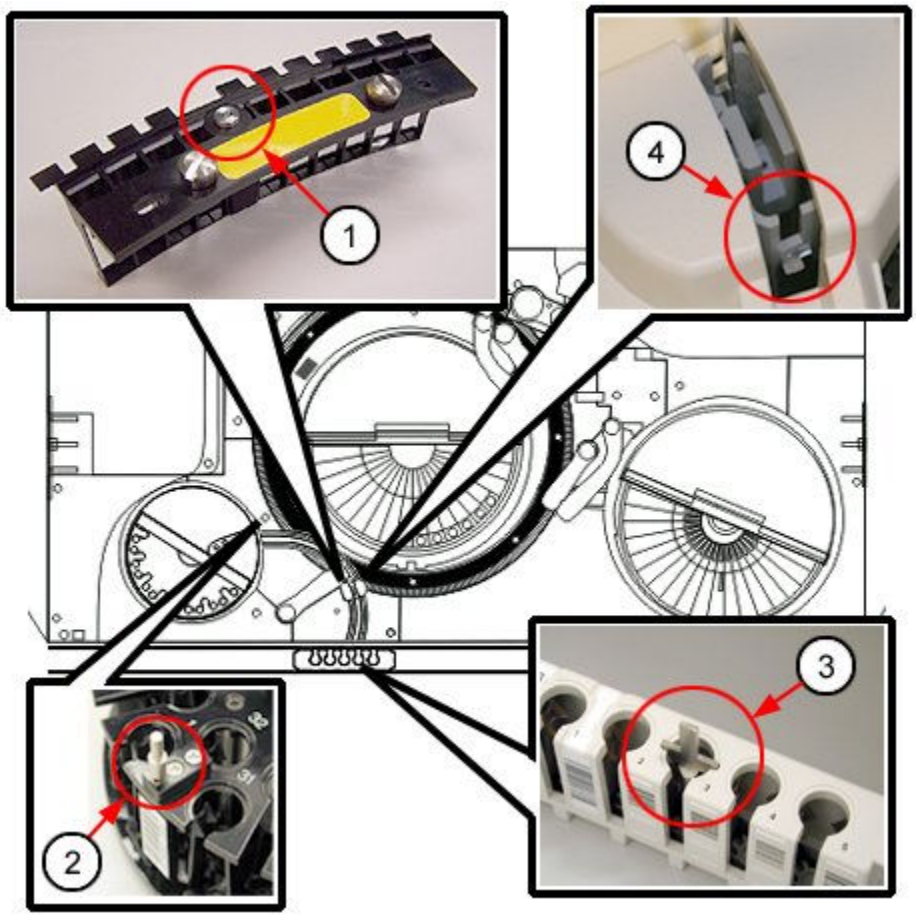
6300 Clean ICT Drain Tip graphic (*c*16000)

View this monthly maintenance procedure graphic(s) to locate the ICT drain tip.



1120 Sample Pipettor Calibration graphic (*c*16000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.

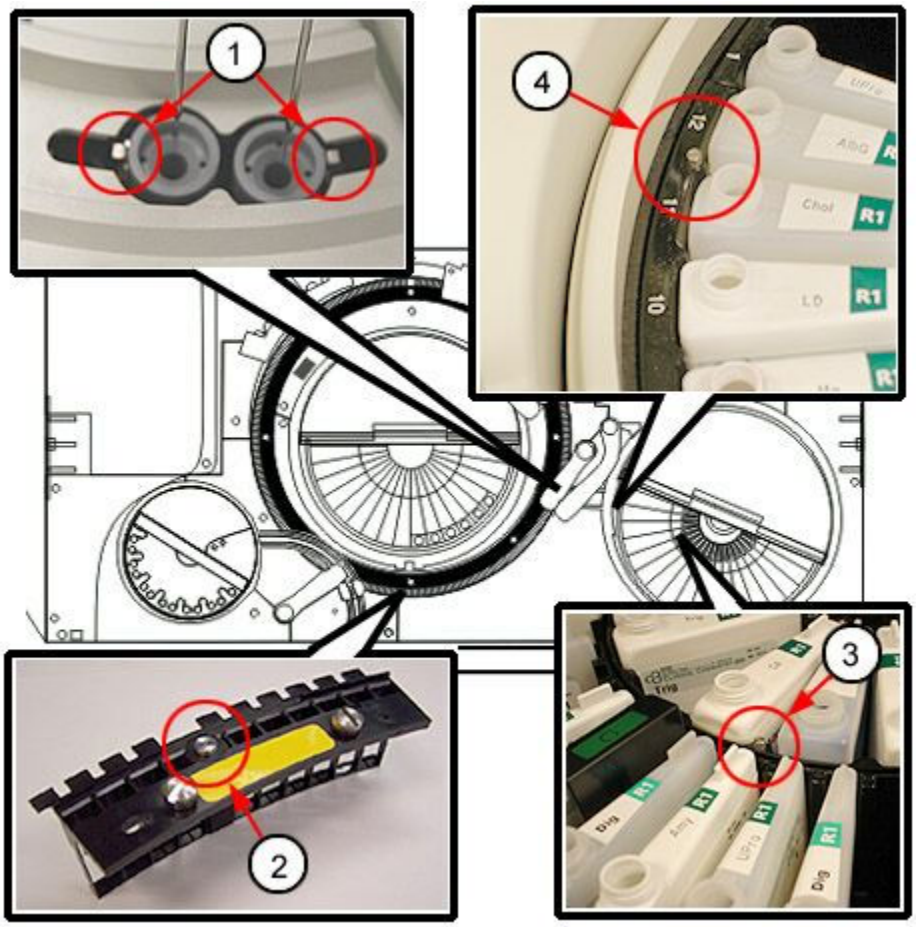


Legend:

1. Cuvette segment alignment tool target
2. Sample carousel calibration target
3. Carrier calibration tool target
4. Sample wash cup calibration target (to the right of the wash cup)

1121 R1 Pipettor Calibration graphic (*c*16000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.

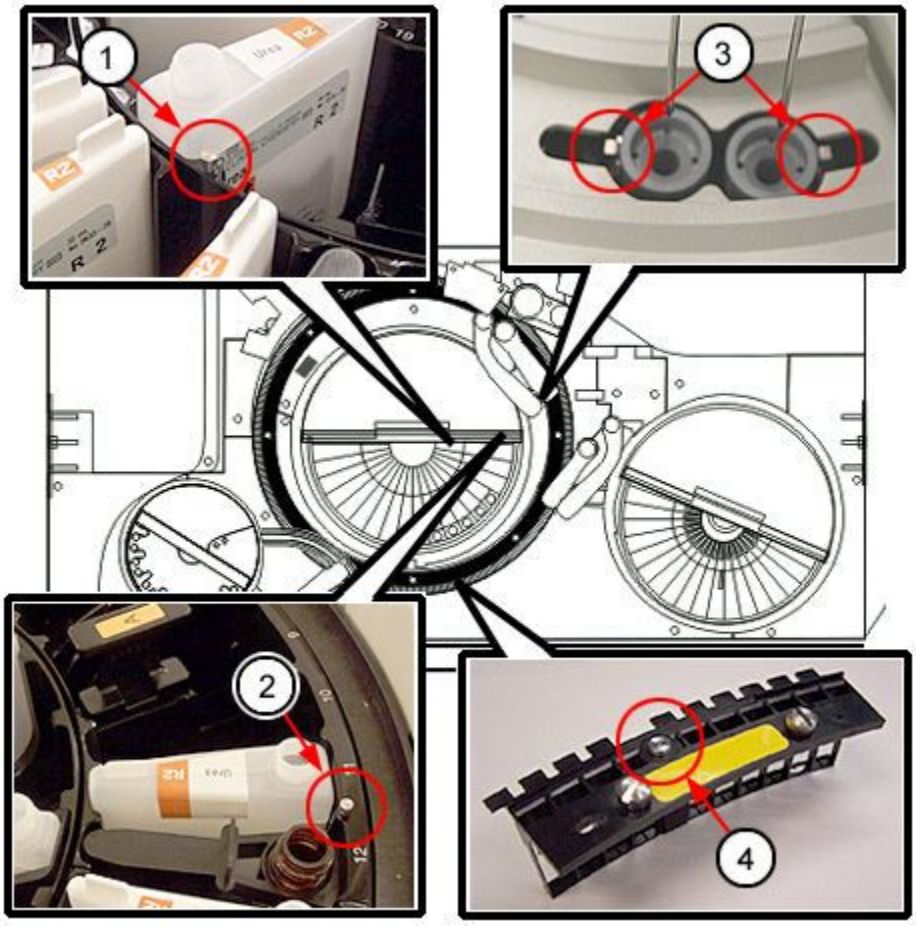


Legend:

1. R1 wash cup calibration targets
2. Cuvette segment alignment tool target
3. R1 reagent supply center inner segment calibration target
4. R1 reagent supply center outer segment calibration target

1122 R2 Pipettor Calibration graphic (*c*16000)

View this as-needed maintenance graphic to clean the appropriate calibration targets.



Legend:

1. R2 reagent supply center inner segment calibration target
2. R2 reagent supply center outer segment calibration target
3. R2 wash cup calibration targets
4. Cuvette segment alignment tool target

*i*2000/*i*2000SR processing modules maintenance categories

Maintenance procedures for an *i*2000/*i*2000SR processing module(s) are grouped by category (tab) on the Maintenance screen. Procedures are available in the following categories:

- *Daily maintenance description (i2000/i2000SR processing modules)*, page 9-74
- *Weekly maintenance description (i2000/i2000SR processing modules)*, page 9-74
- *As-needed maintenance description (i2000/i2000SR processing modules)*, page 9-76

Daily maintenance description (*i*2000/*i*2000SR processing modules)

Daily maintenance is required on the processing module only. Perform the 6041 Daily maintenance procedure daily.

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6041 Daily Maintenance

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***daily*** maintenance procedure to:

- Clean and condition the sample pipettor probe
- Clean the probes, temperature tubing and sensors, and vacuum vessels in wash zone 1 and 2
- Mix the microparticle bottles on the reagent carousel
- Flush and prime pre-trigger and trigger manifolds
- Verify that a backup has been performed in the last thirty (30) days. If it has not, the operator is instructed to perform one.
- Check the database integrity

NOTE: The backup verification and database integrity check are only performed on the *i*2000/*i*2000SR processing module when it is module 1.

Estimated time	Materials needed	Required module status
21 minutes	• Maintenance cleaning bottle • ARCHITECT Probe Conditioning Solution • 0.5% sodium hypochlorite	Warming or Ready

NOTE: For cleaning purposes, the stability of the sodium hypochlorite solution is 30 days. For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

Weekly maintenance description (*i*2000/*i*2000SR processing modules)

Weekly maintenance for an ARCHITECT *i*2000/*i*2000SR is required on the processing module only. Perform these procedures weekly:

- *6012 Air Filter Cleaning*, page 9-75
- *6014 Pipettor Probe Cleaning*, page 9-75
- *6015 WZ Probe Cleaning - Manual*, page 9-75

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6012 Air Filter Cleaning

Perform this ***weekly*** maintenance procedure to manually remove dust build-up from the air filters. Since the filter must be reinstalled dry, it is recommended you rotate between two filters to improve efficiency.

Estimated time	Materials needed	Required module status
10 minutes	• Air filters • Tap water	Stopped, Warming, or Ready

6014 Pipettor Probe Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***weekly*** maintenance procedure to clean the outside of the pipettor probes to remove salt buildup.

Estimated time	Materials needed	Required module status
5 minutes	• Wash bottle with deionized water • Cotton swabs	Warming or Ready

6015 WZ Probe Cleaning - Manual

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***weekly*** maintenance procedure to clean the outside of the wash zone probes and wash manifold to remove salt buildup.

Estimated time	Materials needed	Required module status
10 minutes	• Wash bottle with deionized water • Cotton swabs	Stopped, Warming, or Ready

As-needed maintenance description (*i*2000/*i*2000SR processing modules)

Perform the recommended ***as-needed*** maintenance procedures on an ARCHITECT *i*2000/*i*2000SR during troubleshooting/diagnostics or during routine operation when problems are observed. Perform these procedures as needed:

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1111 Sample Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to:

- Set sample probe positioning for all positions required for aspirating and dispensing specimens during processing

- Determine probe straightness
- Move the sample and STAT pipettor probes over the LAS track allowing you to observe probe positioning (*i*2000SR LAS)

For the associated graphic, see *1111 Sample Pipettor Calibration graphic*, page 9-84.

Estimated time	Materials needed	Required module status
7 minutes	• Lint-free tissue • Water (deionized or tap) Additional materials vary depending on sample handler configuration. RSH/SSH: • Sample carrier • Carrier calibration tool *i*2000 LAS: • LAS sample carousel • LAS carousel calibration tool *i*2000SR LAS: • Pipettor calibration tool • SH bar code tool	Stopped, Warming, or Ready

1112 R1 Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to:

- Set R1 probe positioning for all positions required for aspirating and dispensing reagents with the R1 pipettor during processing
- Determine probe straightness

For the associated graphic, see *1112 R1 Pipettor Calibration graphic*, page 9-84.

Estimated time	Materials needed	Required module status
7 minutes	• Cotton swab • Water (deionized or tap)	Stopped, Warming, or Ready

1113 R2 Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to:

- Set R2 probe positioning for all positions required for aspirating and dispensing reagents with the R2 pipettor during processing
- Determine probe straightness

For the associated graphic, see *1113 R2 Pipettor Calibration graphic*, page 9-85.

Estimated time	Materials needed	Required module status
7 minutes	• Cotton swab • Water (deionized or tap)	Stopped, Warming, or Ready

1115 Wash Station Pre-alignment (FSE logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to set the Sample, STAT, R1, and R2 probe positions for the wash station positions required for flushing the system. This procedure is used during installation of an ARCHITECT *i*2000/*i*2000SR System.

Estimated time	Materials needed	Required module status
3 minutes	• Lint free tissue • Deionized water	Stopped, Warming, or Ready

NOTE: See the ARCHITECT System Service and Support Manual for additional information.

1117 STAT Pipettor Calibration (*i*2000SR processing module)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to:

- Set STAT probe positioning for all positions required for aspirating and dispensing reagents with the STAT pipettor during processing
- Determine probe straightness
- Move the sample and STAT pipettor probes over the LAS track allowing you to observe probe positioning (*i*2000SR LAS)

For the associated graphic, see *1117 STAT Pipettor Calibration graphic*, page 9-86.

Estimated time	Materials needed	Required module status
7 minutes	• Lint-free tissue • Water (deionized or tap) Additional materials vary depending on sample handler configuration. RSH: • Sample carrier • Carrier calibration tool *i*2000SR LAS: • Pipettor calibration tool • SH bar code tool	Stopped, Warming, or Ready

2130 Flush Fluids

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to flush wash buffer, Pre-Trigger and Trigger Solutions.

If logged on as CSC each subassembly can be flushed individually. For additional information, see the ARCHITECT System Service and Support Manual.

NOTE: To flush wash buffer, inventory status must be greater than 50%. To verify sufficient wash buffer, see *Verify supply and waste inventory*, page 5-54.

Estimated time	Materials needed	Required module status
5 minutes **NOTE:** Performing this procedure does not reset the clock for the automatic flush.	None	Warming or Ready

2133 Air Flush

Perform this ***as-needed*** maintenance procedure to flush the wash buffer, trigger, and pre-trigger lines with air.

Estimated time	Materials needed	Required module status
7 minutes	• Wash buffer transfer tubing • Wash buffer reservoir (empty)	Warming or Ready

2151 Prime Wash Zones

Perform this ***as-needed*** maintenance procedure to prime the wash zones by dispensing 100 µL wash buffer into three RVs in both wash zone 1 and wash zone 2.

Estimated time	Materials needed	Required module status
6 minutes	None	Warming or Ready

2152 Prime Pre-Trigger and Trigger

Perform this ***as-needed*** maintenance procedure to prime Pre-Trigger and Trigger Solutions by dispensing 200 µL pre-trigger and trigger into two RVs at the pre-trigger/trigger manifold.

Estimated time	Materials needed	Required module status
5 minutes	None	Warming or Ready

2180 Internal Decontamination (CSC logon)

Perform this ***as-needed*** maintenance procedure to decontaminate the Wash buffer fluidics system.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Estimated time	Materials needed	Required module status
75 minutes	• Buffer filter • Probe conditioning solution • 0.5% sodium hypochlorite solution • Wash buffer preparation containers (2) • Wash buffer reservoir (clean)	Warming or Ready

Estimated time	Materials needed	Required module status
	• Wash buffer tubing (2) • Concentrated wash buffer (2)	

NOTE: See the ARCHITECT System Service and Support Manual for additional information.

NOTE: For decontamination purposes, the stability of the sodium hypochlorite solution is 24 hours. For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

2185 Wash Buffer Unload

Perform this ***as-needed*** maintenance procedure to unload wash buffer from a processing module to an external container.

Estimated time	Materials needed	Required module status
8 minutes	• Wash buffer transfer tubing • Wash buffer reservoir (empty)	Stopped, Warming, or Ready

3131 RV Loader Sensor Calibration

Perform this ***as-needed*** maintenance procedure to calibrate a self-calibrating RV transport sensor board.

NOTE: To determine if the board is self-calibrating observe the LEDs located under the RV transport near the RV sensor cable. If the board contains 5 LEDs the board is self-calibrating.

For the associated graphic, see *3131 RV Loader Sensor Calibration graphic*, page 9-87.

Estimated time	Materials needed	Required module status
6 minutes	None	Stopped, Warming, or Ready

3520 Temperature Status

Perform this ***as-needed*** maintenance procedure to check the temperature status of the system under the following conditions:

- Taking temperature measurements required by your laboratory
- Troubleshooting certain error codes
- Starting up the system after a long term shutdown

Temperature status of the following system components is checked and displayed:

- Processing path
- Pre-Trigger Solution
- Trigger Solution
- Wash zones
- Reagent cooler

If logged on as CSC, the ambient temperature status is checked and displayed. See the ARCHITECT System Service and Support Manual for additional information.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

3530 Temperature Check - Manual

Perform this ***as-needed*** maintenance procedure to measure the temperature of the system when your laboratory requires external temperature measurement.

RVs containing wash buffer are equilibrated in each of the six (6) process path zones during this procedure. In addition, tap water in the WZ probe maintenance water bottle is placed in the reagent cooler. When instructed, insert a thermometer probe to measure the temperature.

Estimated time	Materials needed	Required module status
5 minutes	• External thermometer • WZ probe maintenance water bottle **NOTE:** An external thermometer must be purchased separately to perform the temperature check.	Warming or Ready

4050 Buffer Run

Perform this ***as-needed*** maintenance procedure to run one-step and two-step protocols using wash buffer instead of reagents. This procedure allows you to simulate assays when troubleshooting system failures.

Estimated time	Materials needed	Required module status
60 minutes	• Tap water or saline • (2) Reagent kits, 3 bottles per kit (bottles must be empty) • Sample carriers	Warming or Ready

Estimated time	Materials needed	Required module status
	• Sample cups/tubes	

6043 WZ Probe Cleaning - Bleach

Perform this ***as-needed*** maintenance procedure to clean the inside and outside of the probes in wash zones 1 and 2 with sodium hypochlorite.

Estimated time	Materials needed	Required module status
35 minutes	• WZ probe maintenance water bottle • Maintenance cleaning bottle • Tap water or saline • 0.25% sodium hypochlorite	Warming or Ready

NOTE: For cleaning purposes, the stability of the sodium hypochlorite solution is 30 days. For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

6099 Probe/Wash Station Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the sample probe and induction heating wash station.

Estimated time	Materials needed	Required module status
5 minutes	• Wash bottle with deionized water • Cotton swabs	Warming or Ready

*i*2000/*i*2000SR processing modules associated maintenance graphics

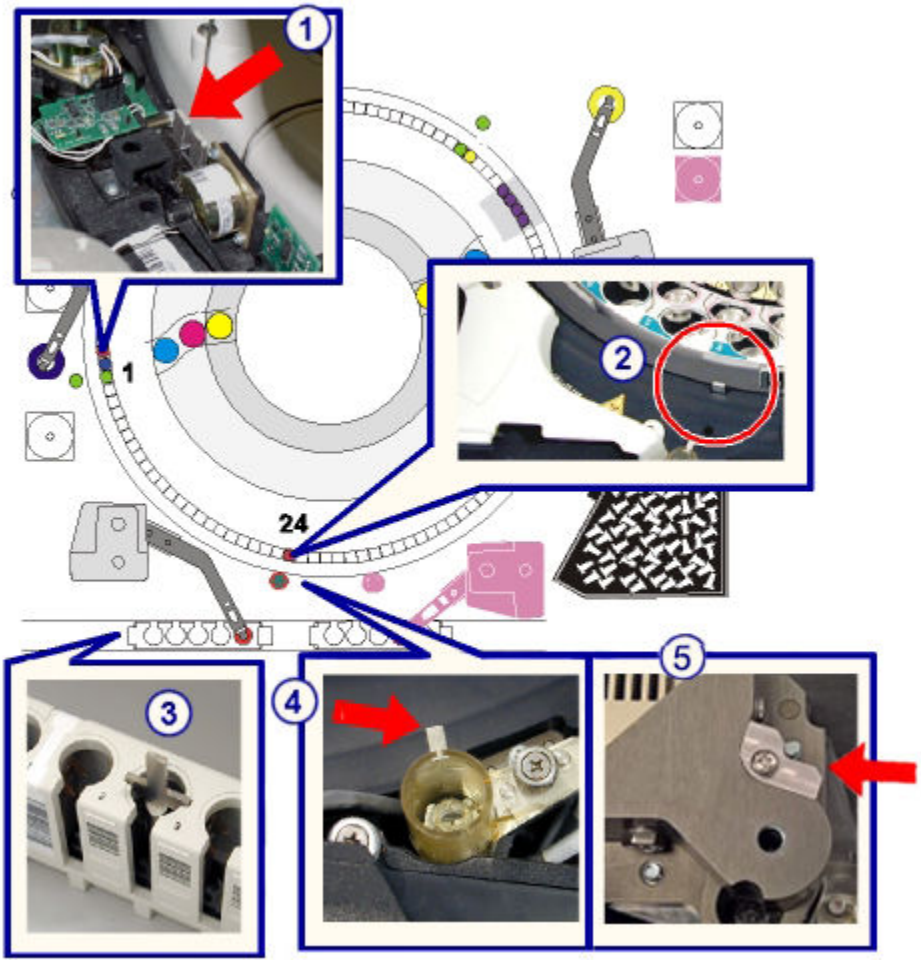
Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

The following graphics are associated with *i*2000/*i*2000SR processing module maintenance:

- *1111 Sample Pipettor Calibration graphic*, page 9-84
- *1112 R1 Pipettor Calibration graphic*, page 9-84
- *1113 R2 Pipettor Calibration graphic*, page 9-85
- *1117 STAT Pipettor Calibration graphic*, page 9-86
- *3131 RV Loader Sensor Calibration graphic*, page 9-87

1111 Sample Pipettor Calibration graphic

View this as-needed maintenance graphic to clean the appropriate calibration targets.

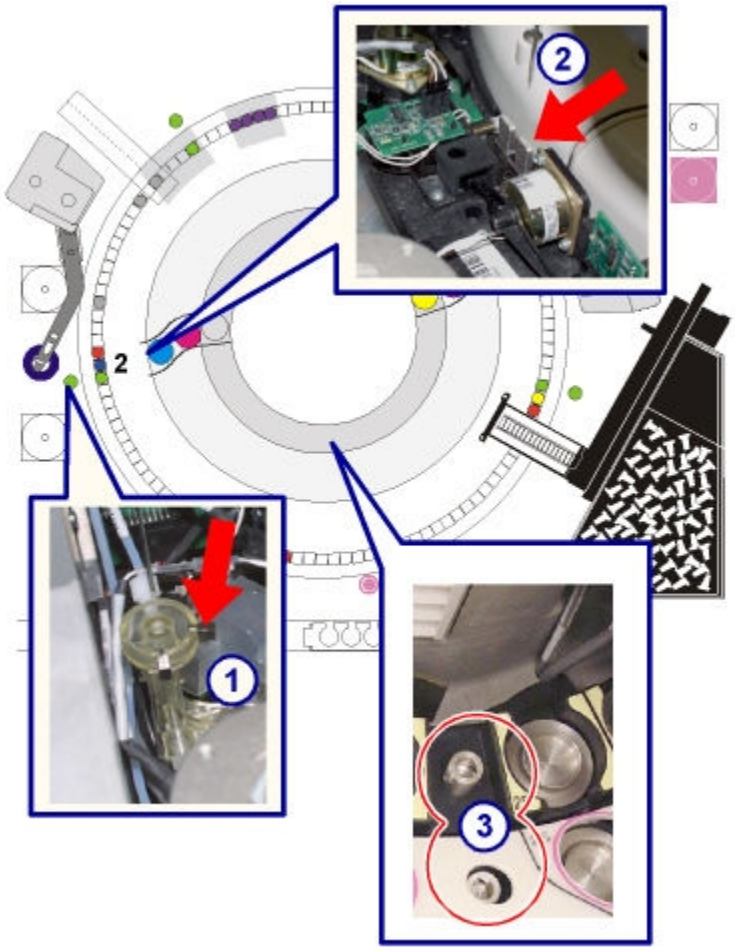


Legend:

1. Calibration target, position 1
2. Calibration target, position 24
3. Carrier calibration tool target
4. Sample wash station calibration target
5. Sample Induction Heating wash station calibration target, if present (*i*2000SR)

1112 R1 Pipettor Calibration graphic

View this as-needed maintenance graphic to clean the appropriate calibration targets.

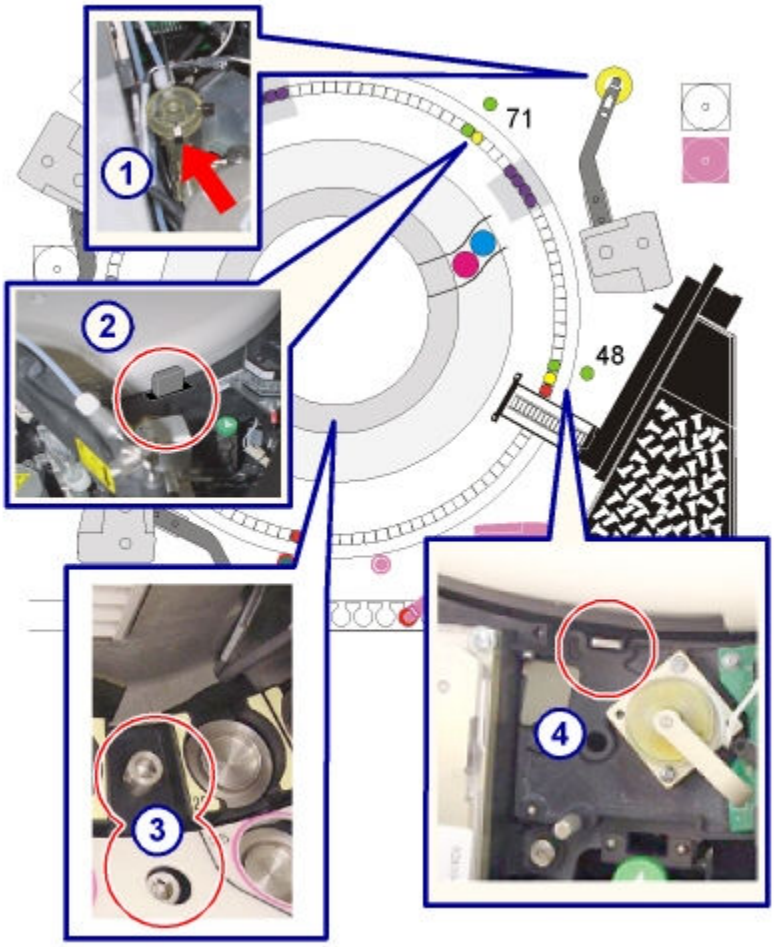


Legend:

1. R1 wash station calibration target
2. Calibration target, position 2
3. Reagent carousel targets

1113 R2 Pipettor Calibration graphic

View this as-needed maintenance graphic to clean the appropriate calibration targets.

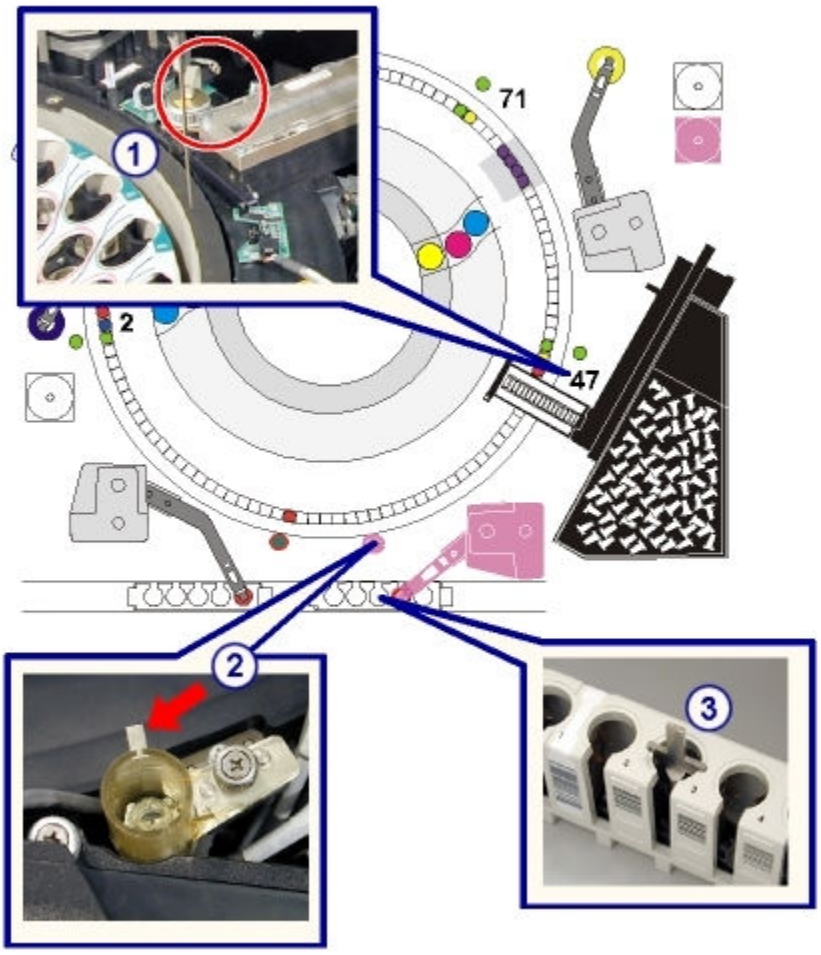


Legend:

1. R2 wash station calibration target
2. Calibration target, position 71
3. Reagent carousel targets (For *i*2000, only the inner target is cleaned.)
4. Calibration target, position 48 (*i*2000SR)

1117 STAT Pipettor Calibration graphic

View this as-needed maintenance graphic to clean the appropriate calibration targets.

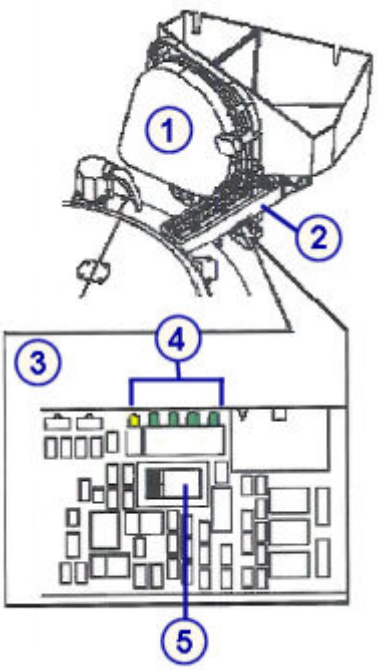


Legend:

1. Calibration target, position 47 located outside the process path between the RV transport and the STAT vortexer (VTXST)
2. STAT wash station calibration target
3. Carrier calibration tool target

3131 RV Loader Sensor Calibration graphic

View this as-needed maintenance graphic to locate the RV transport sensor board.



Legend:

1. RV Loader and hopper
2. RV transport
3. RV transport sensor board
4. LEDs
5. Calibration switch

*i*1000SR processing module maintenance categories

Maintenance procedures for an *i*1000SR processing module are grouped by category (tab) on the Maintenance screen. Procedures are available in the following categories:

- *Daily maintenance description (i1000SR processing module)*, page 9-88
- *Weekly maintenance description (i1000SR processing module)*, page 9-89
- *Monthly maintenance description (i1000SR processing module)*, page 9-90
- *As-needed maintenance description (i1000SR processing module)*, page 9-91

Daily maintenance description (*i*1000SR processing module)

Daily maintenance for an ARCHITECT *i*1000SR is required on the processing module only. Perform the 6440 Daily maintenance procedure daily.

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6440 Daily Maintenance

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***daily*** maintenance procedure to:

- Clean the outside of the probes in the wash zone
- Mix the microparticle bottles on the reagent carousel
- Dry the vacuum pump filter
- Flush and prime the wash zone, pre-trigger, and trigger manifolds
- Verify that a backup has been performed in the last thirty (30) days. If it has not, the operator is instructed to perform one.
- Check the database integrity

NOTE: The backup verification and database integrity check are only performed on the *i*1000SR processing module when it is module 1.

Estimated time	Materials needed	Required module status
10 minutes	• WZ probe maintenance water bottle • Tap water or saline • Reagent carrier	Warming or Ready

Weekly maintenance description (*i*1000SR processing module)

Weekly maintenance for an ARCHITECT *i*1000SR is required on the processing module only. Perform these procedures weekly:

- *6407 Probe Cleaning - Manual*, page 9-89
- *6445 Pipettor/WZ Probe Cleaning*, page 9-90
- *6450 Wash Cup Cleaning*, page 9-90

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6407 Probe Cleaning - Manual

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***weekly*** maintenance procedure to clean the outside of the pipettor and wash zone probes to remove salt buildup.

Estimated time	Materials needed	Required module status
5 minutes	• Wash bottle with deionized water • Cotton swabs	Warming or Ready

6445 Pipettor/WZ Probe Cleaning

Perform this ***weekly*** maintenance procedure to clean and condition the pipettor probe and to clean the WZ (wash zone) probes.

Estimated time	Materials needed	Required module status
15 minutes	• Maintenance Cleaning Bottle (LN 02G16-99) • 0.5% sodium hypochlorite solution • Probe Conditioning Solution (LN 01L56)	Warming or Ready

NOTE: For cleaning purposes, the stability of the sodium hypochlorite solution is 30 days. For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

6450 Wash Cup Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***weekly*** maintenance procedure to clean the wash cup and wash cup baffle to remove salt buildup.

Estimated time	Materials needed	Required module status
2 minutes	• Cotton swabs • Deionized water	Stopped, Warming, or Ready

Monthly maintenance description (*i*1000SR processing module)

Monthly maintenance for an *i*1000SR is required on the processing module only. Perform this procedure monthly:

- *6405 Air Filter Cleaning*, page 9-90

6405 Air Filter Cleaning

Perform this ***monthly*** maintenance procedure to manually remove dust buildup from the air filters. Since the filters must be reinstalled dry, it is recommended you rotate between two filters to improve efficiency.

Estimated time	Materials needed	Required module status
10 minutes	• Air filters	Stopped, Warming, or Ready

Estimated time	Materials needed	Required module status
	• Tap water	

As-needed maintenance description (*i*1000SR processing module)

Perform the recommended ***as-needed*** maintenance procedures on an *i*1000SR processing module during troubleshooting/diagnostics or during a routine operation when problems are observed. Perform these procedures as needed:

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1109 Wash Cup Pre-alignment (FSE logon)

Perform this ***as-needed*** maintenance procedure to set the pipettor probe positions for the wash cup positions required for flushing the system. This procedure is used during installation of an ARCHITECT *i*1000SR.

Estimated time	Materials needed	Required module status
3 minutes	• Lint free tissue • Deionized water	Stopped, Warming, or Ready

NOTE: See the ARCHITECT Service and Support Manual for additional information.

1110 Pipettor Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***as-needed*** maintenance procedure to:

- Set pipettor probe positioning for all positions required for aspirating and dispensing specimens and reagents during processing
- Determine probe straightness

For the associated graphic, see *1110 Pipettor Calibration graphic*, page 9-95.

Estimated time	Materials needed	Required module status
10 minutes	• Sample carrier • Carrier calibration tool • Cotton swab or lint-free tissue • Water (deionized or tap)	Stopped, Warming, or Ready

2136 Air Flush

Perform this ***as-needed*** maintenance procedure to flush the wash buffer, trigger, and pre-trigger tubing with air.

Estimated time	Materials needed	Required module status
5 minutes	• Wash buffer transfer tubing • Wash buffer reservoir (empty)	Warming or Ready

2137 Flush Fluids

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***as-needed*** maintenance procedure to flush the wash buffer, as well as the Pre-Trigger and Trigger Solutions.

If logged on as CSC each sub-assembly can be flushed individually.

For additional information, see the Architect Service and Support Manual.

NOTE: To flush the wash buffer, the inventory status must be greater than 25%. To verify that sufficient wash buffer is available, see *Verify supply and waste inventory*, page 5-54.

Estimated time	Materials needed	Required module status
3 minutes **NOTE:** Performing this procedure does not reset the clock for the automatic flush.	None	Warming or Ready

2160 Prime Wash Zone

Perform this ***as-needed*** maintenance procedure to prime the wash zone by dispensing 100 µL wash buffer into three RVs in the wash zone.

Estimated time	Materials needed	Required module status
1 minute	None	Warming or Ready

2162 Prime Pre-Trigger and Trigger

Perform this ***as-needed*** maintenance procedure to prime Pre-Trigger and Trigger Solutions by dispensing 200 µL pre-trigger and trigger into an RV at the pre-trigger/trigger manifold.

Estimated time	Materials needed	Required module status
1 minute	None	Warming or Ready

2190 Internal Decontamination

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Lifting hazard. The *i*1000SR System wash buffer reservoir is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Perform this ***as-needed*** maintenance procedure to:

- Decontaminate and clean the wash buffer reservoir, buffer level sensor, and buffer outlet assembly
- Decontaminate and clean the wash dispense nozzles
- Decontaminate and clean and condition the pipettor probe

To view the associated graphics, see *2190 Internal Decontamination graphics*, page 9-96.

Estimated time	Materials needed	Required module status
90 minutes	• Absorbent tissues/ towels • Bleach preparation container with 5 L 0.5% sodium hypochlorite solution • Buffer filter	Warming or Ready

Estimated time	Materials needed	Required module status
	• Concentrated Wash Buffer (1L bottle) • Internal Decon Extension Tubing/ Cable Kit • Probe Conditioning Solution • Reagent carrier • Wash buffer preparation container • Wash buffer transfer tubing If ARM is installed: • Extra empty 5 liter container • Wash buffer transfer tubing	

NOTE: For decontamination purposes, the stability of the sodium hypochlorite solution is 24 hours. For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

3535 Temperature Check - Manual

Perform this ***as-needed*** maintenance procedure to measure the temperature of the system when your laboratory requires external temperature measurement.

RVs containing wash buffer are equilibrated in each of three (3) process path zones during this procedure. In addition, tap water in the WZ probe maintenance water bottle is loaded on the reagent carousel by the RSH. When instructed, insert a thermometer probe to measure the temperature.

Estimated time	Materials needed	Required module status
75 minutes	• External thermometer • WZ probe maintenance water bottle **NOTE:** An external thermometer must be purchased separately to perform the temperature check.	Warming or Ready

3540 Temperature Status

Perform this ***as-needed*** maintenance procedure to check the temperature status of the system under the following conditions:

- Taking temperature measurements required by your laboratory
- Troubleshooting certain error codes
- Starting up the system after a long-term shutdown

The temperature status of the following system components is checked and displayed:

- Process path
- Pre-Trigger Solution
- Trigger Solution
- Wash zone
- Reagent cooler
- Ambient (except for *ci*4100)

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4100 Buffer Run

Perform this ***as-needed*** maintenance procedure to run one-step and two-step assay protocols using wash buffer instead of reagents. This procedure will allow you to simulate running assays when troubleshooting system failures.

Estimated time	Materials needed	Required module status
60 minutes	• (2) Reagent kits (3 bottles per kit) - bottles must be empty • (5) Sample carriers • (2) Reagent carriers • Sample cups/tubes	Warming or Ready

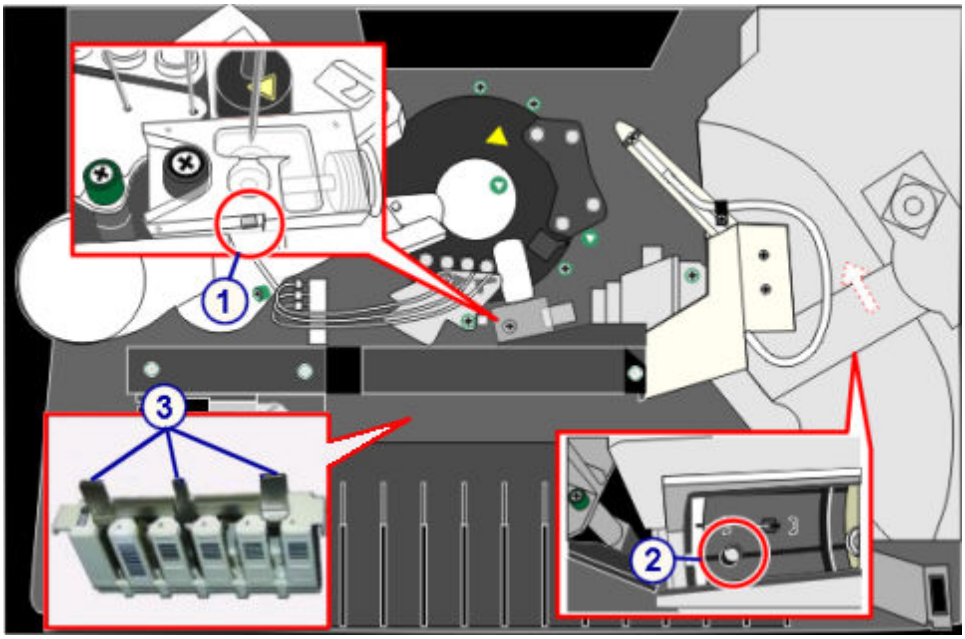
*i*1000SR processing module associated maintenance graphics

Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box. The following graphics are associated with *i*1000SR processing module maintenance:

- *1110 Pipettor Calibration graphic*, page 9-95
- *2190 Internal Decontamination graphics*, page 9-96

1110 Pipettor Calibration graphic

View this as-needed maintenance graphic to locate the appropriate calibration targets.



Legend:

1. Wash cup calibration target
2. Reagent carousel calibration target
3. Carrier calibration tool target

2190 Internal Decontamination graphics

View these as-needed maintenance procedure graphics to identify:

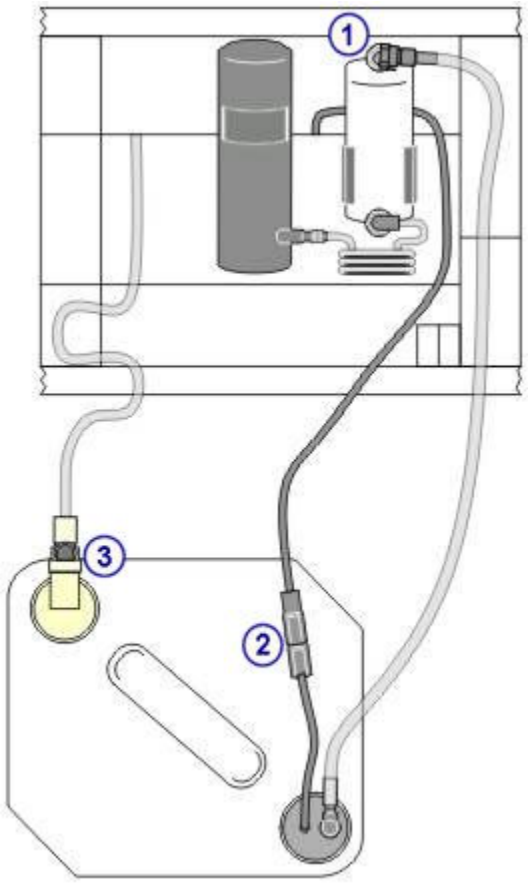
- Materials required
- Wash buffer reservoir connectors
- Buffer level sensor and buffer outlet assembly
- Fitting on extension tubing with gray connector
- Internal decon extension tubing and cable connectors
- Buffer filter connectors

Figure 9.13: Materials required

Legend:

1. Bleach preparation container
2. Buffer filter
3. Internal Decon Extension Tubing/Cable Kit
4. Probe Conditioning Solution
5. Reagent Carrier
6. Wash Buffer Preparation Container
7. Concentrated Wash Buffer (1L bottle)
8. Wash buffer transfer tubing

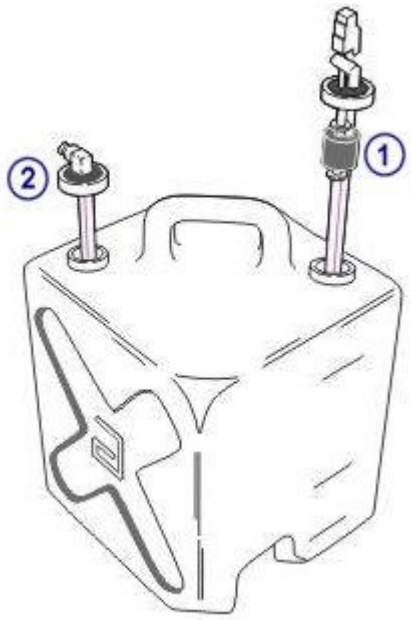
Figure 9.14: Wash buffer reservoir connectors



Legend:

1. Gray tubing connector at top of filter
2. Gray electrical cable connector
3. Beige connector

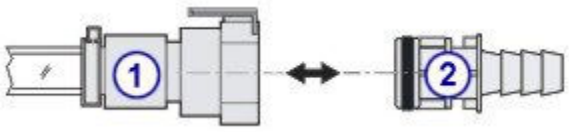
Figure 9.15: Buffer level sensor and buffer outlet assembly



Legend:

1. Buffer level sensor
2. Buffer outlet assembly

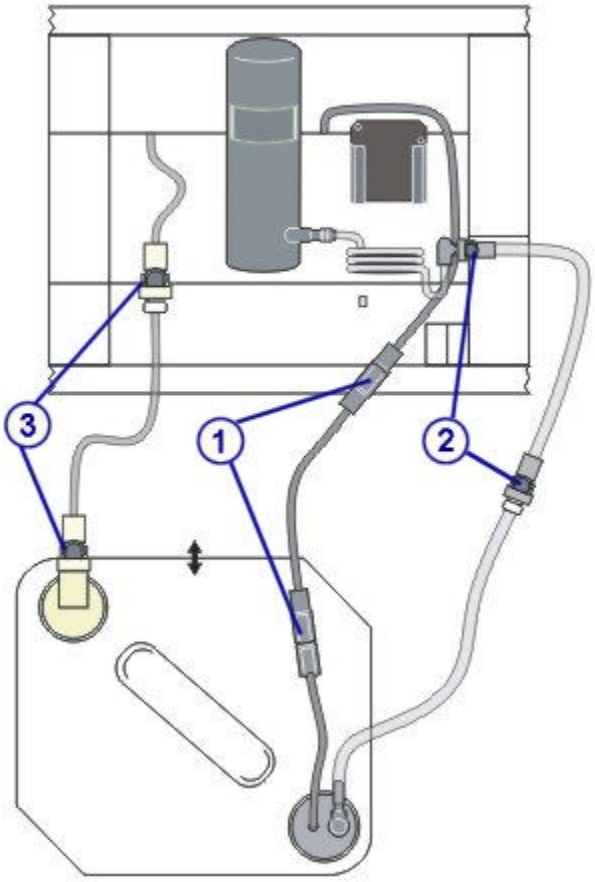
Figure 9.16: Fitting on extension tubing with gray connector



Legend:

1. Gray connector on extension tubing
2. Gray fitting (used to drain tubing)

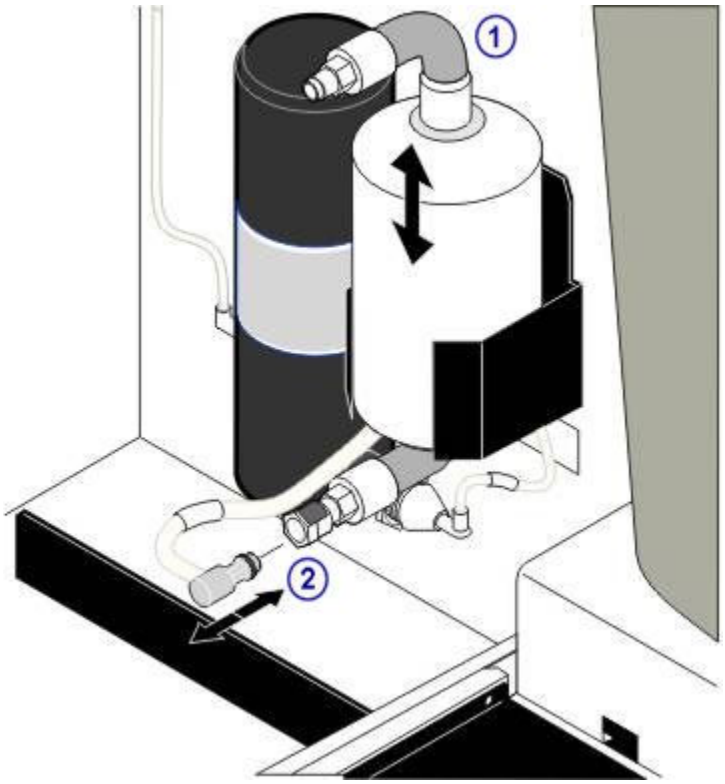
Figure 9.17: Internal decon extension tubing and cable connectors



Legend:

1. Gray electrical extension cable connectors
2. Gray extension tubing connectors
3. Beige extension connectors

Figure 9.18: Buffer filter connectors



Legend:

1. Gray tubing connector at top of filter
2. Gray tubing connector at bottom of filter

RSH maintenance categories (except for *c*4000/*i*1000SR/*ci*4100)

Maintenance procedures for the RSH (robotic sample handler) are grouped by category (tab) on the Maintenance screen.

Procedures are available in the following category:

- *As-needed maintenance description (RSH - except for c4000/i1000SR/ ci4100)*, page 9-101

As-needed maintenance description (RSH - except for *c*4000/*i*1000SR/ *ci*4100)

Perform these recommended ***as-needed*** maintenance procedures on the RSH (robotic sample handler) during troubleshooting/diagnostics or during routine operation when problems are observed:

- *1119 Transport Calibration*, page 9-102
- *6311 RSH Cleaning*, page 9-102

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1119 Transport Calibration

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to align the carrier transport position with the bays and carrier positions.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

6311 RSH Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the tray bays, priority sections, carrier transport arm, carrier transport guard, and carrier positioner.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite • DI water • Cotton swabs • Lint-free tissue	Stopped, Warming, or Ready

RSH associated maintenance graphics (except for *c*4000/*i*1000SR/*ci*4100)

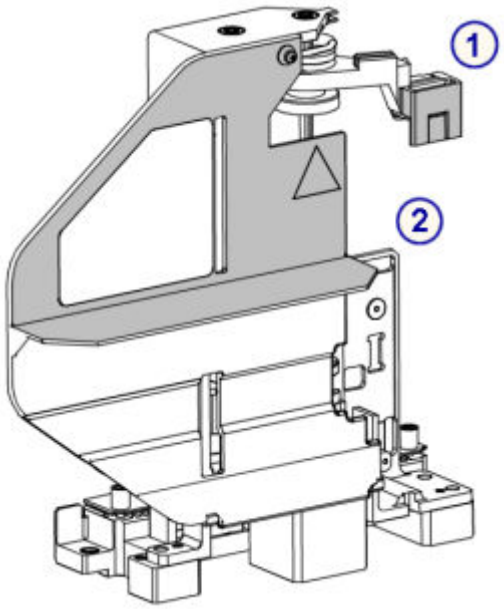
Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

The following graphic is associated with RSH (robotic sample handler) maintenance:

- *6311 RSH Cleaning graphics*, page 9-102

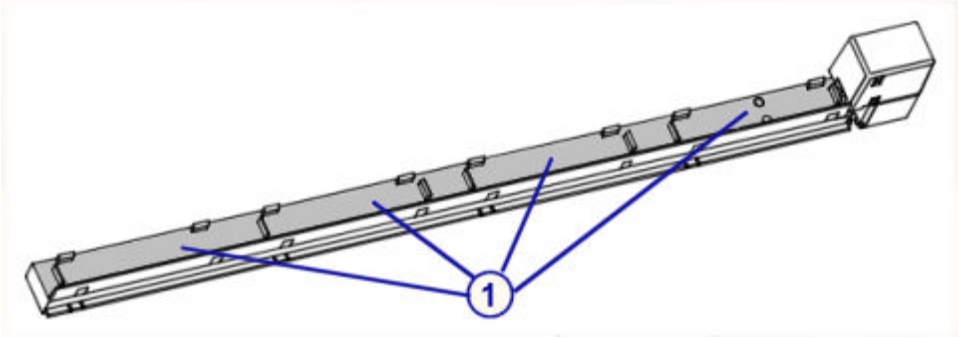
6311 RSH Cleaning graphics

View these as-needed maintenance graphics to clean the carrier transport and/or carrier positioner(s)



Legend:

1. Transport arm
2. Transport guard



Legend:

1. Carrier positioner

RSH maintenance categories (*c*4000/*i*1000SR/*ci*4100)

Maintenance procedures for the RSH (robotic sample handler) are grouped by category (tab) on the Maintenance screen. Procedures are available in the following category:

- *As-needed maintenance description (RSH - c4000/i1000SR/ci4100)*, page 9-104

As-needed maintenance description (RSH - *c*4000/*i*1000SR/*ci*4100)

Perform the recommended ***as-needed*** maintenance procedures on the RSH (robotic sample handler) during troubleshooting/diagnostics or during routine operation when problems are observed:

- *1114 Carrier Transport Calibration*, page 9-104
- *6400 RSH Cleaning*, page 9-104

To perform this maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1114 Carrier Transport Calibration

Perform this ***as-needed*** maintenance procedure to align the carrier transport to the reagent carousel latch actuator and a sample carrier to the load/unload area.

Estimated time	Materials needed	Required module status
12 minutes	• Sample carriers • Carrier calibration tool • Cotton swabs or lint-free tissues • Deionized water	Stopped, Warming, or Ready

6400 RSH Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the RSH sections, transport arm, bar code reader, bottle rotator (*i*1000SR), and aspiration area.

For the associated graphic, see *6400 RSH Cleaning graphics*, page 9-105.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite solution • Cotton swabs • Deionized water • Lint-free tissues	Stopped, Warming, or Ready

NOTE: For information on diluting sodium hypochlorite, see *Decontamination procedure requirements*, page 8-12.

RSH associated maintenance graphics (*c*4000/*i*1000SR/*ci*4100)

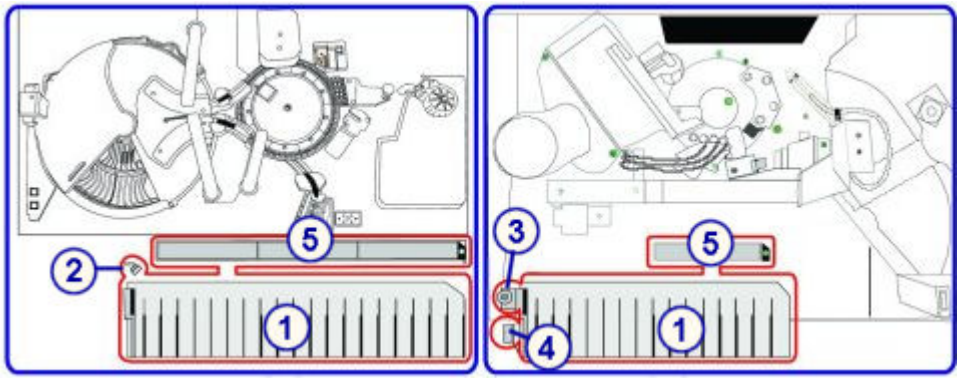
Maintenance procedure instructions are located in the INSTRUCTIONS box on the Maintenance Perform window. Occasionally graphics are required to illustrate a procedure, but they cannot display in the INSTRUCTIONS box.

The following graphic is associated with the RSH (robotic sample handler) maintenance:

- *6400 RSH Cleaning graphics*, page 9-105

6400 RSH Cleaning graphics

View these ***as-needed*** maintenance graphics to clean the RSH sections, carrier transport arm, bar code reader, bottle rotator, and/or aspiration area.



Legend:

1. RSH sections
2. Transport arm
3. Bottle rotator
4. Bar code reader
5. Aspiration area

SSH maintenance categories

Maintenance procedures for the SSH (standard sample handler) are grouped by category (tab) on the Maintenance screen.

Procedures are available in the following category:

- *As-needed maintenance description (SSH)*, page 9-105

As-needed maintenance description (SSH)

Perform these recommended ***as-needed*** maintenance procedures on the SSH (standard sample handler) during troubleshooting/diagnostics or during routine operation when problems are observed:

- *6010 Load Queue Cleaning*, page 9-106
- *6017 Unload Queue Cleaning*, page 9-106
- *6020 Processing Queue Cleaning*, page 9-106

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

6010 Load Queue Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the surfaces of the load queue conveyor belt.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite • Lint-free tissue or gauze	Warming or Ready

6017 Unload Queue Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the surfaces of the unload queue conveyor belt.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite • Lint-free tissue or gauze	Stopped, Warming, or Ready

6020 Processing Queue Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the surfaces of the processing queue conveyor belt.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite • Lint-free tissue or gauze	Warming or Ready

LAS carousel sample handler maintenance categories (*i*2000)

Maintenance procedures for the LAS (laboratory automation system) carousel sample handler are grouped by category (tab) on the Maintenance screen.

Procedures are available in the following category:

- *As-needed maintenance description (LAS carousel sample handler - i2000)*, page 9-107

As-needed maintenance description (LAS carousel sample handler - *i*2000)

Perform these recommended ***as-needed*** maintenance procedures on the LAS (laboratory automation system) carousel sample handler during troubleshooting/ diagnostics or during routine operation when problems are observed:

- *1118 LAS Pipettor Calibration*, page 9-107
- *6022 LAS Carousel Cleaning*, page 9-107

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

1118 LAS Pipettor Calibration

Perform this ***as-needed*** maintenance procedure to allow you to visually align the *i*2000 sample pipettor with the LAS (laboratory automation system) track.

Estimated time	Materials needed	Required module status
Minutes variable	• LAS pipettor calibration tool • SH bar code tool	Stopped, Warming, or Ready

6022 LAS Carousel Cleaning

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to clean the *i*2000 LAS (laboratory automation system) sample carousel.

Estimated time	Materials needed	Required module status
5 minutes	• 0.1% sodium hypochlorite • LAS carousel	Stopped, Warming, or Ready

SCC maintenance categories

Maintenance procedures for the SCC (system control center) are grouped by category (tab) on the Maintenance screen.

Procedures are available for the following category:

- *As-needed maintenance description (SCC)*, page 9-107

As-needed maintenance description (SCC)

Perform the recommended ***as-needed*** maintenance procedures during routine operation when problems are observed:

To perform a maintenance procedure, see *Perform a maintenance procedure*, page 9-6.

2182 ARM Decontamination (*i* System) (FSE logon)

Perform this ***as-needed*** maintenance procedure to internally decontaminate the ARCHITECT ARM accessory.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Estimated time	Materials needed	Required module status
45 minutes	• ARM Decontamination Kit (CN 78172) • 0.5% sodium hypochlorite • ARM Concentrated Wash Buffer (LN 06C54)	Stopped, Warming, or Ready

NOTE: See the ARCHITECT System Service and Support Manual for additional information.

6038 External Decontamination

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***as-needed*** maintenance procedure to decontaminate the following external surfaces:

- Supply and pump center (*c* System)
- Supply and waste center (*i* System)
- Sample handler accessories
- SCC (system control center)
- PM (processing module) external surface
- High-concentration waste bottle (*c* System)
- ARCHITECT ARM (Automatic Reconstitution Module) accessory (*i* System)

Estimated time	Materials needed	Required module status
5 minutes	• Detergent	Stopped, Warming, or Ready

Estimated time	Materials needed	Required module status
NOTE: Time above reflects the time required to apply the appropriate disinfectant only.	• 0.1% sodium hypochlorite • Lint-free tissue or gauze	

6100 Na Hypochlorite Calculator

Perform this ***as-needed*** maintenance procedure to calculate the volume of sodium (Na) hypochlorite required to make a specific volume of sodium hypochlorite solution.

Estimated time	Materials needed	Required module status
1 minute	None	Any status

User-defined maintenance (premium feature)

Text-based maintenance procedures specific to your laboratory can be created to remind you to perform and track these maintenance activities. They can be designated as daily, weekly, monthly, quarterly, or as-needed procedures and display on the To do list as well as the appropriate maintenance tab under the module type configured for the procedure.

User-defined maintenance procedures include:

- *Access 6220 User-defined Maintenance procedure*, page 9-109
- *Create or edit a user-defined maintenance procedure*, page 9-110
- *Export a user-defined maintenance procedure*, page 9-113
- *Import a user-defined maintenance procedure*, page 9-114
- *View or print a user-defined maintenance procedure list*, page 9-115

Access 6220 User-defined Maintenance procedure

Perform this procedure to display the 6220 User-defined Maintenance procedure.

Prerequisite	*Access the Diagnostics screen*, page 10-623
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	NA

1. Select the **Module 5** SCC option on the Diagnostics screen.
2. Select the **page down** scroll button, and then select the **Utilities** tab.

   The diagnostic procedures for the Utilities category display.
3. Select **6220 User-defined Maintenance** from the **DIAGNOSTIC PROCEDURES** list and then select **F5 - Perform**.

4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays. A description of the procedure displays in the INSTRUCTIONS box.

5. Select **Proceed**.

Related information…

- *Diagnostics screen*, page 10-622
- *Diagnostic perform window*, page 10-627
- *SCC diagnostic categories*, page 10-695

Create or edit a user-defined maintenance procedure

You can create or edit a user-defined, text-based maintenance procedure from the same window.

The required module status for performing a user-defined maintenance procedure is:

- SCC - any status including Offline
- *c* System, *i* System, or sample handler - any status except Offline

NOTE: If the premium features are deactivated after a user-defined maintenance procedure is created, the procedure will display but cannot be performed. To remove the procedure from the display, perform *6115 Install/ Delete Procedures*, page 10-698.

Create a user-defined maintenance procedure

Perform the following steps to create an operator level user-defined maintenance procedure.

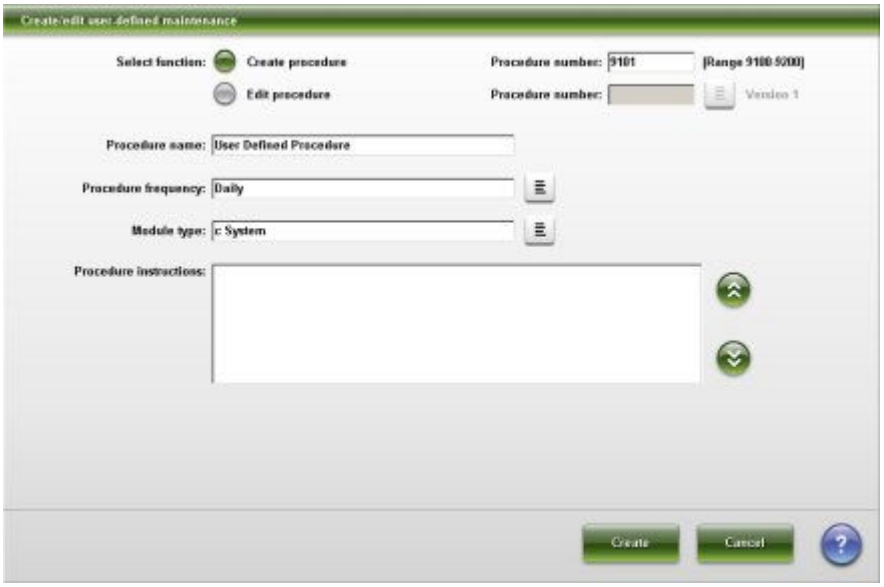
To edit a procedure see *Edit a user-defined maintenance procedure*, page 9-112.

Prerequisite	*Access 6220 User-defined Maintenance procedure*, page 9-109
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	NA

To create a user-defined maintenance procedure:

1. Enter **1** in the **User input** data entry box and then select **Continue**.

   The **Create procedure** button is selected and the next available procedure number displays in the **Procedure number** field.



2. Enter a procedure number from 9100 to 9200 in the **Procedure number** field if you do not want to use the displayed number. ***(optional)***

3. Enter a procedure name in the **Procedure name** field. The field is limited to 30 characters.

   NOTE: The curly bracket (braces) and double quotes punctuation characters are not allowed. If typed, the double quotes character is replaced with a single quote. No replacement is made for the curly bracket (braces) character. If typed, they do not display.

4. Select the **Procedure frequency** list button and select the time interval.

5. Select the **Module type** list button and select the desired module type.

6. Enter the text for the procedure in the **Procedure instructions** field. The field is limited to 5500 characters.

   NOTE: The curly bracket (braces) and double quotes punctuation characters are not allowed. If typed, the double quotes character is replaced with a single quote. No replacement is made for the curly bracket (braces) character. If typed, they do not display.

   The procedure text displays as entered. Line spacing, paragraph returns, and keyboard language are maintained.

7. Select the **Create** button to save the procedure.

   The main menu of options displays.

   NOTE: If you entered a procedure number in step 2 that is already used, a message displays to enter another number.

8. To select another user-defined maintenance option enter the desired option number in the **User input** data entry box and then select **Continue**. ***(optional)***

9. Enter **5** in the **User Input** data entry box and then select **Continue**.

10. Select **Print** to print a procedure report. ***(optional)***
11. Select **Done** to exit.

Edit a user-defined maintenance procedure

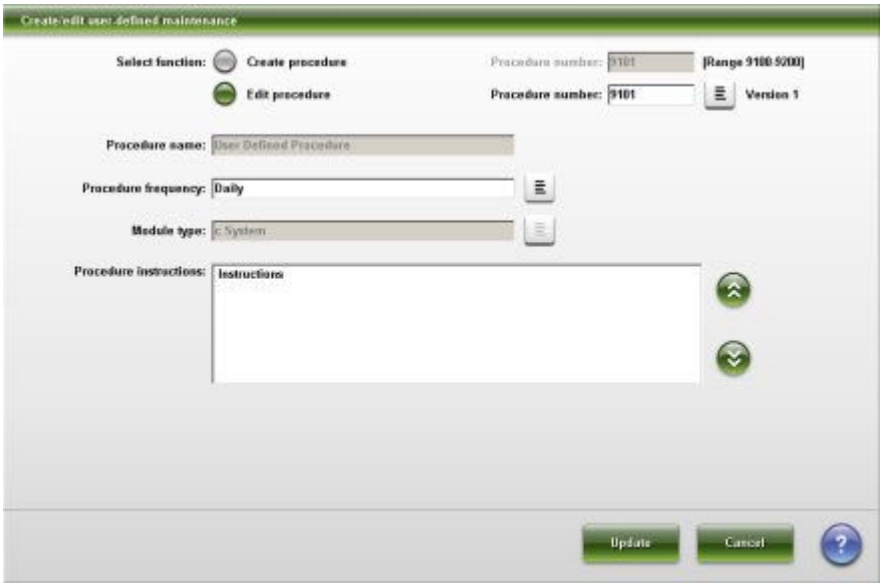
Perform the following steps to edit a user-defined maintenance procedure.

To delete a user-defined maintenance procedure see *6115 Install/Delete Procedures*, page 10-698.

Prerequisite	*Access 6220 User-defined Maintenance procedure*, page 9-109
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	NA

To edit a user-defined maintenance procedure:

1. Enter **1** in the **User input** data entry box and then select **Continue**.
2. Select the **Edit procedure** button.



3. Select the **Procedure number** list button and then select the desired procedure number.

   The configured information for the selected procedure displays.
4. Edit the procedure frequency and instructions as required.

   NOTE: The procedure name, number, and module type cannot be edited.
5. Select **Update** to save the changes or **Cancel** if you do not want to save the changes.

   If you save the changes the procedure version automatically increments.

6. To select another user-defined maintenance option enter the desired option number in the **User input** data entry box and then select **Continue**. ***(optional)***
7. Enter **5** in the **User Input** data entry box and then select **Continue**.
8. Select **Print** to print a procedure report. ***(optional)***
9. Select **Done** to exit.

Export a user-defined maintenance procedure

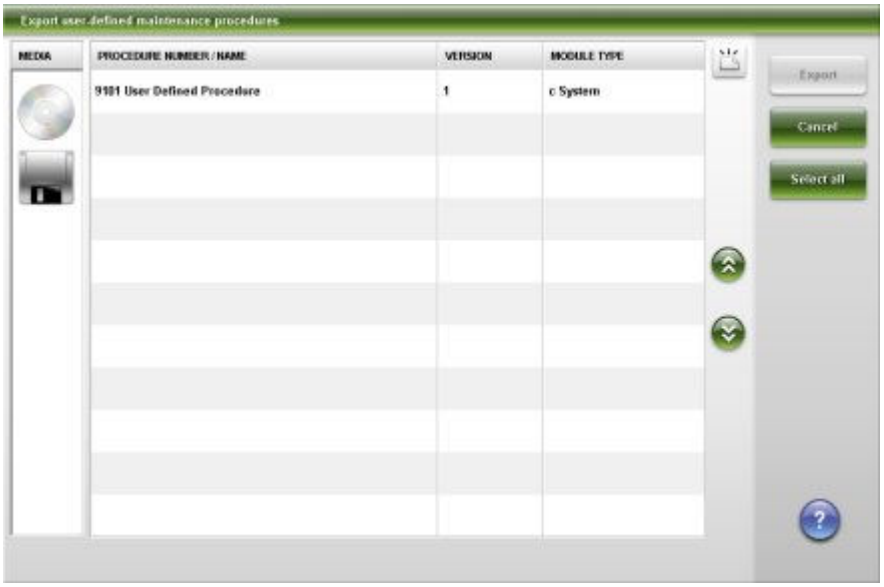
Perform this procedure to export a user-defined maintenance procedure.

Prerequisite	*Access 6220 User-defined Maintenance procedure*, page 9-109
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	Export media, such as a floppy disk, CD-ROM, or USB flash drive

To export a user-defined maintenance procedure:

1. Insert the export media in the appropriate drive.
2. Enter **2** in the **User input** data entry box, and then select **Continue**.

   A list of user-defined maintenance procedures displays.



3. Select the desired media from the **MEDIA** column and then select the maintenance procedure(s) for export.

   NOTE: If you want to change the media you export to you may insert or replace it and then select the **Refresh** button to update the displayed list.
4. Select **Export** and then select **OK**.

NOTE: A message displays when a procedure with the same number already exists on the export media and the procedure has a different version, name, or module type. To continue with the export process select **Yes** or **No**, depending on the message displayed. If you do not wish to continue with the export process select **Cancel**.

5. Select **OK** to acknowledge the completion of the export process.
6. To select another user-defined maintenance option enter the desired option number in the **User input** data entry box and then select **Continue**. ***(optional)***
7. Enter **5** in the **User Input** data entry box and then select **Continue**.

   If a USB flash drive was used it can now be removed.
8. Select **Print** to print a procedure report. ***(optional)***
9. Select **Done** to exit.

   If a floppy drive or CD-ROM was used remove it from the drive.

Import a user-defined maintenance procedure

Perform this procedure to import a user-defined maintenance procedure.

Prerequisite	*Access 6220 User-defined Maintenance procedure*, page 9-109
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	Import media, such as a floppy disk, CD-ROM, or USB flash drive

To import a user-defined maintenance procedure:

1. Insert the import media in the appropriate drive.
2. Enter **3** in the **User input** data entry box, and then select **Continue**.

   A list of the available user-defined maintenance procedures displays.

3. Select the desired maintenance procedure(s) to import.

   NOTE: Procedures display only when the module type matches the current system . If the desired procedure is not available, you may insert a different import media and select the **Refresh** button to update the list.

4. Select **Import** and then select **OK**.

   NOTE: A message displays when a procedure with the same number is already installed and the procedure on the import media has a different version, name, or module type. Messages also indicate when the maintenance history on your system will be deleted. To continue with the import process select **Yes** or **No**, depending on the message displayed. If you do not wish to continue with the import process select **Cancel**.

5. Select **OK** to acknowledge the completion of the import process.

6. To select another user-defined maintenance option enter the desired option number in the **User input** data entry box and then select **Continue**. ***(optional)***

7. Enter **5** in the **User Input** data entry box and then select **Continue**.

   If a USB flash drive was used it can now be removed.

8. Select **Print** to print a procedure report. ***(optional)***

9. Select **Done** to exit.

   If a floppy drive or CD-ROM was used remove it from the drive.

View or print a user-defined maintenance procedure list

Perform this procedure to view or print a list of user-defined maintenance procedures.

Prerequisite	*Access 6220 User-defined Maintenance procedure*, page 9-109
Module status	Stopped, Warming, or Ready
User access level	System Administrator
Supplies	NA

To view or print a user-defined maintenance procedure list:

1. Enter **4** in the **User input** data entry box and then select **Continue**.

   A list of procedures and their version numbers display.

2. Select **Print**. ***(optional)***
3. To perform another user-defined maintenance procedure enter the desired option number in the **User input** data entry box and then select **Continue**. ***(optional)***
4. Enter **5** in the **User Input** data entry box and then select **Continue**.
5. Select **Done** to exit.

Component replacement

Some system components may need to be replaced due to normal wear from daily operations.

Your laboratory is responsible for maintaining an adequate supply of replacement parts. List numbers are provided in the procedures for guidance only and are subject to change. Contact your Abbott representative for the most current list numbers.

When replacing components the following general safety precautions should be observed:

- Replaced components and materials used during component replacement (for example absorbent towels or tissues) should be disposed in accordance with the waste disposal procedures in your laboratory.
- When drips or leaks occur, clean up the liquid and decontaminate the surface if necessary.

See *Biological hazards*, page 8-5 or *Spill clean-up*, page 8-11 for more information.

Component replacement topics include:

*c*4000 component replacement

Component replacement for the *c*4000 includes:

ARCHITECT *c*4000 processing center component replacement

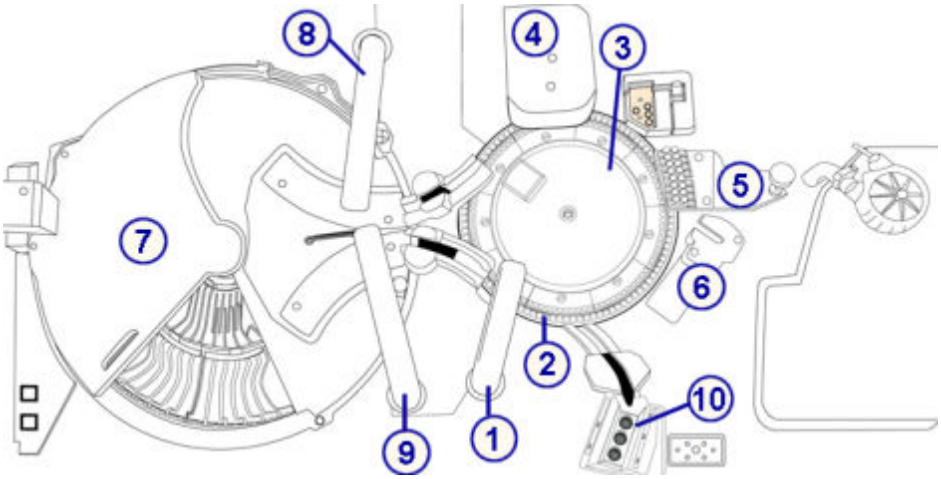
To replace processing center components, see:

- *Replace the lamp or lamp plate (c4000)*, page 9-131
- *Replace a cuvette (c4000)*, page 9-136
- *Replace a cuvette segment (c4000)*, page 9-140
- *Replace the cuvette dry tip (c4000)*, page 9-143
- *Replace the mixer (c4000)*, page 9-146
- *Replace the ICT module or probe (c4000)*, page 9-148

ARCHITECT *c*4000 processing center components

The following illustration shows the locations of the processing center components. Use this illustration when performing component replacement procedures.

Figure 9.19: ARCHITECT c4000 processing center map



Legend:

1. Sample pipettor
2. Reaction carousel
3. Lamp
4. Mixer unit
5. Cuvette washer
6. ICT unit
7. Reagent supply center and cover
8. Reagent 1 pipettor
9. Reagent 2 pipettor
10. Sample wash solution area

Replace the sample probe (*c*4000)

NOTE: It is recommended that you record and track the date of the sample probe installation to ensure you do not use the probe for longer than the following intervals:

- Six months for systems using whole blood assays

- One year for systems not using whole blood assays

Replacing the sample probe consists of the following procedures:

- Removal
  - *Prepare for sample probe removal*, page 9-119
  - *Remove the sample probe*, page 9-120
- Replacement
  - *Install the sample probe*, page 9-120
  - *Prepare for operation*, page 9-121
- Verification
  - *Calibrate the sample pipettor*, page 9-121
  - *Run quality control*, page 9-122

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	• Slotted screwdriver • Absorbent towel
Replacement parts	• LN 01G48-04 - Sample probe • LN 02J51-01 - Reagent/sample probe screw (optional)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

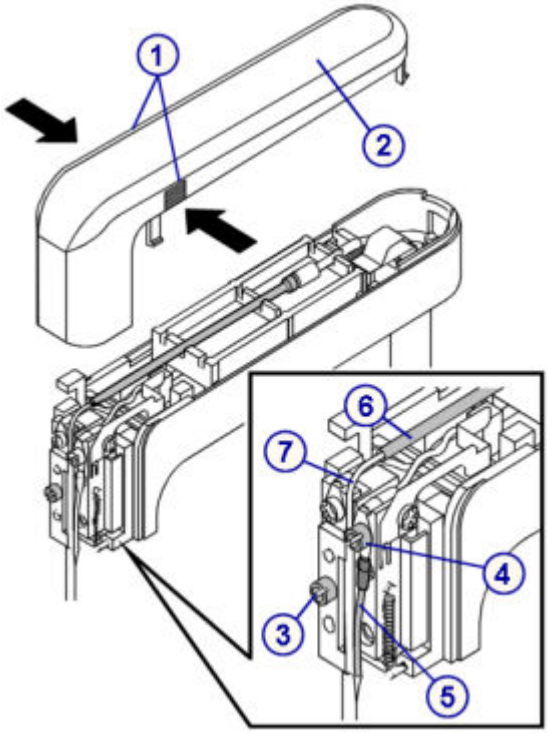
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for sample probe removal

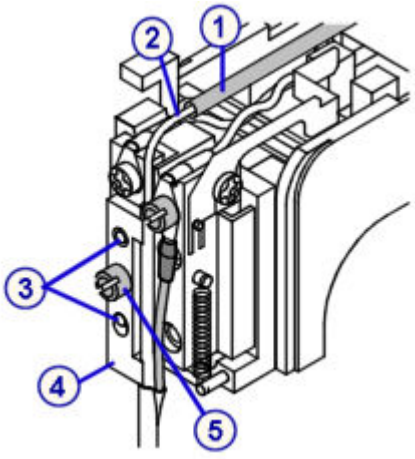
Steps	Graphic / reference
1. Remove the sample wash solution carrier. 2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the sample pipettor over the sample wash solution area.	

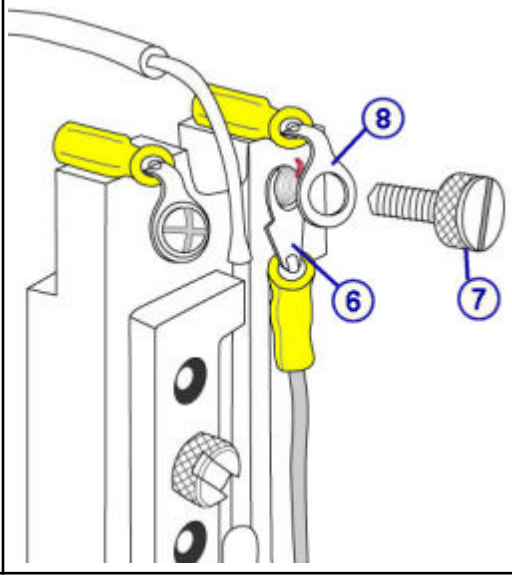
Remove the sample probe

Steps	Graphic / reference
1. Remove the sample pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel in the sample wash solution area under the probe tip. 3. Use a slotted screwdriver to slightly loosen the probe screw [3]. 4. Loosen, do not remove, the probe screw [3] by hand until the probe releases from the sample pipettor. 5. Loosen, do not remove, the screw [4] holding the sample probe grounding wire [5] in place. 6. Detach the grounding wire. 7. Gently disconnect the tubing [6] from the top of the probe [7].	

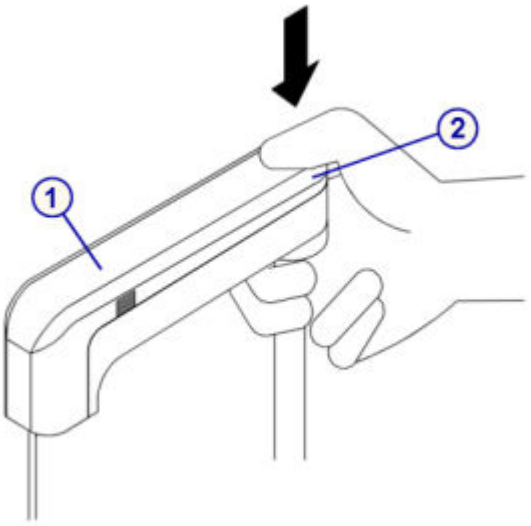
Replacement

Install the sample probe

Steps	Graphic / reference
1. Attach the tubing [1] to the top of the new sample probe [2]. **NOTE:** Do not flare or stretch the tubing. The tubing should fit firmly on the sample probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. If the tubing is loose or if the probe has been replaced several times using the same tubing, it is recommended that you replace the sample probe tubing. 2. Position the sample probe on the alignment pins [3] and verify the probe plate [4] is flush with the plate on the sample pipettor. 3. Remove the probe screw [5] from the old sample probe and insert it into the new sample probe. Finger-tighten the screw [5] to secure the probe in place.	

Steps	Graphic / reference
4. Stabilize the pipettor and tighten the screw with the slotted screwdriver. 5. Attach the new sample probe grounding wire [6] and tighten the screw [7]. **NOTE:** Ensure the connector for the new sample probe grounding wire [6] is positioned under the ring-shaped connector [8] as shown. 6. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the sample pipettor to the home position. 7. Remove the absorbent towel from the sample wash solution area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the sample probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. Reinstall the sample wash solution carrier.	

Verification

Calibrate the sample pipettor

Steps	Graphic / reference
Perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace reagent probes (*c*4000)

Replacing the reagent probe(s) consists of the following procedures:

- Removal
  - *Prepare for reagent probe removal*, page 9-122
  - *Remove the reagent probe*, page 9-123
- Replacement
  - *Install the reagent probe*, page 9-123
  - *Prepare for operation*, page 9-125
- Verification
  - *Calibrate the Reagent pipettor*, page 9-125
  - *Run quality control*, page 9-125

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	Slotted screwdriver
Replacement parts	• LN 01G47-04 - Reagent probe • LN 02J51-01 - Reagent/sample probe screw (optional)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

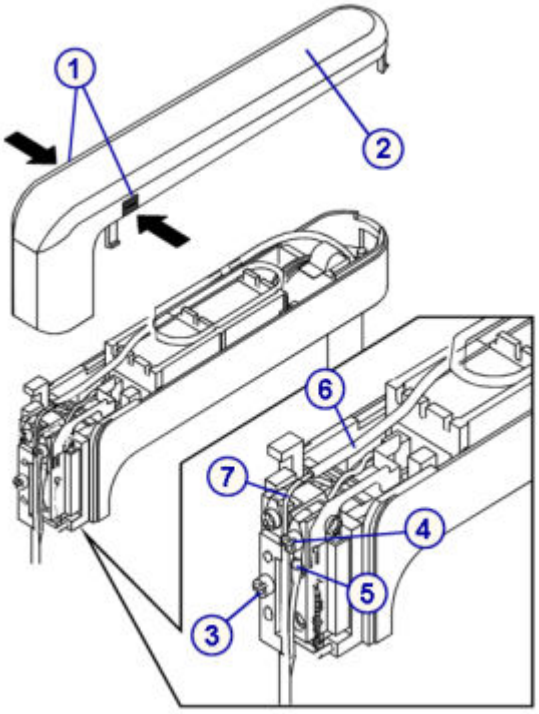
Removal

Prepare for reagent probe removal

Steps	Graphic / reference
1. Locate the reagent pipettor.	

Steps	Graphic / reference
NOTE: See *ARCHITECT c4000 processing center components*, page 9-118, for pipettor locations. – Access the R1 pipettor from the back of the system. – Access the R2 pipettor from the front or back of the system. 2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to move the reagent pipettor to an accessible position.	

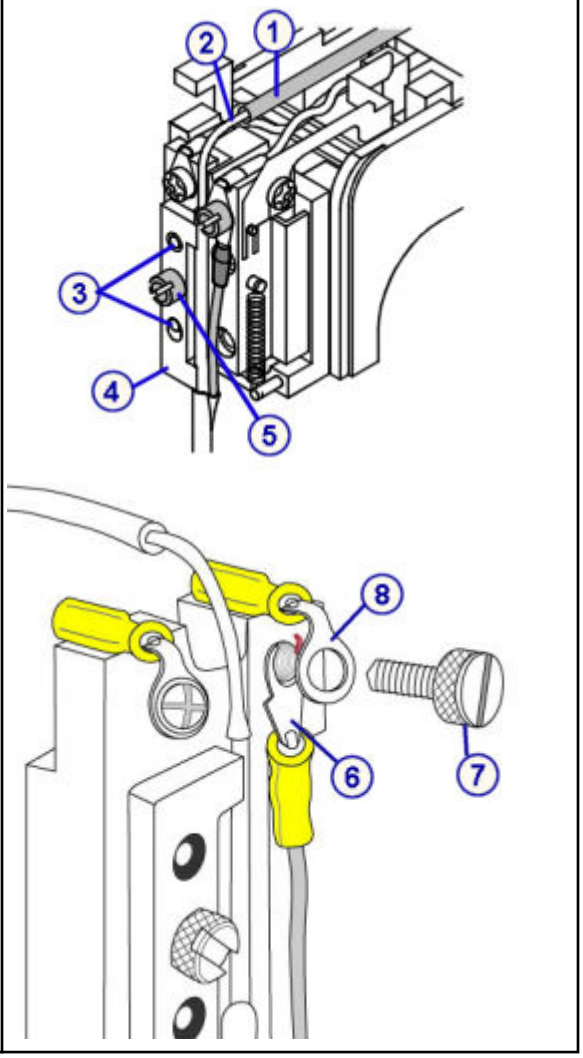
Remove the reagent probe

Steps	Graphic / reference
1. Remove the reagent pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the pipettor cover [2]. 2. Use a slotted screwdriver to slightly loosen the probe screw [3]. 3. Loosen, do not remove, the probe screw [3] by hand until the probe releases from the reagent pipettor. 4. Loosen, do not remove, the screw [4] holding the reagent probe grounding wire [5] in place. 5. Detach the grounding wire. 6. Gently disconnect the tubing [6] from the top of the probe [7].	

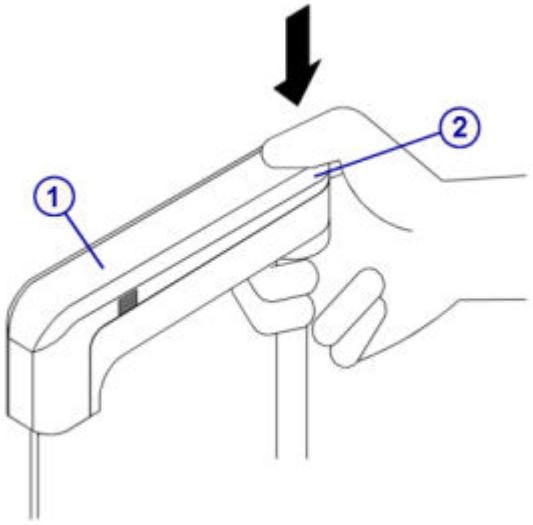
Replacement

Install the reagent probe

Steps	Graphic / reference
1. Attach the tubing [1] to the top of the new reagent probe [2].	

Steps	Graphic / reference
NOTE: Do not flare or stretch the tubing. The tubing should fit firmly on the reagent probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. If the tubing is loose or if the probe has been replaced several times using the same tubing, it is recommended that you replace the reagent probe tubing. 2. Position the new reagent probe [2] on the alignment pins [3] and verify the probe plate [4] is flush with the plate on the reagent pipettor. 3. Remove the probe screw [5] from the old reagent probe and insert it into the new reagent probe. Finger tighten the screw [5] to secure the probe in place. 4. Stabilize the pipettor and tighten the screw with the slotted screwdriver. 5. Attach the new reagent probe grounding wire [6] and tighten the screw [7]. **NOTE:** Ensure the connector for the new reagent probe grounding wire [6] is positioned under the ring-shaped connector [8] as shown. 6. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the reagent probe to the home position.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the reagent probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. For the R2 reagent probe, perform ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631 to move the reagent pipettor to an accessible position. 4. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 5. Stabilize the pipettor to prevent it from dropping and causing damage to the probe. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation.	

Verification

Calibrate the Reagent pipettor

Steps	Graphic / reference
Perform the appropriate ***as-needed*** maintenance procedure: • *1121 R1 Pipettor Calibration*, page 9-34, or • *1122 R2 Pipettor Calibration*, page 9-35	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the sample probe tubing (*c*4000)

Replacing the sample probe tubing consists of the following procedures:

- Removal
  - *Prepare for sample probe tubing removal*, page 9-126
  - *Remove the sample probe tubing*, page 9-127
- Replacement
  - *Install the sample probe tubing*, page 9-127

  - *Prepare for operation*, page 9-128

- Verification
  - *Run quality control*, page 9-128

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel
Replacement parts	LN 02P77-01 - Sample probe tubing

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

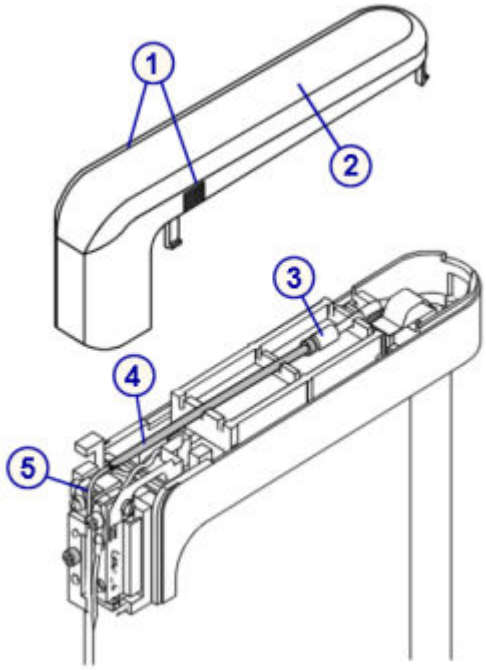
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for sample probe tubing removal

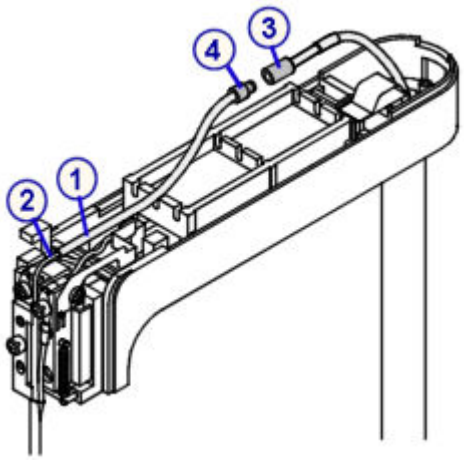
Steps	Graphic / reference
1. Remove the sample wash solution carrier. 2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the sample pipettor over the sample wash solution area.	

Remove the sample probe tubing

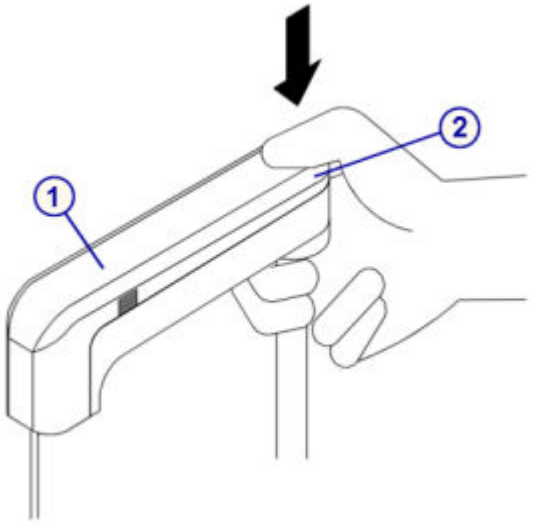
Steps	Graphic / reference
1. Remove the sample pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel in the sample wash solution area under the probe tip. 3. Unscrew the tubing from the probe tubing connector [3]. Ensure the black o-ring inside the tubing connector stays in place. 4. Gently disconnect the tubing [4] from the top of the probe [5].	

Replacement

Install the sample probe tubing

Steps	Graphic / reference
1. Attach the end of the new tubing [1] to the top of the sample probe [2]. **NOTE:** Do not flare or stretch the new tubing. The tubing should fit firmly on the sample probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. 2. Verify the black o-ring is inside the probe tubing connector [3]. 3. Screw the opposite end of the tubing [4] into the tubing connector [3]. 4. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the sample pipettor to the home position. 5. Remove the absorbent towel from the sample wash solution area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the sample probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. Reinstall the sample wash solution carrier.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the reagent probe tubing (*c*4000)

Replacing the reagent probe tubing consists of the following procedures:

- Removal
  - *Prepare for reagent probe tubing removal*, page 9-129
  - *Remove the reagent probe tubing*, page 9-130
- Replacement
  - *Install the reagent probe tubing*, page 9-130
  - *Prepare for operation*, page 9-131
- Verification
  - *Run quality control*, page 9-131

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel

Replacement parts	LN 01G47-02 - Reagent probe tubing

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

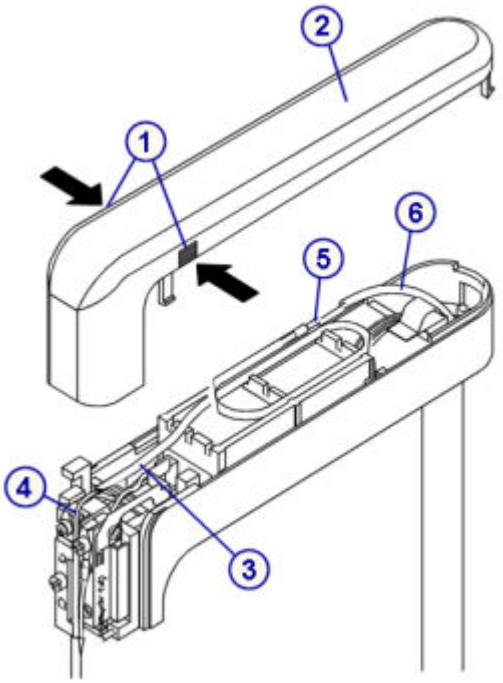
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for reagent probe tubing removal

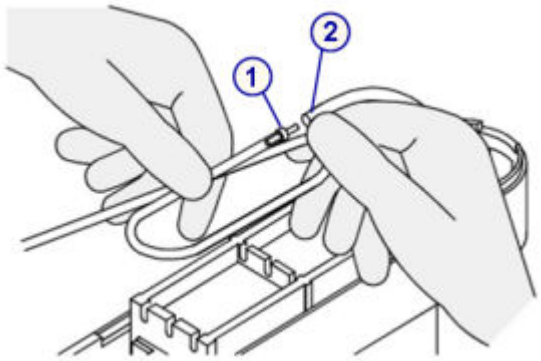
Steps	Graphic / reference
1. Locate the reagent pipettor. **NOTE:** See *ARCHITECT c4000 processing center components*, page 9-118, for pipettor locations. – Access the R1 pipettor from the back of the system. – Access the R2 pipettor from the front or back of the system. 2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to move the reagent pipettor to an accessible position.	

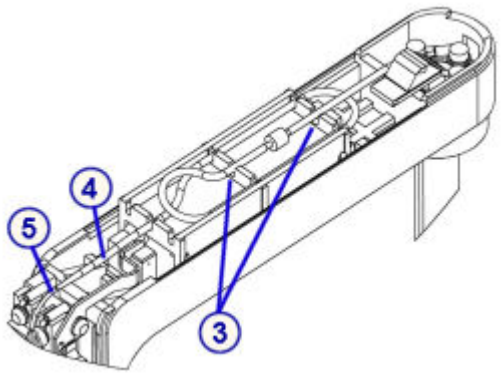
Remove the reagent probe tubing

Steps	Graphic / reference
1. Remove the reagent pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel under the probe tip. 3. Gently disconnect the tubing [3] from the top of the probe [4]. 4. Gently disconnect the metal connector [5] from the reagent pipettor tubing [6]. Ensure the protective sleeve remains on the reagent pipettor tubing.	

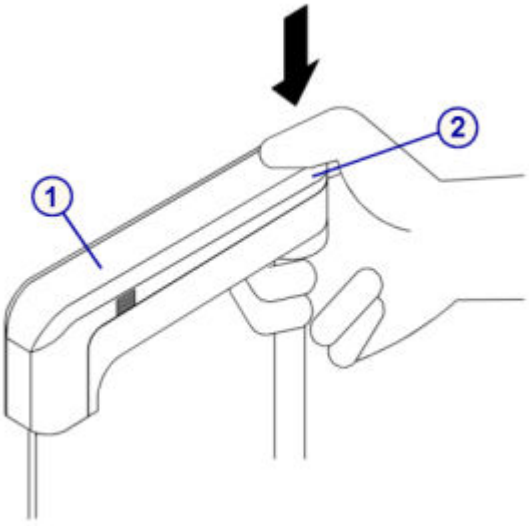
Replacement

Install the reagent probe tubing

Steps	Graphic / reference
1. Attach the end of the new tubing and metal connector [1] to the reagent pipettor tubing [2]. Verify the metal connector is inserted in the reagent pipettor tubing and not just in the protective sleeve. 2. Position the tubing in the tubing routing guides [3] as shown. 3. Attach the other end of the tubing [4] to the reagent probe [5]. **NOTE:** Do not flare or stretch the new tubing. The tubing should fit firmly on the reagent probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. 4. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the reagent pipettor to the home position.	

Steps	Graphic / reference
5. Remove the absorbent towel.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the reagent probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Stabilize the pipettor to prevent it from dropping and causing damage to the probe. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place.The cover must be completely seated to ensure correct liquid level sense operation.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the lamp or lamp plate (*c*4000)

Replacing the lamp or lamp plate consists of the following procedures:

- Removal

- *Prepare for removal*, page 9-132
- *Remove the covers*, page 9-133
- *Remove the terminal cable connections*, page 9-133
- *Remove the lamp*, page 9-134

- Replacement
  - *Install the lamp plate and lamp*, page 9-134
  - *Install the terminal cables*, page 9-135
  - *Install the processing module cover*, page 9-135
  - *Prepare for operation*, page 9-135
- Verification
  - *Run quality control*, page 9-136

Prerequisite	Power off the processing module.
Estimated time required	15 minutes **NOTE:** Time does not include lamp warm up (30 minutes)
Tools/materials required	• Phillips screwdriver • Gloves
Replacement parts	LN 09D45-03 - Lamp

CAUTION: Possibility of electric shock. Never remove the lamp or lamp plate with the processing module powered on. See *Electrical hazards*, page 8-15.

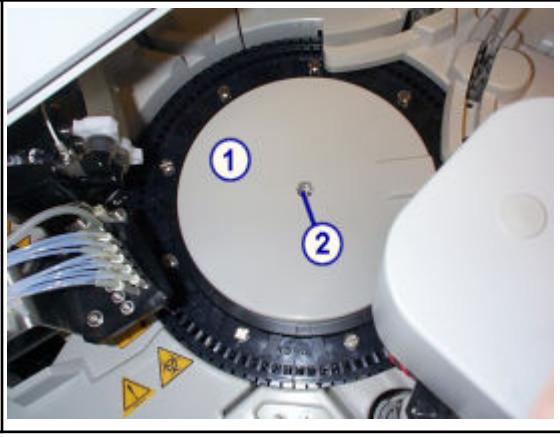
CAUTION: Hot Surface. This is an activity or area where you may be exposed to hot surfaces. See *Hot objects*, page 8-22.

Removal

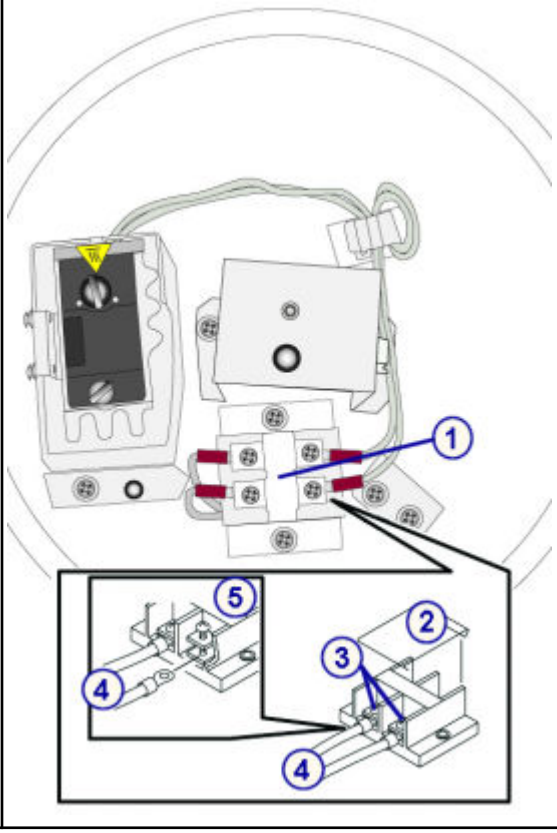
Prepare for removal

Steps	Graphic / reference
Power off the processing module by using the main circuit breaker located at the rear of the module. See *Power off the processing module and/or sample handler*, page 5-11.	

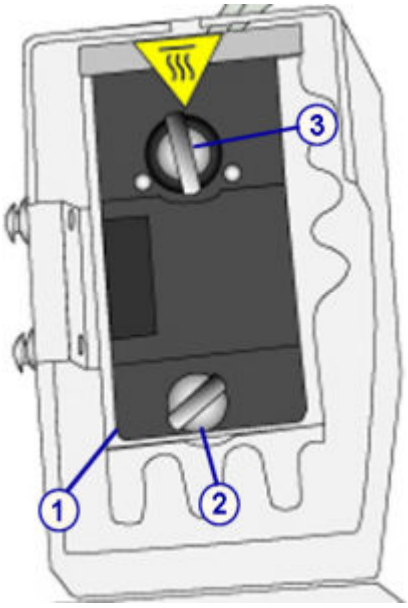
Remove the covers

Steps	Graphic / reference
WEEE: Wait at least five minutes after turning the power off to allow the lamp and the lamp housing to cool. **NOTE:** The lamp can be accessed from the back of the processing module. 1. Open the rear processing module cover. Locate the lamp housing cover [1] positioned in the center of the reaction carousel. 2. Remove the Phillips screw [2] securing the cover in place and remove the cover.	

Remove the terminal cable connections

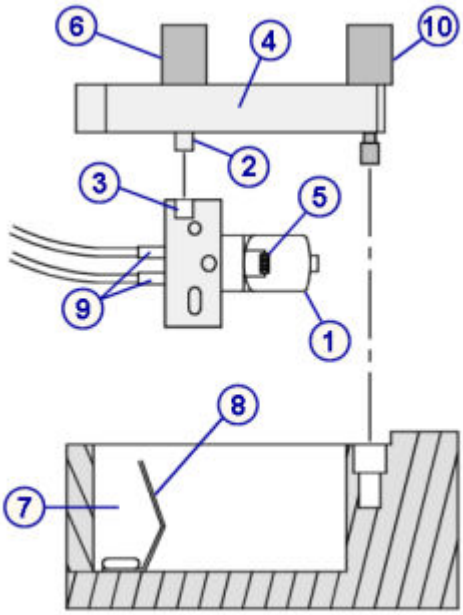
Steps	Graphic / reference
1. Locate the terminal block [1]. 2. Remove the transparent cover [2] from the terminal block by grasping both ends and lifting up. 3. Using the Phillips screwdriver, completely loosen the two captive screws [3] securing the two lamp cables [4] on the terminal block. 4. Raise the screws [5] and lower the lamp cables [4] completely to allow you to disengage the cables from the bottom of the screws.	

Remove the lamp

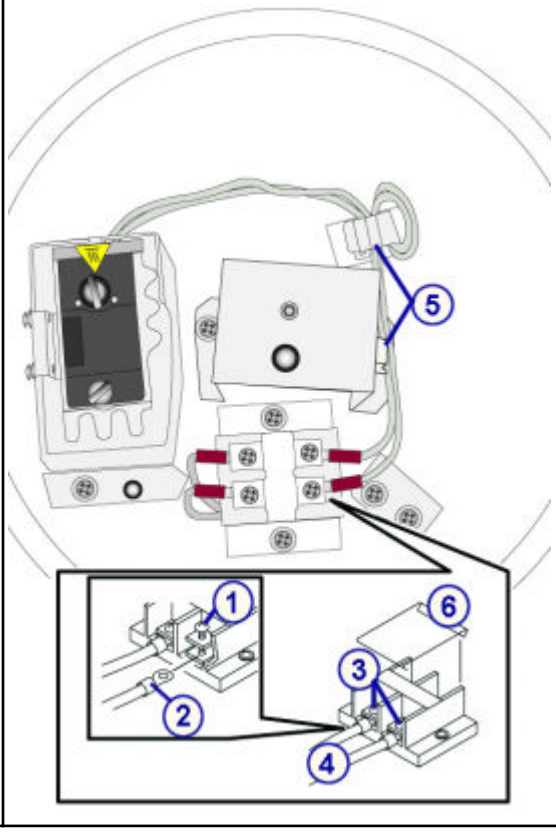
Steps	Graphic / reference
WEEE: Wait at least five minutes after turning the power off to allow the lamp and the lamp housing to cool. The lamp, lamp housing, and heat absorbing filter may be hot. 1. Completely loosen the lamp plate [1] thumbscrew [2] located towards the rear of the processing module. 2. Lift the lamp plate and loosen the other thumbscrew [3] to remove the lamp from the plate. 3. Remove the lamp and cable from the lamp housing.	

Replacement

Install the lamp plate and lamp

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil on the glass surface of the lamp shortens the lamp life. The glass surface may be cleaned with ethanol, if necessary. 1. Insert the replacement lamp [1] fitting the pins [2] into the pin holes [3] on the lamp plate [4]. 2. Verify the filament [5] is perpendicular to the lamp plate [4]. 3. Tighten the thumbscrew [6] on the lamp plate while the lamp is fully inserted into the pin holes. 4. Insert the lamp assembly into the housing [7], pressing it against the leaf spring [8], and down into the housing. Ensure the lamp assembly is properly seated into the housing. 5. Verify the lamp cables [9] are through the slot behind the lamp and are not pinched by the lamp plate. 6. Tighten the thumbscrew [10] to secure the lamp in place.	

Install the terminal cables

Steps	Graphic / reference
1. Raise the screws [1] and insert the cables [2] under the screws. 2. Use the Phillips screwdriver to tighten the two captive screws [3] securing the two lamp cables [4] on the terminal block. 3. Route the cable through the two plastic cable clamps [5] to ensure the cable does not interfere with the rotation of the reaction carousel. 4. Replace the transparent cover [6] on the terminal block. 5. Power on the processing module. The system control center power MUST be on prior to turning on the processing module to ensure proper initialization. 6. Check for stray light around lamp housing cover.	

Install the processing module cover

Steps	Graphic / reference
1. Replace the lamp housing cover. 2. Close the rear processing module cover.	

Prepare for operation

Steps	Graphic / reference
1. *Start up the processing module and/or sample handler*, page 5-15, to change the status of the processing module and sample handler from Stopped to Ready. **IMPORTANT:** The lamp must warm up 30 minutes prior to running assays. 2. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27, to document the lamp change in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace a cuvette (*c*4000)

Replacing a cuvette consists of the following procedures.

- Removal
  - *Remove cuvette segment*, page 9-137
  - *Clean replacement cuvette*, page 9-137
  - *Remove the individual cuvette*, page 9-138
- Replacement
  - *Install the individual cuvette*, page 9-138
  - *Reinstall the cuvette segment*, page 9-140
- Verification
  - *Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move*, page 9-140

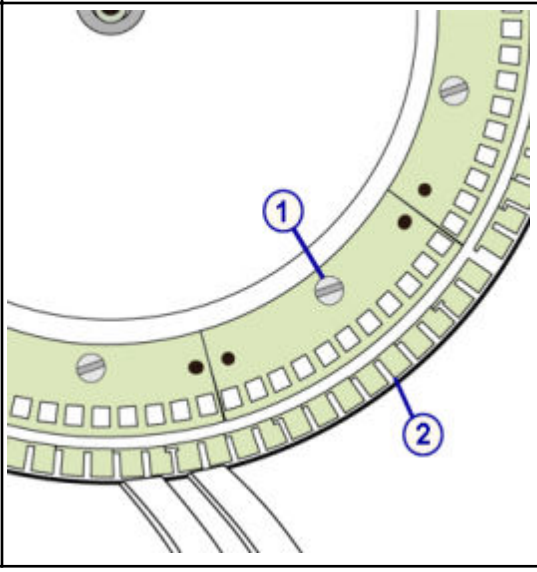
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Detergent A • Lint-free absorbent towel • Cotton swabs • Slotted screwdriver • Purified water • Container large enough to accommodate new cuvettes • Gloves
Replacement parts	LN 01G46-02 - Cuvette

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

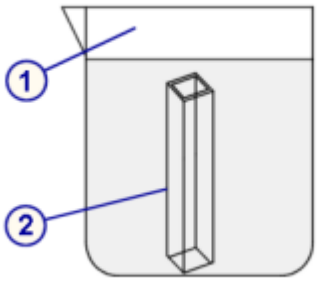
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

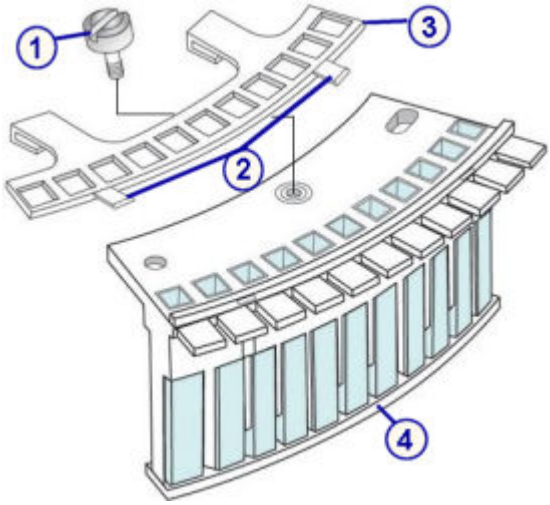
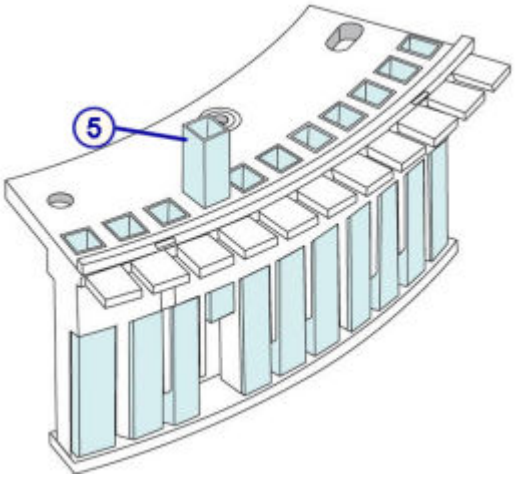
Remove cuvette segment

Steps	Graphic / reference
1. Determine the cuvette number requiring replacement. 2. Identify the location of the cuvette on the reaction carousel. 3. Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to rotate the carousel so that the cuvette segment [2] containing the cuvette is at the front of the module. 4. Use the slotted screwdriver to loosen the screw [1] located on the top of the cuvette segment until the segment can be removed from the reaction carousel. 5. Inspect all cuvettes in the segment and replace if damaged. 6. Set the cuvette segment aside on a lint-free absorbent towel.	

Clean replacement cuvette

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the new cuvette from the shipping container and place it on a lint-free absorbent towel. 2. Wet a cotton swab with Detergent A and clean the inside and outside of the new cuvette. 3. Fill a clean, residue-free container [1] with enough purified water to completely submerge the new cuvette [2]. 4. Rinse the cuvette in the water to remove the Detergent A and drain any excess water from the cuvette.	

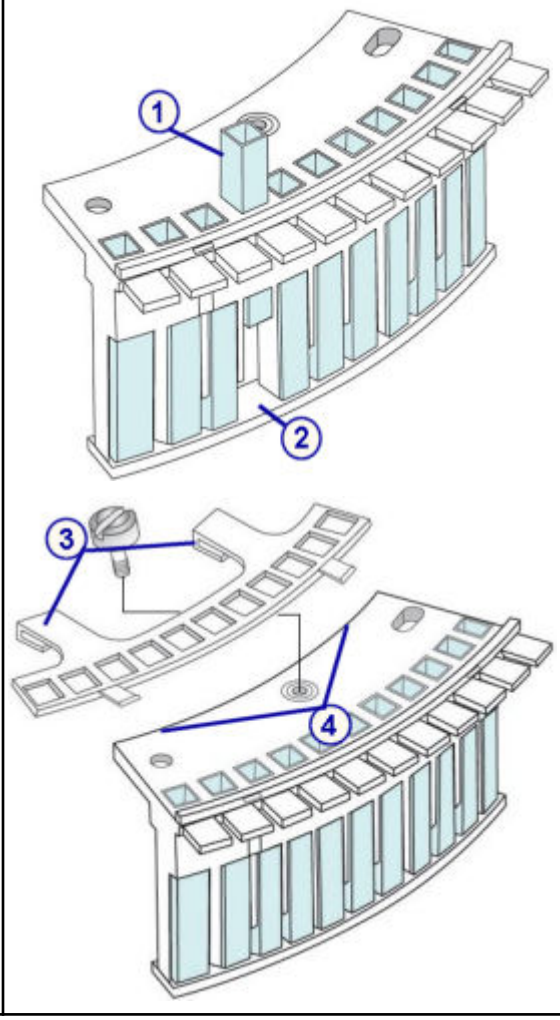
Remove the individual cuvette

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the slotted screw [1] from the segment. 2. Gently press down on each tab [2] of the cuvette retaining cover [3] to separate the cover from the cuvette segment assembly [4]. 3. Grasp the cuvette segment with one hand and gently grasp the desired cuvette [5] with the other hand. Push up on the cuvette [5]. 4. Grasp the cuvette gently and once a portion of the cuvette is positioned above the top surface of the segment, pull it straight out.	 

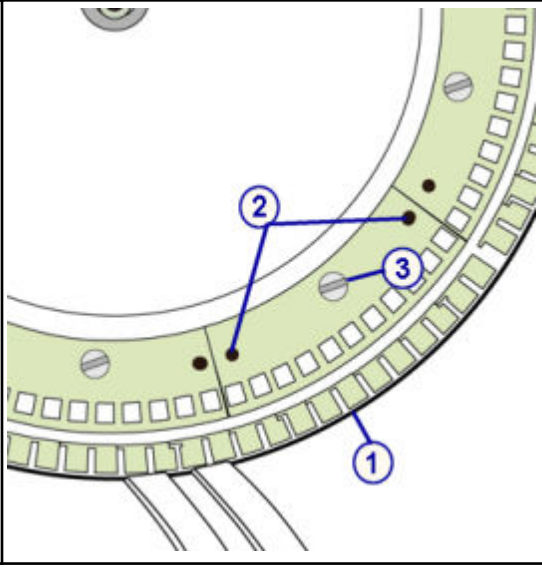
Replacement

Install the individual cuvette

Steps	Graphic / reference
1. Insert the new cuvette [1] into the top of the cuvette segment. To ensure optimal performance through the life span of an ARCHITECT *c*4000, the cuvettes should be replaced after 12 years of use. 2. Gently push the cuvette down while ensuring that it is guided into the rectangle-shaped depression [2] in the bottom of the cuvette segment. When the cuvette is	

Steps	Graphic / reference
correctly seated, the top of the cuvette is just below the top surface of the cuvette segment. 3. Slide the cuvette retaining cover onto the cuvette segment. 4. Verify each tab on the cuvette retaining cover is inserted into the holes on the top of the cuvette segment. 5. Position the clips [3] on the back of the cuvette retaining cover under the back edge of the cuvette segment [4].	

Reinstall the cuvette segment

Steps	Graphic / reference
1. Position the cuvette segment [1] on the reaction carousel alignment pins [2]. 2. Finger-tighten the slotted screws [3] into the segment. 3. Gently tighten the screws with the slotted screwdriver.	

Verification

Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move

Steps	Graphic / reference
Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.	

Replace a cuvette segment (*c*4000)

Replacing a cuvette segment consists of the following procedures.

- Removal
  - *Remove cuvette segment*, page 9-141
  - *Clean replacement cuvette segment*, page 9-141
- Replacement
  - *Install the cuvette segment*, page 9-143
- Verification
  - *Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move*, page 9-143

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Detergent A

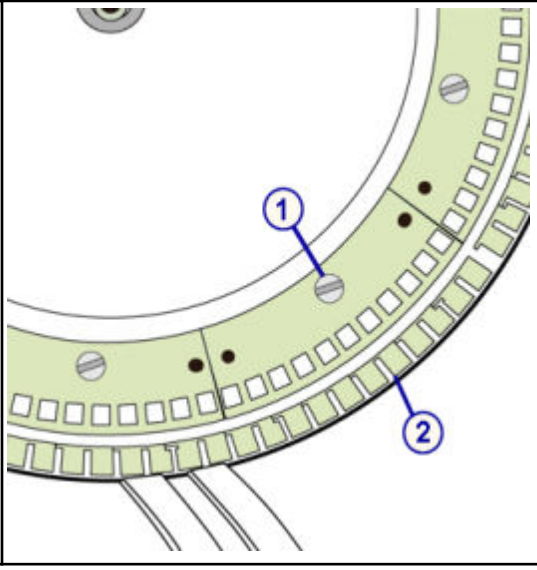
	• Lint-free absorbent towel • Cotton swabs • Slotted screwdriver • Purified water • Container large enough to accommodate new cuvettes • Gloves
Replacement parts	LN 02P75-01 - Cuvette segment

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

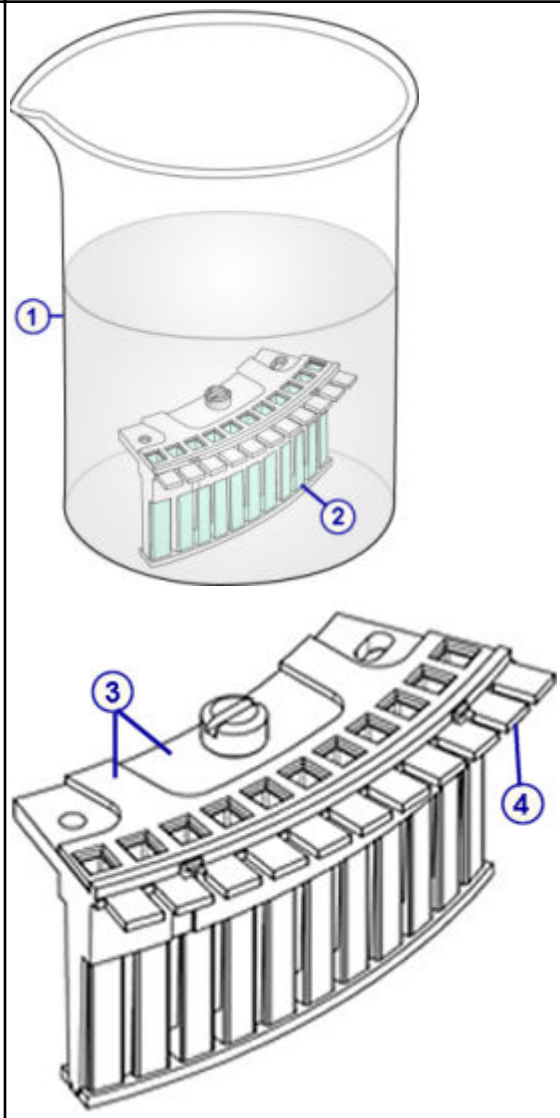
Removal

Remove cuvette segment

Steps	Graphic / reference
1. Determine the cuvette segment requiring replacement. 2. Identify the location of the cuvette segment [2] on the reaction carousel. 3. Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to rotate the carousel so that the appropriate cuvette segment is at the front of the module. 4. Use the slotted screwdriver to loosen the screw [1] located on the top of the cuvette segment until the segment can be removed from the reaction carousel. 5. Dispose of the cuvette segment.	

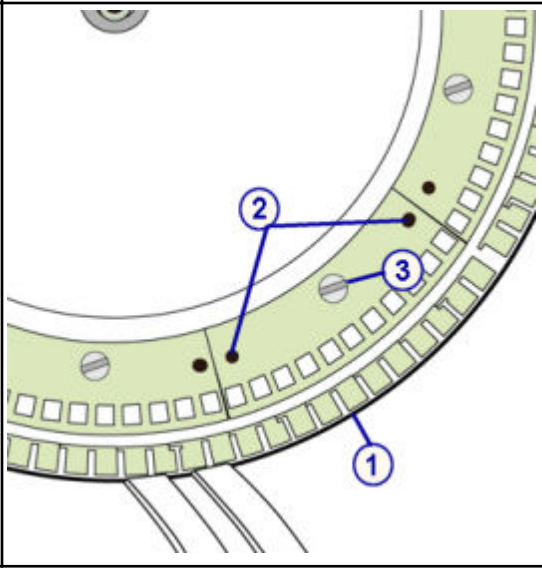
Clean replacement cuvette segment

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the new cuvette segment from the shipping container and place it on a lint-free absorbent towel.	

Steps	Graphic / reference
2. Wet a cotton swab with Detergent A and clean the inside and outside of all of the cuvettes in the new cuvette segment. 3. Fill a clean, residue-free container [1] with enough purified water to completely submerge the new cuvette segment [2]. 4. Rinse the cuvette segment in the water to remove the Detergent A and drain any excess water from the cuvettes. 5. Dry the top of the cuvette segment [3], especially the slotted edges [4], to remove any remaining water.	

Replacement

Install the cuvette segment

Steps	Graphic / reference
1. Position the cuvette segment [1] on the reaction carousel alignment pins [2]. To ensure optimal performance through the life span of an ARCHITECT *c*4000, the cuvettes should be replaced after 12 years of use. 2. Finger-tighten the slotted screws [3] on the segment. 3. Gently tighten the screws with a slotted screwdriver.	

Verification

Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move

Steps	Graphic / reference
Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.	

Replace the cuvette dry tip (*c*4000)

Replacing the cuvette dry tip consists of the following procedures.

- Removal
  - *Remove the cuvette washer assembly*, page 9-144
  - *Remove the cuvette dry tip*, page 9-145
- Replacement
  - *Install the cuvette dry tip and cuvette washer assembly*, page 9-145
  - *Prepare for operation*, page 9-146
- Verification
  - *Wash the cuvettes*, page 9-146

– *Run quality control*, page 9-146

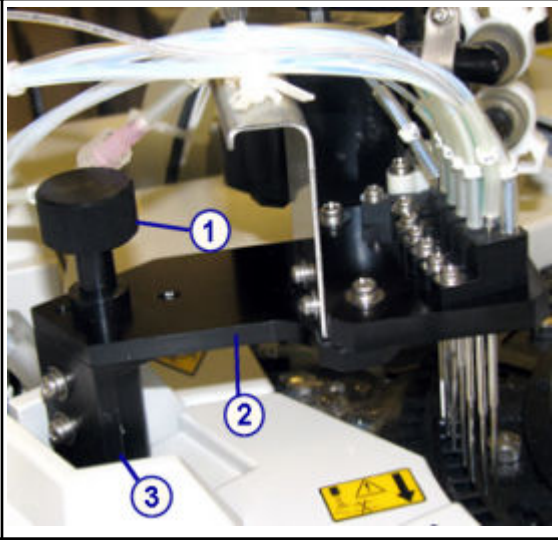
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Metric ruler • Gloves
Replacement parts	LN 09D51-02 - Cuvette dry tip

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

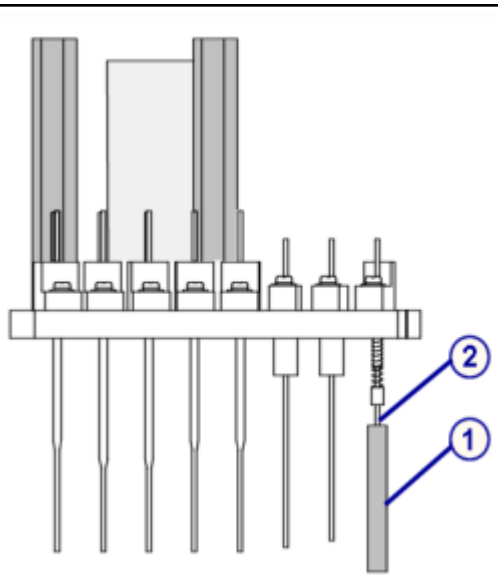
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Remove the cuvette washer assembly

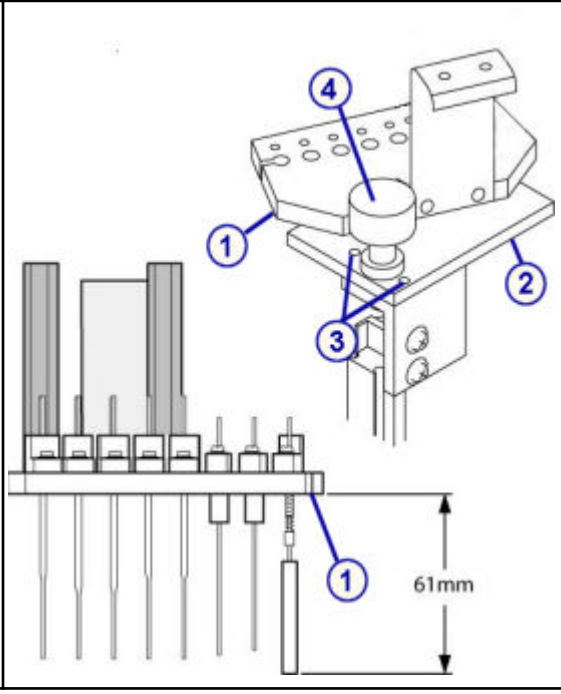
Steps	Graphic / reference
1. Open the rear processing module cover. 2. Loosen the black knurled knob [1] to the left of the cuvette washer until the cuvette washer assembly [2] can be lifted from the mounting bracket [3].	

Remove the cuvette dry tip

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 1. Lift the cuvette washer assembly and rotate it so you can easily access the white cuvette dry tip. **NOTE:** The cuvette washer nozzles are attached to the black nozzle mounting plate. You do not need to remove any of the screws securing the wash nozzles to the mounting plate. 2. Remove the cuvette dry tip [1] by pulling it off the metal nozzle [2]. 3. Discard the used tip.	

Replacement

Install the cuvette dry tip and cuvette washer assembly

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 1. Gently install the new cuvette dry tip, taking care to orient it properly. **NOTE:** The cuvette dry tip and the cuvette are both rectangular in shape. Install the dry tip so it fits into the cuvette. 2. Position the bottom of the cuvette dry tip 61 ± 0.5 mm from the underside of the cuvette washer assembly [1]. 3. Position the cuvette washer assembly [2] on the alignment pins [3], and then tighten the black knurled knob [4].	

Prepare for operation

Steps	Graphic / reference
1. Initiate ***Fuses/Motors*** diagnostic procedure *5142 Wash Station Up/Down*, page 10-637 to home the cuvette washer assembly and reaction carousel. 2. Verify the rectangular orientation and alignment of the cuvette dry tip with the cuvette. **NOTE:** Wear gloves if adjustment to the cuvette dry tip is required. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 3. Select **L2** (step down) on the processing module keypad or the Diagnostic perform window to move the washer assembly down. 4. Verify the alignment of the cuvette dry tip is correct and that it moves smoothly into the cuvettes. **NOTE:** When stepping the cuvette washer down, if the cuvette dry tip appears to contact the top of either the cuvette or cuvette segment, inspect both the cuvette and cuvette segment for damage. Impact from the cuvette dry tip can potentially cause cuvette damage or cause the cuvette segment base to detach. See *Inspect the cuvette segment (c System)*, page 10-711. 5. Select **L1** (up) to move the washer assembly up. 6. Select **L4** (exit) to end the procedure. 7. Select **Done** on the Diagnostic perform window to complete the procedure.	

Verification

Wash the cuvettes

Steps	Graphic / reference
Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the mixer (*c*4000)

Replacing the mixer consists of the following procedures.

- Removal
  - *Remove the mixer*, page 9-147
- Replacement
  - *Install the mixer*, page 9-148
- Verification
  - *Perform reaction mechanisms diagnostic procedure 3126 Mixer Vibration Test*, page 9-148
  - *Run quality control*, page 9-148

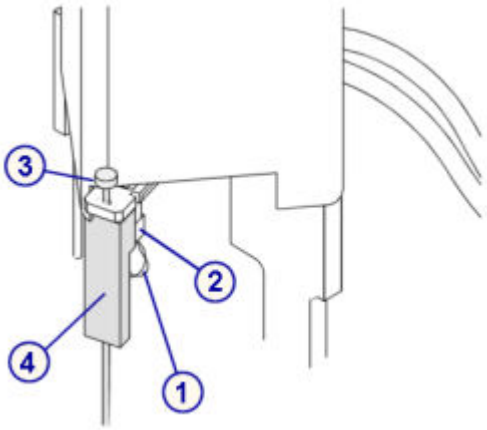
Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	None
Replacement parts	LN 09D59-03 - Mixer

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

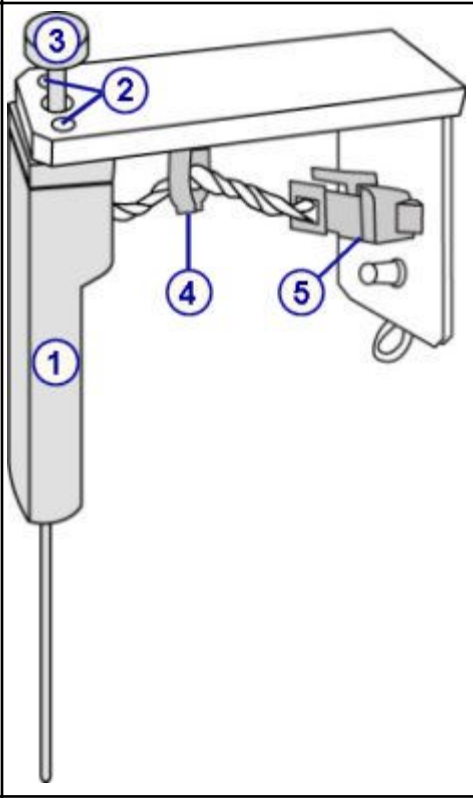
Removal

Remove the mixer

Steps	Graphic / reference
1. Open the rear processing module cover. 2. Locate the appropriate mixer. 3. Unplug the cable [1] by pinching the white connector [2]. 4. Loosen the black thumbscrew [3] on the top of the mixer assembly. 5. Remove the mixer [4].	

Replacement

Install the mixer

Steps	Graphic / reference
1. Orient the new mixer assembly [1] so that the flat side faces away from the mixer arm. 2. Align the positioning pins [2] on the top of the mixer with the holes on the mixer arm. Tighten the black thumbscrew [3] until the top of the mixer is flush with the mixer arm. 3. Open the cable clip [4] from the bottom and route the cable through the clip. 4. Attach the cable connector to the white connector [5] below the mixer arm. **NOTE:** This connector is keyed and only goes in one way.	

Verification

Perform reaction mechanisms diagnostic procedure 3126 Mixer Vibration Test

Steps	Graphic / reference
Perform ***reaction mechanisms*** diagnostic procedure *3126 Mixer Vibration Test*, page 10-629, to verify mixer function.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the ICT module or probe (*c*4000)

Replacing the ICT module or probe consists of the following procedures:

- Removal
  - *Remove the covers*, page 9-150
  - *Remove the ICT module and probe*, page 9-150
- Replacement
  - *Install the ICT module and probe*, page 9-151
  - *Insert the ICT module and probe into the ICT holder*, page 9-152
  - *Prepare for operation*, page 9-152
- Verification
  - *Calibrate ICT assays*, page 9-153

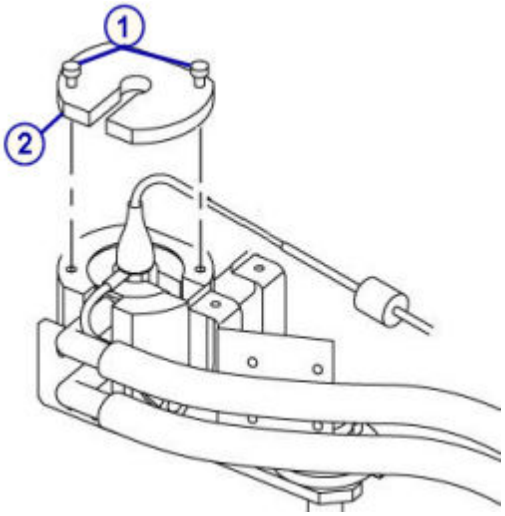
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	NA
Replacement parts	• LN 09D63-04 - ICT probe • LN 09D28-03 - ICT module

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

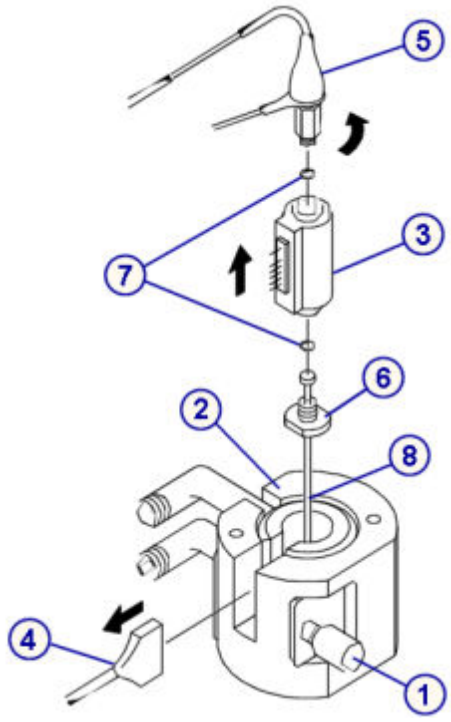
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Remove the covers

Steps	Graphic / reference
1. Lift the rear cover on the processing module to access the ICT module and probe. 2. Locate the ICT unit. 3. Loosen the two captive thumbscrews [1] that secure the black plate [2] in place. 4. Remove the black plate [2].	

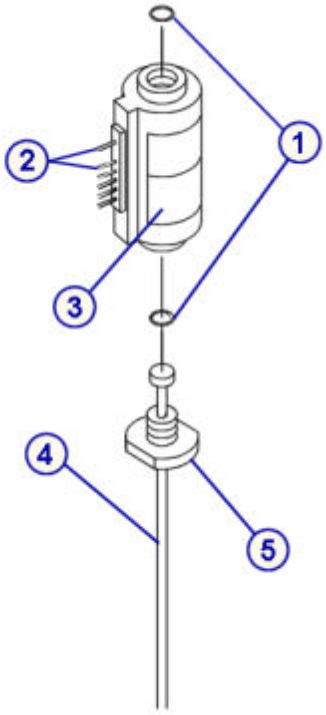
Remove the ICT module and probe

Steps	Graphic / reference
1. Loosen the thumbscrew [1] on the side of the ICT holder [2] until the ICT module [3] can be lifted up. 2. Disconnect the black electrical connector [4] from the side of the module by pulling it straight out. 3. Verify the connector is completely free from the module. 4. Lift the ICT module [3] until the connectors on the side of the ICT module clear the ICT holder [2]. **IMPORTANT:** To avoid damage to the probe, do not lift the ICT module and probe all the way out of the ICT holder. 5. Gently unscrew the ICT module [3], rotating it clockwise, to free it from the top connector [5]. 6. Lift the ICT module and probe straight up out of the ICT holder. 7. Unscrew the ICT probe holder [6] from the ICT module. 8. Inspect the ports of the ICT module. Verify that one o-ring [7] is present at each location.	

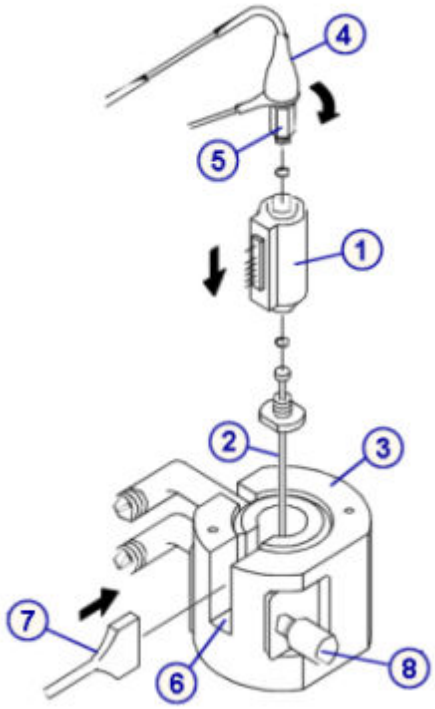
Steps	Graphic / reference
IMPORTANT: Running the system without the o-rings could affect patient results. 9. Discard the ICT module if replacing; otherwise, set it aside for use with the new ICT probe. 10. Remove the ICT probe [8] from the probe holder. 11. Discard the probe if replacing; otherwise set it aside for use with the new ICT module.	

Replacement

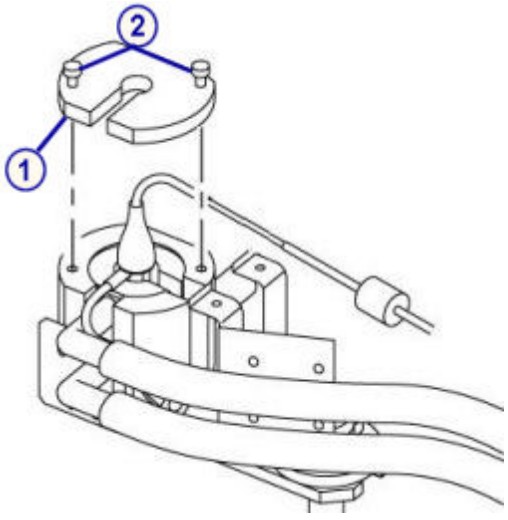
Install the ICT module and probe

Steps	Graphic / reference
1. Remove the ICT module from the box, if replacing the ICT module. 2. Disconnect and discard the plastic tubing attached to both ends of the ICT module. 3. Inspect the ports on the ICT module. Verify that one o-ring [1] is present at each location. **IMPORTANT:** Running the system without the o-rings could affect patient results. 4. Align the ICT module so that the gap [2] between the side connectors is on top and the label [3] is right-side up. 5. Place the ICT probe [4] into the probe holder [5]. 6. Attach the probe holder and probe to the bottom of the ICT module (finger-tighten only).	

Insert the ICT module and probe into the ICT holder

Steps	Graphic / reference
1. Insert the ICT module [1] with the probe [2] into the ICT holder [3] until the connectors on the side of the ICT module are just above the top of the ICT holder [3]. 2. Rotate the ICT module [1] counterclockwise (finger-tighten only) to reattach the ICT module to the top port [4] and to the connector [5]. 3. Allow the ICT module [1] to seat fully down into the ICT holder [3] so that the connectors are aligned with the slot [6] in the ICT holder [3]. 4. Gently reconnect the black electrical connector [7] to the ICT module connectors. Ensure the ICT module is completely plugged into the connector. 5. Hold down the ICT module while tightening the side thumbscrew [8] until secure. Do not overtighten. The ICT module could be damaged.	

Prepare for operation

Steps	Graphic / reference
1. If the ICT module was replaced, return to the Replace ICT window on the SCC (System Control Center) to complete the replacement procedure. 2. If the ICT probe was replaced, perform ***as-needed*** maintenance procedure *6063 Flush ICT Module*, page 9-41. 3. Inspect the tubing from the ICT module for bubbles. 4. Inspect the ICT probe to ensure it does not drip. If you observe bubbles or drips, see *Processing module observed problems (c System)*, page 10-516. 5. Reattach the black plate [1] by securing it with the two thumbscrews [2] on the top.	

Verification

Calibrate ICT assays

Steps	Graphic / reference
1. Calibrate ICT assays. 2. Run quality control samples to verify calibration.	

ARCHITECT *c*4000 supply and pump components replacement

You may need to replace certain supply and pump components due to normal wear from daily operations.

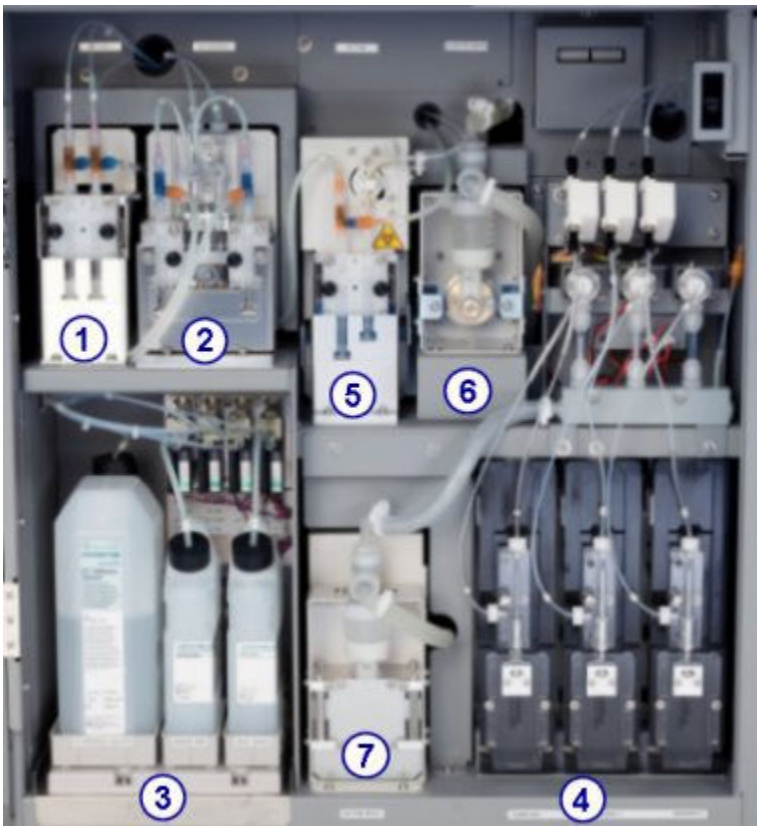
To replace supply and pump center components, see:

- *ARCHITECT c4000 supply and pump center components*, page 9-153
- *Replace the 1 mL syringes (c4000)*, page 9-154
- *Replace check valves (c4000)*, page 9-158
- *Replace the ICT reference solution filter (c4000)*, page 9-162
- *Replace the wash solution filter (c4000)*, page 9-164
- *Replace wash solution syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-167
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174
- *Replace the pump poppet valve set (c4000)*, page 9-181

ARCHITECT *c*4000 supply and pump center components

The following illustration shows the locations of the supply and pump center components. Use this illustration when performing maintenance and component replacement procedures.

Figure 9.20: ARCHITECTc4000 supply and pump center (front)



Legend:

1. ICT reference pump
2. Wash solution pump
3. Bulk solutions
4. Sample, reagent 1 and reagent 2 syringe drives
5. ICT aspiration pump
6. Cuvette wash pump
7. Probe wash pump

Replace the 1 mL syringes (*c*4000)

Replacing the 1 mL syringes on the ICT reference pump, ICT aspiration pump, and wash solution pump consists of the following procedures.

- Removal
  - *Locate the 1 mL syringe to be replaced*, page 9-155
  - *Remove the plunger shield and the 1 mL syringe*, page 9-156
  - *Detach and replace the 1 mL syringe*, page 9-156
- Replacement

- *Reinstall the 1 mL syringe and plunger shield*, page 9-157
- *Prepare for operation*, page 9-157

• Verification

- *Run quality control*, page 9-157

NOTE: The same procedure is used to replace the 1 mL syringes in all three pumps.

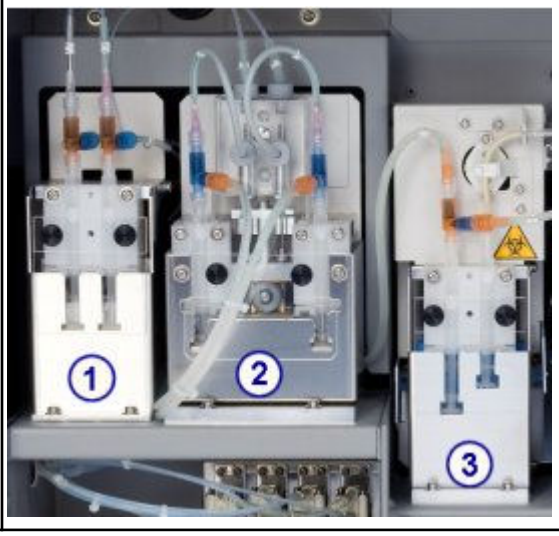
Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D41-03 - 1 mL syringe **NOTE:** The same 1 mL syringe is used for the ICT reference pump, the ICT aspiration pump, and the wash solution pump.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

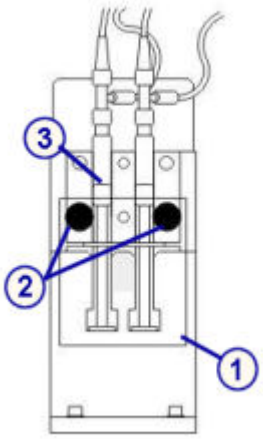
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

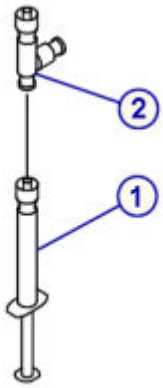
Locate the 1 mL syringe to be replaced

Steps	Graphic / reference
1. Open the supply center door. Open the pump center door. 2. Locate the 1 mL syringe to be replaced: – ICT reference pump [1] – Wash solution pump [2] – ICT aspiration pump [3]	

Remove the plunger shield and the 1 mL syringe

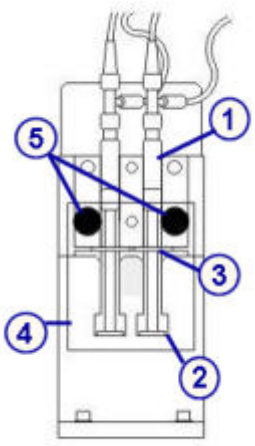
Steps	Graphic / reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Detach and replace the 1 mL syringe

Steps	Graphic / reference
1. Place an absorbent towel under the pump area to absorb any liquid. 2. Unscrew the syringe assembly [1] from the check valve [2]. 3. Screw the new syringe assembly [1] onto the check valve [2]. **NOTE:** Be sure to replace the syringe and plunger (components of the syringe assembly) as a pair.	

Replacement

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / reference
1. Reinstall the syringe [1]. 2. Verify the plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and secure it with the black knobs [5]. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform the following ***as-needed*** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace check valves (*c*4000)

Replacing the check valves on the ICT reference pump, ICT aspiration pump, or wash solution pump consists of the following procedures.

- Removal
  - *Locate the check valve to be replaced*, page 9-159
  - *Remove the plunger shield and the 1 mL syringe*, page 9-159
  - *Remove the check valve tubing*, page 9-160
- Replacement
  - *Replace the check valve*, page 9-160
  - *Reinstall the check valve tubing*, page 9-161
  - *Reinstall the 1 mL syringe and plunger shield*, page 9-161
  - *Prepare for operation*, page 9-162
- Verification
  - *Run quality control*, page 9-162

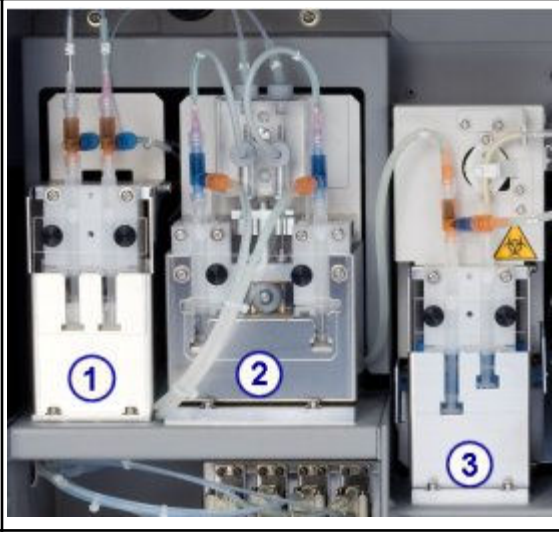
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel
Replacement parts	• LN 09D35-03 - ICT Reference or ICT Aspiration Check Valve • LN 09D34-03 - Wash Solution Check Valve **NOTE:** The ICT reference and aspiration pumps use the same list number. The wash solution pump uses a different list number. Ensure the correct part is used.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

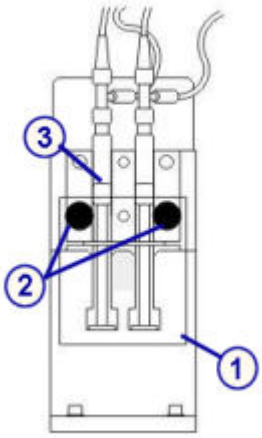
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

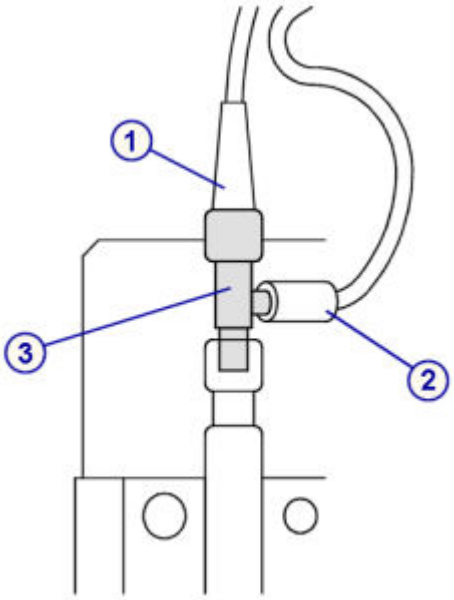
Locate the check valve to be replaced

Steps	Graphic / reference
1. Open the supply center and pump center doors. 2. Locate the check valve to be replaced: – ICT reference pump [1] – Wash solution pump [2] – ICT aspiration pump [3]	

Remove the plunger shield and the 1 mL syringe

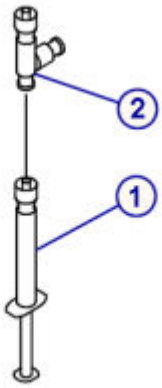
Steps	Graphic / reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Remove the check valve tubing

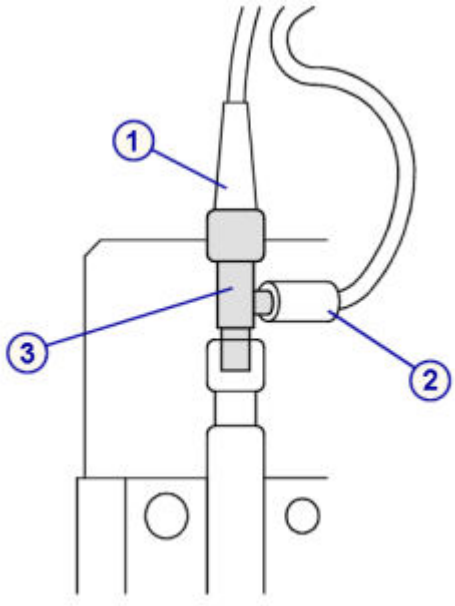
Steps	Graphic / reference
1. Place absorbent towels under the pump area to absorb any liquid. 2. Disconnect the top [1] and side [2] tubing from the check valve [3].	

Replacement

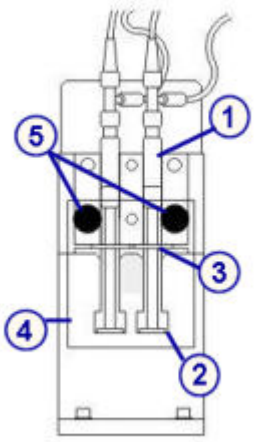
Replace the check valve

Steps	Graphic / reference
1. Unscrew the syringe body [1] from the check valve [2]. 2. Install the new check valve onto the syringe, and finger-tighten.	

Reinstall the check valve tubing

Steps	Graphic / reference
Reattach the top [1] and side [2] tubing to the check valve [3].	

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / reference
1. Reinstall the 1 mL syringe [1]. 2. Verify the syringe plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and tighten the black knobs [5] finger-tight. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform the following ***as-needed*** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6305 Change ICT Asp Check Valve*, page 9-31, to document the ICT aspiration check valve replacement in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the ICT reference solution filter (*c*4000)

Replacing the ICT reference solution filter consists of the following procedures:

- Removal
  - *Remove the ICT reference solution tubing*, page 9-163
  - *Remove the ICT reference solution filter*, page 9-163
- Replacement
  - *Replace the ICT reference solution filter and tubing*, page 9-164
- Verification
  - *Perform as-needed maintenance procedure 2155*, page 9-164
  - *Run quality control*, page 9-164

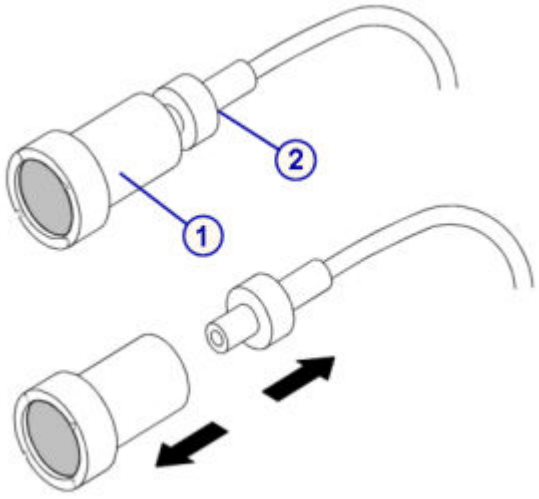
Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D43-02 - Reference/wash solution line filter

Removal

Remove the ICT reference solution tubing

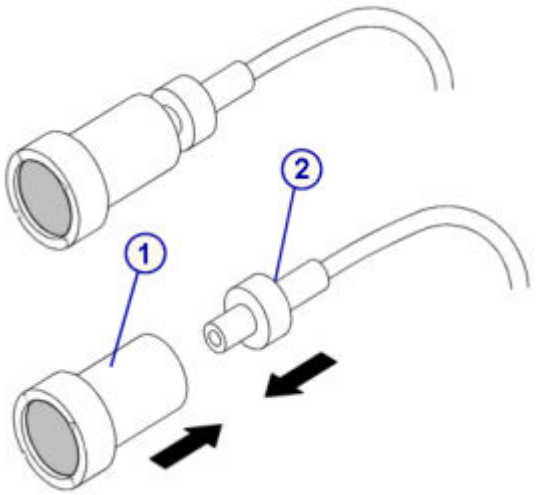
Steps	Graphic / reference
1. Open the supply center door. The ICT reference solution filter is located at the end of the tubing in the ICT reference solution bottle [1]. 2. Remove the tubing from the ICT reference solution bottle and set it aside on an absorbent towel.	

Remove the ICT reference solution filter

Steps	Graphic / reference
1. Pull the filter [1] from the connector that is attached to the end of the ICT reference solution tubing [2]. 2. Discard the filter into the appropriate waste receptacle.	

Replacement

Replace the ICT reference solution filter and tubing

Steps	Graphic / reference
1. Insert the new ICT reference filter [1] in the tubing connector [2]. 2. Insert the tubing in the ICT reference solution bottle, and ensure the tubing reaches the bottom of the bottle. 3. Close the supply center door.	

Verification

Perform as-needed maintenance procedure 2155

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37. 2. Observe all connections to ensure there are no leaks. If you observe drips or leaks, repeat the installation procedure.	

Run quality control

Steps	Graphic / reference
Run quality control samples to verify performance prior to reporting patient results.	

Replace the wash solution filter (*c*4000)

Replacing the wash solution filter consists of the following procedures:

- Removal
  - *Remove the tubing*, page 9-165

- *Remove the wash solution filter*, page 9-166

- Replacement
  - *Replace wash solution filter and tubing*, page 9-166
- Verification
  - *Perform as-needed maintenance procedure 2155*, page 9-167
  - *Run quality control*, page 9-167

Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D43-02 - Reference/wash solution filter

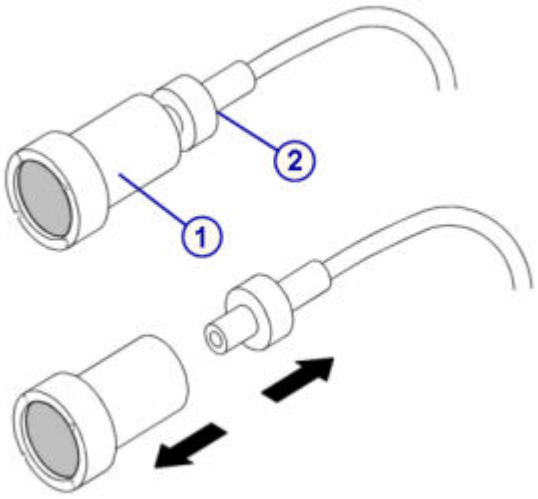
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Remove the tubing

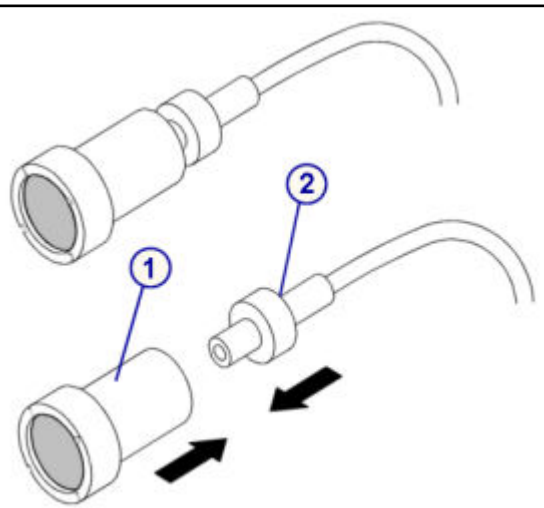
Steps	Graphic / reference
1. Open the supply center door. Wash solution filters are located at the end of the tubing in the alkaline [1] and acid [2] wash solution bottles. 2. Remove the tubing from the wash solution bottle and set it aside on an absorbent towel.	

Remove the wash solution filter

Steps	Graphic / reference
1. Pull the filter [1] from the connector that is attached to the end of the wash solution tubing [2]. 2. Discard the filter in the appropriate waste receptacle.	

Replacement

Replace wash solution filter and tubing

Steps	Graphic / reference
1. Insert the new filter [1] in the tubing connector [2]. 2. Insert the tubing in the appropriate wash solution bottle, and ensure the tubing reaches the bottom of the bottle. 3. Close the supply center door.	

Verification

Perform as-needed maintenance procedure 2155

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37. 2. Observe all connections to ensure there are no leaks. If you observe drips or leaks, repeat the installation procedure.	

Run quality control

Steps	Graphic / reference
Run quality control samples to verify performance prior to reporting patient results.	

Replace wash solution syringe o-ring and seal tips 1 and 2 (*c*4000)

Replacing the wash solution syringe o-ring and seal tips 1 and 2 consists of the following procedures.

- Removal
  - *Remove the clear outer plunger shield*, page 9-168
  - *Disconnect the wash solution syringe block tubing*, page 9-169
  - *Remove the clear inner plunger shield and syringe block*, page 9-170
  - *Remove the syringe plunger*, page 9-170
  - *Remove the o-ring and seal tips 1 and 2*, page 9-171
- Replacement
  - *Install the o-ring and seal tips 1 and 2*, page 9-171
  - *Install the syringe plunger*, page 9-172
  - *Install the syringe block and attach the clear inner plunger shield*, page 9-172
  - *Connect the wash solution syringe block tubing*, page 9-173
  - *Install the clear outer plunger shield*, page 9-173
  - *Prepare for operation*, page 9-174
- Verification
  - *Run quality control*, page 9-174

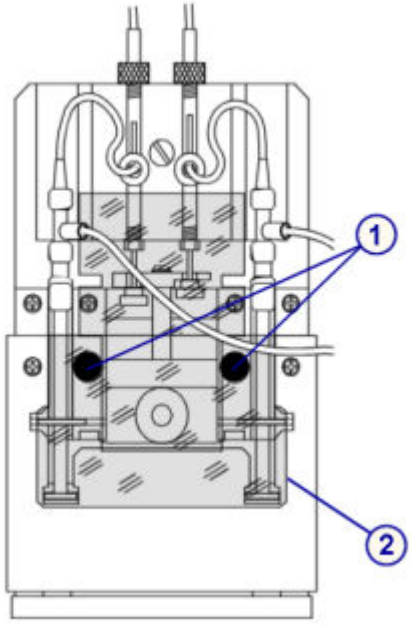
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel
Replacement parts	• LN 09D52-03 - Sample/wash solution syringe o-ring • LN 09D37-03 - Sample/wash solution syringe seal tip #1 • LN 09D38-03 - Sample/wash solution syringe seal tip #2

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

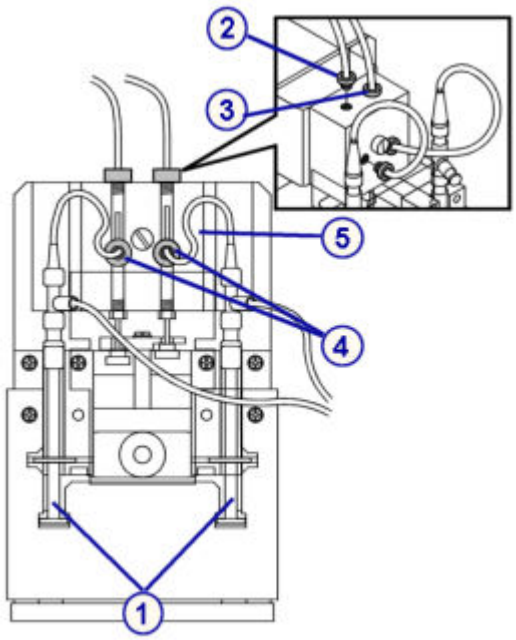
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

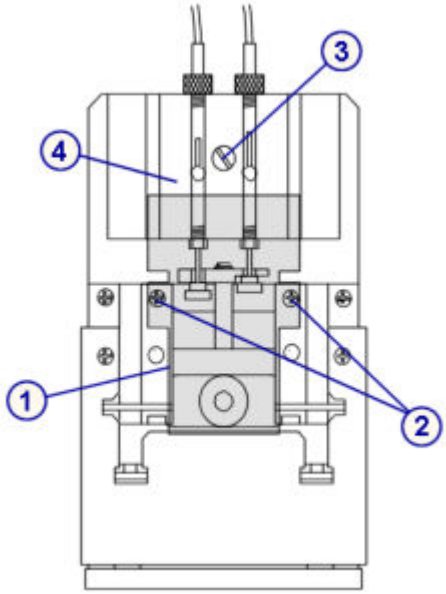
Remove the clear outer plunger shield

Steps	Graphic / reference
1. Open the supply and pump center door. 2. Locate the wash solution pump. 3. Loosen and remove the black knobs [1] securing the clear outer plunger shield [2]. 4. Remove the shield.	

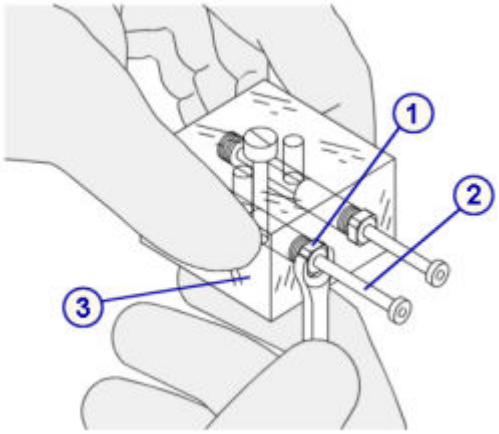
Disconnect the wash solution syringe block tubing

Steps	Graphic / reference
1. Place an absorbent towel under the pump area to absorb any liquid. 2. Slide the 1 mL syringes [1] out of their drive block; do not disconnect them. 3. Unscrew the left-top grey knurled connection [2] from the top of the syringe block. **NOTE:** The tubing labeled **2**, coming from the instrument, connects to the left-top connection [2]. The tubing labeled **3**, coming from the instrument, connects to the right-top connection [3]. Do not interchange the tubing. 4. Unscrew the right-top grey knurled connection [3]. 5. Unscrew the grey knurled connections [4] from the front of the syringe block [5]. **NOTE:** The tubing coming from the 1 mL syringe on the left connects to the left-front connection. The tubing coming from the 1 mL syringe on the right connects to the right-front connection. Do not interchange the tubing. 6. Ensure the black seals remain in the syringe block when the grey knurled connections are disconnected.	

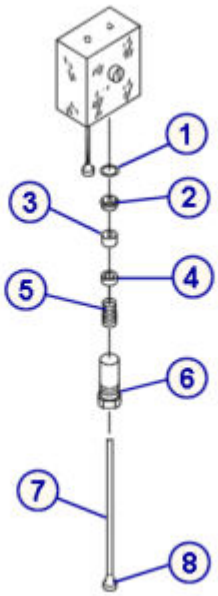
Remove the clear inner plunger shield and syringe block

Steps	Graphic / reference
1. Remove the clear inner plunger shield [1] by removing the two Phillips screws [2] securing the shield. 2. Use the slotted screwdriver to loosen the slotted screw [3] securing the clear syringe block [4] in place. The screw is captive and cannot be completely removed. 3. Pull the syringe block forward to allow the plungers to clear the syringe drive. 4. Lift the syringe block up to remove it from the module. 5. Identify the syringe needing the new o-ring and seal tips.	

Remove the syringe plunger

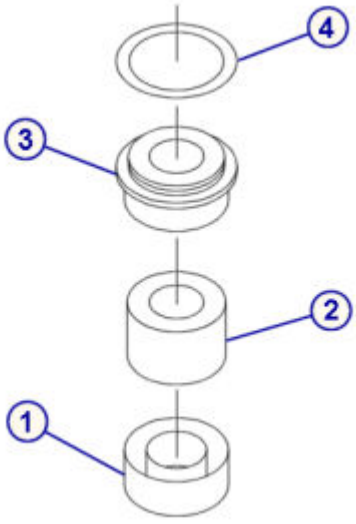
Steps	Graphic / reference
1. Use the 10 mm wrench to loosen the nut [1] securing the syringe plunger [2] on the bottom of the syringe block [3]. 2. Turn the nut by hand, once loosened, until the syringe plunger can be removed from the syringe block.	

Remove the o-ring and seal tips 1 and 2

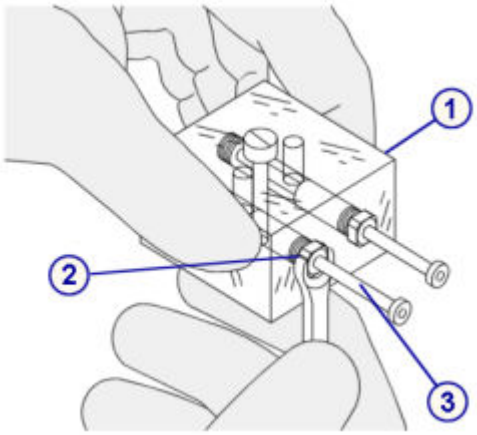
Steps	Graphic / reference
The plunger assembly includes the following parts: • O-ring [1] **IMPORTANT:** The o-ring may have remained in the syringe block when removing the plunger assembly. • Seal tip 2 [2] • Spacer [3] • Seal tip 1 [4] • Spring [5] • Nut [6] • Plunger [7] • Plunger flange [8] 1. Remove the following. Set aside or discard (except for spacer) if being replaced: – O-ring [1] – Seal tip 2 [2] – Spacer [3] - set aside, do not discard – Seal tip 1 [4] **NOTE:** Do not remove the spring. 2. Dry the interior of the syringe barrel with a cotton swab and dry the plunger completely with an absorbent towel if liquid is present.	

Replacement

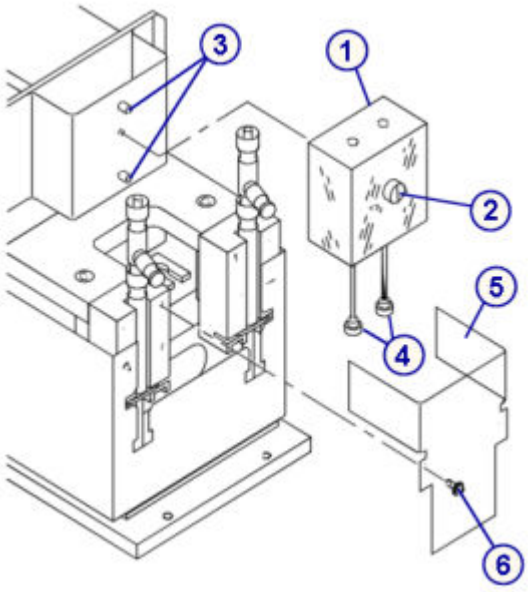
Install the o-ring and seal tips 1 and 2

Steps	Graphic / reference
1. Install seal tip 1 [1] onto the plunger so that it sits above the spring, with the open side away from the spring. 2. Install the spacer [2] so that it fits into the open side of seal tip 1. 3. Install the seal tip 2 [3] on top of the spacer with the open side toward the spacer. 4. Install the o-ring [4] so that it fits into the groove of the seal tip 2. Do not push the o-ring out of alignment. The o-ring must sit flat against the inside of the syringe block. 5. Press lightly to push all the components together.	

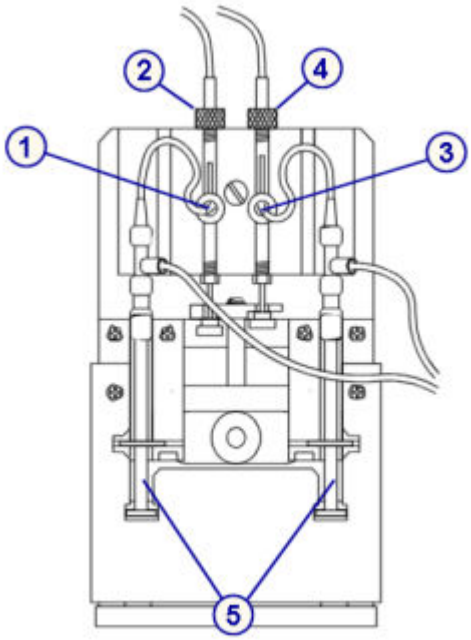
Install the syringe plunger

Steps	Graphic / reference
1. Install the plunger assembly into the syringe block [1]. 2. Tighten the nut [2] holding the plunger assembly into the syringe block until finger-tight. **NOTE:** The nut must be flush with the plunger assembly. If the nut binds when tightening, do not apply excessive force. Back the nut out a turn, and then, while pushing in to apply pressure against the spring, continue to tighten the nut. 3. Use the 10 mm wrench to further tighten the nut [2] securing the plunger [3]. Do not overtighten.	

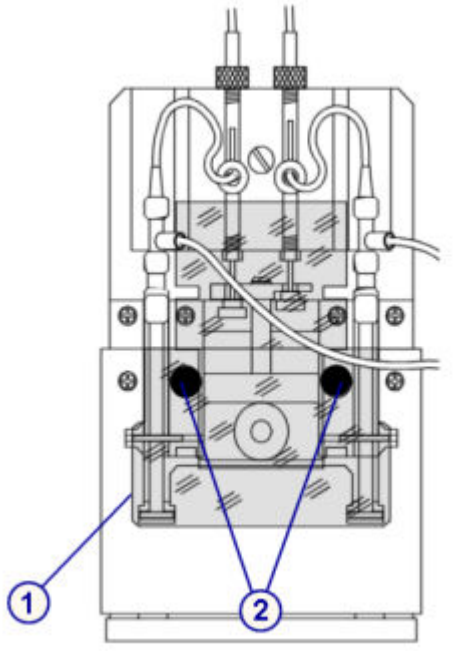
Install the syringe block and attach the clear inner plunger shield

Steps	Graphic / reference
1. Ensure a black seal remains in each of the tubing ports in the syringe block. 2. Hold the syringe block [1] so that the slotted screw [2] faces you. 3. Align the syringe block to the pins [3] on the syringe holder, verifying that both plunger flanges [4] are below the U-shaped holders. 4. Hold the syringe block against the alignment pins and tighten the screw by hand until finger-tight. Secure with a slotted screwdriver. 5. Attach the clear inner plunger shield [5] and tighten the Phillips screws [6].	

Connect the wash solution syringe block tubing

Steps	Graphic / reference
1. Connect the grey knurled connection labeled **2** from the 1 mL syringe to the left-front port [1]. 2. Connect the grey knurled connection labeled **2** coming from the instrument to the left-top port [2]. 3. Connect the grey knurled connection labeled **3** from the syringe to the right-front port [3]. 4. Connect the grey knurled connection labeled **3** from the instrument to the right-top port [4]. 5. Verify the 1 mL syringe tubing connections did not loosen during the removal and replacement procedure. 6. Reinstall the 1 mL syringes [5] into the syringe holder. 7. Ensure the plunger flange is below the U-shaped holder and that the bottom of the syringe barrel is in the groove at the bottom of the syringe holder.	

Install the clear outer plunger shield

Steps	Graphic / reference
1. Attach the clear outer plunger shield [1] and tighten the black knobs [2] until finger-tight. 2. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6302 Wash Syringe Maintenance*, page 9-29, to document wash solution o-ring and seal tips 1 and 2 replacement in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace sample or reagent syringe o-ring and seal tips 1 and 2 (*c*4000)

Replacing the sample or reagent syringe o-ring and seal tips 1 and 2 consists of the following procedures.

- Removal
  - *Locate the syringe and remove the plunger shield*, page 9-176
  - *Remove the syringe bracket*, page 9-176
  - *Remove the syringe block*, page 9-177
  - *Remove the syringe plunger*, page 9-177
  - *Remove the o-ring and seal tips 1 and 2*, page 9-178
- Replacement
  - *Install the o-ring and seal tips 1 and 2*, page 9-178
  - *Install the syringe plunger*, page 9-179
  - *Install the syringe block*, page 9-179
  - *Install the syringe bracket and plunger shield*, page 9-180
  - *Prepare for operation*, page 9-180
- Verification
  - *Run quality control*, page 9-181

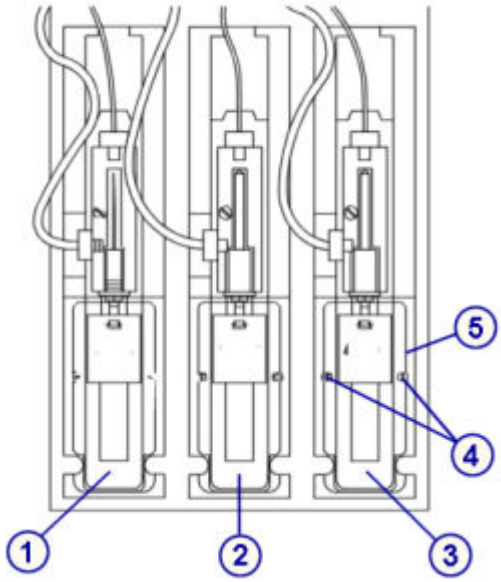
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel
Replacement parts	• LN 09D52-03 - Sample/wash solution syringe o-ring • LN 09D37-03 - Sample/wash solution syringe seal tip #1 • LN 09D38-03 - Sample/wash solution syringe seal tip #2 • LN 09D53-03 - Reagent syringe o-ring • LN 09D39-03 - Reagent syringe seal tip #1 • LN 09D40-04 - Reagent syringe seal tip #2 **NOTE:** The o-rings and seal tips 1 and 2 for the sample and reagent syringes are different sizes. Be sure to install the correct part in the appropriate syringe.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

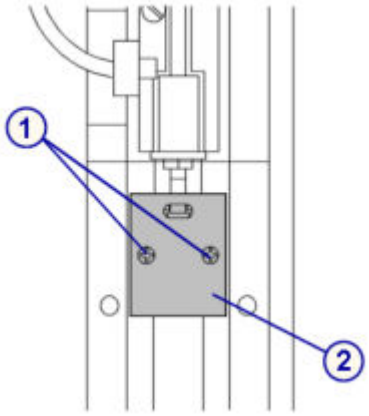
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

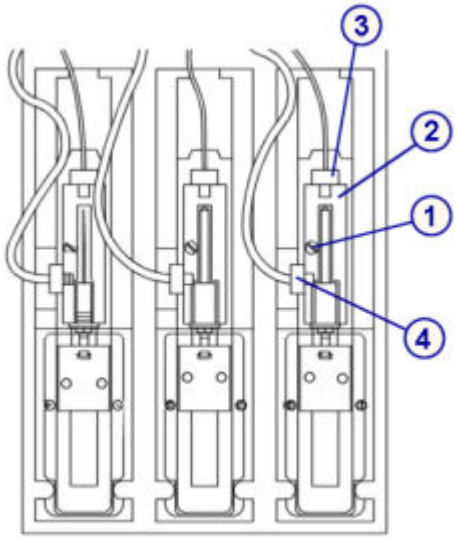
Locate the syringe and remove the plunger shield

Steps	Graphic / reference
1. Open the supply center door. 2. Locate the appropriate syringe: – Sample syringe [1] – R1 syringe [2] – R2 syringe [3] 3. Remove the two Phillips screws [4] securing the shield. 4. Remove the shield. [5]	

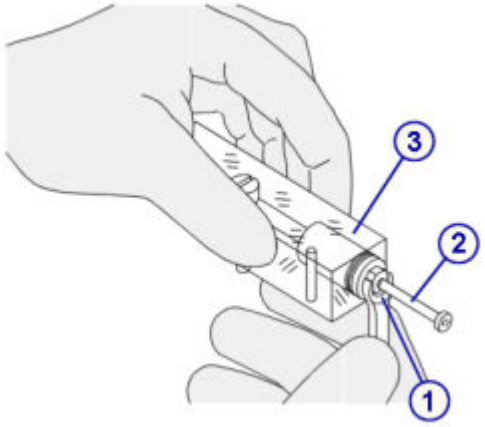
Remove the syringe bracket

Steps	Graphic / reference
Remove the syringe bracket holding the syringe plunger to the drive block by removing the two Phillips screws [1] on the syringe bracket [2]. **NOTE:** Notice that these screws are shorter than the screws from the clear plunger shield. Do not interchange the two sets of screws.	

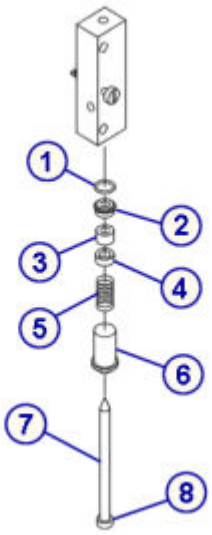
Remove the syringe block

Steps	Graphic / reference
1. Use the slotted screwdriver to loosen the slotted screw [1] securing the syringe block [2] in place. The screw is captive and cannot be completely removed. 2. Place an absorbent towel under the syringe drive to absorb any liquid. 3. Disconnect the tubing at the top [3] and side [4] of the syringe block by unscrewing the knurled connections. 4. Ensure the black seal remains in the syringe block once the tubing is disconnected.	

Remove the syringe plunger

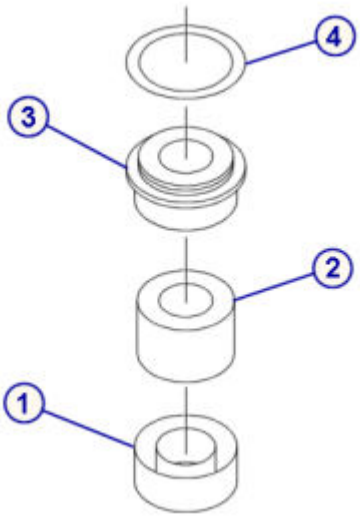
Steps	Graphic / reference
1. Use the 10 mm wrench to loosen the nut [1] securing the syringe plunger [2] on the bottom of the syringe block [3]. 2. Turn the nut by hand, once loosened, until the syringe plunger can be removed from the syringe block.	

Remove the o-ring and seal tips 1 and 2

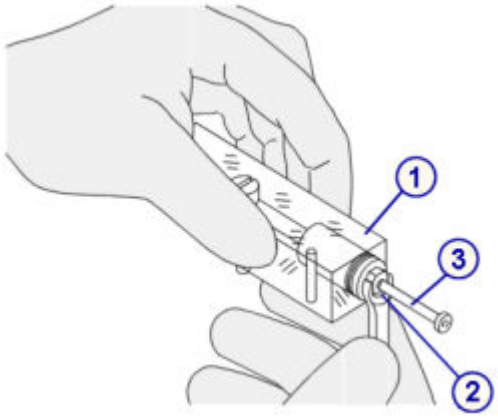
Steps	Graphic / reference
The plunger assembly includes the following parts: • O-ring [1] **NOTE:** The o-ring may have remained in the syringe block when removing the plunger assembly. • Seal tip 2 [2] • Spacer [3] • Seal tip 1 [4] • Spring [5] • Nut [6] • Plunger [7] • Plunger flange [8] 1. Remove the following. Set aside or discard (except for spacer) if being replaced: – O-ring [1] – Seal tip 2 [2] – Spacer [3] - set aside, do not discard – Seal tip 1 [4] **NOTE:** Do not remove the spring. 2. Dry the interior of the syringe barrel with a cotton swab and dry the plunger completely with an absorbent towel if liquid is present.	

Replacement

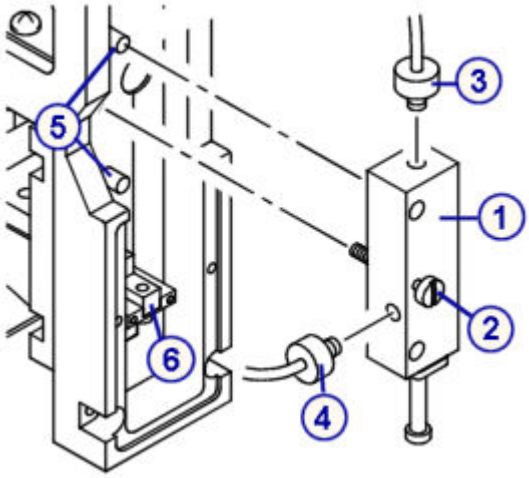
Install the o-ring and seal tips 1 and 2

Steps	Graphic / reference
1. Install seal tip 1 [1] onto the plunger so that it sits above the spring, with the open side away from the spring. 2. Install the spacer [2] so that it fits into the open side of seal tip 1. 3. Install seal tip 2 [3] on top of the spacer, with the open side toward the spacer. 4. Install the o-ring [4] so that it fits into the groove of seal tip 2. Do not push the o-ring out of alignment. The o-ring must sit flat against the inside of the syringe block. 5. Press lightly to push all the components together.	

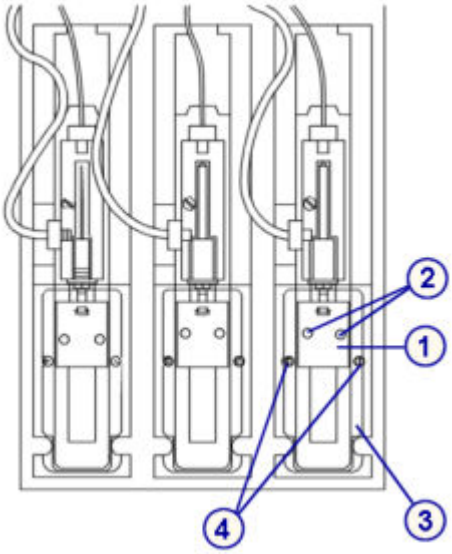
Install the syringe plunger

Steps	Graphic / reference
1. Install the plunger assembly into the syringe block [1]. 2. Tighten the nut [2] holding the plunger assembly into the syringe block until finger-tight. **NOTE:** The nut must be flush with the plunger assembly. If the nut binds when tightening, do not apply excessive force. Back the nut out a turn, and then, while pushing in to apply pressure against the spring, continue to tighten the nut. 3. Use the 10 mm wrench to further tighten the nut [2] securing the plunger [3].	

Install the syringe block

Steps	Graphic / reference
1. Hold the syringe block [1] so that the slotted screw [2] faces you. 2. Ensure the black seals remain in place in each port. Reconnect the tubing coming from the pipettor to the top [3] of the syringe block and the tubing from the syringe valve to the side [4] by screwing the knurled connections. 3. Align the syringe block to the pins [5] on the syringe holder, verifying that the plunger flange is above the drive block [6]. Move any tubing out of the way. 4. Hold the syringe block against the alignment pins and tighten the screw [2] by hand until finger-tight. Secure the screw with a slotted screwdriver.	

Install the syringe bracket and plunger shield

Steps	Graphic / reference
1. Attach the syringe bracket [1] to connect the drive block and syringe plunger. 2. Use the Phillips screwdriver to install the screws [2]. **NOTE:** Use the shorter screws to attach the syringe bracket. Use the longer screws to attach the plunger shield. 3. Attach the clear plunger shield [3] by tightening the two (2) Phillips screws [4]. 4. Remove the absorbent towel from the syringe drive.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6301 Sample Syringe Maintenance*, page 9-29 or *6303 Reagent Syringe Maintenance*, page 9-30 to document sample or reagent syringe o-ring and seal tips in the Maintenance log. **NOTE:** Only perform this maintenance procedure if you replaced the o-ring and seal tips in both the R1 and R2 syringes.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the pump poppet valve set (*c*4000)

Replacing the pump poppet valve set on the cuvette wash pump and the probe wash pump consists of the following procedures.

- Removal
  - *Locate the pump poppet valve and clamp the tubing*, page 9-182
  - *Remove the pump poppet valve*, page 9-182
- Replacement
  - *Replace the pump poppet valve*, page 9-183
  - *Prepare for operation*, page 9-183
- Verification

  Verification occurs during preparation for operation. No further verification is required.

NOTE: The same procedure is used to replace the pump poppet valve set in both pumps.

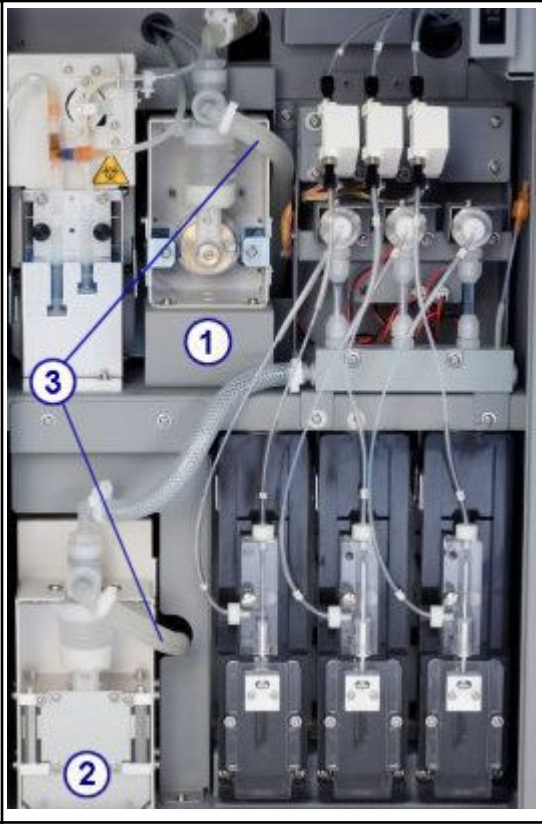
Prerequisite	The processing module must be in the Ready status.
Estimated time required	10 minutes
Tools/materials required	• Clamp or large hemostats • Absorbent towels • Purified water
Replacement parts	LN 09D36-02 - Pump poppet valve set **NOTE:** The same pump poppet valve set is used for both pumps.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

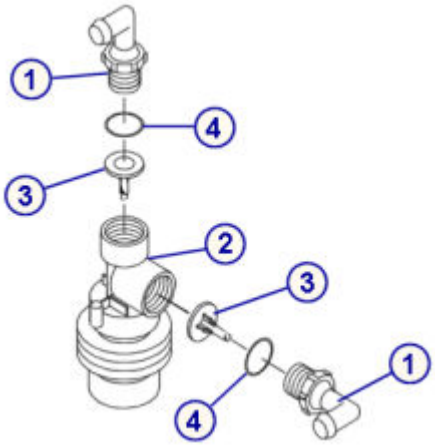
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Locate the pump poppet valve and clamp the tubing

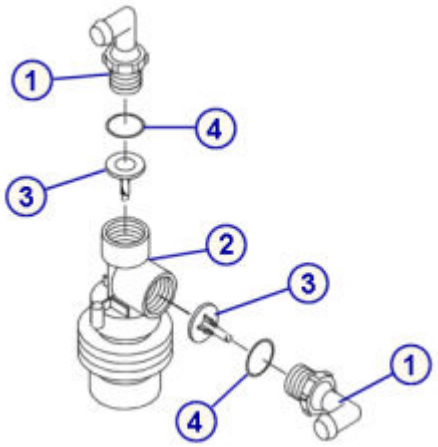
Steps	Graphic / reference
1. Open the supply center and pump center doors. 2. Locate the appropriate pump: – Cuvette wash pump [1] – Probe wash pump [2] 3. Clamp the flexible inlet tubing [3] of the pump containing the poppet valve.	

Remove the pump poppet valve

Steps	Graphic / reference
1. Place absorbent towels in the pump area to absorb any liquid. 2. Unscrew the top or side [1] elbow fitting securing the tubing to the pump connection. **NOTE:** It is recommended that the top and side poppet valves be replaced at the same time. 3. Remove the poppet valve [3] and o-ring [4] from the connection [2]. To remove the top poppet valve, it may be necessary to remove the side connector and push the top poppet valve up from the bottom. 4. Discard the valve and o-ring.	

Replacement

Replace the pump poppet valve

Steps	Graphic / reference
1. Rinse the new poppet valve and o-ring with purified water. 2. Install the poppet valve [3] and o-ring [4] onto the connection [2] as illustrated. 3. Screw the top or side [1] elbow fitting to the connection [2]. 4. Finger-tighten the fitting at the pump connection. 5. Release the clamp on the flexible tubing. 6. Remove the absorbent towels from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure.	

Verification

Steps	Graphic / reference
Verification occurs during preparation for operation. No further Verification is required.	

*c*8000 component replacement

Component replacement for the *c*8000 includes:

- *ARCHITECT c8000 processing center component replacement*, page 9-183
- *ARCHITECT c8000 supply and pump components replacement*, page 9-223

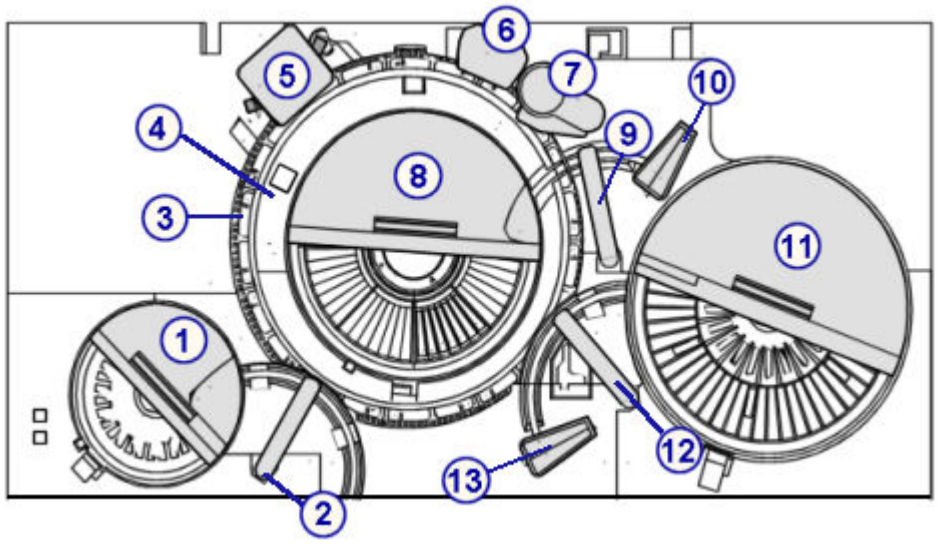
ARCHITECT *c*8000 processing center component replacement

To replace processing center components, see:

ARCHITECT *c*8000 processing center components

The following illustration shows the locations of the processing center components. Use this illustration when performing component replacement procedures.

Figure 9.21: ARCHITECT c8000 processing center map



Legend:

1. Sample carousel and cover
2. Sample pipettor
3. Reaction carousel
4. Lamp
5. Mixer unit
6. Cuvette washer
7. ICT unit

8. Reagent supply center 2 and cover
9. Reagent 2 pipettor
10. Reagent 2 onboard solution area
11. Reagent supply center 1 and cover
12. Reagent 1 pipettor
13. Reagent 1 onboard solution area

Replace the sample probe (*c*8000)

NOTE: It is recommended that you record and track the date of the sample probe installation to ensure you do not use the probe for longer than the following intervals:

- Six months for systems using whole blood assays
- One year for systems not using whole blood assays

Replacing the sample probe consists of the following procedures:

- Removal
  - *Prepare for sample probe removal*, page 9-186
  - *Remove the sample probe*, page 9-186
- Replacement
  - *Install the sample probe*, page 9-187
  - *Prepare for operation*, page 9-188
- Verification
  - *Calibrate the sample pipettor*, page 9-188
  - *Run quality control*, page 9-188

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	• Slotted screwdriver • Absorbent towel
Replacement parts	• LN 01G48-04 - Sample probe • LN 02J51-01 - Reagent/sample probe screw (optional)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

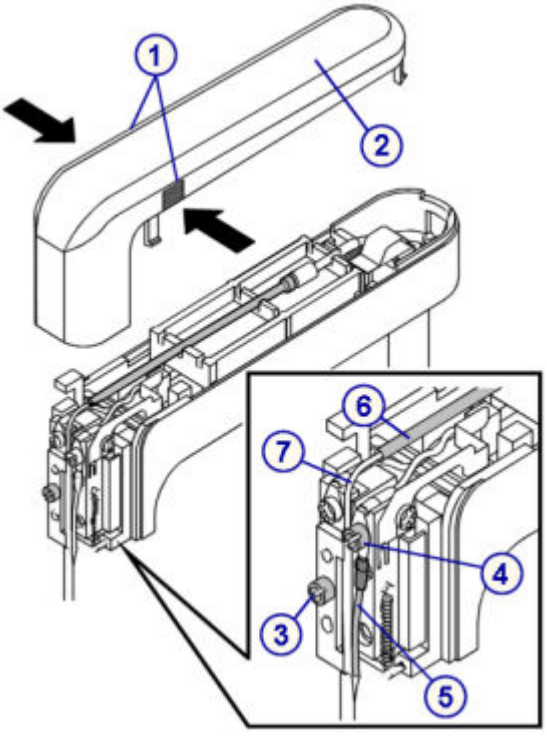
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for sample probe removal

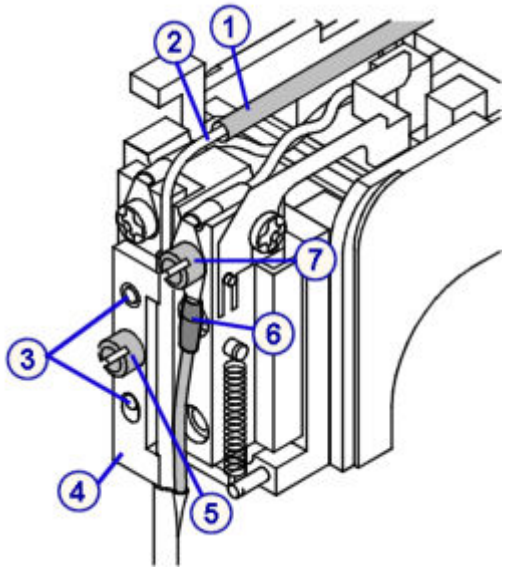
Steps	Graphic / reference
1. *Remove the sample carousel (c8000/c16000)*, page 10-712. 2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the sample pipettor over the sample carousel area.	

Remove the sample probe

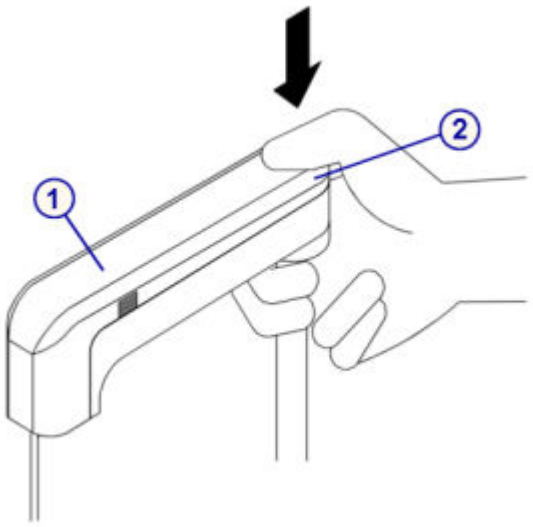
Steps	Graphic / reference
1. Remove the sample pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel in the sample carousel area under the probe tip. 3. Use a slotted screwdriver to slightly loosen the probe screw [3]. 4. Loosen, do not remove, the probe screw [3] by hand until the probe releases from the sample pipettor. 5. Loosen, do not remove, the screw [4] holding the sample probe grounding wire [5] in place. 6. Detach the grounding wire. 7. Gently disconnect the tubing [6] from the top of the probe [7].	

Replacement

Install the sample probe

Steps	Graphic / reference
1. Attach the tubing [1] to the top of the new sample probe [2]. **NOTE:** Do not flare or stretch the tubing. The tubing should fit firmly on the sample probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. If the tubing is loose or if the probe has been replaced several times using the same tubing, it is recommended that you replace the sample probe tubing. 2. Position the sample probe on the alignment pins [3] and verify the probe plate [4] is flush with the plate on the sample pipettor. 3. Remove the probe screw [5] from the old sample probe and insert it into the new sample probe. Finger-tighten the screw [5] to secure the probe in place. 4. Stabilize the pipettor and tighten the screw with the slotted screwdriver. 5. Attach the new sample probe grounding wire [6] and tighten the screw [7]. 6. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the sample pipettor to the home position. 7. Remove the absorbent towel from the sample carousel area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the sample probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. *Reinstall the sample carousel (c8000/c16000)*, page 10-713.	

Verification

Calibrate the sample pipettor

Steps	Graphic / reference
Perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace reagent probes (*c*8000)

Replacing the reagent probe(s) consists of the following procedures:

- Removal
  - *Prepare for reagent probe removal*, page 9-189
  - *Remove the reagent probe*, page 9-190
- Replacement
  - *Install the reagent probe*, page 9-190
  - *Prepare for operation*, page 9-191
- Verification

- *Calibrate the Reagent pipettor*, page 9-191
- *Run quality control*, page 9-192

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	• Slotted screwdriver • Absorbent towel
Replacement parts	• LN 01G47-04 - Reagent probe • LN 02J51-01 - Reagent/sample probe screw (optional)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

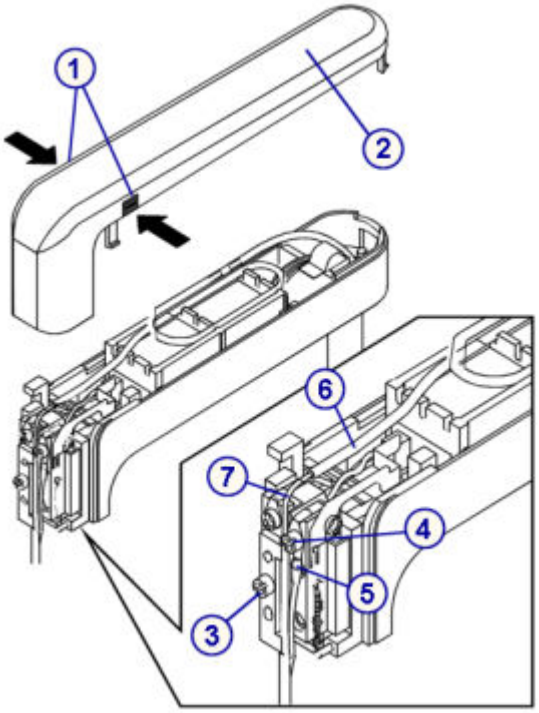
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for reagent probe removal

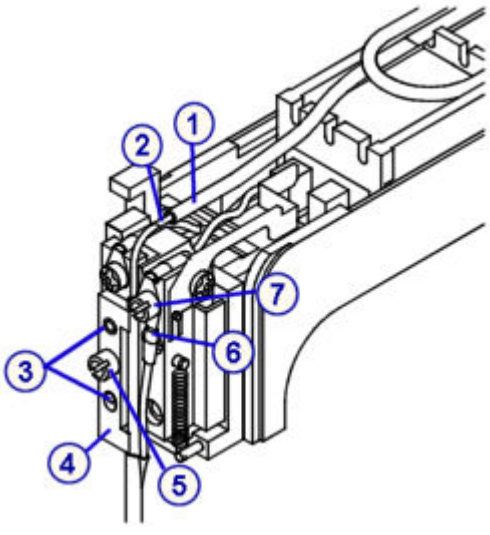
Steps	Graphic / reference
1. Locate the reagent pipettor. **NOTE:** See *ARCHITECT c8000 processing center components*, page 9-184, for pipettor locations. – Access the R1 pipettor from the front of the system. – Access the R2 pipettor from the back of the system. 2. Remove the rack and the onboard solutions from the appropriate onboard solution area. 3. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the reagent pipettor over the onboard solution area.	

Remove the reagent probe

Steps	Graphic / reference
1. Remove the reagent pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the pipettor cover [2]. 2. Place an absorbent towel under the probe tip. 3. Use a slotted screwdriver to slightly loosen the probe screw [3]. 4. Loosen, do not remove, the probe screw [3] by hand until the probe releases from the reagent pipettor. 5. Loosen, do not remove, the screw [4] holding the reagent probe grounding wire [5] in place. 6. Detach the grounding wire. 7. Gently disconnect the tubing [6] from the top of the probe [7].	

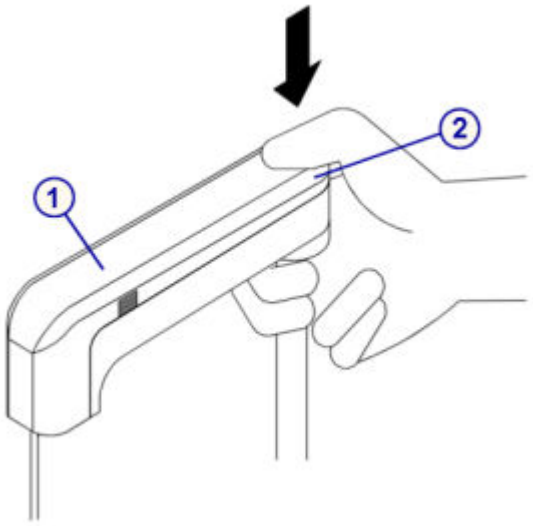
Replacement

Install the reagent probe

Steps	Graphic / reference
1. Attach the tubing [1] to the top of the new reagent probe [2]. **NOTE:** Do not flare or stretch the tubing. The tubing should fit firmly on the reagent probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. If the tubing is loose or if the probe has been replaced several times using the same tubing, it is recommended that you replace the reagent probe tubing. 2. Position the new reagent probe [2] on the alignment pins [3] and verify the probe plate [4] is flush with the plate on the reagent pipettor. 3. Remove the probe screw [5] from the old reagent probe and insert it into the new reagent probe. Finger tighten the screw [5] to secure the probe in place.	

Steps	Graphic / reference
4. Stabilize the pipettor and tighten the screw with the slotted screwdriver. 5. Attach the new reagent probe grounding wire [6] and tighten the screw [7]. 6. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the reagent probe to the home position. 7. Remove the absorbent towel from the onboard solution area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the reagent probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. Replace the rack and onboard solutions to the appropriate onboard solution area.	

Verification

Calibrate the Reagent pipettor

Steps	Graphic / reference
Perform the appropriate ***as-needed*** maintenance procedure: • *1121 R1 Pipettor Calibration*, page 9-34, or • *1122 R2 Pipettor Calibration*, page 9-35	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the sample probe tubing (*c*8000)

Replacing the sample probe tubing consists of the following procedures:

- Removal
  - *Prepare for sample probe tubing removal*, page 9-192
  - *Remove the sample probe tubing*, page 9-193
- Replacement
  - *Install the sample probe tubing*, page 9-194
  - *Prepare for operation*, page 9-194
- Verification
  - *Run quality control*, page 9-195

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel
Replacement parts	LN 01G48-05 - Sample probe tubing

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

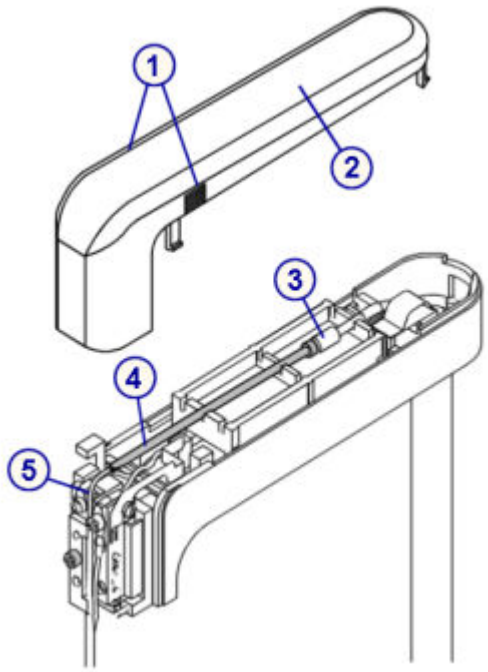
Removal

Prepare for sample probe tubing removal

Steps	Graphic / reference
1. *Remove the sample carousel (c8000/c16000)*, page 10-712	

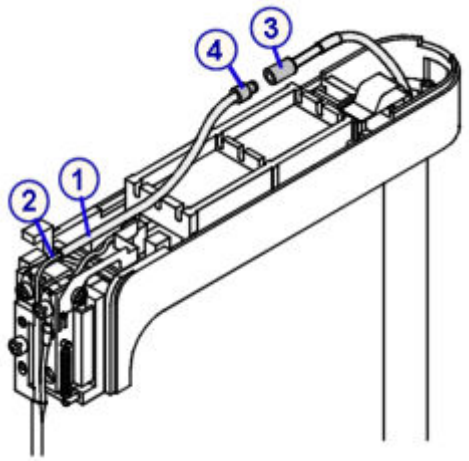
Steps	Graphic / reference
2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the sample pipettor over the sample carousel area.	

Remove the sample probe tubing

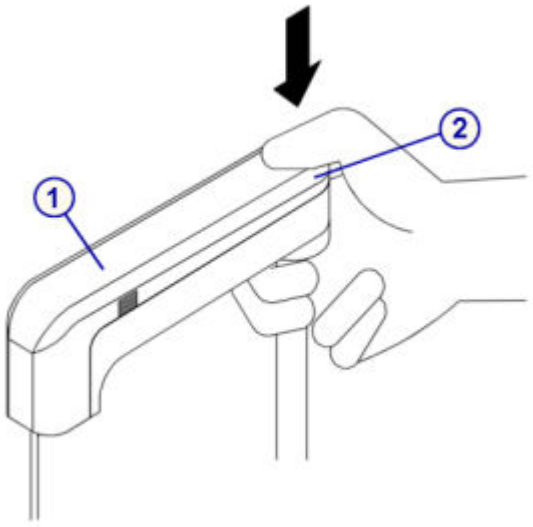
Steps	Graphic / reference
1. Remove the sample pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel in the sample carousel area under the probe tip. 3. Unscrew the tubing from the probe tubing connector [3]. Ensure the black o-ring inside the tubing connector stays in place. 4. Gently disconnect the tubing [4] from the top of the probe [5].	

Replacement

Install the sample probe tubing

Steps	Graphic / reference
1. Attach the end of the new tubing [1] to the top of the sample probe [2]. **NOTE:** Do not flare or stretch the new tubing. The tubing should fit firmly on the sample probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. 2. Verify the black o-ring is inside the probe tubing connector [3]. 3. Screw the opposite end of the tubing [4] into the tubing connector [3]. 4. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the sample pipettor to the home position. 5. Remove the absorbent towel from the sample carousel area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the sample probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. *Reinstall the sample carousel (c8000/c16000)*, page 10-713.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the reagent probe tubing (*c*8000)

Replacing the reagent probe tubing consists of the following procedures:

- Removal
  - *Prepare for reagent probe tubing removal*, page 9-196
  - *Remove the reagent probe tubing*, page 9-196
- Replacement
  - *Install the reagent probe tubing*, page 9-197
  - *Prepare for operation*, page 9-198
- Verification
  - *Run quality control*, page 9-198

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel
Replacement parts	LN 01G47-02 - Reagent probe tubing

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

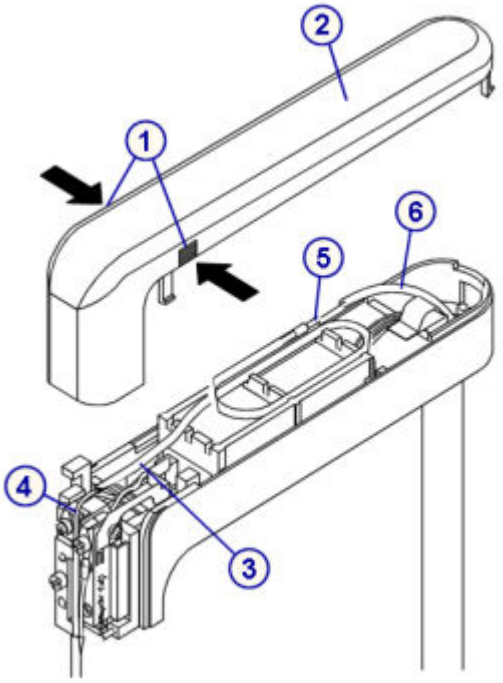
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for reagent probe tubing removal

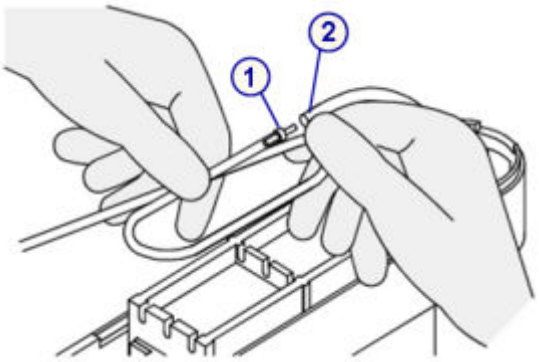
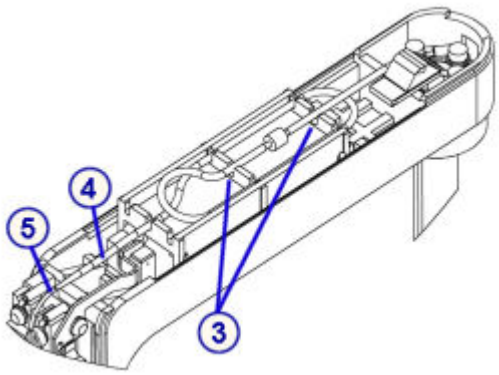
Steps	Graphic / reference
1. Locate the reagent pipettor. **NOTE:** See *ARCHITECT c8000 processing center components*, page 9-184, for pipettor locations. – Access the R1 pipettor from the front of the system. – Access the R2 pipettor from the back of the system. 2. Remove the rack and the onboard solutions from the appropriate onboard solution area. 3. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the reagent pipettor over the onboard solution area.	

Remove the reagent probe tubing

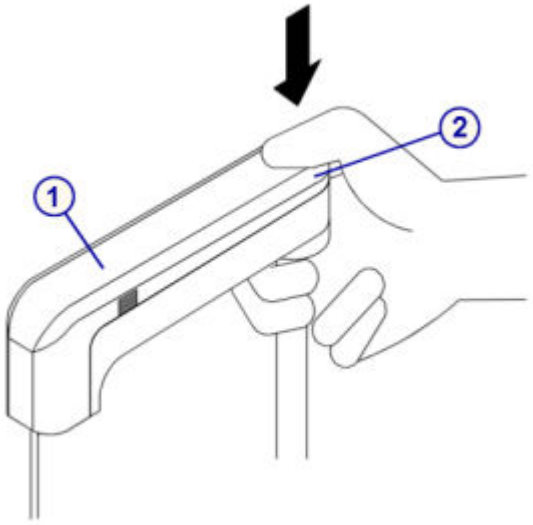
Steps	Graphic / reference
1. Remove the reagent pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel under the probe tip. 3. Gently disconnect the tubing [3] from the top of the probe [4]. 4. Gently disconnect the metal connector [5] from the reagent pipettor tubing [6]. Ensure the protective sleeve remains on the reagent pipettor tubing.	

Replacement

Install the reagent probe tubing

Steps	Graphic / reference
1. Attach the end of the new tubing and metal connector [1] to the reagent pipettor tubing [2]. Verify the metal connector is inserted in the reagent pipettor tubing and not just in the protective sleeve. 2. Position the tubing in the tubing routing guides [3] as shown. 3. Attach the other end of the tubing [4] to the reagent probe [5]. **NOTE:** Do not flare or stretch the new tubing. The tubing should fit firmly on the reagent probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. 4. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the reagent pipettor to the home position. 5. Remove the absorbent towel from the onboard solution area.	 

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the reagent probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place.The cover must be completely seated to ensure correct liquid level sense operation. 5. Replace the rack and onboard solutions in the appropriate onboard solution area.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the lamp or lamp plate (*c*8000)

Replacing the lamp or lamp plate consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-199
  - *Remove the covers*, page 9-200
  - *Remove the terminal cable connections*, page 9-200
  - *Remove the lamp*, page 9-201
- Replacement
  - *Install the lamp plate and lamp*, page 9-201
  - *Install the terminal cables*, page 9-202
  - *Install the processing module cover*, page 9-202
  - *Prepare for operation*, page 9-202
- Verification

– *Run quality control*, page 9-203

Prerequisite	Power off the processing module.
Estimated time required	15 minutes **NOTE:** Time does not include lamp warm up (30 minutes)
Tools/materials required	• Phillips screwdriver • Gloves
Replacement parts	LN 09D45-03 - Lamp

CAUTION: Possibility of electric shock. Never remove the lamp or lamp plate with the processing module powered on. See *Electrical hazards*, page 8-15.

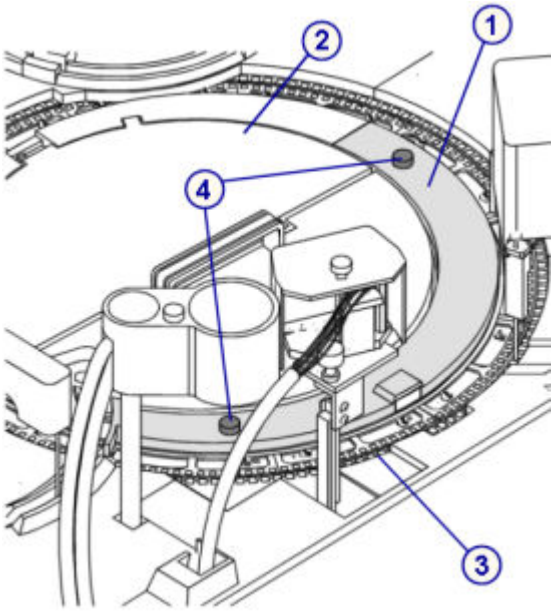
CAUTION: Hot Surface. This is an activity or area where you may be exposed to hot surfaces. See *Hot objects*, page 8-22.

Removal

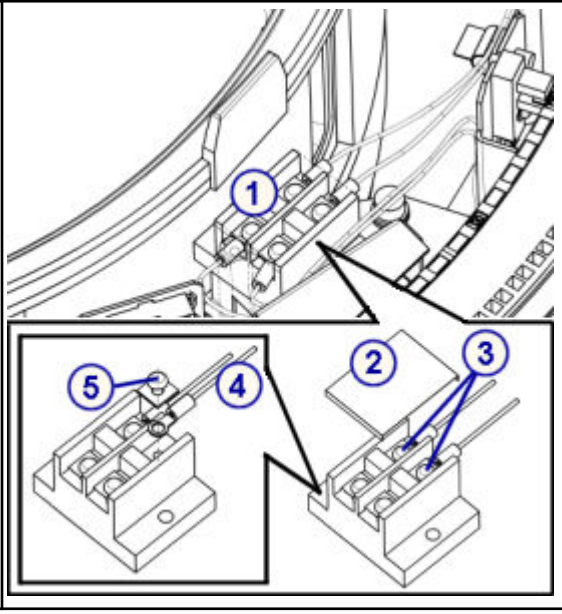
Prepare for removal

Steps	Graphic / reference
Power off the processing module by using the main circuit breaker located at the rear of the module. See *Power off the processing module and/or sample handler*, page 5-11.	

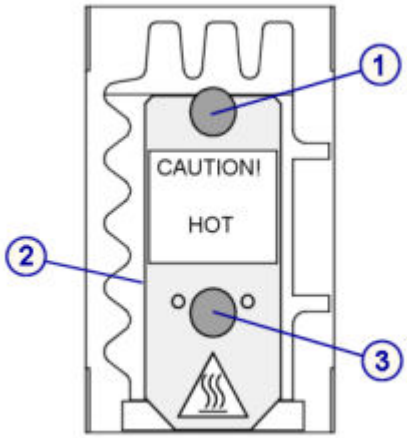
Remove the covers

Steps	Graphic / reference
WEEE: Wait at least five minutes after turning the power off to allow the lamp and the lamp housing to cool. **NOTE:** The lamp can be accessed from the back of the processing module. 1. Open the rear processing module cover. Locate the reaction carousel rear cover [1] located between the reagent 2 supply center [2] and the reaction carousel [3]. 2. Unscrew the thumbscrews [4] securing the cover in place and remove the cover.	

Remove the terminal cable connections

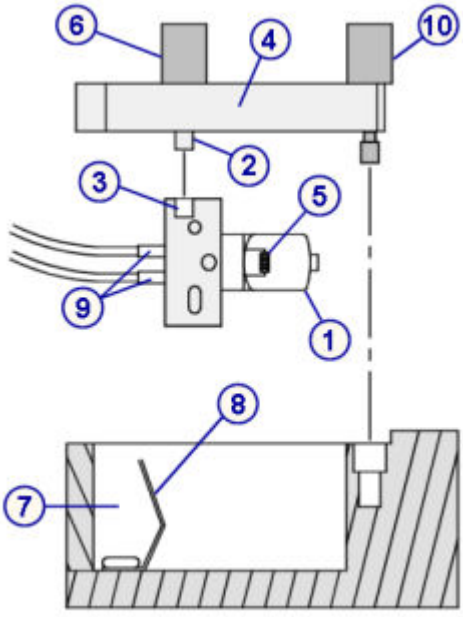
Steps	Graphic / reference
1. Locate the terminal block [1]. 2. Remove the transparent cover [2] from the terminal block by grasping both ends and lifting up. 3. Using the Phillips screwdriver, completely loosen the two captive screws [3] securing the two lamp cables [4] on the terminal block. 4. Raise the screws [5] and lower the lamp cables [4] completely to allow you to disengage the cables from the bottom of the screws.	

Remove the lamp

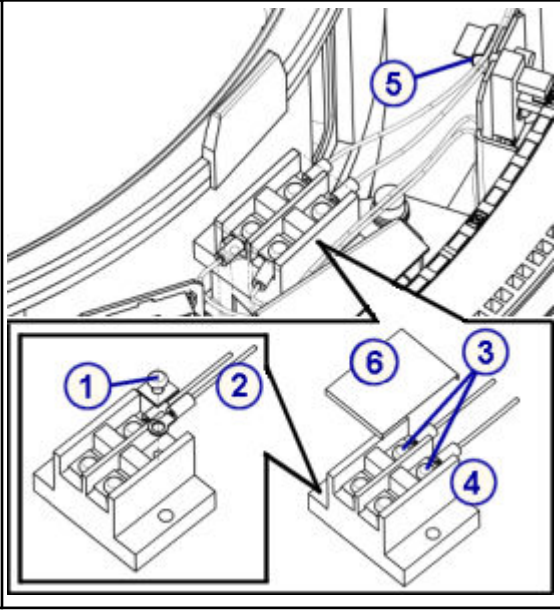
Steps	Graphic / reference
WEEE: Wait at least five minutes after turning the power off to allow the lamp and the lamp housing to cool. 1. Completely loosen the top thumbscrew [1] on the lamp plate [2] in the housing. 2. Lift the lamp plate and loosen the other thumbscrew [3] to remove the lamp from the plate.	

Replacement

Install the lamp plate and lamp

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil on the glass surface of the lamp shortens the lamp life. The glass surface may be cleaned with ethanol, if necessary. 1. Insert the replacement lamp [1] fitting the pins [2] into the pin holes [3] on the lamp plate [4]. 2. Verify the filament [5] is perpendicular to the lamp plate [4]. 3. Tighten the thumbscrew [6] on the lamp plate while the lamp is fully inserted into the pin holes. 4. Insert the lamp assembly into the housing [7], pressing it against the leaf spring [8], and down into the housing. Ensure the lamp assembly is properly seated into the housing. 5. Verify the lamp cables [9] are through the slot behind the lamp and are not pinched by the lamp plate. 6. Tighten the thumbscrew [10] to secure the lamp in place.	

Install the terminal cables

Steps	Graphic / reference
1. Raise the screws [1] and insert the cables [2] under the screws. 2. Use the Phillips screwdriver to tighten the two captive screws [3] securing the two lamp cables [4] on the terminal block. 3. Wrap excess lamp cables and secure with white plastic clamp [5]. 4. Replace the transparent cover [6] on the terminal block. 5. Power on the processing module. The system control center power MUST be on prior to turning on the processing module to ensure proper initialization. 6. Check for stray light around lamp housing cover.	

Install the processing module cover

Steps	Graphic / reference
1. Replace the reaction carousel rear cover. 2. Close the rear processing module cover.	

Prepare for operation

Steps	Graphic / reference
1. *Start up the processing module and/or sample handler*, page 5-15, to change the status of the processing module and sample handler from Stopped to Ready. **IMPORTANT:** The lamp must warm up 30 minutes prior to running assays. 2. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27, to document the lamp change in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace a cuvette (*c*8000)

Replacing a cuvette consists of the following procedures.

- Removal
  - *Remove cuvette segment*, page 9-204
  - *Clean replacement cuvette*, page 9-204
  - *Remove the individual cuvette*, page 9-205
- Replacement
  - *Install the individual cuvette*, page 9-205
  - *Reinstall the cuvette segment*, page 9-207
- Verification
  - *Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move*, page 9-207

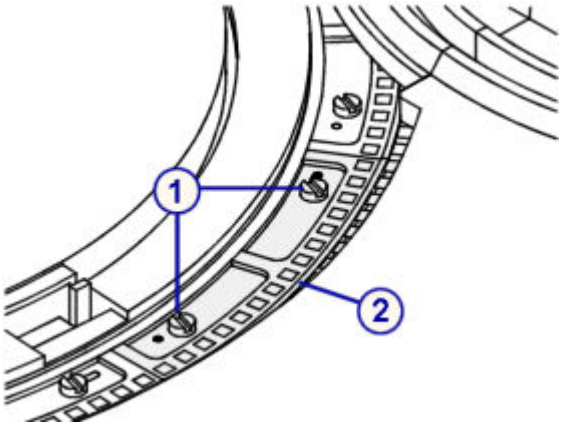
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Detergent A • Lint-free absorbent towel • Cotton swabs • Slotted screwdriver • Purified water • Container large enough to accommodate new cuvettes • Gloves
Replacement parts	LN 01G46-02 - Cuvette

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

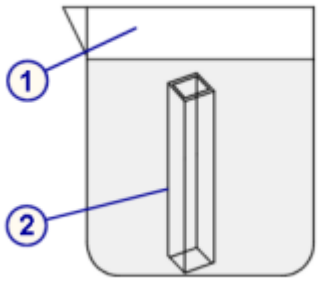
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

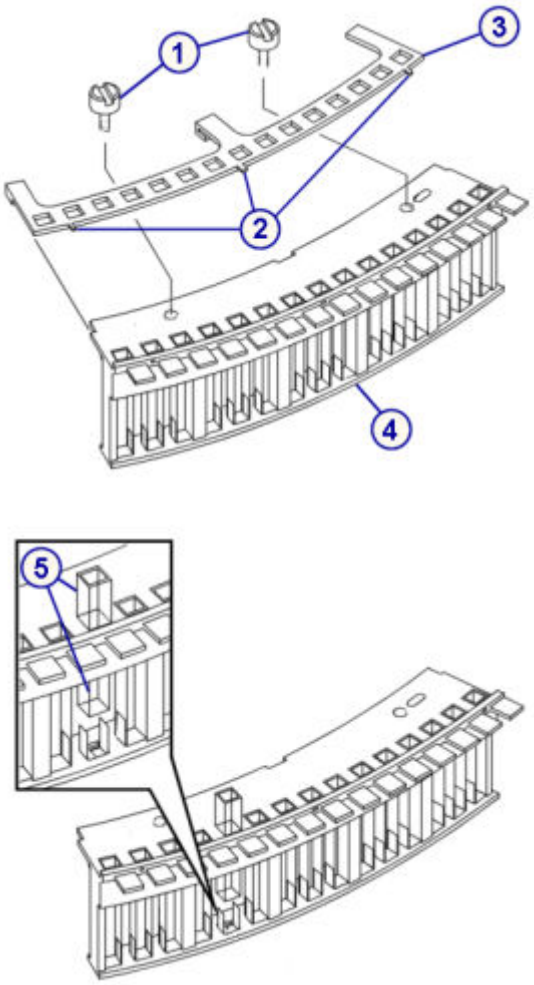
Remove cuvette segment

Steps	Graphic / reference
1. Determine the cuvette number requiring replacement. 2. Identify the location of the cuvette on the reaction carousel. 3. Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to rotate the carousel so that the cuvette segment [2] containing the cuvette is at the front of the module. 4. Use the slotted screwdriver to loosen the two screws [1] located on the top of the cuvette segment until the segment can be removed from the reaction carousel. 5. Inspect all cuvettes in the segment and replace if damaged. 6. Set the cuvette segment aside on a lint-free absorbent towel.	

Clean replacement cuvette

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the new cuvette from the shipping container and place it on a lint-free absorbent towel. 2. Wet a cotton swab with Detergent A and clean the inside and outside of the new cuvette. 3. Fill a clean, residue-free container [1] with enough purified water to completely submerge the new cuvette [2]. 4. Rinse the cuvette in the water to remove the Detergent A and drain any excess water from the cuvette.	

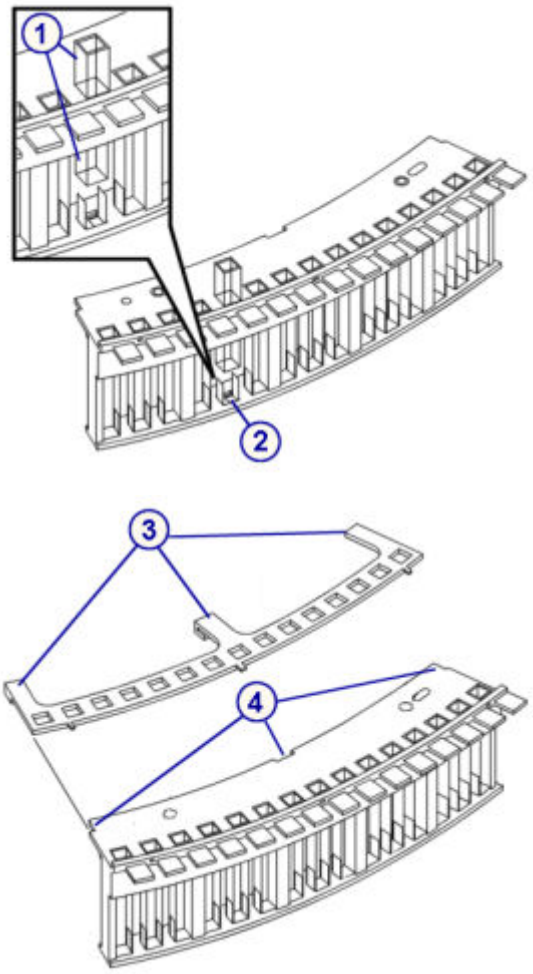
Remove the individual cuvette

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the slotted screws [1] from the segment. 2. Gently press down on each tab [2] of the cuvette retaining cover [3] to separate the cover from the cuvette segment assembly [4]. 3. Grasp the cuvette segment with one hand and gently grasp the desired cuvette [5] with the other hand. Push up on the cuvette [5]. 4. Grasp the cuvette gently and once a portion of the cuvette is positioned above the top surface of the segment, pull it straight out.	

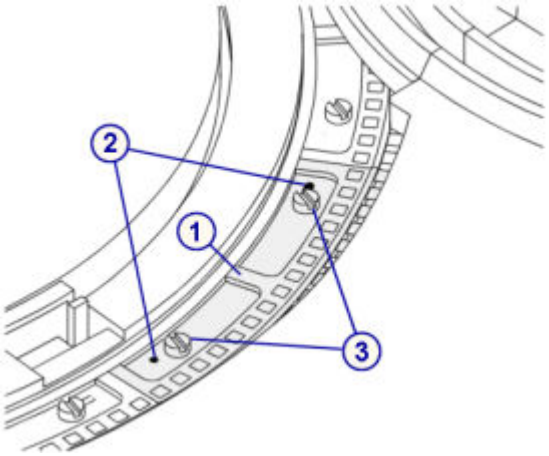
Replacement

Install the individual cuvette

Steps	Graphic / reference
1. Insert the new cuvette [1] into the top of the cuvette segment. To ensure optimal performance through the life span of an ARCHITECT *c*8000, the cuvettes should be replaced after 12 years of use. 2. Gently push the cuvette down while ensuring that it is guided into the rectangle-shaped depression [2] in the bottom of the cuvette segment. When the cuvette is	

Steps	Graphic / reference
correctly seated, the top of the cuvette is just below the top surface of the cuvette segment. 3. Slide the cuvette retaining cover onto the cuvette segment. 4. Verify each tab on the cuvette retaining cover is inserted into the holes on the top of the cuvette segment. 5. Position the clips [3] on the back of the cuvette retaining cover under the back edge of the cuvette segment [4].	

Reinstall the cuvette segment

Steps	Graphic / reference
1. Position the cuvette segment [1] on the reaction carousel alignment pins [2]. 2. Finger-tighten the slotted screws [3] into the segment. 3. Gently tighten the screws with the slotted screwdriver.	

Verification

Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move

Steps	Graphic / reference
Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.	

Replace a cuvette segment (*c*8000)

Replacing a cuvette segment consists of the following procedures.

- Removal
  - *Remove cuvette segment*, page 9-208
  - *Clean replacement cuvette segment*, page 9-208
- Replacement
  - *Install the cuvette segment*, page 9-210
- Verification
  - *Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move*, page 9-210

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Detergent A • Lint-free absorbent towel • Cotton swabs • Slotted screwdriver

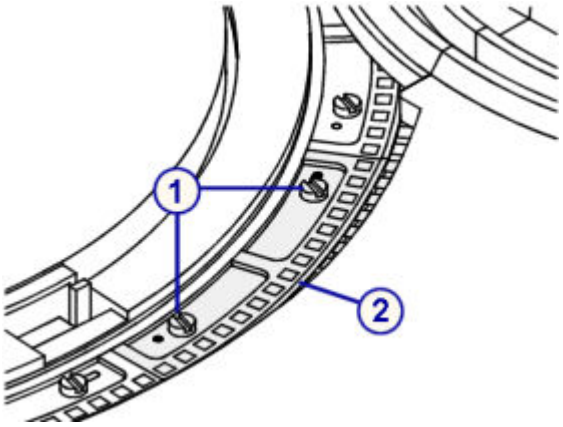
	• Purified water • Container large enough to accommodate new cuvettes • Gloves
Replacement parts	LN 01G46-01 - Cuvette segment

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

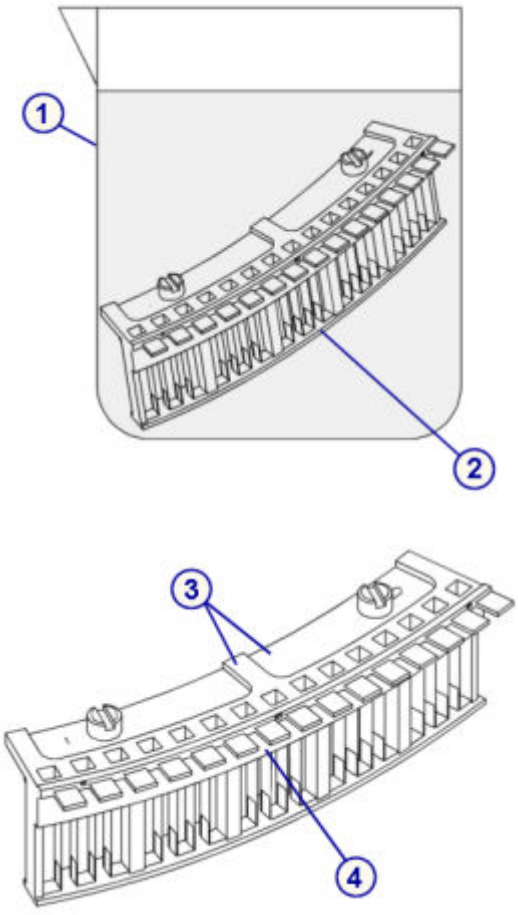
Removal

Remove cuvette segment

Steps	Graphic / reference
1. Determine the cuvette segment requiring replacement. 2. Identify the location of the cuvette segment [2] on the reaction carousel. 3. Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to rotate the carousel so that the appropriate cuvette segment is at the front of the module. 4. Use the slotted screwdriver to loosen the two screws [1] located on the top of the cuvette segment until the segment can be removed from the reaction carousel. 5. Dispose of the cuvette segment.	

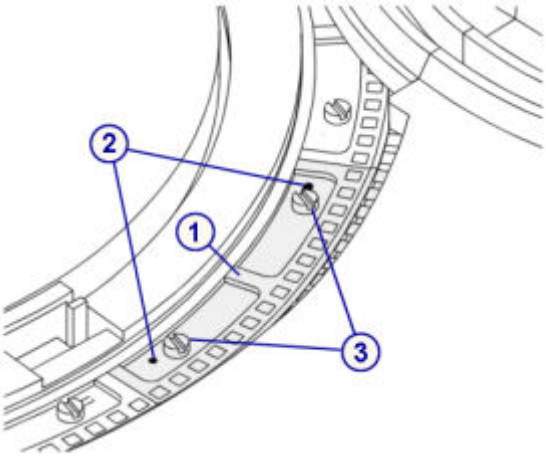
Clean replacement cuvette segment

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the new cuvette segment from the shipping container and place it on a lint-free absorbent towel. 2. Wet a cotton swab with Detergent A and clean the inside and outside of all of the cuvettes in the new cuvette segment. 3. Fill a clean, residue-free container [1] with enough purified water to completely submerge the new cuvette segment [2].	

Steps	Graphic / reference
4. Rinse the cuvette segment in the water to remove the Detergent A and drain any excess water from the cuvettes. 5. Dry the top of the cuvette segment [3], especially the slotted edges [4], to remove any remaining water.	

Replacement

Install the cuvette segment

Steps	Graphic / reference
1. Position the cuvette segment [1] on the reaction carousel alignment pins [2]. To ensure optimal performance through the life span of an ARCHITECT *c*8000, the cuvettes should be replaced after 12 years of use. 2. Finger-tighten the slotted screws [3] on the segment. 3. Gently tighten the screws with a slotted screwdriver.	

Verification

Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move

Steps	Graphic / reference
Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.	

Replace the cuvette dry tip (*c*8000)

Replacing the cuvette dry tip consists of the following procedures.

- Removal
  - *Remove the cuvette washer assembly*, page 9-211
  - *Remove the cuvette dry tip*, page 9-212
- Replacement
  - *Install the cuvette dry tip and cuvette washer assembly*, page 9-212
  - *Prepare for operation*, page 9-213
- Verification
  - *Wash the cuvettes*, page 9-213
  - *Run quality control*, page 9-213

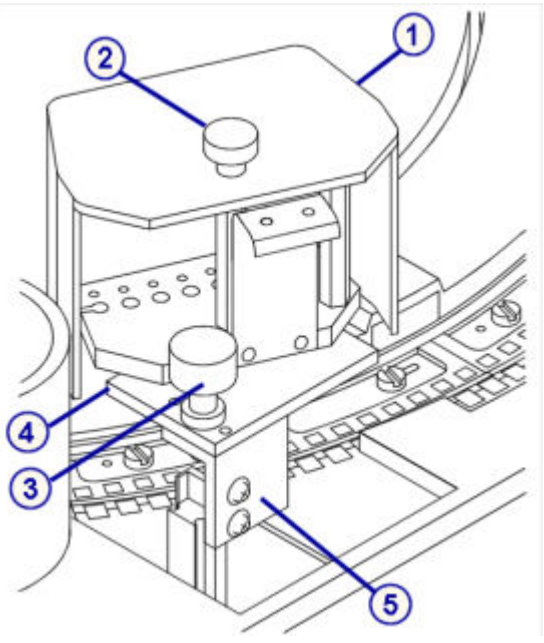
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Metric ruler • Gloves
Replacement parts	LN 09D51-02 - Cuvette dry tip

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

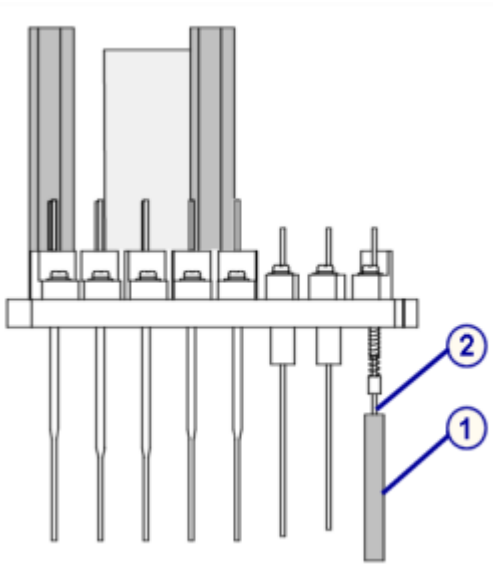
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Remove the cuvette washer assembly

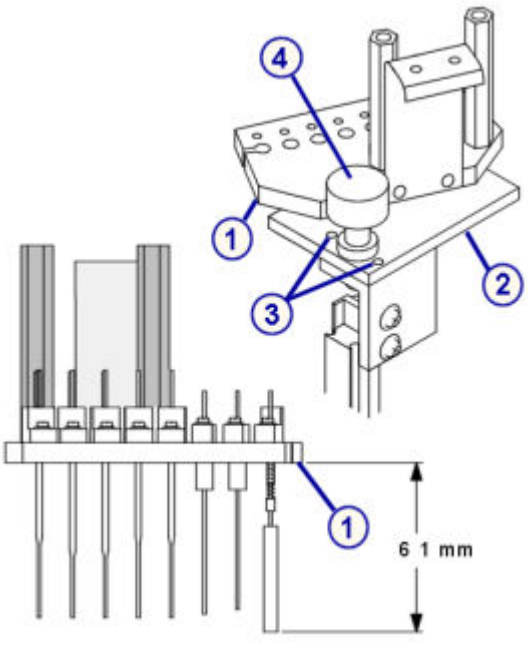
Steps	Graphic / reference
1. Open the rear processing module cover. 2. Remove the cuvette washer cover [1] by unscrewing the thumbscrew [2]. 3. Loosen the black knurled knob [3] to the left of the cuvette washer until the cuvette washer assembly [4] can be lifted from the mounting bracket [5].	

Remove the cuvette dry tip

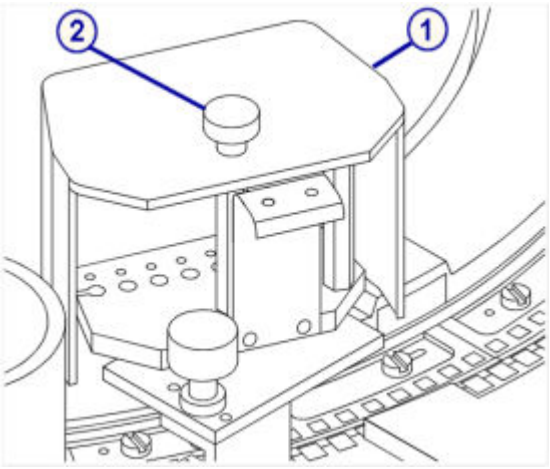
Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 1. Lift the cuvette washer assembly and rotate it so you can easily access the white cuvette dry tip. **NOTE:** The cuvette washer nozzles are attached to the black nozzle mounting plate. You do not need to remove any of the screws securing the wash nozzles to the mounting plate. 2. Remove the cuvette dry tip [1] by pulling it off the metal nozzle [2]. 3. Discard the used tip.	

Replacement

Install the cuvette dry tip and cuvette washer assembly

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 1. Gently install the new cuvette dry tip, taking care to orient it properly. **NOTE:** The cuvette dry tip and the cuvette are both rectangular in shape. Install the dry tip so it fits into the cuvette. 2. Position the bottom of the cuvette dry tip 61 ± 0.5 mm from the underside of the cuvette washer assembly [1]. 3. Position the cuvette washer assembly [2] on the alignment pins [3], and then tighten the black knurled knob [4].	

Prepare for operation

Steps	Graphic / reference
1. Initiate ***Fuses/Motors*** diagnostic procedure *5142 Wash Station Up/Down*, page 10-637 to home the cuvette washer assembly and reaction carousel. 2. Verify the rectangular orientation and alignment of the cuvette dry tip with the cuvette. **NOTE:** Wear gloves if adjustment to the cuvette dry tip is required. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 3. Select **L2** (step down) on the processing module keypad or the Diagnostic perform window to move the washer assembly down. 4. Verify the alignment of the cuvette dry tip is correct and that it moves smoothly into the cuvettes. **NOTE:** When stepping the cuvette washer down, if the cuvette dry tip appears to contact the top of either the cuvette or cuvette segment, inspect both the cuvette and cuvette segment for damage. Impact from the cuvette dry tip can potentially cause cuvette damage or cause the cuvette segment base to detach. See *Inspect the cuvette segment (c System)*, page 10-711. 5. Select **L1** (up) to move the washer assembly up. 6. Select **L4** (exit) to end the procedure. 7. Select **Done** on the Diagnostic perform window to complete the procedure. 8. Replace the cuvette wash cover [1], and then tighten the thumbscrew [2].	

Verification

Wash the cuvettes

Steps	Graphic / reference
Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the mixer (*c*8000)

Replacing the mixer consists of the following procedures.

- Removal
  - *Remove the mixer*, page 9-214
- Replacement
  - *Install the mixer*, page 9-215
- Verification
  - *Perform reaction mechanisms diagnostic procedure 3126 Mixer Vibration Test*, page 9-215
  - *Run quality control*, page 9-215

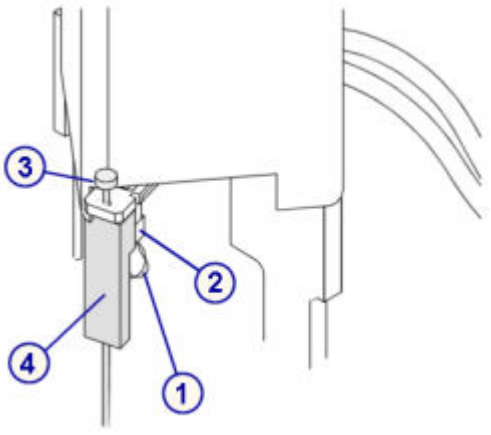
Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	None
Replacement parts	LN 09D59-03 - Mixer

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

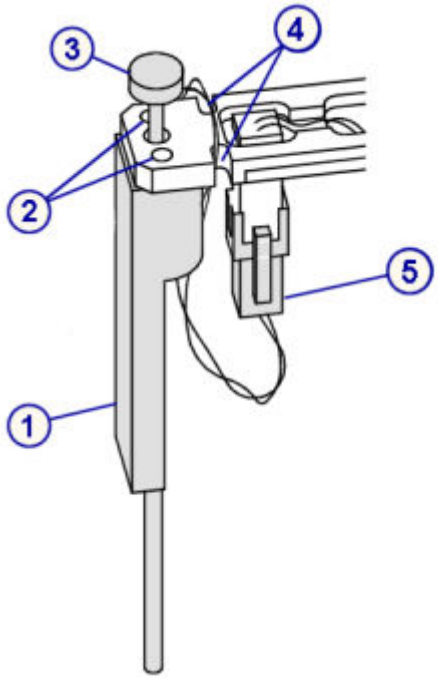
Removal

Remove the mixer

Steps	Graphic / reference
1. Open the rear processing module cover. 2. Locate the appropriate mixer. 3. Unplug the cable [1] by pinching the white connector [2]. 4. Loosen the black thumbscrew [3] on the top of the mixer assembly. 5. Remove the mixer [4].	

Replacement

Install the mixer

Steps	Graphic / reference
1. Orient the new mixer assembly [1] so that the flat side faces away from the mixer arm. 2. Align the positioning pins [2] on the top of the mixer with the holes on the mixer arm. Tighten the black thumbscrew [3] until the top of the mixer is flush with the mixer arm. 3. Fold the excess cable over the top of the mixer arm fitting it into the notches [4]. 4. Attach the cable connector to the white connector [5] on the bottom of the mixer arm. **NOTE:** This connector is keyed and only goes in one way.	

Verification

Perform reaction mechanisms diagnostic procedure 3126 Mixer Vibration Test

Steps	Graphic / reference
Perform ***reaction mechanisms*** diagnostic procedure *3126 Mixer Vibration Test*, page 10-629, to verify mixer function.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the ICT module or probe (*c*8000)

Replacing the ICT module or probe consists of the following procedures:

- Removal

- *Remove the covers*, page 9-217
- *Remove the ICT module and probe*, page 9-218

- Replacement
  - *Install the ICT module and probe*, page 9-219
  - *Insert the ICT module and probe into the ICT holder*, page 9-220
  - *Prepare for operation*, page 9-221
- Verification
  - *Calibrate ICT assays*, page 9-221

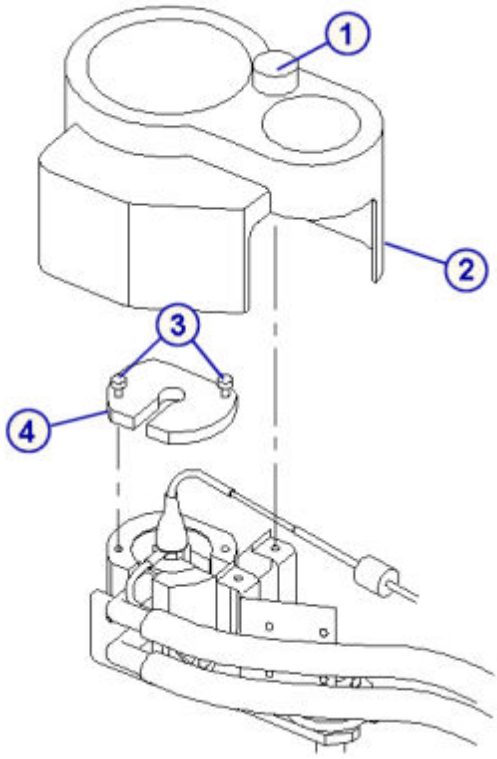
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	NA
Replacement parts	• LN 09D63-04 - ICT probe • LN 09D28-03 - ICT module

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

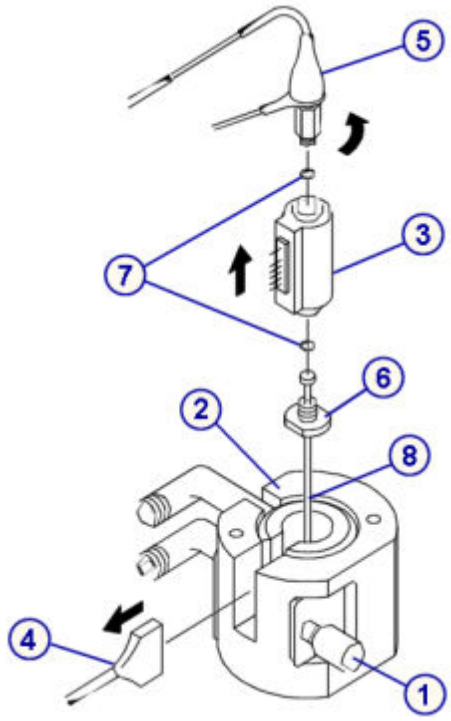
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Remove the covers

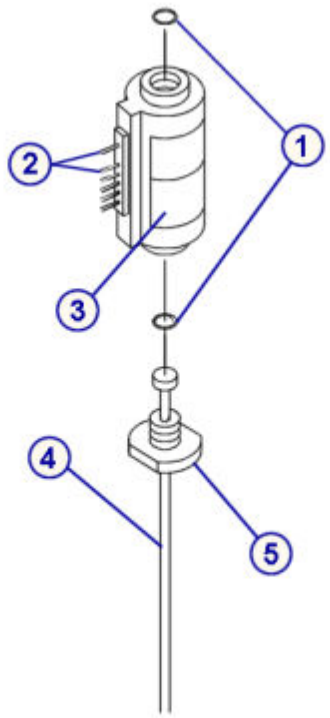
Steps	Graphic / reference
1. Lift the rear cover on the processing module to access the ICT module and probe. 2. Locate the ICT unit. 3. Loosen the thumbscrew [1] and lift the cover [2] off the ICT unit. 4. Loosen the two captive thumbscrews [3] that secure the black plate [4] in place. 5. Remove the black plate [4].	

Remove the ICT module and probe

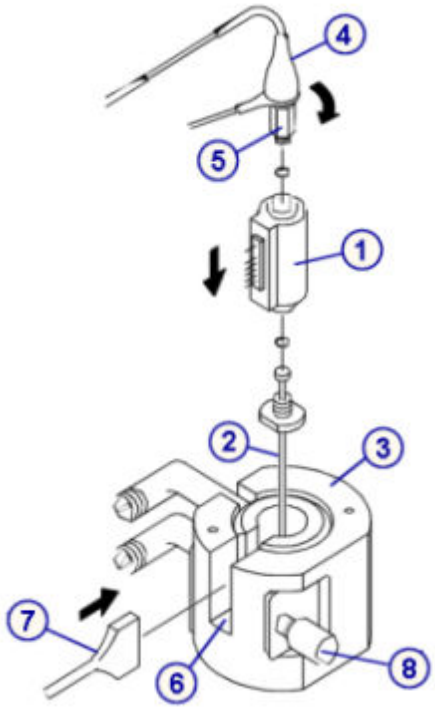
Steps	Graphic / reference
1. Loosen the thumbscrew [1] on the side of the ICT holder [2] until the ICT module [3] can be lifted up. 2. Disconnect the black electrical connector [4] from the side of the module by pulling it straight out. 3. Verify the connector is completely free from the module. 4. Lift the ICT module [3] until the connectors on the side of the ICT module clear the ICT holder [2]. **IMPORTANT:** To avoid damage to the probe, do not lift the ICT module and probe all the way out of the ICT holder. 5. Gently unscrew the ICT module [3], rotating it clockwise, to free it from the top connector [5]. 6. Lift the ICT module and probe straight up out of the ICT holder. 7. Unscrew the ICT probe holder [6] from the ICT module. 8. Inspect the ports of the ICT module. Verify that one o-ring [7] is present at each location. **IMPORTANT:** Running the system without the o-rings could affect patient results. 9. Discard the ICT module if replacing; otherwise, set it aside for use with the new ICT probe. 10. Remove the ICT probe [8] from the probe holder. 11. Discard the probe if replacing; otherwise set it aside for use with the new ICT module.	

Replacement

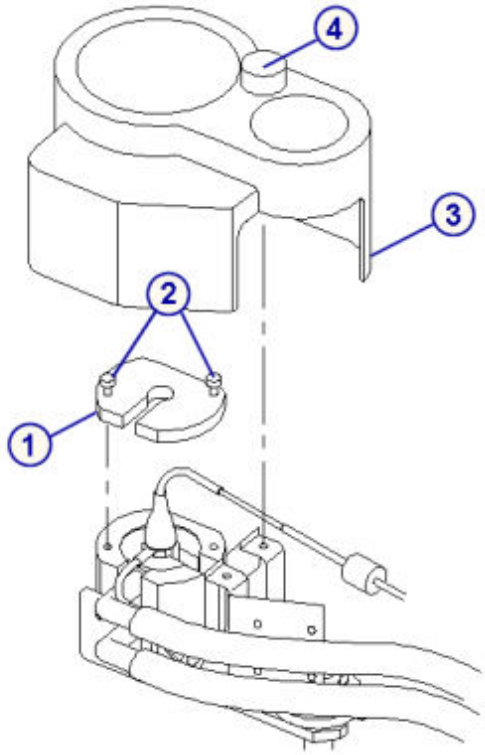
Install the ICT module and probe

Steps	Graphic / reference
1. Remove the ICT module from the box, if replacing the ICT module. 2. Disconnect and discard the plastic tubing attached to both ends of the ICT module. 3. Inspect the ports on the ICT module. Verify that one o-ring [1] is present at each location. **IMPORTANT:** Running the system without the o-rings could affect patient results. 4. Align the ICT module so that the gap [2] between the side connectors is on top and the label [3] is right-side up. 5. Place the ICT probe [4] into the probe holder [5]. 6. Attach the probe holder and probe to the bottom of the ICT module (finger-tighten only).	

Insert the ICT module and probe into the ICT holder

Steps	Graphic / reference
1. Insert the ICT module [1] with the probe [2] into the ICT holder [3] until the connectors on the side of the ICT module are just above the top of the ICT holder [3]. 2. Rotate the ICT module [1] counterclockwise (finger-tighten only) to reattach the ICT module to the top port [4] and to the connector [5]. 3. Allow the ICT module [1] to seat fully down into the ICT holder [3] so that the connectors are aligned with the slot [6] in the ICT holder [3]. 4. Gently reconnect the black electrical connector [7] to the ICT module connectors. Ensure the ICT module is completely plugged into the connector. 5. Hold down the ICT module while tightening the side thumbscrew [8] until secure. Do not overtighten. The ICT module could be damaged.	

Prepare for operation

Steps	Graphic / reference
1. If the ICT module was replaced, return to the Replace ICT window on the SCC (System Control Center) to complete the replacement procedure. 2. If the ICT probe was replaced, perform ***as-needed*** maintenance procedure *6063 Flush ICT Module*, page 9-41. 3. Inspect the tubing from the ICT module for bubbles. 4. Inspect the ICT probe to ensure it does not drip. If you observe bubbles or drips, see *Processing module observed problems (c System)*, page 10-516. 5. Reattach the black plate [1] by securing it with the two thumbscrews [2] on the top. 6. Reattach the ICT unit cover [3] and tighten the thumbscrew [4] to secure.	

Verification

Calibrate ICT assays

Steps	Graphic / reference
1. Calibrate ICT assays. 2. Run quality control samples to verify calibration.	

Replace the sample carousel clip (*c*8000)

Replacing the sample carousel clip consists of the following procedures.

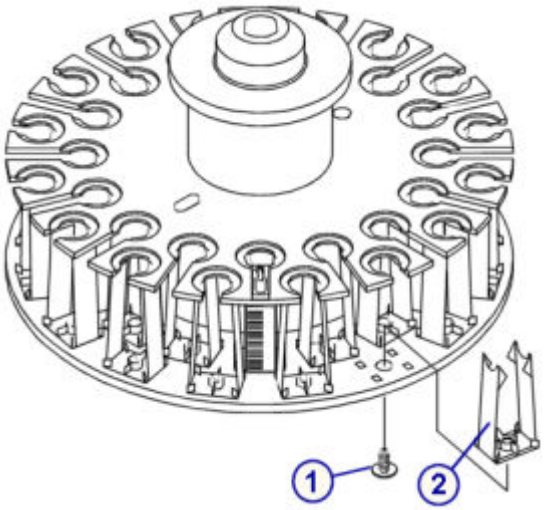
- Removal
  - *Remove the sample carousel clip*, page 9-222
- Replacement
  - *Replace the sample carousel clip*, page 9-223
- Verification
  - *Load a sample tube*, page 9-223

Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Phillips screwdriver
Replacement parts	LN 04J45-01 - Sample carousel clip

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

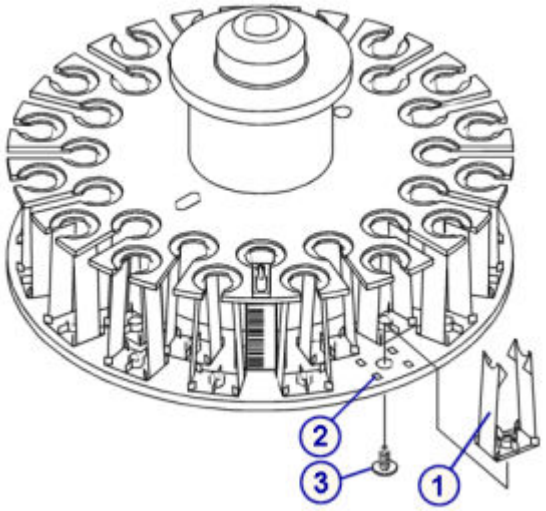
Removal

Remove the sample carousel clip

Steps	Graphic / reference
1. *Remove the sample carousel (c8000/c16000)*, page 10-712, from the processing module, and then remove any patient samples. 2. Use the Phillips screwdriver to remove the screw [1] securing the sample carousel clip [2] in place. 3. Remove and discard the clip.	

Replacement

Replace the sample carousel clip

Steps	Graphic / reference
1. Insert the new sample carousel clip [1] in the sample carousel using the four square alignment holes [2] on the bottom of the sample carousel to seat the clip in position. **NOTE:** The sample carousel clip only fits one way in the sample carousel. 2. Use the Phillips screwdriver to secure the clip to the bottom of the sample carousel using the new screw [3] provided. 3. Place the sample carousel on the processing module, ensuring the alignment holes fit over the alignment pins.	

Verification

Load a sample tube

Steps	Graphic / reference
Load a sample tube in the sample carousel position where the carousel clip was replaced to verify proper installation of the clip.	

ARCHITECT *c*8000 supply and pump components replacement

You may need to replace certain supply and pump components due to normal wear from daily operations.

To replace supply and pump center components, see:

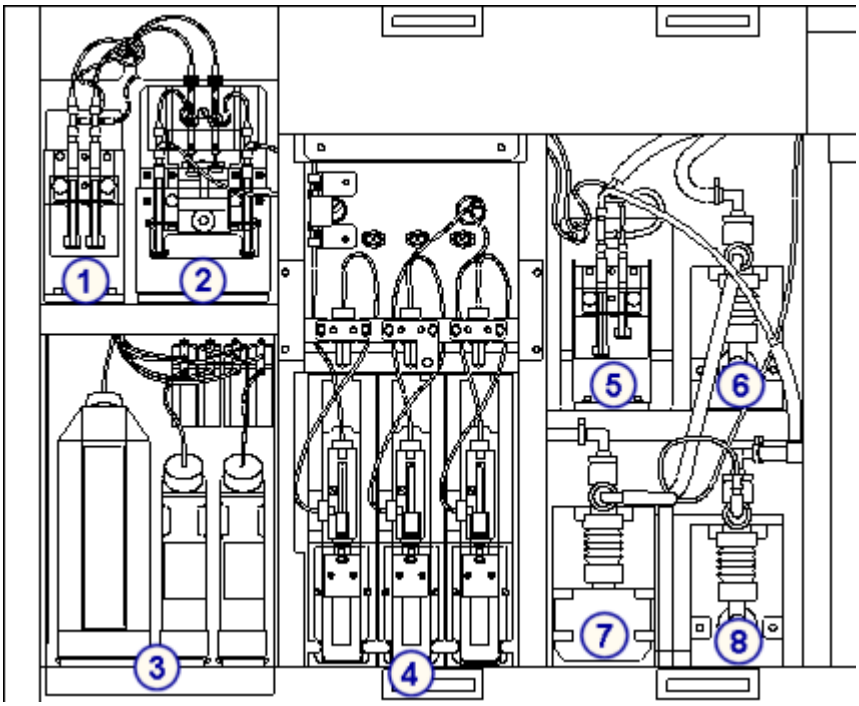
- *ARCHITECT c8000 supply and pump center components*, page 9-224
- *Replace the 1 mL syringes (c8000)*, page 9-224
- *Replace check valves (c8000)*, page 9-228
- *Replace the ICT reference solution filter (c8000)*, page 9-233
- *Replace the wash solution filter (c8000)*, page 9-235
- *Replace wash solution syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-238
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245

- *Replace the pump poppet valve set (c8000)*, page 9-252

ARCHITECT *c*8000 supply and pump center components

The following illustration shows the locations of the supply and pump center components. Use this illustration when performing maintenance and component replacement procedures.

Figure 9.22: ARCHITECTc8000 supply and pump center (front)



Legend:

1. ICT reference pump
2. Wash solution pump
3. Bulk solutions
4. Sample, reagent 1 and reagent 2 syringe drives
5. ICT aspiration pump
6. Cuvette wash pump
7. Probe wash pump
8. High-concentration waste pump (bellows type shown)

Replace the 1 mL syringes (*c*8000)

Replacing the 1 mL syringes on the ICT reference pump, ICT aspiration pump, and wash solution pump consists of the following procedures.

- Removal
  - *Locate the 1 mL syringe to be replaced*, page 9-226

  - *Remove the plunger shield and the 1 mL syringe*, page 9-226
  - *Detach and replace the 1 mL syringe*, page 9-227
- Replacement
  - *Reinstall the 1 mL syringe and plunger shield*, page 9-227
  - *Prepare for operation*, page 9-228
- Verification
  - *Run quality control*, page 9-228

NOTE: The same procedure is used to replace the 1 mL syringes in all three pumps.

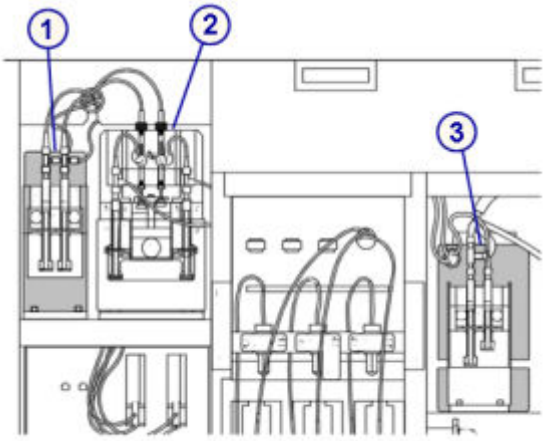
Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D41-03 - 1 mL syringe **NOTE:** The same 1 mL syringe is used for the ICT reference pump, the ICT aspiration pump, and the wash solution pump.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

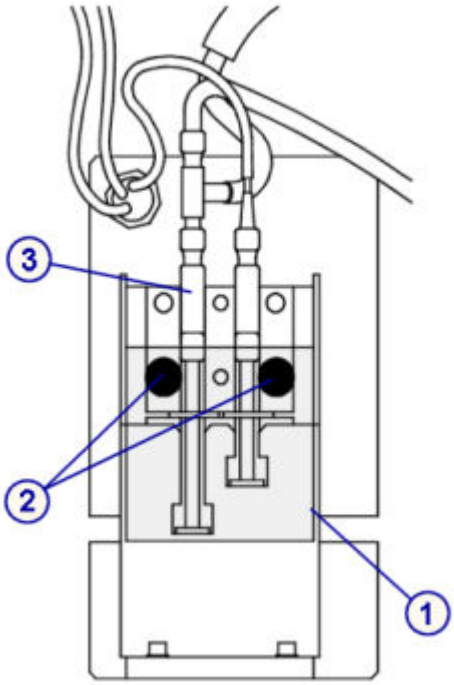
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

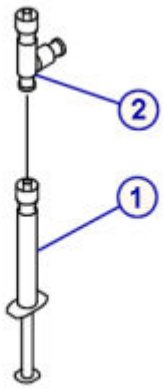
Locate the 1 mL syringe to be replaced

Steps	Graphic / reference
1. Open the supply center door. Open the pump center door. 2. Locate the 1 mL syringe to be replaced: – ICT reference pump [1] – Wash solution pump [2] – ICT aspiration pump [3]	

Remove the plunger shield and the 1 mL syringe

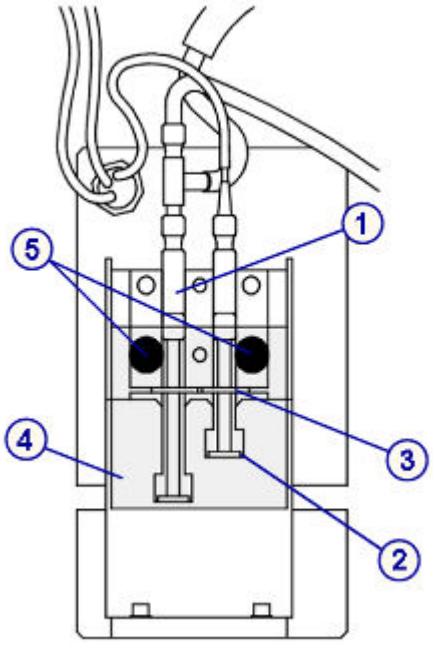
Steps	Graphic / reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Detach and replace the 1 mL syringe

Steps	Graphic / reference
1. Place an absorbent towel under the pump area to absorb any liquid. 2. Unscrew the syringe assembly [1] from the check valve [2]. 3. Screw the new syringe assembly [1] onto the check valve [2]. **NOTE:** Be sure to replace the syringe and plunger (components of the syringe assembly) as a pair.	

Replacement

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / reference
1. Reinstall the syringe [1]. 2. Verify the plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and secure it with the black knobs [5]. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform the following ***as-needed*** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace check valves (*c*8000)

Replacing the check valves on the ICT reference pump, ICT aspiration pump, or wash solution pump consists of the following procedures.

- Removal
  - *Locate the check valve to be replaced*, page 9-229
  - *Remove the plunger shield and the 1 mL syringe*, page 9-230
  - *Remove the check valve tubing*, page 9-230
- Replacement
  - *Replace the check valve*, page 9-231
  - *Reinstall the check valve tubing*, page 9-231
  - *Reinstall the 1 mL syringe and plunger shield*, page 9-232
  - *Prepare for operation*, page 9-232
- Verification
  - *Run quality control*, page 9-233

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel

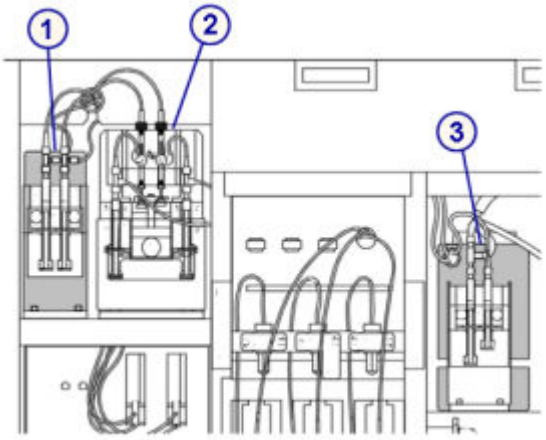
Replacement parts	• LN 09D35-03 - ICT Reference or ICT Aspiration Check Valve • LN 09D34-03 - Wash Solution Check Valve **NOTE:** The ICT reference and aspiration pumps use the same list number. The wash solution pump uses a different list number. Ensure the correct part is used.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

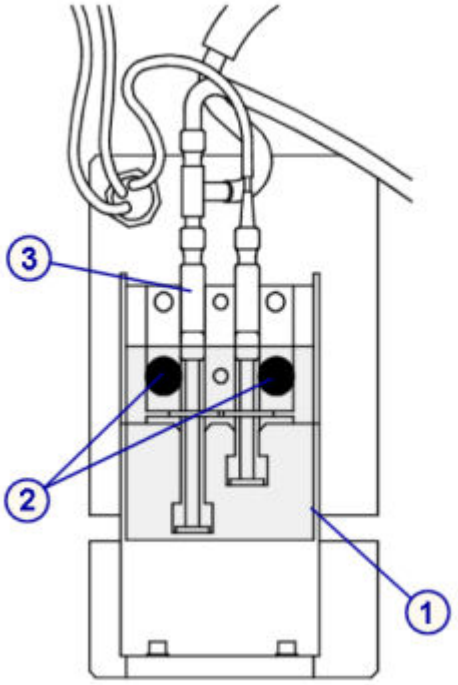
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

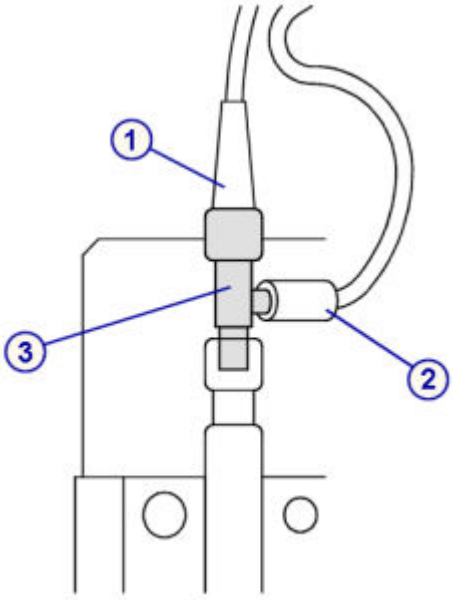
Locate the check valve to be replaced

Steps	Graphic / reference
1. Open the supply center and pump center doors. 2. Locate the check valve to be replaced: – ICT reference pump [1] – Wash solution pump [2] – ICT aspiration pump [3]	

Remove the plunger shield and the 1 mL syringe

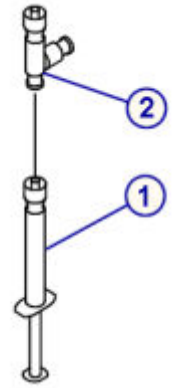
Steps	Graphic / reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Remove the check valve tubing

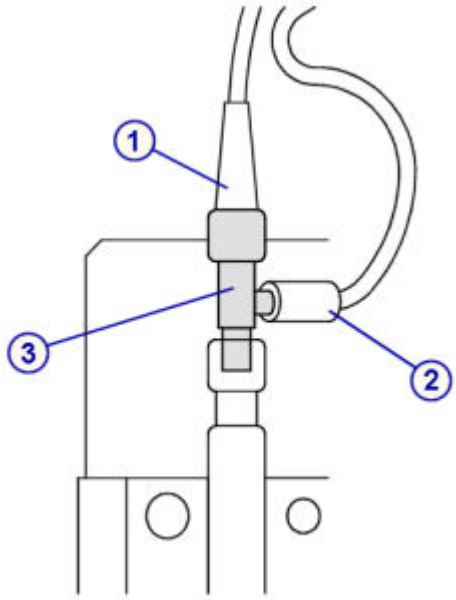
Steps	Graphic / reference
1. Place absorbent towels under the pump area to absorb any liquid. 2. Disconnect the top [1] and side [2] tubing from the check valve [3].	

Replacement

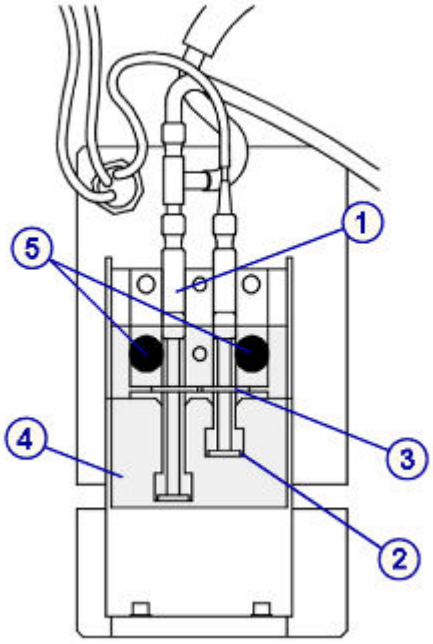
Replace the check valve

Steps	Graphic / reference
1. Unscrew the syringe body [1] from the check valve [2]. 2. Install the new check valve onto the syringe, and finger-tighten.	

Reinstall the check valve tubing

Steps	Graphic / reference
Reattach the top [1] and side [2] tubing to the check valve [3].	

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / reference
1. Reinstall the 1 mL syringe [1]. 2. Verify the syringe plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and tighten the black knobs [5] finger-tight. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform the following ***as-needed*** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6305 Change ICT Asp Check Valve*, page 9-31, to document the ICT aspiration check valve replacement in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the ICT reference solution filter (*c*8000)

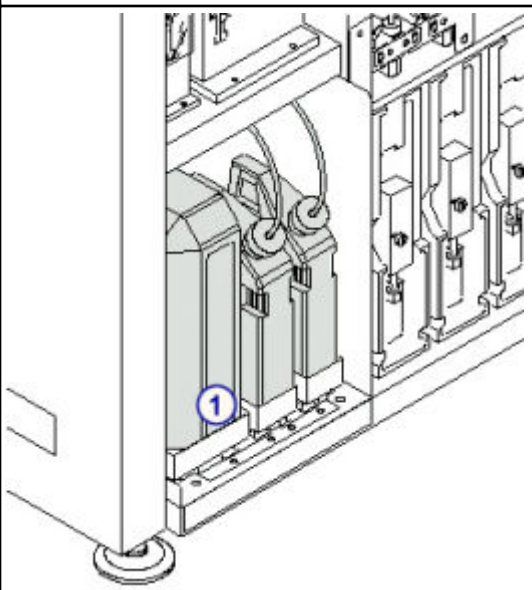
Replacing the ICT reference solution filter consists of the following procedures:

- Removal
  - *Remove the ICT reference solution tubing*, page 9-234
  - *Remove the ICT reference solution filter*, page 9-234
- Replacement
  - *Replace the ICT reference solution filter and tubing*, page 9-235
- Verification
  - *Perform as-needed maintenance procedure 2155*, page 9-235
  - *Run quality control*, page 9-235

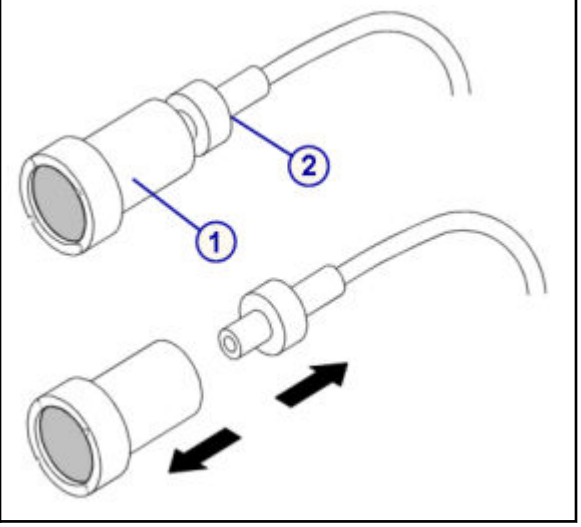
Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D43-02 - Reference/wash solution line filter

Removal

Remove the ICT reference solution tubing

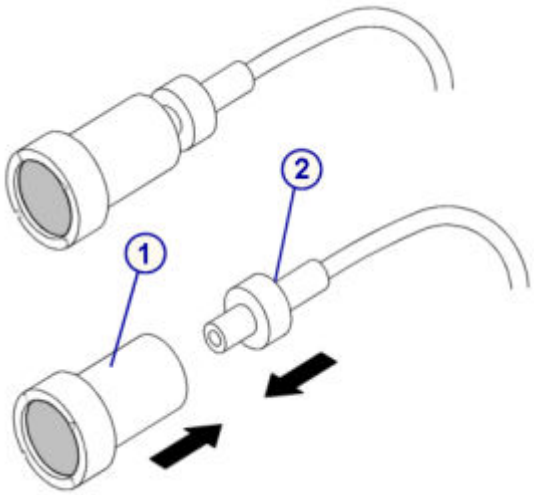
Steps	Graphic / reference
1. Open the supply center door. The ICT reference solution filter is located at the end of the tubing in the ICT reference solution bottle [1]. 2. Remove the tubing from the ICT reference solution bottle and set it aside on an absorbent towel.	

Remove the ICT reference solution filter

Steps	Graphic / reference
1. Pull the filter [1] from the connector that is attached to the end of the ICT reference solution tubing [2]. 2. Discard the filter into the appropriate waste receptacle.	

Replacement

Replace the ICT reference solution filter and tubing

Steps	Graphic / reference
1. Insert the new ICT reference filter [1] in the tubing connector [2]. 2. Insert the tubing in the ICT reference solution bottle, and ensure the tubing reaches the bottom of the bottle. 3. Close the supply center door.	

Verification

Perform as-needed maintenance procedure 2155

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37. 2. Observe all connections to ensure there are no leaks. If you observe drips or leaks, repeat the installation procedure.	

Run quality control

Steps	Graphic / reference
Run quality control samples to verify performance prior to reporting patient results.	

Replace the wash solution filter (*c*8000)

Replacing the wash solution filter consists of the following procedures:

- Removal
  - *Remove the tubing*, page 9-236

- *Remove the wash solution filter*, page 9-237

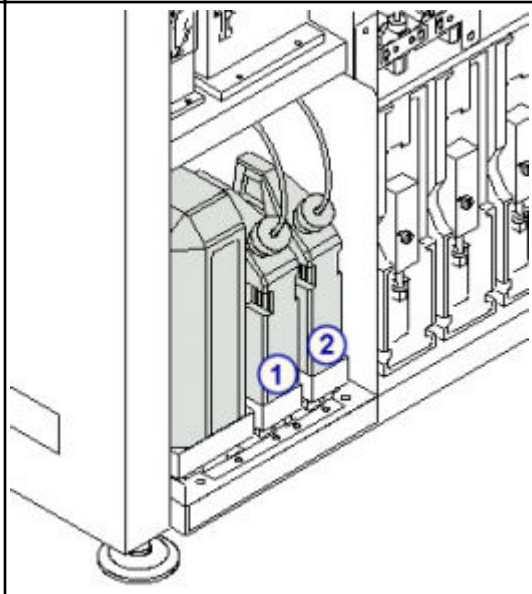
- Replacement
  - *Replace wash solution filter and tubing*, page 9-237
- Verification
  - *Perform as-needed maintenance procedure 2155*, page 9-238
  - *Run quality control*, page 9-238

Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D43-02 - Reference/wash solution filter

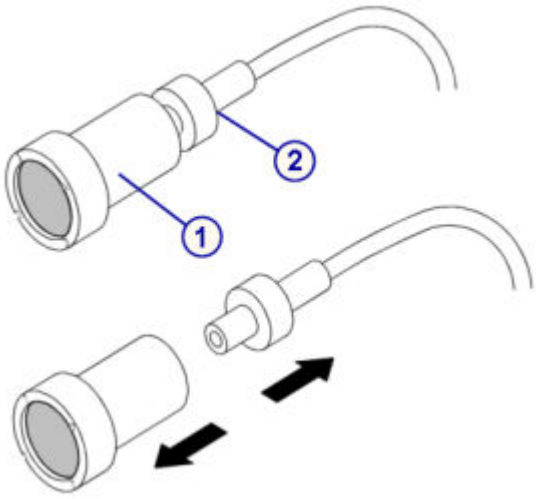
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Remove the tubing

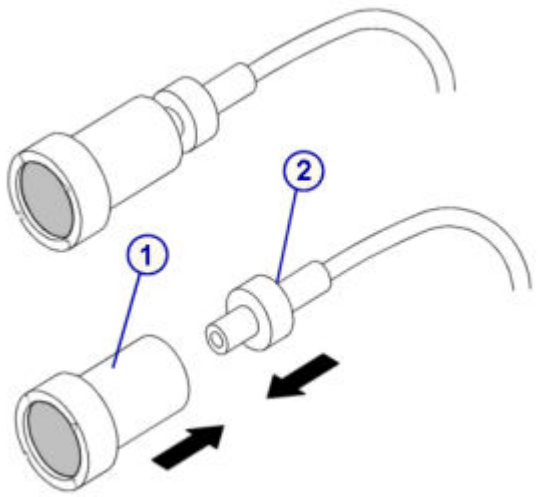
Steps	Graphic / reference
1. Open the supply center door. Wash solution filters are located at the end of the tubing in the alkaline [1] and acid [2] wash solution bottles. 2. Remove the tubing from the wash solution bottle and set it aside on an absorbent towel.	

Remove the wash solution filter

Steps	Graphic / reference
1. Pull the filter [1] from the connector that is attached to the end of the wash solution tubing [2]. 2. Discard the filter in the appropriate waste receptacle.	

Replacement

Replace wash solution filter and tubing

Steps	Graphic / reference
1. Insert the new filter [1] in the tubing connector [2]. 2. Insert the tubing in the appropriate wash solution bottle, and ensure the tubing reaches the bottom of the bottle. 3. Close the supply center door.	

Verification

Perform as-needed maintenance procedure 2155

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37. 2. Observe all connections to ensure there are no leaks. If you observe drips or leaks, repeat the installation procedure.	

Run quality control

Steps	Graphic / reference
Run quality control samples to verify performance prior to reporting patient results.	

Replace wash solution syringe o-ring and seal tips 1 and 2 (*c*8000)

Replacing the wash solution syringe o-ring and seal tips 1 and 2 consists of the following procedures.

- Removal
  - *Remove the clear outer plunger shield*, page 9-239
  - *Disconnect the wash solution syringe block tubing*, page 9-240
  - *Remove the clear inner plunger shield and syringe block*, page 9-241
  - *Remove the syringe plunger*, page 9-241
  - *Remove the o-ring and seal tips 1 and 2*, page 9-242
- Replacement
  - *Install the o-ring and seal tips 1 and 2*, page 9-242
  - *Install the syringe plunger*, page 9-243
  - *Install the syringe block and attach the clear inner plunger shield*, page 9-243
  - *Connect the wash solution syringe block tubing*, page 9-244
  - *Install the clear outer plunger shield*, page 9-244
  - *Prepare for operation*, page 9-245
- Verification
  - *Run quality control*, page 9-245

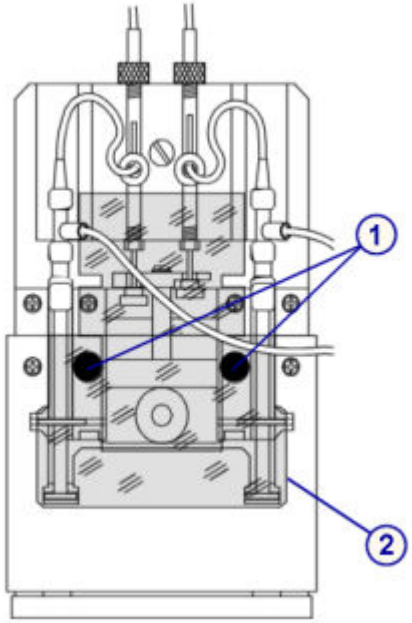
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel
Replacement parts	• LN 09D52-03 - Sample/wash solution syringe o-ring • LN 09D37-03 - Sample/wash solution syringe seal tip #1 • LN 09D38-03 - Sample/wash solution syringe seal tip #2

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

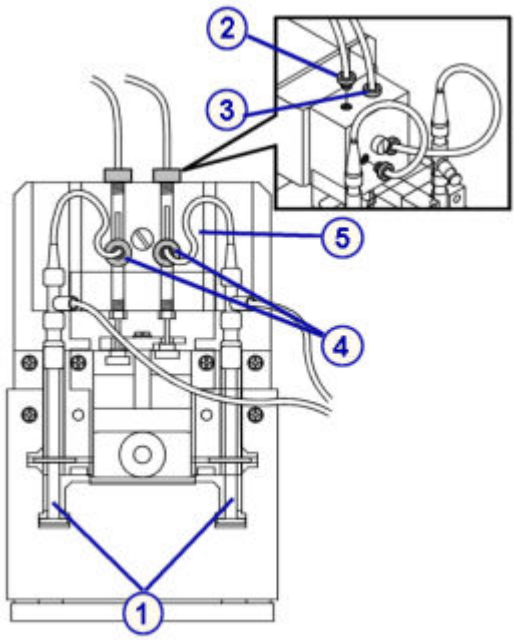
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

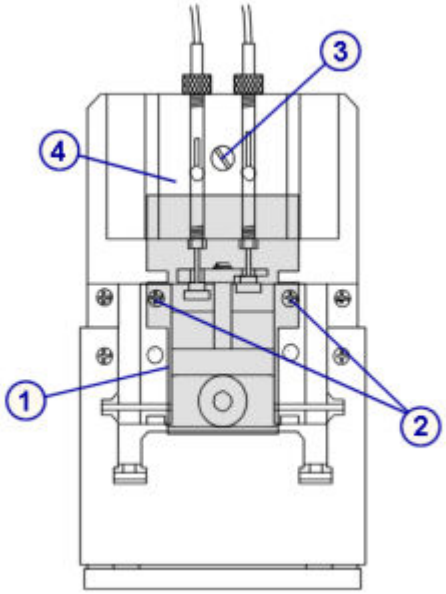
Remove the clear outer plunger shield

Steps	Graphic / reference
1. Open the supply center door. 2. Locate the wash solution pump. 3. Loosen and remove the black knobs [1] securing the clear outer plunger shield [2]. 4. Remove the shield.	

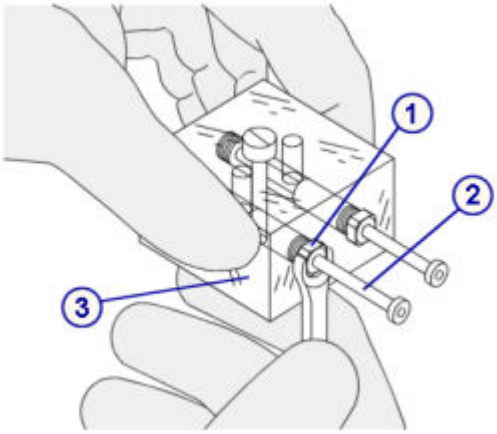
Disconnect the wash solution syringe block tubing

Steps	Graphic / reference
1. Place an absorbent towel under the pump area to absorb any liquid. 2. Slide the 1 mL syringes [1] out of their drive block; do not disconnect them. 3. Unscrew the left-top grey knurled connection [2] from the top of the syringe block. **NOTE:** The tubing labeled **2**, coming from the instrument, connects to the left-top connection [2]. The tubing labeled **3**, coming from the instrument, connects to the right-top connection [3]. Do not interchange the tubing. 4. Unscrew the right-top grey knurled connection [3]. 5. Unscrew the grey knurled connections [4] from the front of the syringe block [5]. **NOTE:** The tubing coming from the 1 mL syringe on the left connects to the left-front connection. The tubing coming from the 1 mL syringe on the right connects to the right-front connection. Do not interchange the tubing. 6. Ensure the black seals remain in the syringe block when the grey knurled connections are disconnected.	

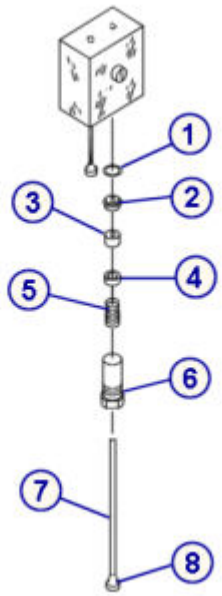
Remove the clear inner plunger shield and syringe block

Steps	Graphic / reference
1. Remove the clear inner plunger shield [1] by removing the two Phillips screws [2] securing the shield. 2. Use the slotted screwdriver to loosen the slotted screw [3] securing the clear syringe block [4] in place. The screw is captive and cannot be completely removed. 3. Pull the syringe block forward to allow the plungers to clear the syringe drive. 4. Lift the syringe block up to remove it from the module. 5. Identify the syringe needing the new o-ring and seal tips.	

Remove the syringe plunger

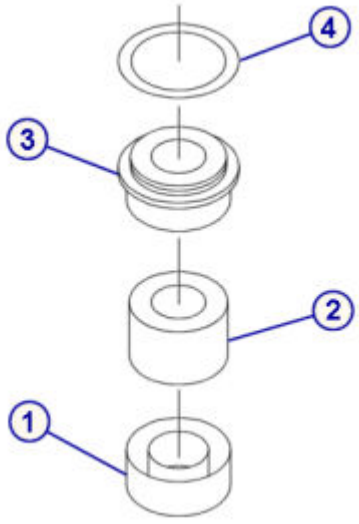
Steps	Graphic / reference
1. Use the 10 mm wrench to loosen the nut [1] securing the syringe plunger [2] on the bottom of the syringe block [3]. 2. Turn the nut by hand, once loosened, until the syringe plunger can be removed from the syringe block.	

Remove the o-ring and seal tips 1 and 2

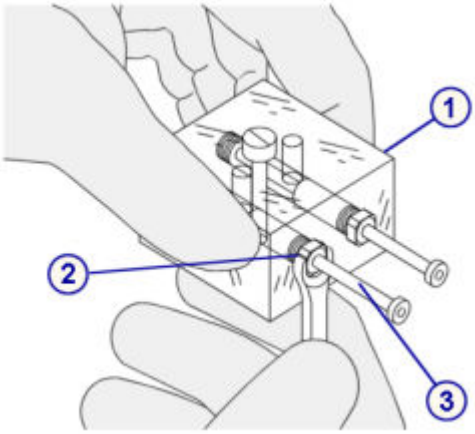
Steps	Graphic / reference
The plunger assembly includes the following parts: • O-ring [1] **IMPORTANT:** The o-ring may have remained in the syringe block when removing the plunger assembly. • Seal tip 2 [2] • Spacer [3] • Seal tip 1 [4] • Spring [5] • Nut [6] • Plunger [7] • Plunger flange [8] 1. Remove the following. Set aside or discard (except for spacer) if being replaced: – O-ring [1] – Seal tip 2 [2] – Spacer [3] - set aside, do not discard – Seal tip 1 [4] **NOTE:** Do not remove the spring. 2. Dry the interior of the syringe barrel with a cotton swab and dry the plunger completely with an absorbent towel if liquid is present.	

Replacement

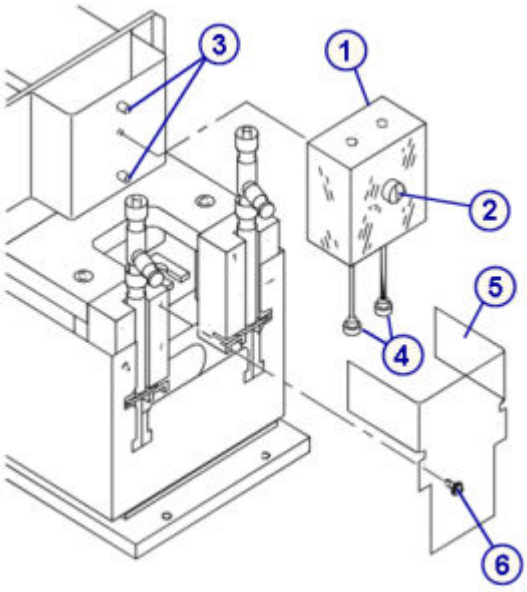
Install the o-ring and seal tips 1 and 2

Steps	Graphic / reference
1. Install seal tip 1 [1] onto the plunger so that it sits above the spring, with the open side away from the spring. 2. Install the spacer [2] so that it fits into the open side of seal tip 1. 3. Install the seal tip 2 [3] on top of the spacer with the open side toward the spacer. 4. Install the o-ring [4] so that it fits into the groove of the seal tip 2. Do not push the o-ring out of alignment. The o-ring must sit flat against the inside of the syringe block. 5. Press lightly to push all the components together.	

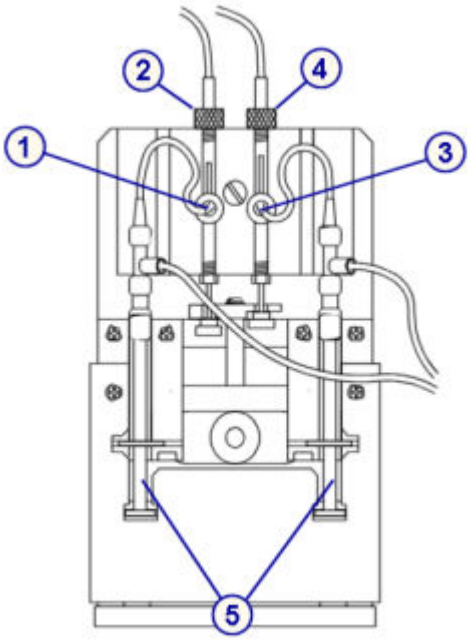
Install the syringe plunger

Steps	Graphic / reference
1. Install the plunger assembly into the syringe block [1]. 2. Tighten the nut [2] holding the plunger assembly into the syringe block until finger-tight. **NOTE:** The nut must be flush with the plunger assembly. If the nut binds when tightening, do not apply excessive force. Back the nut out a turn, and then, while pushing in to apply pressure against the spring, continue to tighten the nut. 3. Use the 10 mm wrench to further tighten the nut [2] securing the plunger [3]. Do not overtighten.	

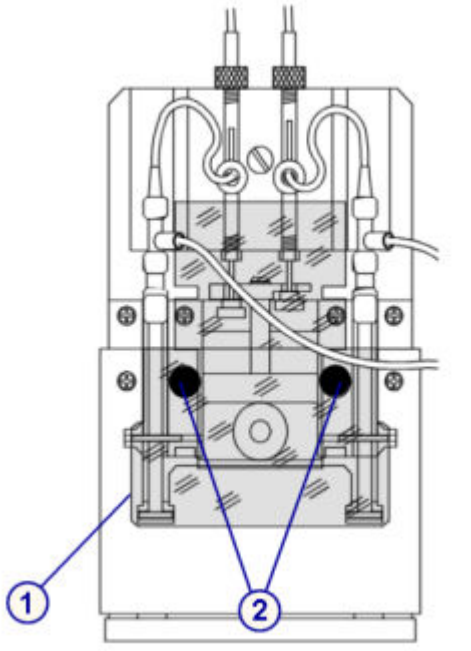
Install the syringe block and attach the clear inner plunger shield

Steps	Graphic / reference
1. Ensure a black seal remains in each of the tubing ports in the syringe block. 2. Hold the syringe block [1] so that the slotted screw [2] faces you. 3. Align the syringe block to the pins [3] on the syringe holder, verifying that both plunger flanges [4] are below the U-shaped holders. 4. Hold the syringe block against the alignment pins and tighten the screw by hand until finger-tight. Secure with a slotted screwdriver. 5. Attach the clear inner plunger shield [5] and tighten the Phillips screws [6].	

Connect the wash solution syringe block tubing

Steps	Graphic / reference
1. Connect the grey knurled connection labeled **2** from the 1 mL syringe to the left-front port [1]. 2. Connect the grey knurled connection labeled **2** coming from the instrument to the left-top port [2]. 3. Connect the grey knurled connection labeled **3** from the syringe to the right-front port [3]. 4. Connect the grey knurled connection labeled **3** from the instrument to the right-top port [4]. 5. Verify the 1 mL syringe tubing connections did not loosen during the removal and replacement procedure. 6. Reinstall the 1 mL syringes [5] into the syringe holder. 7. Ensure the plunger flange is below the U-shaped holder and that the bottom of the syringe barrel is in the groove at the bottom of the syringe holder.	

Install the clear outer plunger shield

Steps	Graphic / reference
1. Attach the clear outer plunger shield [1] and tighten the black knobs [2] until finger-tight. 2. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6302 Wash Syringe Maintenance*, page 9-29, to document wash solution o-ring and seal tips 1 and 2 replacement in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace sample or reagent syringe o-ring and seal tips 1 and 2 (*c*8000)

Replacing the sample or reagent syringe o-ring and seal tips 1 and 2 consists of the following procedures.

- Removal
  - *Locate the syringe and remove the plunger shield*, page 9-247
  - *Remove the syringe bracket*, page 9-247
  - *Remove the syringe block*, page 9-248
  - *Remove the syringe plunger*, page 9-248
  - *Remove the o-ring and seal tips 1 and 2*, page 9-249
- Replacement
  - *Install the o-ring and seal tips 1 and 2*, page 9-249
  - *Install the syringe plunger*, page 9-250
  - *Install the syringe block*, page 9-250
  - *Install the syringe bracket and plunger shield*, page 9-251
  - *Prepare for operation*, page 9-251
- Verification
  - *Run quality control*, page 9-252

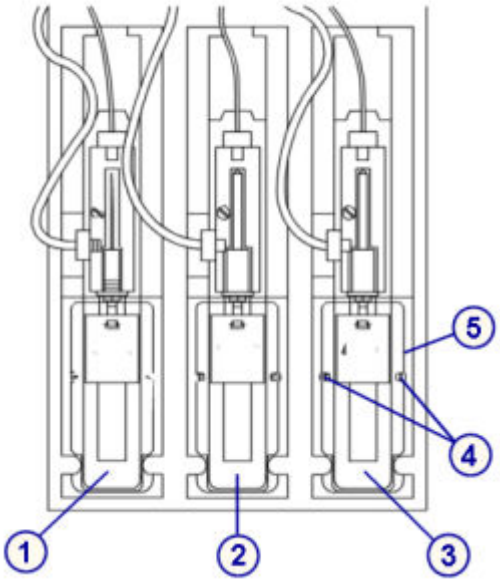
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel
Replacement parts	• LN 09D52-03 - Sample/wash solution syringe o-ring • LN 09D37-03 - Sample/wash solution syringe seal tip #1 • LN 09D38-03 - Sample/wash solution syringe seal tip #2 • LN 09D53-03 - Reagent syringe o-ring • LN 09D39-03 - Reagent syringe seal tip #1 • LN 09D40-04 - Reagent syringe seal tip #2 **NOTE:** The o-rings and seal tips 1 and 2 for the sample and reagent syringes are different sizes. Be sure to install the correct part in the appropriate syringe.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

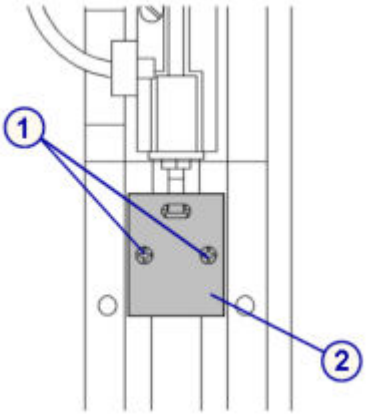
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

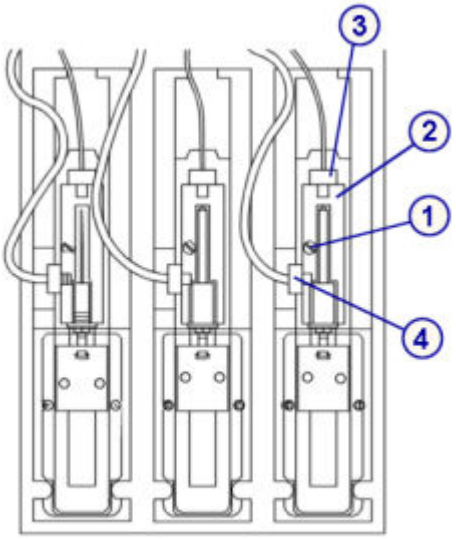
Locate the syringe and remove the plunger shield

Steps	Graphic / reference
1. Open the supply center door. 2. Locate the appropriate syringe: – Sample syringe [1] – R1 syringe [2] – R2 syringe [3] 3. Remove the two Phillips screws [4] securing the shield. 4. Remove the shield. [5]	

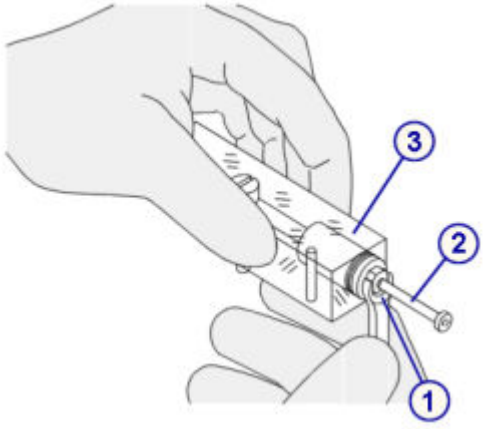
Remove the syringe bracket

Steps	Graphic / reference
Remove the syringe bracket holding the syringe plunger to the drive block by removing the two Phillips screws [1] on the syringe bracket [2]. **NOTE:** Notice that these screws are shorter than the screws from the clear plunger shield. Do not interchange the two sets of screws.	

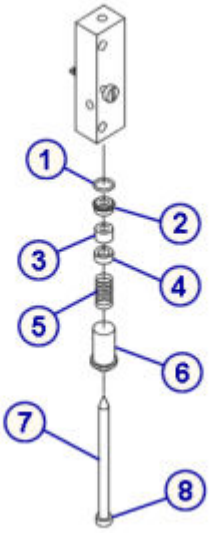
Remove the syringe block

Steps	Graphic / reference
1. Use the slotted screwdriver to loosen the slotted screw [1] securing the syringe block [2] in place. The screw is captive and cannot be completely removed. 2. Place an absorbent towel under the syringe drive to absorb any liquid. 3. Disconnect the tubing at the top [3] and side [4] of the syringe block by unscrewing the knurled connections. 4. Ensure the black seal remains in the syringe block once the tubing is disconnected.	

Remove the syringe plunger

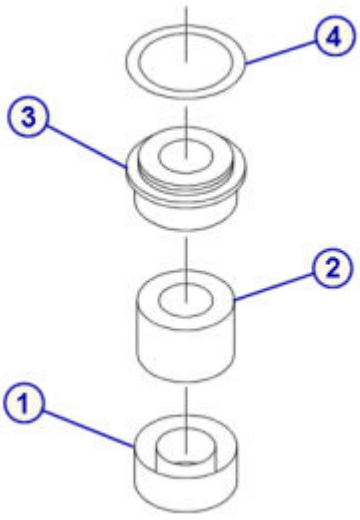
Steps	Graphic / reference
1. Use the 10 mm wrench to loosen the nut [1] securing the syringe plunger [2] on the bottom of the syringe block [3]. 2. Turn the nut by hand, once loosened, until the syringe plunger can be removed from the syringe block.	

Remove the o-ring and seal tips 1 and 2

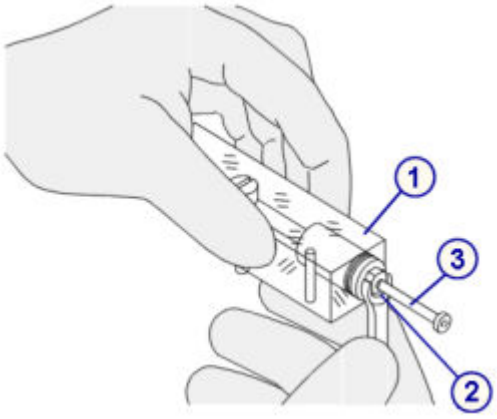
Steps	Graphic / reference
The plunger assembly includes the following parts: • O-ring [1] **NOTE:** The o-ring may have remained in the syringe block when removing the plunger assembly. • Seal tip 2 [2] • Spacer [3] • Seal tip 1 [4] • Spring [5] • Nut [6] • Plunger [7] • Plunger flange [8] 1. Remove the following. Set aside or discard (except for spacer) if being replaced: – O-ring [1] – Seal tip 2 [2] – Spacer [3] - set aside, do not discard – Seal tip 1 [4] **NOTE:** Do not remove the spring. 2. Dry the interior of the syringe barrel with a cotton swab and dry the plunger completely with an absorbent towel if liquid is present.	

Replacement

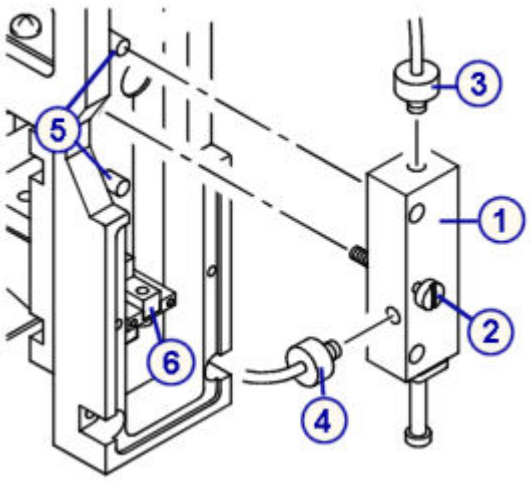
Install the o-ring and seal tips 1 and 2

Steps	Graphic / reference
1. Install seal tip 1 [1] onto the plunger so that it sits above the spring, with the open side away from the spring. 2. Install the spacer [2] so that it fits into the open side of seal tip 1. 3. Install seal tip 2 [3] on top of the spacer, with the open side toward the spacer. 4. Install the o-ring [4] so that it fits into the groove of seal tip 2. Do not push the o-ring out of alignment. The o-ring must sit flat against the inside of the syringe block. 5. Press lightly to push all the components together.	

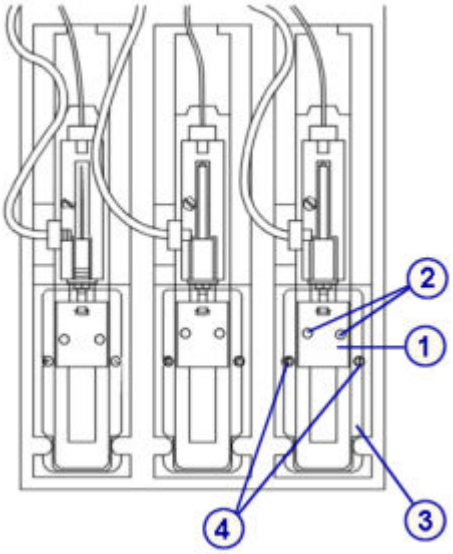
Install the syringe plunger

Steps	Graphic / reference
1. Install the plunger assembly into the syringe block [1]. 2. Tighten the nut [2] holding the plunger assembly into the syringe block until finger-tight. **NOTE:** The nut must be flush with the plunger assembly. If the nut binds when tightening, do not apply excessive force. Back the nut out a turn, and then, while pushing in to apply pressure against the spring, continue to tighten the nut. 3. Use the 10 mm wrench to further tighten the nut [2] securing the plunger [3].	

Install the syringe block

Steps	Graphic / reference
1. Hold the syringe block [1] so that the slotted screw [2] faces you. 2. Ensure the black seals remain in place in each port. Reconnect the tubing coming from the pipettor to the top [3] of the syringe block and the tubing from the syringe valve to the side [4] by screwing the knurled connections. 3. Align the syringe block to the pins [5] on the syringe holder, verifying that the plunger flange is above the drive block [6]. Move any tubing out of the way. 4. Hold the syringe block against the alignment pins and tighten the screw [2] by hand until finger-tight. Secure the screw with a slotted screwdriver.	

Install the syringe bracket and plunger shield

Steps	Graphic / reference
1. Attach the syringe bracket [1] to connect the drive block and syringe plunger. 2. Use the Phillips screwdriver to install the screws [2]. **NOTE:** Use the shorter screws to attach the syringe bracket. Use the longer screws to attach the plunger shield. 3. Attach the clear plunger shield [3] by tightening the two (2) Phillips screws [4]. 4. Remove the absorbent towel from the syringe drive.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6301 Sample Syringe Maintenance*, page 9-29 or *6303 Reagent Syringe Maintenance*, page 9-30 to document sample or reagent syringe o-ring and seal tip replacement in the Maintenance log. **NOTE:** Only perform this maintenance procedure if you replaced the o-ring and seal tips in both the R1 and R2 syringes.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the pump poppet valve set (*c*8000)

Replacing the pump poppet valve set on the cuvette wash pump, probe wash pump, and the high-concentration waste (bellows) pump consists of the following procedures.

- Removal
  - *Locate the pump poppet valve and clamp the tubing*, page 9-253
  - *Remove the pump poppet valve*, page 9-253
- Replacement
  - *Replace the pump poppet valve*, page 9-254
  - *Prepare for operation*, page 9-254
- Verification

  Verification occurs during preparation for operation. No further verification is required.

NOTE: The same procedure is used to replace the pump poppet valve set in all three pumps.

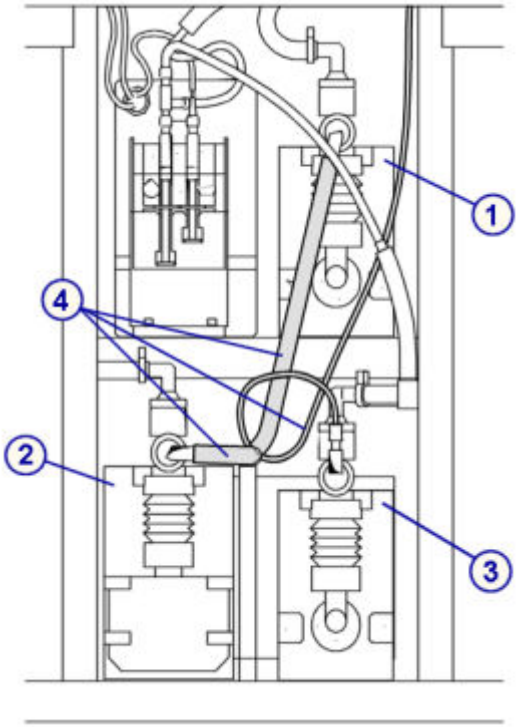
Prerequisite	The processing module must be in the Ready status.
Estimated time required	10 minutes
Tools/materials required	• Clamp or large hemostats • Absorbent towels • Purified water
Replacement parts	LN 09D36-02 - Pump poppet valve set **NOTE:** The same pump poppet valve set is used for all three pumps.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

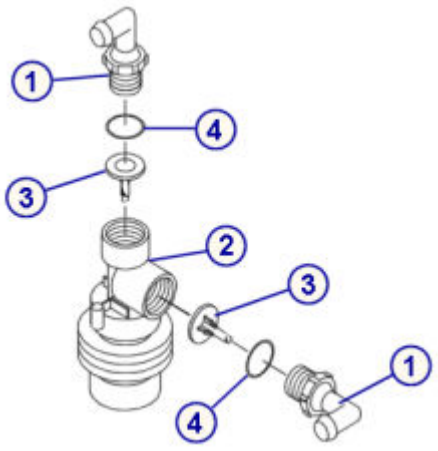
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Locate the pump poppet valve and clamp the tubing

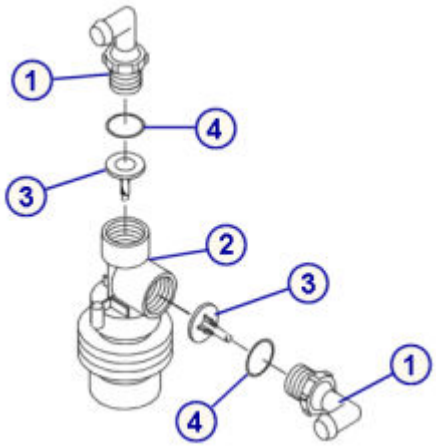
Steps	Graphic / reference
1. Open the supply center and pump center doors. 2. Locate the appropriate pump: – Cuvette wash pump [1] – Probe wash pump [2] – High-concentration waste (bellows) pump [3] 3. Clamp the flexible inlet tubing [4] of the pump containing the poppet valve.	

Remove the pump poppet valve

Steps	Graphic / reference
1. Place absorbent towels in the pump area to absorb any liquid. 2. Unscrew the top or side [1] elbow fitting securing the tubing to the pump connection. **NOTE:** It is recommended that the top and side poppet valves be replaced at the same time. 3. Remove the poppet valve [3] and o-ring [4] from the connection [2]. To remove the top poppet valve, it may be necessary to remove the side connector and push the top poppet valve up from the bottom. 4. Discard the valve and o-ring.	

Replacement

Replace the pump poppet valve

Steps	Graphic / reference
1. Rinse the new poppet valve and o-ring with purified water. 2. Install the poppet valve [3] and o-ring [4] onto the connection [2] as illustrated. 3. Screw the top or side [1] elbow fitting to the connection [2]. 4. Finger-tighten the fitting at the pump connection. 5. Release the clamp on the flexible tubing. 6. Remove the absorbent towels from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure.	

Verification

Steps	Graphic / reference
Verification occurs during preparation for operation. No further Verification is required.	

*c*16000 component replacement

Component replacement for the *c*16000 includes:

- *ARCHITECT c16000 processing center component replacement*, page 9-254
- *ARCHITECT c16000 supply and pump components replacement*, page 9-293

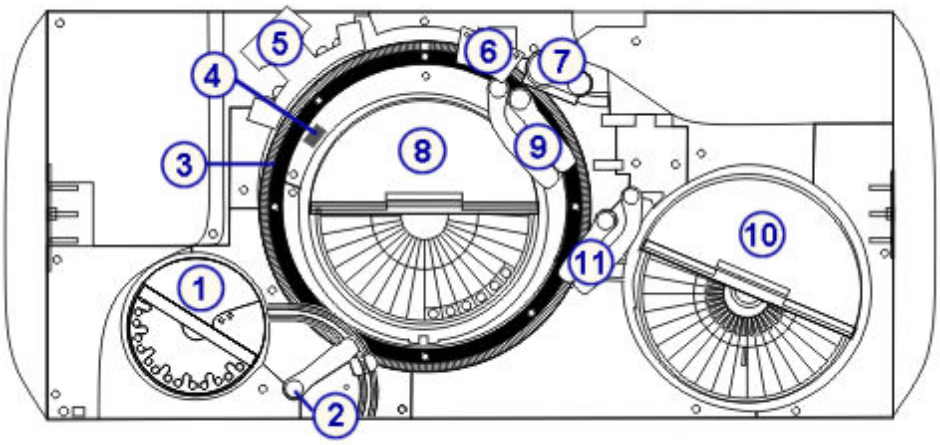
ARCHITECT *c*16000 processing center component replacement

To replace processing center components, see:

ARCHITECT *c*16000 processing center components

The following illustration shows the locations of the processing center components. Use this illustration when performing component replacement procedures.

Figure 9.23: ARCHITECT c16000 processing center map



Legend:

1. Sample carousel and cover
2. Sample pipettor
3. Reaction carousel
4. Lamp
5. Mixer unit
6. Cuvette washer
7. ICT unit
8. Reagent supply center 2 and cover

9. Reagent 2 (A and B) pipettor(s)
10. Reagent supply center 1 and cover
11. Reagent 1 (A and B) pipettor(s)

Replace the sample probe (*c*16000)

NOTE: It is recommended that you record and track the date of sample probe installation to ensure you do not use the probe for longer than four months.

Replacing the sample probe consists of the following procedures:

- Removal
  - *Prepare for sample probe removal*, page 9-257
  - *Remove the sample probe*, page 9-257
- Replacement
  - *Install the sample probe*, page 9-258
  - *Prepare for operation*, page 9-259
- Verification
  - *Calibrate the sample pipettor*, page 9-259
  - *Run quality control*, page 9-259

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	• Slotted screwdriver • Absorbent towel
Replacement parts	• LN 01G48-04 - Sample probe • LN 02J51-01 - Sample probe screw (optional)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

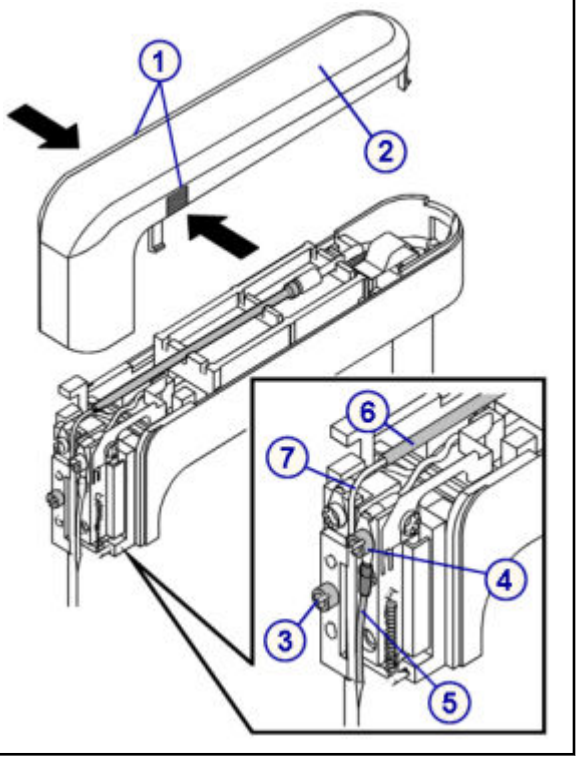
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for sample probe removal

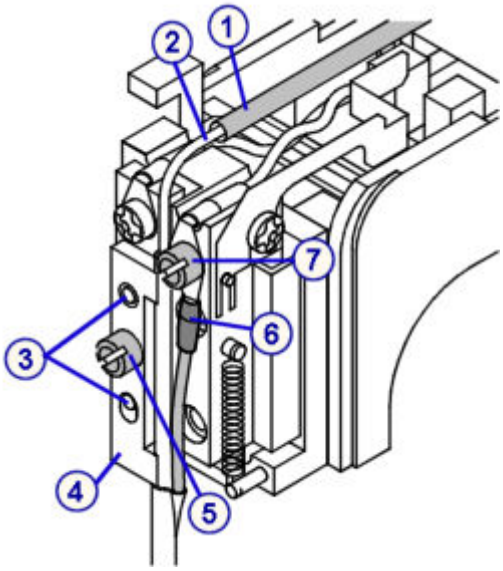
Steps	Graphic / reference
1. *Remove the sample carousel (c8000/c16000)*, page 10-712. 2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the sample pipettor over the sample carousel area.	

Remove the sample probe

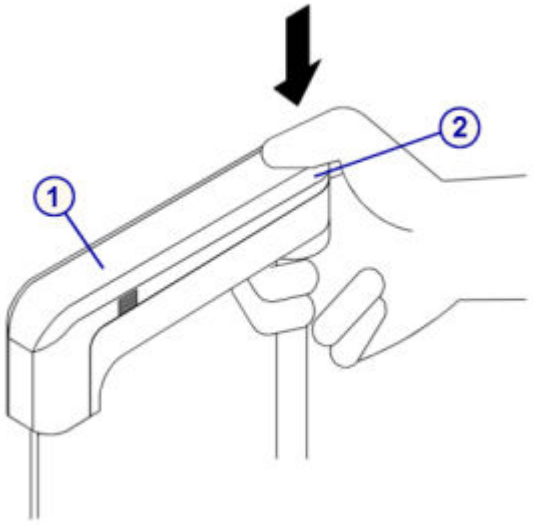
Steps	Graphic / reference
1. Remove the sample pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel in the sample carousel area under the probe tip. 3. Use a slotted screwdriver to slightly loosen the probe screw [3]. 4. Loosen, do not remove, the probe screw [3] by hand until the probe releases from the sample pipettor. 5. Loosen, do not remove, the screw [4] holding the sample probe grounding wire [5] in place. 6. Detach the grounding wire. 7. Gently disconnect the tubing [6] from the top of the probe [7].	

Replacement

Install the sample probe

Steps	Graphic / reference
1. Attach the tubing [1] to the top of the new sample probe [2]. **NOTE:** Do not flare or stretch the tubing. The tubing should fit firmly on the sample probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. If the tubing is loose or if the probe has been replaced several times using the same tubing, it is recommended that you replace the sample probe tubing. 2. Position the sample probe on the alignment pins [3] and verify the probe plate [4] is flush with the plate on the sample pipettor. 3. Remove the probe screw [5] from the old sample probe and insert it into the new sample probe. Finger-tighten the screw [5] to secure the probe. 4. Stabilize the pipettor and tighten the screw with the slotted screwdriver. 5. Attach the new sample probe grounding wire [6] and tighten the screw [7]. 6. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the sample pipettor to the home position. 7. Remove the absorbent towel from the sample carousel area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the sample probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. *Reinstall the sample carousel (c8000/c16000)*, page 10-713.	

Verification

Calibrate the sample pipettor

Steps	Graphic / reference
Perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace reagent probes (*c*16000)

Replacing the reagent probe(s) consists of the following procedures:

- Removal
  - *Prepare for reagent probe removal*, page 9-260
  - *Remove the reagent probe*, page 9-260
- Replacement
  - *Install the reagent probe*, page 9-261
  - *Prepare for operation*, page 9-262
- Verification

- *Calibrate the Reagent pipettor*, page 9-262
- *Run quality control*, page 9-263

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools required	• Slotted screwdriver • Absorbent towel
Replacement parts	• LN 09D48-03 - Reagent Probe - R1A/R2B (L) • LN 09D49-03 - Reagent Probe - R1B/R2A (R) • LN 09D48-10 - Reagent probe screw (optional)

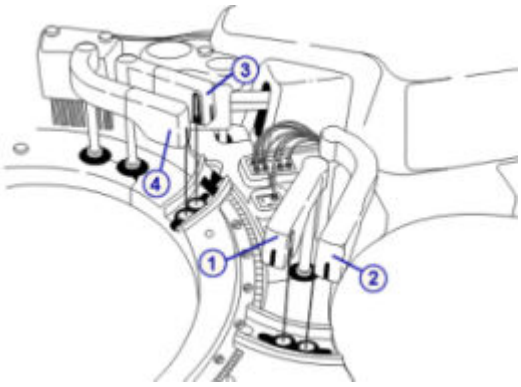
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

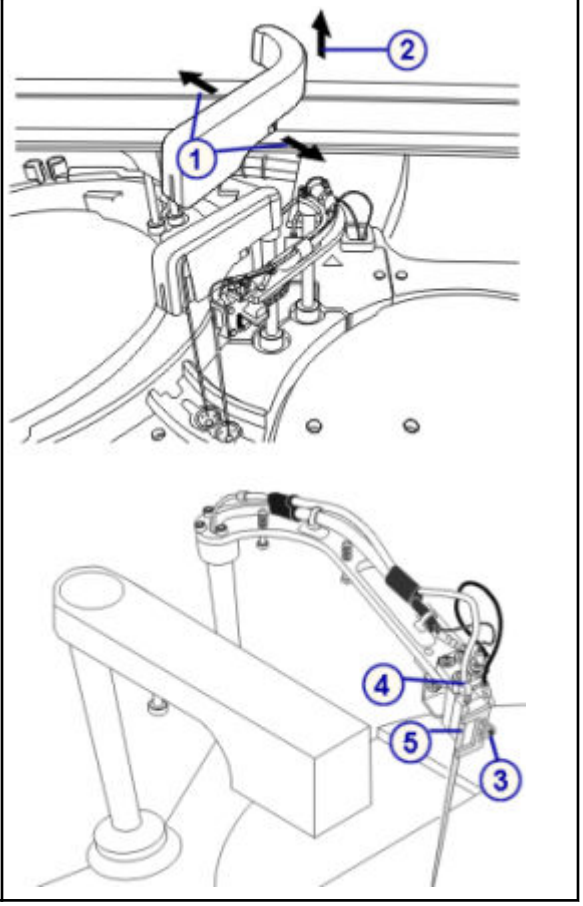
Removal

Prepare for reagent probe removal

Steps	Graphic / reference
1. Locate the reagent pipettor. **NOTE:** See *ARCHITECT c16000 processing center components*, page 9-255, for pipettor locations. – Access the R1A [1] and R1B [2] pipettors from the front of the system. – Access the R2A [3] and R2B [4] pipettors from the back of the system. 2. If the reagent pipettor is not over the wash cup, initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the reagent pipettor.	

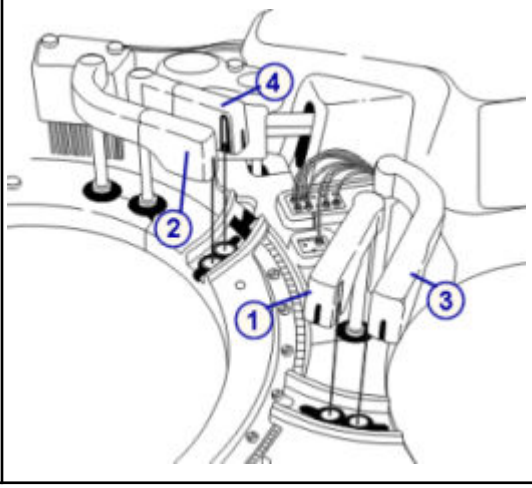
Remove the reagent probe

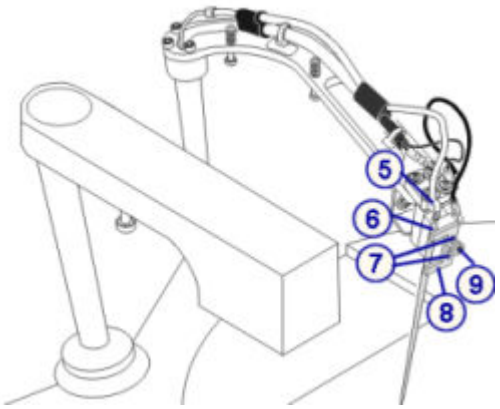
Steps	Graphic / reference
1. Remove the reagent pipettor cover by expanding the tabs[1] and gently lifting the cover [2]. 2. Place an absorbent towel under the probe tip.	

Steps	Graphic / reference
3. Use a slotted screwdriver to slightly loosen the probe screw [3]. 4. Loosen, do not remove, the probe screw [3] by hand until the probe releases from the reagent pipettor. 5. Gently disconnect the tubing [4] from the top of the probe [5].	

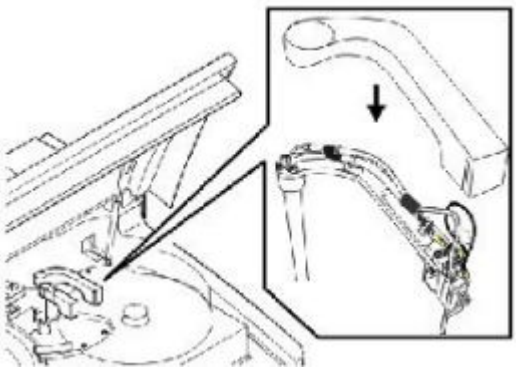
Replacement

Install the reagent probe

Steps	Graphic / reference
1. Determine which probe requires replacement and obtain the correct replacement part: – LN09D48-03 R1A/R2B (L) must be used on the R1A [1] or R2B [2] pipettor – LN09D49-03 R1B/R2A (r) must be used on the R1B [3] or R2A [4] pipettor 2. Attach the tubing [5] to the top of the new reagent probe [6]. **NOTE:** Do not crimp, flare, or stretch the tubing. The tubing should fit firmly on the reagent probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. If the tubing is loose or if the probe has been replaced	

Steps	Graphic / reference
several times using the same tubing, it is recommended that you replace the reagent probe tubing. 3. Position the new reagent probe [6] on the alignment pins [7] and verify the probe plate [8] is flush with the plate on the reagent pipettor. 4. Remove the probe screw [9] from the old reagent probe and insert it into the new reagent probe. Finger-tighten the screw [9] to secure the probe in place. 5. Stabilize the pipettor and tighten the screw with the slotted screwdriver. 6. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the reagent probe to the home position. 7. Remove the absorbent towel from the onboard solution area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the reagent probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover. Ensure the tubing is not pinched or crimped below the pipettor cover. Some gentle movement may be necessary to align the cover.	

Verification

Calibrate the Reagent pipettor

Steps	Graphic / reference
Perform the appropriate ***as-needed*** maintenance procedure: • *1121 R1 Pipettor Calibration*, page 9-34, or • *1122 R2 Pipettor Calibration*, page 9-35	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the sample probe tubing (*c*16000)

Replacing the sample probe tubing consists of the following procedures:

- Removal
  - *Prepare for sample probe tubing removal*, page 9-263
  - *Remove the sample probe tubing*, page 9-264
- Replacement
  - *Install the sample probe tubing*, page 9-265
  - *Prepare for operation*, page 9-265
- Verification
  - *Run quality control*, page 9-266

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel
Replacement parts	LN 01G48-05 - Sample probe tubing

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

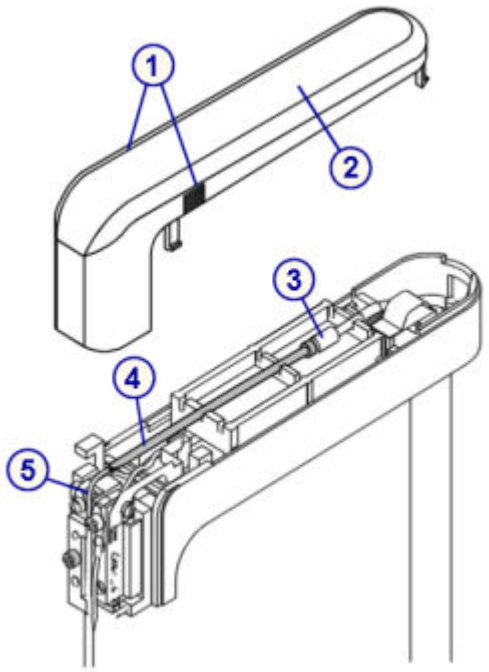
Removal

Prepare for sample probe tubing removal

Steps	Graphic / reference
1. *Remove the sample carousel (c8000/c16000)*, page 10-712	

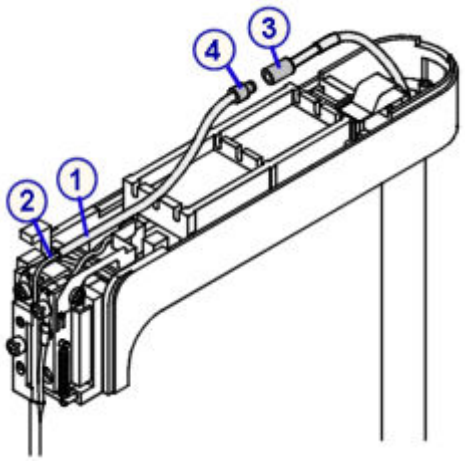
Steps	Graphic / reference
2. Initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the sample pipettor over the sample carousel area.	

Remove the sample probe tubing

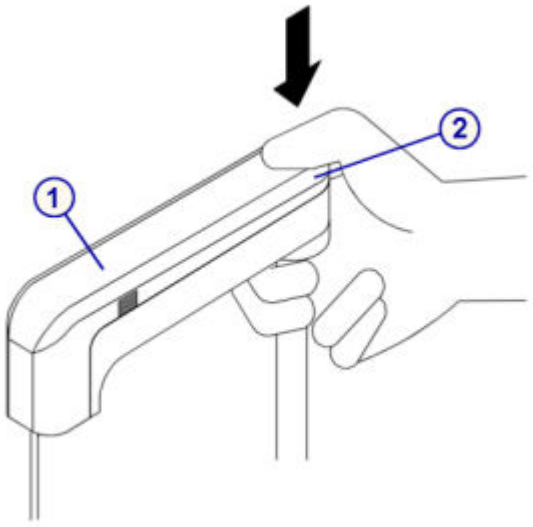
Steps	Graphic / reference
1. Remove the sample pipettor cover by gently squeezing the squeeze points [1], to release the locking tabs, and lifting the cover [2]. 2. Place an absorbent towel in the sample carousel area under the probe tip. 3. Unscrew the tubing from the probe tubing connector [3]. Ensure the black o-ring inside the tubing connector stays in place. 4. Gently disconnect the tubing [4] from the top of the probe [5].	

Replacement

Install the sample probe tubing

Steps	Graphic / reference
1. Attach the end of the new tubing [1] to the top of the sample probe [2]. **NOTE:** Do not flare or stretch the new tubing. The tubing should fit firmly on the sample probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. 2. Verify the black o-ring is inside the probe tubing connector [3]. 3. Screw the opposite end of the tubing [4] into the tubing connector [3]. 4. Complete ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to return the sample pipettor to the home position. 5. Remove the absorbent towel from the sample carousel area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the sample probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover [1]. Ensure the tubing is not pinched or kinked below the pipettor cover. 4. Press down on the end of the cover over the pipettor shaft [2] until it snaps into place. The pipettor cover must be completely seated to ensure correct liquid level sense operation. 5. *Reinstall the sample carousel (c8000/c16000)*, page 10-713.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the reagent probe tubing (*c*16000)

Replacing the reagent probe tubing consists of the following procedures:

- Removal
  - *Prepare for reagent probe tubing removal*, page 9-267
  - *Remove the reagent probe tubing*, page 9-267
- Replacement
  - *Install the reagent probe tubing*, page 9-268
  - *Prepare for operation*, page 9-269
- Verification
  - *Run quality control*, page 9-269

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Absorbent towel • Slotted screwdriver
Replacement parts	• LN 09D48-05 - Tubing, Joint to R probe, R1 and 2A • LD 09D49-05 - Tubing, Joint to R probe, R1 and 2B • LN 09D48-10 - Reagent probe screw (optional)

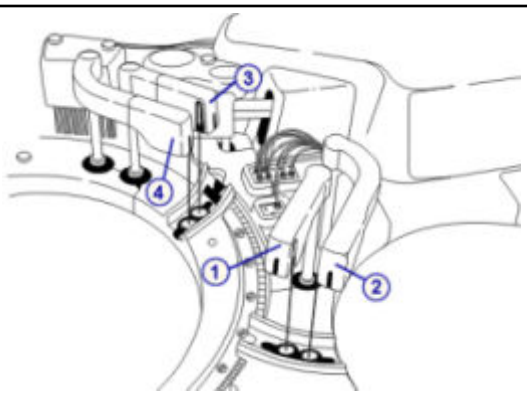
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

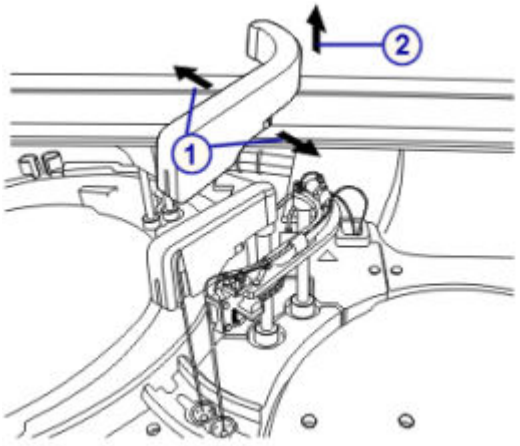
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

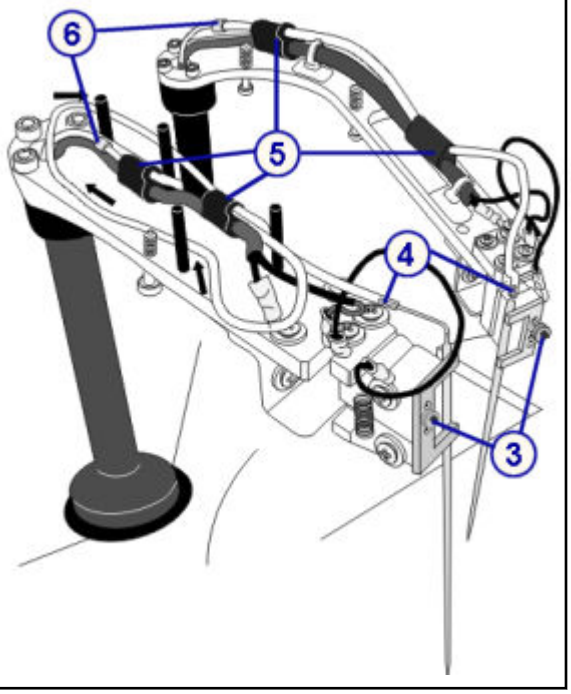
Removal

Prepare for reagent probe tubing removal

Steps	Graphic / reference
1. Locate the reagent pipettor. **NOTE:** See *ARCHITECT c16000 processing center components*, page 9-255, for pipettor locations. – Access the R1 A [1] and B [2] pipettors from the front of the system. – Access the R2 A [3] and B [4] pipettors from the back of the system. 2. If the reagent pipettor is not over the wash cup, initiate ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631, to position the reagent pipettor.	

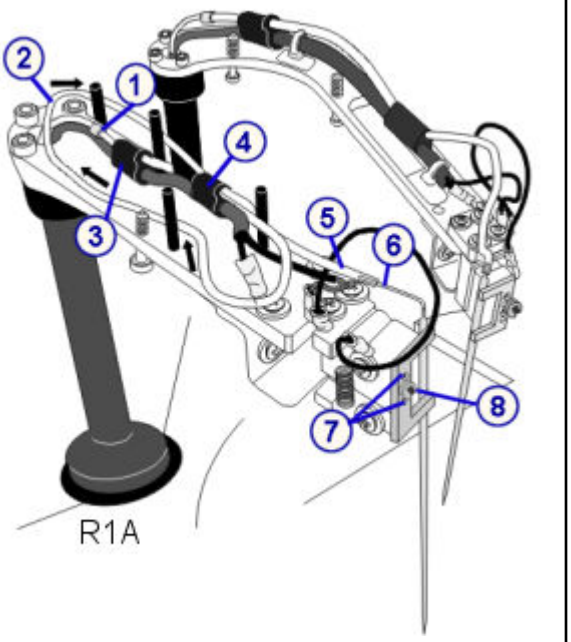
Remove the reagent probe tubing

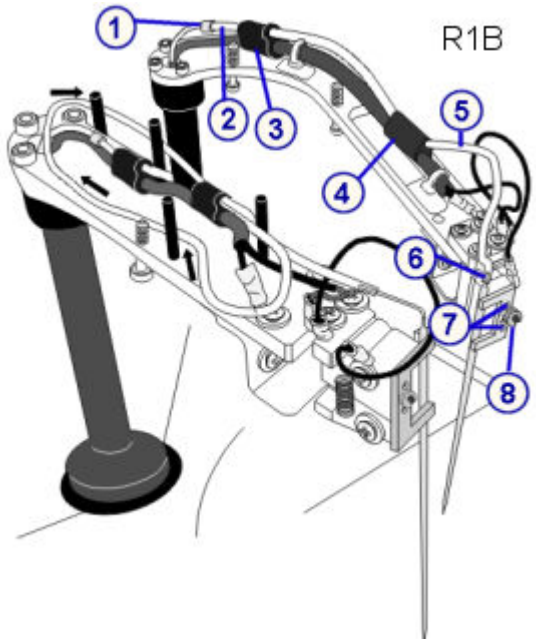
Steps	Graphic / reference
1. Remove the reagent pipettor cover by expanding the tabs[1] and gently lifting the cover [2]. 2. Place an absorbent towel under the probe tip. 3. Use a slotted screwdriver to slightly loosen the probe screw [3]. Continue to loosen the probe screw by hand until the probe is released from the reagent pipettor arm. Do not completely remove the screw. 4. Gently disconnect the tubing from the top of the probe [4] and then remove the tubing from the black routing clips [5]. 5. Gently disconnect the tubing from the metal tubing connector [6].	

Steps	Graphic / reference
	

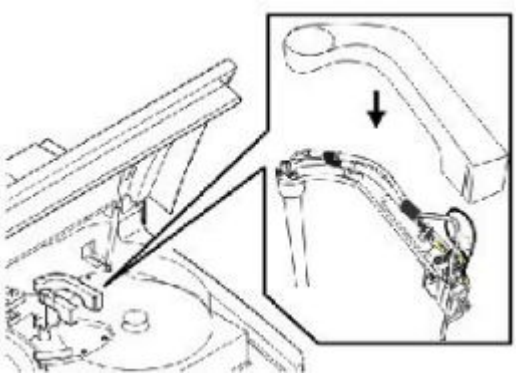
Replacement

Install the reagent probe tubing

Steps	Graphic / reference
1. Attach the end of the new tubing and metal connector [1] to the reagent pipettor tubing [2]. **NOTE:** Do not flare or stretch the new tubing. 2. Begin routing the tubing by performing one of the following: – For reagent pipettor R1B and R2B, route the tubing through the black routing clips [3] and [4]. Proceed to step 5. – For reagent pipettor R1A and R2A, insert the tubing in the first black routing clip [3] at the metal connector. Proceed to step 3. **NOTE:** It is important to route the tubing as instructed to prevent crimping when the pipettor cover is replaced. 3. Route the tubing to the front end of the reagent arm and then loop it toward the back of the reagent arm being careful not to pinch the tubing. 4. Gently loop the tubing toward the front of the reagent arm and then route it through the second black routing clip [4].	

Steps	Graphic / reference
5. Attach the tubing [5] to the reagent probe [6]. **NOTE:** Do not crimp, flare, or stretch the new tubing. The tubing should fit firmly on the reagent probe but must not be pushed past the bend of the probe in order to prevent the tubing from becoming too loose. 6. Position the probe [6] on the alignment pins [7] so that the probe plate is flush with the plate on the reagent pipettor arm. 7. Finger-tighten the screw [8] to hold the probe in place. Stabilize the pipettor arm and use the screwdriver to tighten the screw. 8. Complete the ***pipettors*** diagnostic procedure *1161 Probe Move*, page 10-631 to return the reagent pipettor to the home position. 9. Remove the absorbent towel.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 2. Visually inspect the probe for drips and inspect the reagent probe tubing and connections for leaks. If you observe drips or leaks, repeat the installation procedure. 3. Gently replace the pipettor cover. Ensure the tubing is not pinched or crimped below the pipettor cover. Some gentle movement may be necessary to align the cover.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the lamp or lamp plate (*c*16000)

Replacing the lamp or lamp plate consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-270
  - *Remove the covers*, page 9-271
  - *Remove the terminal cable connections*, page 9-271
  - *Remove the lamp*, page 9-272
- Replacement
  - *Install the lamp plate and lamp*, page 9-272
  - *Install the terminal cables*, page 9-273
  - *Install the processing module cover*, page 9-273
  - *Prepare for operation*, page 9-273
- Verification
  - *Run quality control*, page 9-274

Prerequisite	Power off the processing module.
Estimated time required	15 minutes **NOTE:** Time does not include lamp warm up (30 minutes)
Tools/materials required	• Phillips screwdriver • Gloves
Replacement parts	LN 09D45-03 - Lamp

CAUTION: Possibility of electric shock. Never remove the lamp or lamp plate with the processing module powered on. See *Electrical hazards*, page 8-15.

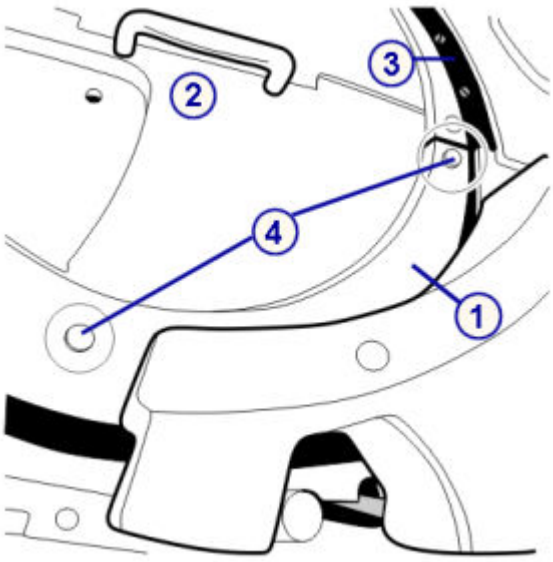
CAUTION: Hot Surface. This is an activity or area where you may be exposed to hot surfaces. See *Hot objects*, page 8-22.

Removal

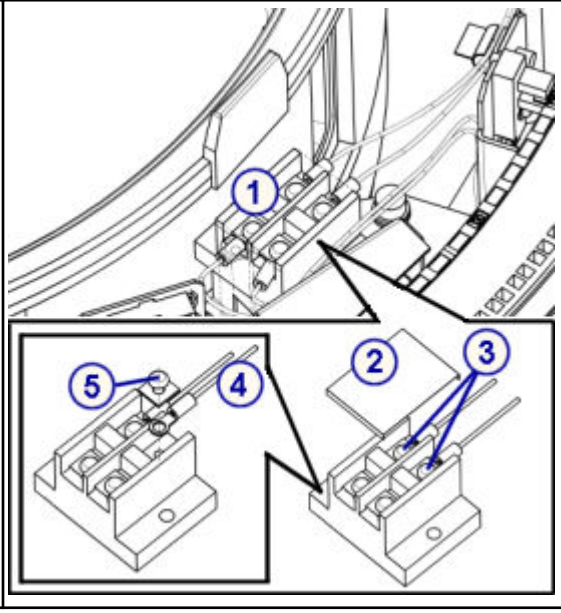
Prepare for removal

Steps	Graphic / reference
Power off the processing module by using the main circuit breaker located at the rear of the module. See *Power off the processing module and/or sample handler*, page 5-11.	

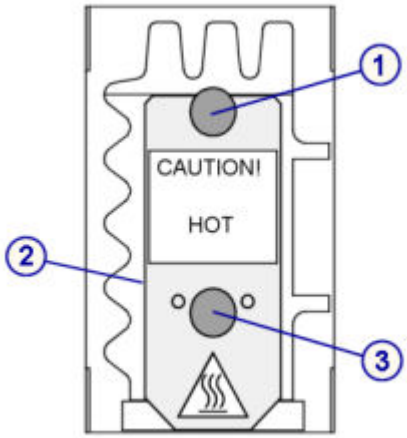
Remove the covers

Steps	Graphic / reference
WEEE: Wait at least five minutes after turning the power off to allow the lamp and the lamp housing to cool. **NOTE:** The lamp can be accessed from the back of the processing module. 1. Open the rear processing module cover. Locate the reaction carousel rear cover [1] located between the reagent 2 supply center [2] and the reaction carousel [3]. 2. Remove the screws [4] securing the cover in place and remove the cover.	

Remove the terminal cable connections

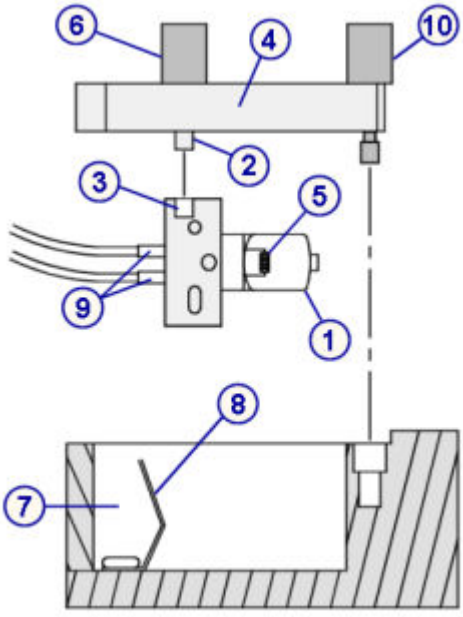
Steps	Graphic / reference
1. Locate the terminal block [1]. 2. Remove the transparent cover [2] from the terminal block by grasping both ends and lifting up. 3. Using the Phillips screwdriver, completely loosen the two captive screws [3] securing the two lamp cables [4] on the terminal block. 4. Raise the screws [5] and lower the lamp cables [4] completely to allow you to disengage the cables from the bottom of the screws.	

Remove the lamp

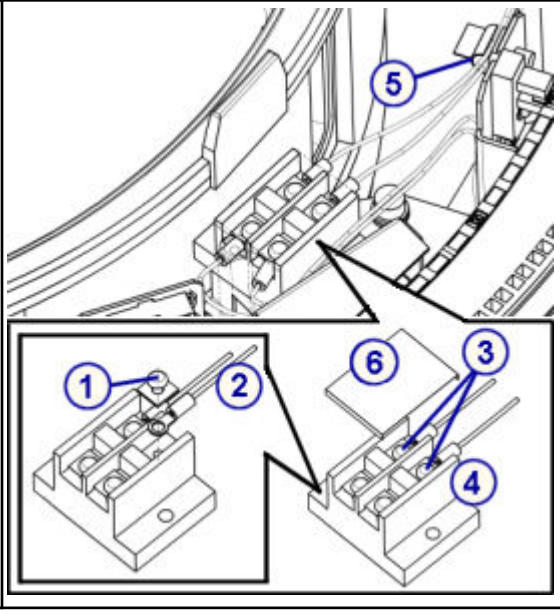
Steps	Graphic / reference
WEEE: Wait at least five minutes after turning the power off to allow the lamp and the lamp housing to cool. 1. Completely loosen the top thumbscrew [1] on the lamp plate [2] in the housing. 2. Lift the lamp plate and loosen the other thumbscrew [3] to remove the lamp from the plate.	

Replacement

Install the lamp plate and lamp

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil on the glass surface of the lamp shortens the lamp life. The glass surface may be cleaned with ethanol, if necessary. 1. Insert the replacement lamp [1] fitting the pins [2] into the pin holes [3] on the lamp plate [4]. 2. Verify the filament [5] is perpendicular to the lamp plate [4]. 3. Tighten the thumbscrew [6] on the lamp plate while the lamp is fully inserted into the pin holes. 4. Insert the lamp assembly into the housing [7], pressing it against the leaf spring [8], and down into the housing. Ensure the lamp assembly is properly seated into the housing. 5. Verify the lamp cables [9] are through the slot behind the lamp and are not pinched by the lamp plate. 6. Tighten the thumbscrew [10] to secure the lamp in place.	

Install the terminal cables

Steps	Graphic / reference
1. Raise the screws [1] and insert the cables [2] under the screws. 2. Use the Phillips screwdriver to tighten the two captive screws [3] securing the two lamp cables [4] on the terminal block. 3. Wrap excess lamp cables and secure with white plastic clamp [5]. 4. Replace the transparent cover [6] on the terminal block. 5. Power on the processing module. The system control center power MUST be on prior to turning on the processing module to ensure proper initialization. 6. Check for stray light around lamp housing cover.	

Install the processing module cover

Steps	Graphic / reference
1. Replace the reaction carousel rear cover. 2. Close the rear processing module cover.	

Prepare for operation

Steps	Graphic / reference
1. *Start up the processing module and/or sample handler*, page 5-15, to change the status of the processing module and sample handler from Stopped to Ready. **IMPORTANT:** The lamp must warm up 30 minutes prior to running assays. 2. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27, to document the lamp change in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace a cuvette (*c*16000)

Replacing a cuvette consists of the following procedures.

- Removal
  - *Remove cuvette segment*, page 9-275
  - *Clean replacement cuvette*, page 9-275
  - *Remove the individual cuvette pair*, page 9-276
- Replacement
  - *Install the individual cuvette pair*, page 9-276
  - *Reinstall the cuvette segment*, page 9-277
- Verification
  - *Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move*, page 9-277

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Detergent A • Lint-free absorbent towel • Cotton swabs • Slotted screwdriver • Purified water • Container large enough to accommodate new cuvettes • Gloves
Replacement parts	LN 09D33-03 - Cuvette Pair Replacement Set

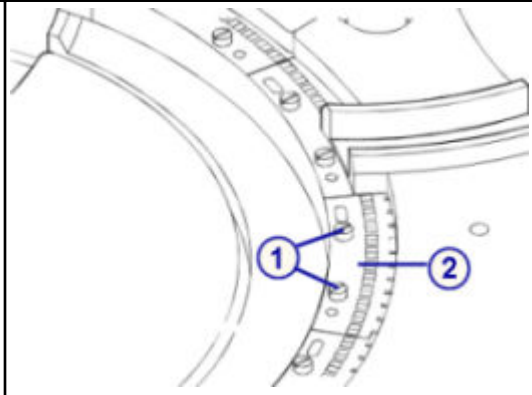
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to sharps. See *Probes and other sharps*, page 8-18.

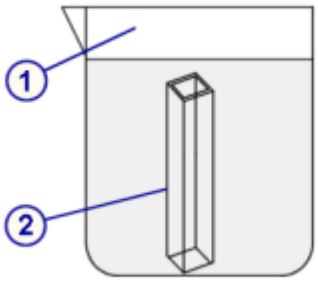
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

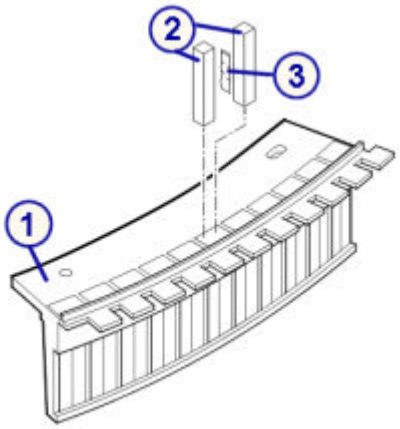
Remove cuvette segment

Steps	Graphic / reference
1. Determine the cuvette number requiring replacement. 2. Identify the location of the cuvette on the reaction carousel. 3. Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to rotate the carousel so that the cuvette segment [2] containing the cuvette is at the front of the module. 4. Use the slotted screwdriver to loosen the two screws [1] located on the top of the cuvette segment until the segment can be removed from the reaction carousel. 5. Inspect all cuvettes in the segment and replace if damaged. 6. Set the cuvette segment aside on a lint-free absorbent towel.	

Clean replacement cuvette

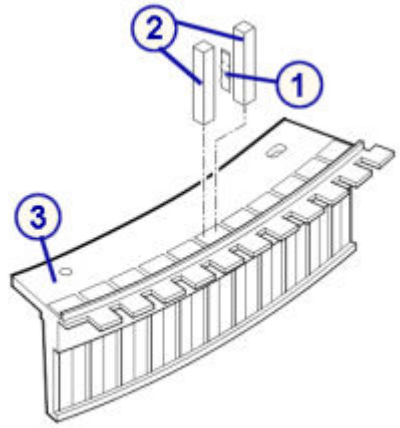
Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the new cuvette(s) from the shipping container and place them on a lint-free absorbent towel. 2. Wet a cotton swab with Detergent A and clean the inside and outside of the new cuvette(s). 3. Fill a clean, residue-free container [1] with enough purified water to completely submerge the new cuvette(s) [2]. 4. Rinse the cuvette(s) in the water to remove the Detergent A and drain any excess water from the cuvette(s).	

Remove the individual cuvette pair

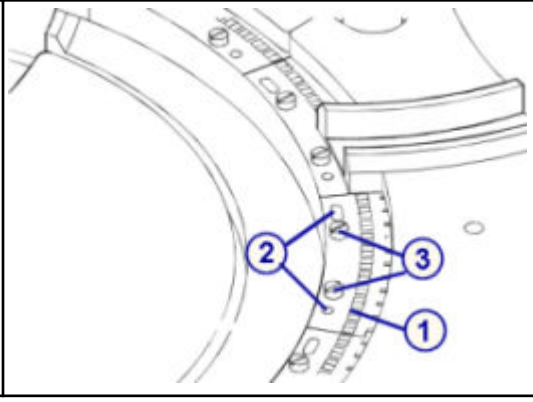
Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Grasp the cuvette segment [1] and gently push up on the desired cuvette pair [2] to remove it from the segment. **WEEE:** The leaf spring [3] between the two cuvettes is very sharp and should be handled with care. **NOTE:** Be careful not to lose this leaf spring since no replacement spring is provided. 2. Once a portion of the cuvette pair is raised above the top surface of the segment, grasp the cuvette pair gently and pull straight out.	

Replacement

Install the individual cuvette pair

Steps	Graphic / reference
1. Align the new cuvettes so the frosted sides of the cuvettes are facing each other. To ensure optimal performance through the life span of an ARCHITECT *c*16000, the cuvettes should be replaced after 12 years of use. 2. Position the leaf spring between the frosted sides of the two cuvettes. The square end of the leaf spring [1] must be installed at the top of the cuvette pair [2]. **WEEE:** The spring is very sharp and should be handled with care. 3. Holding the spring between the cuvette pair, insert the cuvettes into the segment. 4. Gently push the cuvette pair down until the top of the cuvettes are just below the upper surface of the cuvette segment [3]. 5. Inspect the cuvettes to ensure the frosted sides are not visible and the bottoms are aligned with the other cuvettes. It may be necessary to press them gently against the bottom outside edge.	

Reinstall the cuvette segment

Steps	Graphic / reference
1. Position the cuvette segment [1] on the reaction carousel alignment pins [2]. 2. Finger-tighten the slotted screws [3] into the segment. 3. Gently tighten the screws with the slotted screwdriver.	

Verification

Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move

Steps	Graphic / reference
Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.	

Replace a cuvette segment (*c*16000)

Replacing a cuvette segment consists of the following procedures.

- Removal
  - *Remove cuvette segment*, page 9-278
  - *Clean replacement cuvette segment*, page 9-278
- Replacement
  - *Install the cuvette segment*, page 9-279
- Verification
  - *Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move*, page 9-279

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Detergent A • Lint-free absorbent towel • Cotton swabs • Slotted screwdriver • Purified water • Container large enough to accommodate new cuvettes

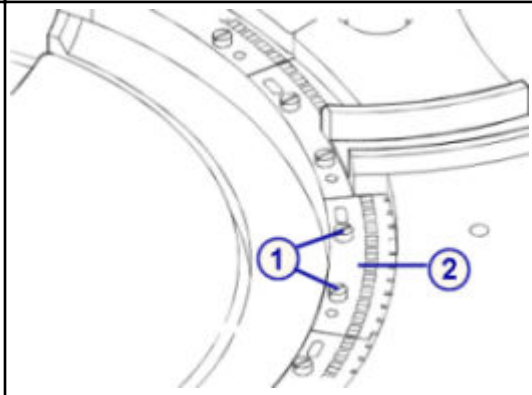
	• Gloves
Replacement parts	LN 09D32-03 - Cuvette segment

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

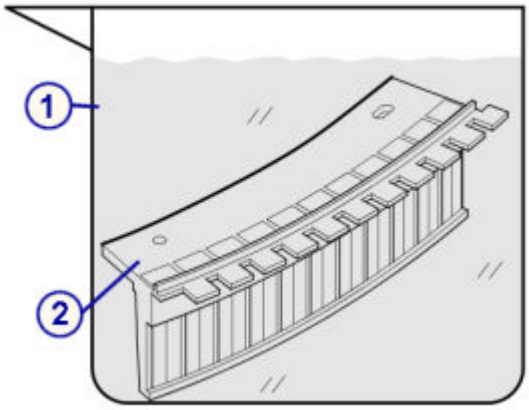
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

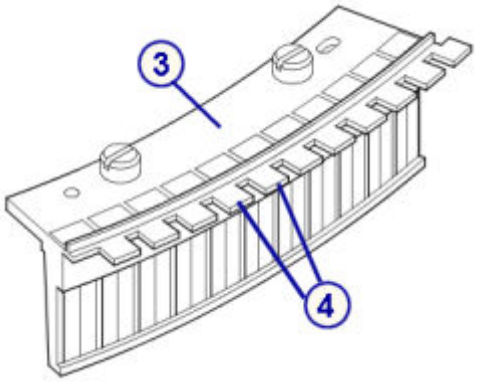
Removal

Remove cuvette segment

Steps	Graphic / reference
1. Determine the cuvette segment requiring replacement. 2. Identify the location of the cuvette segment on the reaction carousel. 3. Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to rotate the carousel so that the appropriate cuvette segment is at the front of the module. 4. Use the slotted screwdriver to loosen the two screws [1] located on the top of the cuvette segment [2] until the segment can be removed from the reaction carousel. 5. Dispose of the cuvette segment.	

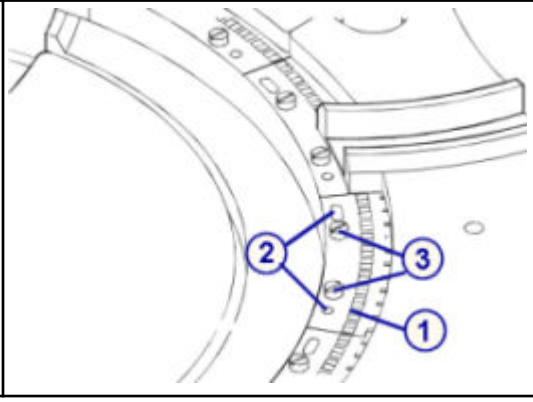
Clean replacement cuvette segment

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand may cause imprecise optical reads. 1. Remove the new cuvette segment from the shipping container and place it on a lint-free absorbent towel. 2. Wet a cotton swab with Detergent A and clean the inside and outside of all of the cuvettes in the new cuvette segment. 3. Fill a clean, residue-free container [1] with enough purified water to completely submerge the new cuvette segment [2].	

Steps	Graphic / reference
4. Rinse the cuvette segment in the water to remove the Detergent A and drain any excess water from the cuvettes. 5. Dry the top of the cuvette segment [3], especially the slotted edges [4], to remove any remaining water.	

Replacement

Install the cuvette segment

Steps	Graphic / reference
1. Position the cuvette segment [1] on the reaction carousel alignment pins [2]. To ensure optimal performance through the life span of an ARCHITECT *c*16000, the cuvettes should be replaced after 12 years of use. 2. Finger-tighten the slotted screws [3] on the segment. 3. Gently tighten the screws with a slotted screwdriver.	

Verification

Perform carousels diagnostic procedure 3010 Reaction Carousel Home / Move

Steps	Graphic / reference
Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.	

Replace the cuvette dry tips (*c*16000)

Replacing the cuvette dry tips consist of the following procedures.

- Removal
  - *Remove the cuvette washer assembly*, page 9-281

  - *Remove the cuvette dry tips*, page 9-281

- Replacement
  - *Install the cuvette dry tips and cuvette washer assembly*, page 9-282
  - *Prepare for operation*, page 9-282
- Verification
  - *Wash the cuvettes*, page 9-283
  - *Run quality control*, page 9-283

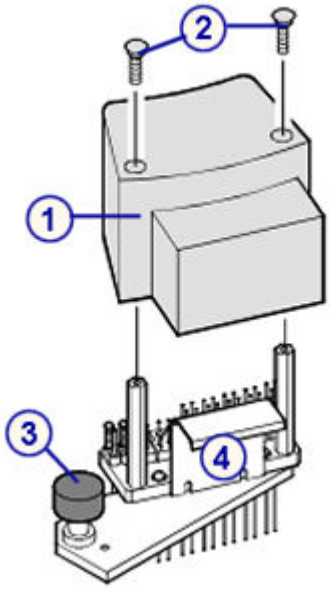
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Metric ruler • Gloves
Replacement parts	LN 09D51-02 - Cuvette dry tips

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

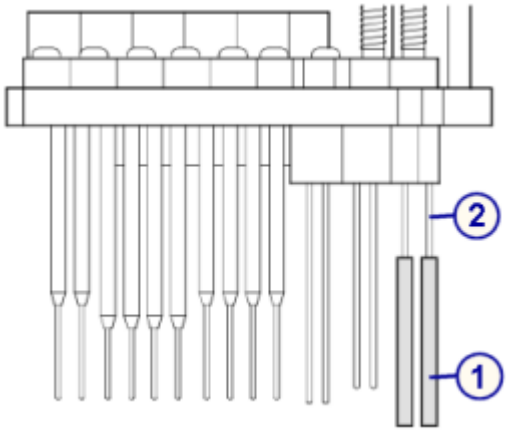
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Remove the cuvette washer assembly

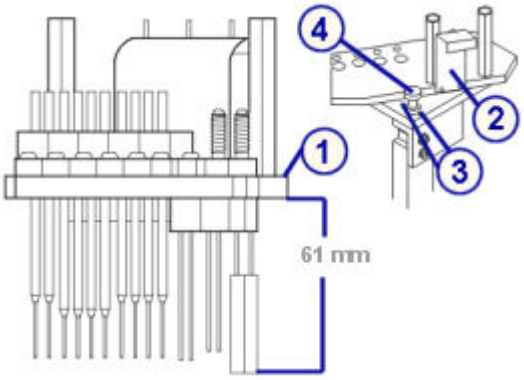
Steps	Graphic / reference
1. Open the rear processing module cover. 2. Remove the cuvette washer cover [1] by unscrewing the thumbscrew [2]. 3. Loosen the black knurled knob [3] to the left of the cuvette washer until the cuvette washer assembly [4] can be lifted from the mounting bracket.	

Remove the cuvette dry tips

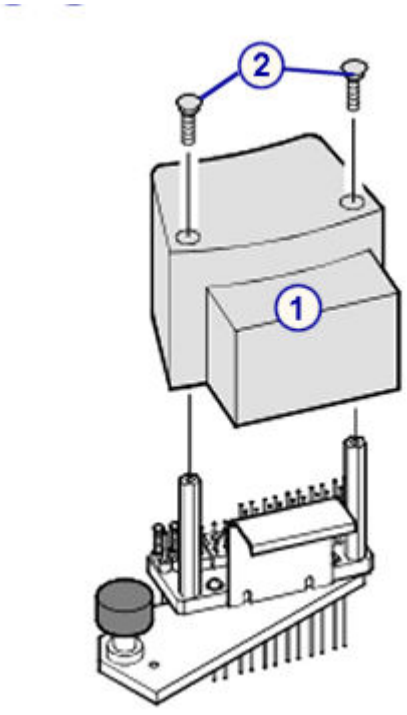
Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand interferes with the proper drying function of the tip. 1. Lift the cuvette washer assembly and rotate it so you can easily access the white cuvette dry tip. **NOTE:** The cuvette washer nozzles are attached to the black nozzle mounting plate. You do not need to remove any of the screws securing the wash nozzles to the mounting plate. 2. Remove the cuvette dry tip(s) [1] by pulling it off the metal nozzle(s) [2]. 3. Discard the used tips.	

Replacement

Install the cuvette dry tips and cuvette washer assembly

Steps	Graphic / reference
IMPORTANT: Wear gloves when you perform the following steps. Residual oil from an ungloved hand interferes with the proper drying function of the tips. 1. Gently install the new cuvette dry tips, taking care to orient them properly. **NOTE:** The cuvette dry tips and the cuvettes are both rectangular in shape. Install the dry tip(s) so they fit into the cuvettes. 2. Position the bottom of the cuvette dry tips 61 ± 0.5 mm from the underside of the cuvette washer assembly [1]. 3. Position the cuvette washer assembly [2] on the alignment pins [3], and then tighten the black knurled knob [4].	

Prepare for operation

Steps	Graphic / reference
1. Initiate ***Fuses/Motors*** diagnostic procedure *5142 Wash Station Up/Down*, page 10-637 to home the cuvette washer assembly and reaction carousel. 2. Verify the rectangular orientation and alignment of the cuvette dry tips with the cuvettes. **NOTE:** Wear gloves if adjustment to the cuvette dry tips is required. Residual oil from an ungloved hand interferes with the proper drying function of the tips. 3. Select **L2** (step down) on the processing module keypad or the Diagnostic perform window to move the washer assembly down. 4. Verify the alignment of each cuvette dry tip is correct and that it moves smoothly into the cuvettes. **NOTE:** When stepping the cuvette washer down, if the cuvette dry tip appears to contact the top of either the cuvette or cuvette segment, inspect both the cuvette and cuvette segment for damage. Impact from the cuvette dry tip can potentially cause cuvette damage or cause the cuvette segment base to detach. See *Inspect the cuvette segment (c System)*, page 10-711. 5. Select **L1** (up) to move the washer assembly up.	

Steps	Graphic / reference
6. Select **L4** (exit) to end the procedure. 7. Select **Done** on the Diagnostic perform window to complete the procedure. 8. Replace the cuvette wash cover [1], and then tighten the thumbscrew [2].	

Verification

Wash the cuvettes

Steps	Graphic / reference
Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the mixer (*c*16000)

Replacing the mixer consists of the following procedures.

- Removal
  - *Remove the mixer*, page 9-284
- Replacement
  - *Install the mixer*, page 9-285
- Verification
  - *Perform reaction mechanisms diagnostic procedure 3126 Mixer Vibration Test*, page 9-285
  - *Run quality control*, page 9-285

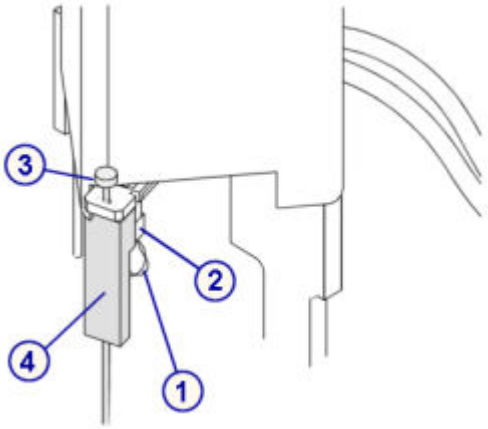
Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	None
Replacement parts	LN 09D59-03 - Mixer

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

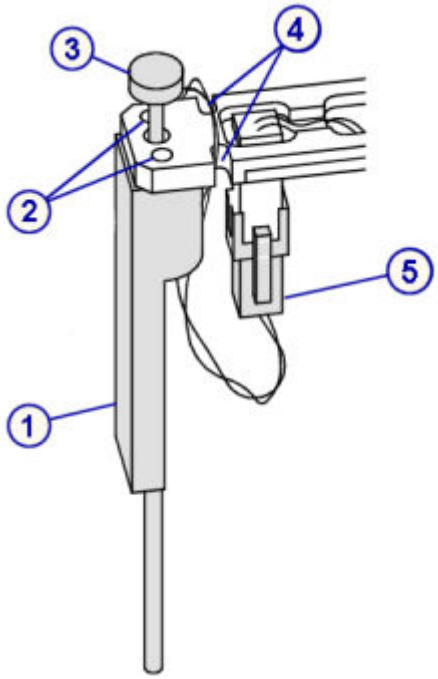
Removal

Remove the mixer

Steps	Graphic / reference
1. Open the rear processing module cover. 2. Locate the appropriate mixer. 3. Unplug the cable [1] by pinching the white connector [2]. 4. Loosen the black thumbscrew [3] on the top of the mixer assembly. 5. Remove the mixer [4].	

Replacement

Install the mixer

Steps	Graphic / reference
1. Orient the new mixer assembly [1] so that the flat side faces away from the mixer arm. 2. Align the positioning pins [2] on the top of the mixer with the holes on the mixer arm. Tighten the black thumbscrew [3] until the top of the mixer is flush with the mixer arm. 3. Fold the excess cable over the top of the mixer arm fitting it into the notches [4]. 4. Attach the cable connector to the white connector [5] on the bottom of the mixer arm. **NOTE:** This connector is keyed and only goes in one way.	

Verification

Perform reaction mechanisms diagnostic procedure 3126 Mixer Vibration Test

Steps	Graphic / reference
Perform ***reaction mechanisms*** diagnostic procedure *3126 Mixer Vibration Test*, page 10-629, to verify mixer function.	

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the ICT module or probe (*c*16000)

Replacing the ICT module or probe consists of the following procedures:

- Removal

- *Remove the covers*, page 9-287
- *Remove the ICT module and probe*, page 9-288

- Replacement
  - *Install the ICT module and probe*, page 9-289
  - *Insert the ICT module and probe into the ICT holder*, page 9-290
  - *Prepare for operation*, page 9-291
- Verification
  - *Calibrate ICT assays*, page 9-291

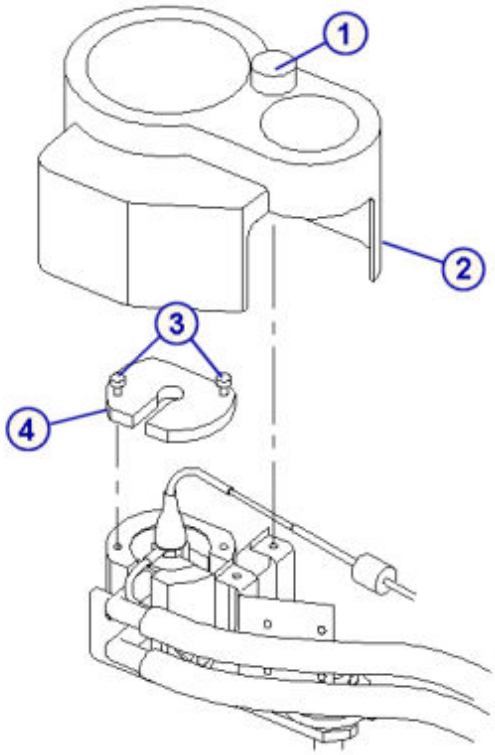
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	NA
Replacement parts	• LN 09D63-04 - ICT probe • LN 09D28-03 - ICT module

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

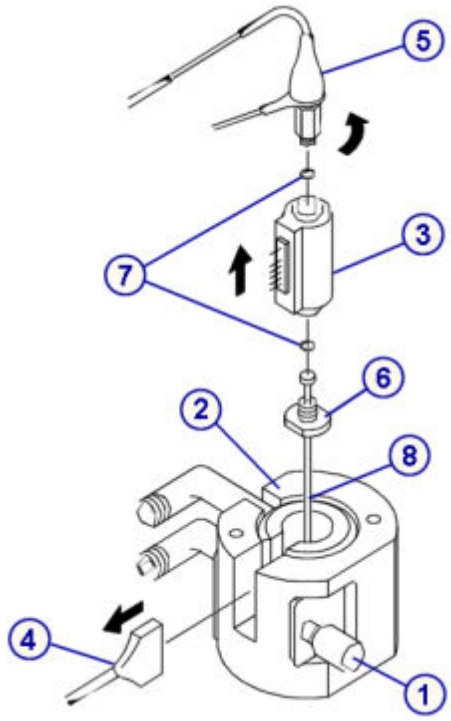
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Remove the covers

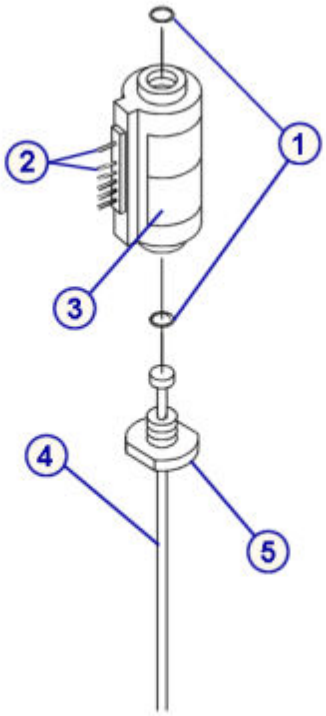
Steps	Graphic / reference
1. Lift the rear cover on the processing module to access the ICT module and probe. 2. Locate the ICT unit. 3. Loosen the thumbscrew [1] and lift the cover [2] off the ICT unit. 4. Loosen the two captive thumbscrews [3] that secure the black plate [4] in place. 5. Remove the black plate [4].	

Remove the ICT module and probe

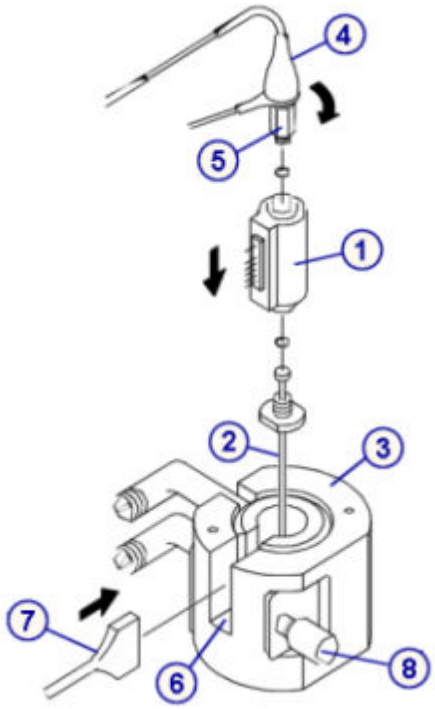
Steps	Graphic / reference
1. Loosen the thumbscrew [1] on the side of the ICT holder [2] until the ICT module [3] can be lifted up. 2. Disconnect the black electrical connector [4] from the side of the module by pulling it straight out. 3. Verify the connector is completely free from the module. 4. Lift the ICT module [3] until the connectors on the side of the ICT module clear the ICT holder [2]. **IMPORTANT:** To avoid damage to the probe, do not lift the ICT module and probe all the way out of the ICT holder. 5. Gently unscrew the ICT module [3], rotating it clockwise, to free it from the top connector [5]. 6. Lift the ICT module and probe straight up out of the ICT holder. 7. Unscrew the ICT probe holder [6] from the ICT module. 8. Inspect the ports of the ICT module. Verify that one o-ring [7] is present at each location. **IMPORTANT:** Running the system without the o-rings could affect patient results. 9. Discard the ICT module if replacing; otherwise, set it aside for use with the new ICT probe. 10. Remove the ICT probe [8] from the probe holder. 11. Discard the probe if replacing; otherwise set it aside for use with the new ICT module.	

Replacement

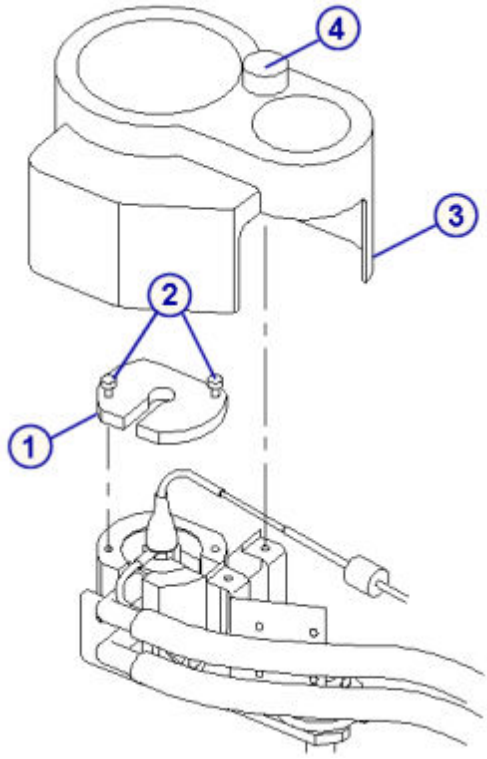
Install the ICT module and probe

Steps	Graphic / reference
1. Remove the ICT module from the box, if replacing the ICT module. 2. Disconnect and discard the plastic tubing attached to both ends of the ICT module. 3. Inspect the ports on the ICT module. Verify that one o-ring [1] is present at each location. **IMPORTANT:** Running the system without the o-rings could affect patient results. 4. Align the ICT module so that the gap [2] between the side connectors is on top and the label [3] is right-side up. 5. Place the ICT probe [4] into the probe holder [5]. 6. Attach the probe holder and probe to the bottom of the ICT module (finger-tighten only).	

Insert the ICT module and probe into the ICT holder

Steps	Graphic / reference
1. Insert the ICT module [1] with the probe [2] into the ICT holder [3] until the connectors on the side of the ICT module are just above the top of the ICT holder [3]. 2. Rotate the ICT module [1] counterclockwise (finger-tighten only) to reattach the ICT module to the top port [4] and to the connector [5]. 3. Allow the ICT module [1] to seat fully down into the ICT holder [3] so that the connectors are aligned with the slot [6] in the ICT holder [3]. 4. Gently reconnect the black electrical connector [7] to the ICT module connectors. Ensure the ICT module is completely plugged into the connector. 5. Hold down the ICT module while tightening the side thumbscrew [8] until secure. Do not overtighten. The ICT module could be damaged.	

Prepare for operation

Steps	Graphic / reference
1. If the ICT module was replaced, return to the Replace ICT window on the SCC (System Control Center) to complete the replacement procedure. 2. If the ICT probe was replaced, perform ***as-needed*** maintenance procedure *6063 Flush ICT Module*, page 9-41. 3. Inspect the tubing from the ICT module for bubbles. 4. Inspect the ICT probe to ensure it does not drip. If you observe bubbles or drips, see *Processing module observed problems (c System)*, page 10-516. 5. Reattach the black plate [1] by securing it with the two thumbscrews [2] on the top. 6. Reattach the ICT unit cover [3] and tighten the thumbscrew [4] to secure.	

Verification

Calibrate ICT assays

Steps	Graphic / reference
1. Calibrate ICT assays. 2. Run quality control samples to verify calibration.	

Replace the sample carousel clip (*c*16000)

Replacing the sample carousel clip consists of the following procedures.

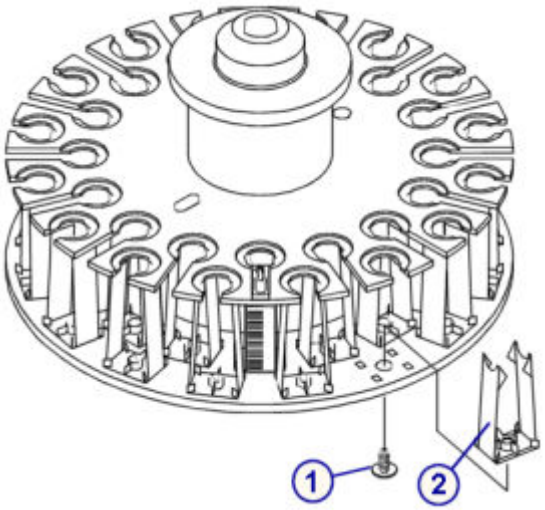
- Removal
  - *Remove the sample carousel clip*, page 9-292
- Replacement
  - *Replace the sample carousel clip*, page 9-293
- Verification
  - *Load a sample tube*, page 9-293

Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Phillips screwdriver
Replacement parts	LN 04J45-01 - Sample carousel clip

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

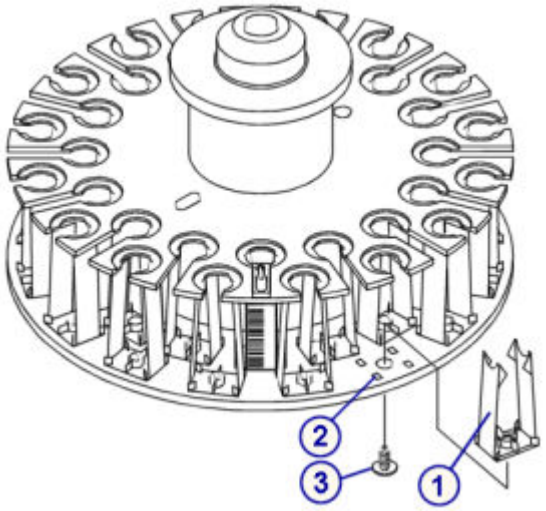
Removal

Remove the sample carousel clip

Steps	Graphic / reference
1. *Remove the sample carousel (c8000/c16000)*, page 10-712, from the processing module, and then remove any patient samples. 2. Use the Phillips screwdriver to remove the screw [1] securing the sample carousel clip [2] in place. 3. Remove and discard the clip.	

Replacement

Replace the sample carousel clip

Steps	Graphic / reference
1. Insert the new sample carousel clip [1] in the sample carousel using the four square alignment holes [2] on the bottom of the sample carousel to seat the clip in position. **NOTE:** The sample carousel clip only fits one way in the sample carousel. 2. Use the Phillips screwdriver to secure the clip to the bottom of the sample carousel using the new screw [3] provided. 3. Place the sample carousel on the processing module, ensuring the alignment holes fit over the alignment pins.	

Verification

Load a sample tube

Steps	Graphic / reference
Load a sample tube in the sample carousel position where the carousel clip was replaced to verify proper installation of the clip.	

ARCHITECT *c*16000 supply and pump components replacement

You may need to replace certain supply and pump components due to normal wear from daily operations.

To replace supply and pump center components, see:

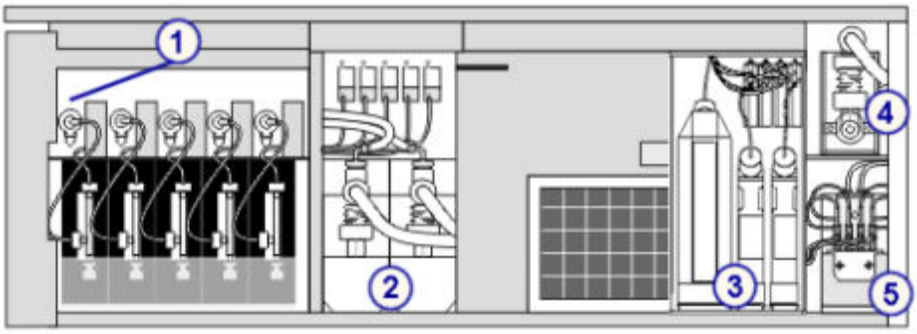
- *ARCHITECT c16000 supply and pump center components*, page 9-294
- *Replace the 1 mL syringes (c16000)*, page 9-295
- *Replace check valves (c16000)*, page 9-299
- *Replace the ICT reference solution filter (c16000)*, page 9-303
- *Replace the wash solution filter (c16000)*, page 9-305
- *Replace wash solution syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-308
- *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315

- *Replace the pump poppet valve set (c16000)*, page 9-322

ARCHITECT *c*16000 supply and pump center components

The following illustrations show the location of the supply and pump center components. Use these illustrations when performing maintenance and component replacement procedures.

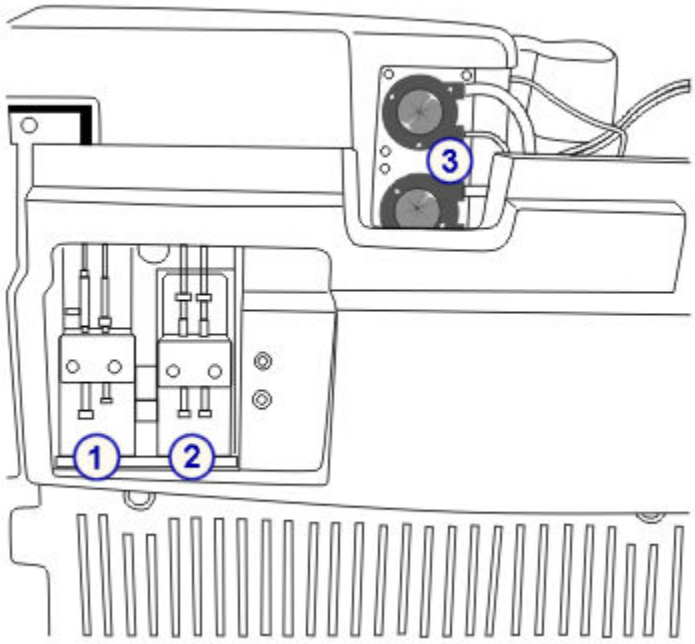
Figure 9.24: ARCHITECT c16000 supply and pump center (front view)



Legend:

1. Sample, reagent 1 and reagent 2 syringe drives
2. Probe wash pumps
3. Bulk solutions
4. Cuvette wash pump
5. Wash solution pump

Figure 9.25: ARCHITECT c16000 supply and pump center (rear view)



Legend:

1. ICT aspiration pump
2. ICT reference solution pump
3. High concentration waste pump

Replace the 1 mL syringes (*c*16000)

Replacing the 1 mL syringes on the ICT reference pump, ICT aspiration pump, and wash solution pump consists of the following procedures.

- Removal
  - *Locate the 1 mL syringe to be replaced*, page 9-296
  - *Remove the plunger shield and the 1 mL syringe*, page 9-297
  - *Detach and replace the 1 mL syringe*, page 9-297
- Replacement
  - *Reinstall the 1 mL syringe and plunger shield*, page 9-298
  - *Prepare for operation*, page 9-298
- Verification
  - *Run quality control*, page 9-298

NOTE: The same procedure is used to replace the 1 mL syringes in all three pumps.

Prerequisite	The processing module must be in the Ready status.
Estimated time required	20 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D41-03 - 1 mL syringe **NOTE:** The same 1 mL syringe is used for the ICT reference pump, the ICT aspiration pump, and the wash solution pump.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

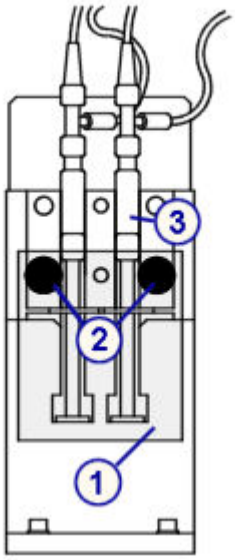
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

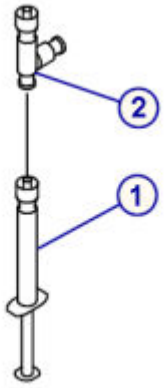
Locate the 1 mL syringe to be replaced

Steps	Graphic / reference
1. Locate the 1 mL syringe to be replaced by performing one of the following: – Wash solution syringes - Open the pump center right door on the front of the processing module. **NOTE:** See the front view illustration of the supply and pump center components for wash solution syringe location, *ARCHITECT c16000 supply and pump center components*, page 9-294. – ICT aspiration or ICT reference pump syringes - Open the ICT pump center access door on the rear of the processing module. **NOTE:** See the rear view illustration of the supply and pump center components for ICT aspiration or ICT reference pump syringe location, *ARCHITECT c16000 supply and pump center components*, page 9-294.	

Remove the plunger shield and the 1 mL syringe

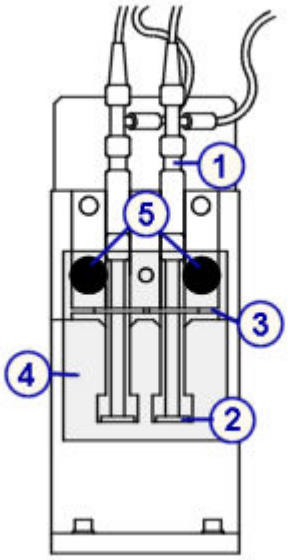
Steps	Graphic / reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Detach and replace the 1 mL syringe

Steps	Graphic / reference
1. Place an absorbent towel under the pump area to absorb any liquid. 2. Unscrew the syringe assembly [1] from the check valve [2]. 3. Screw the new syringe assembly [1] onto the check valve [2]. **NOTE:** Be sure to replace the syringe and plunger (components of the syringe assembly) as a pair.	

Replacement

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / reference
1. Reinstall the syringe [1]. 2. Verify the plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and secure it with the black knobs [5]. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform the following ***as-needed*** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace check valves (*c*16000)

Replacing the check valves on the ICT reference pump, ICT aspiration pump, or wash solution pump consists of the following procedures.

- Removal
  - *Locate the check valve to be replaced*, page 9-300
  - *Remove the plunger shield and the 1 mL syringe*, page 9-300
  - *Remove the check valve tubing*, page 9-301
- Replacement
  - *Replace the check valve*, page 9-301
  - *Reinstall the check valve tubing*, page 9-302
  - *Reinstall the 1 mL syringe and plunger shield*, page 9-302
  - *Prepare for operation*, page 9-303
- Verification
  - *Run quality control*, page 9-303

Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent towel
Replacement parts	• LN 09D35-03 - ICT Reference or ICT Aspiration Check Valve • LN 09D34-03 - Wash Solution Check Valve **NOTE:** The ICT reference and aspiration pumps use the same list number. The wash solution pump uses a different list number. Ensure the correct part is used.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

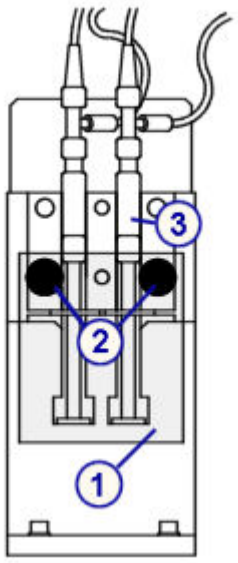
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

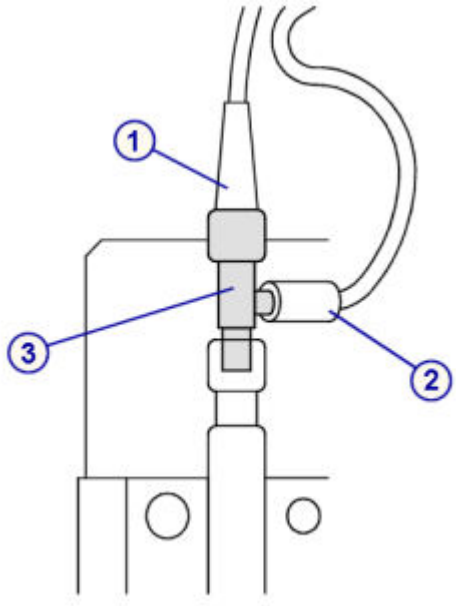
Locate the check valve to be replaced

Steps	Graphic / reference
1. Locate the check valve to be replaced by performing one of the following: – Wash solution check valve - Open the pump center right door on the front of the processing module. **NOTE:** See the front view illustration of the supply and pump center components for wash solution pump check valve location, *ARCHITECT c16000 supply and pump center components*, page 9-294. – ICT aspiration or reference pump check valve - Open the ICT pump center access door on the rear of the processing module. **NOTE:** See the rear view illustration of the supply and pump center components for ICT aspiration or ICT reference pump check valve location, *ARCHITECT c16000 supply and pump center components*, page 9-294.	

Remove the plunger shield and the 1 mL syringe

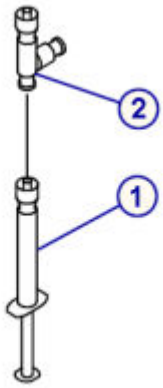
Steps	Graphic / reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Remove the check valve tubing

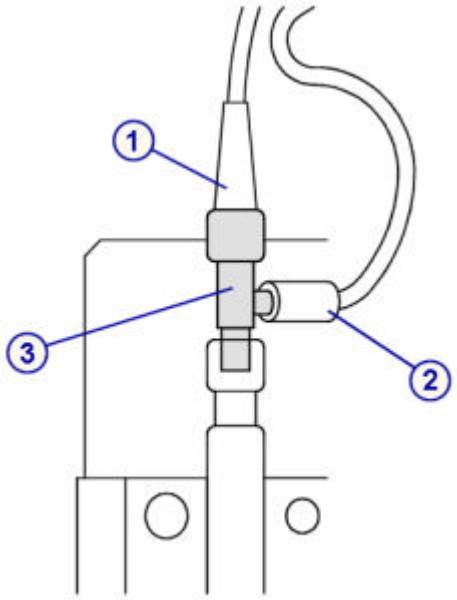
Steps	Graphic / reference
1. Place absorbent towels under the pump area to absorb any liquid. 2. Disconnect the top [1] and side [2] tubing from the check valve [3].	

Replacement

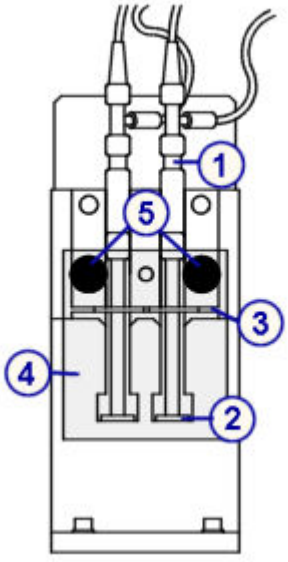
Replace the check valve

Steps	Graphic / reference
1. Unscrew the syringe body [1] from the check valve [2]. 2. Install the new check valve onto the syringe, and finger-tighten.	

Reinstall the check valve tubing

Steps	Graphic / reference
Reattach the top [1] and side [2] tubing to the check valve [3].	

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / reference
1. Reinstall the 1 mL syringe [1]. 2. Verify the syringe plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and tighten the black knobs [5] finger-tight. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform the following ***as-needed*** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6305 Change ICT Asp Check Valve*, page 9-31, to document the ICT aspiration check valve replacement in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the ICT reference solution filter (*c*16000)

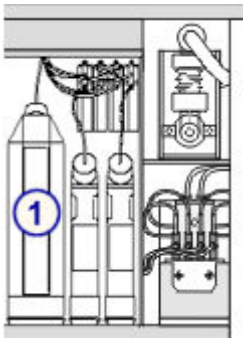
Replacing the ICT reference solution filter consists of the following procedures:

- Removal
  - *Remove the ICT reference solution tubing*, page 9-304
  - *Remove the ICT reference solution filter*, page 9-304
- Replacement
  - *Replace the ICT reference solution filter and tubing*, page 9-305
- Verification
  - *Perform as-needed maintenance procedure 2155*, page 9-305
  - *Run quality control*, page 9-305

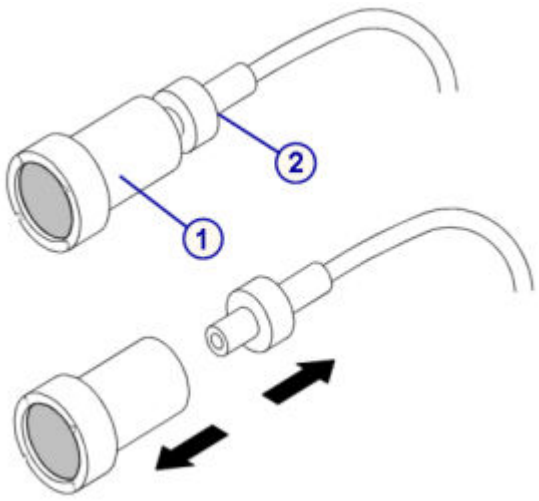
Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D43-02 - Reference/wash solution line filter

Removal

Remove the ICT reference solution tubing

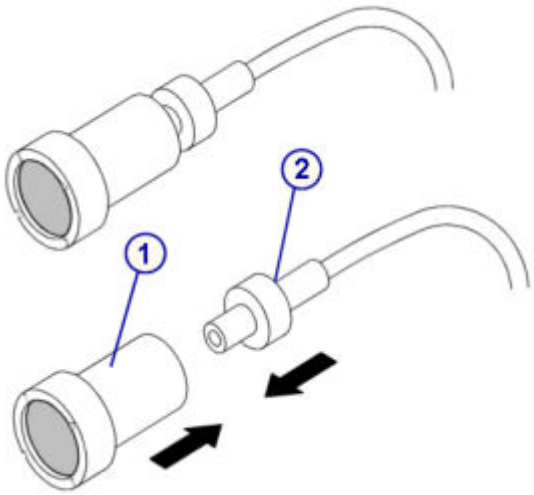
Steps	Graphic / reference
1. Open the supply center door. The ICT reference solution filter is located at the end of the tubing in the ICT reference solution bottle [1]. 2. Remove the tubing from the ICT reference solution bottle and set it aside on an absorbent towel.	

Remove the ICT reference solution filter

Steps	Graphic / reference
1. Pull the filter [1] from the connector that is attached to the end of the ICT reference solution tubing [2]. 2. Discard the filter into the appropriate waste receptacle.	

Replacement

Replace the ICT reference solution filter and tubing

Steps	Graphic / reference
1. Insert the new ICT reference filter [1] in the tubing connector [2]. 2. Insert the tubing in the ICT reference solution bottle, and ensure the tubing reaches the bottom of the bottle. 3. Close the supply center door.	

Verification

Perform as-needed maintenance procedure 2155

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37. 2. Observe all connections to ensure there are no leaks. If you observe drips or leaks, repeat the installation procedure.	

Run quality control

Steps	Graphic / reference
Run quality control samples to verify performance prior to reporting patient results.	

Replace the wash solution filter (*c*16000)

Replacing the wash solution filter consists of the following procedures:

- Removal
  - *Remove the tubing*, page 9-306

- *Remove the wash solution filter*, page 9-307

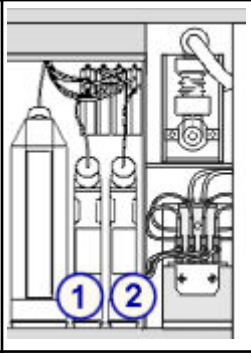
- Replacement
  - *Replace wash solution filter and tubing*, page 9-307
- Verification
  - *Perform as-needed maintenance procedure 2155*, page 9-308
  - *Run quality control*, page 9-308

Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 09D43-02 - Reference/wash solution filter

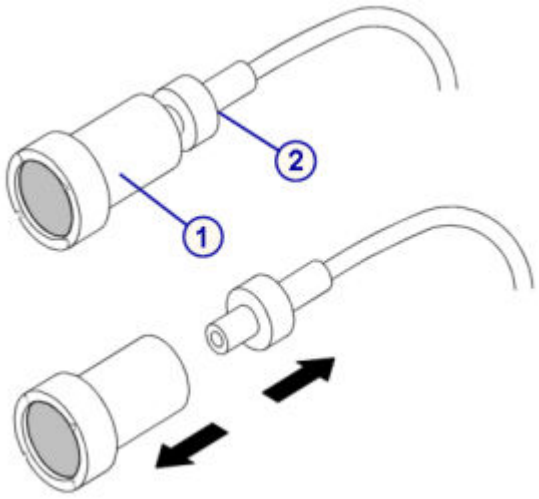
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Remove the tubing

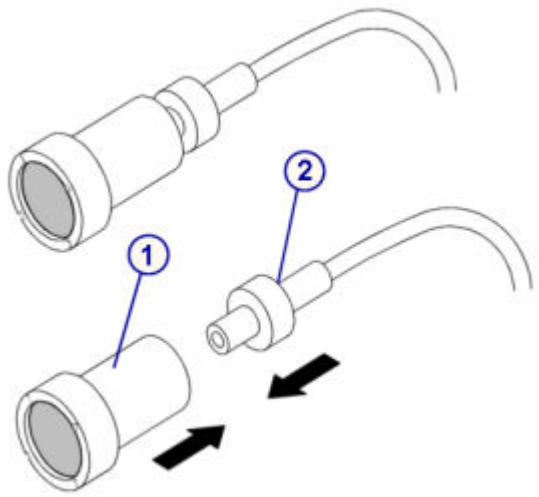
Steps	Graphic / reference
1. Open the supply center door. Wash solution filters are located at the end of the tubing in the alkaline [1] and acid [2] wash solution bottles. 2. Remove the tubing from the wash solution bottle and set it aside on an absorbent towel.	

Remove the wash solution filter

Steps	Graphic / reference
1. Pull the filter [1] from the connector that is attached to the end of the wash solution tubing [2]. 2. Discard the filter in the appropriate waste receptacle.	

Replacement

Replace wash solution filter and tubing

Steps	Graphic / reference
1. Insert the new filter [1] in the tubing connector [2]. 2. Insert the tubing in the appropriate wash solution bottle, and ensure the tubing reaches the bottom of the bottle. 3. Close the supply center door.	

Verification

Perform as-needed maintenance procedure 2155

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2155 Flush Bulk Solutions*, page 9-37. 2. Observe all connections to ensure there are no leaks. If you observe drips or leaks, repeat the installation procedure.	

Run quality control

Steps	Graphic / reference
Run quality control samples to verify performance prior to reporting patient results.	

Replace wash solution syringe o-ring and seal tips 1 and 2 (*c*16000)

Replacing the wash solution syringe o-ring and seal tips 1 and 2 consists of the following procedures.

- Removal
  - *Remove the clear outer plunger shield*, page 9-309
  - *Disconnect the wash solution syringe block tubing*, page 9-310
  - *Remove the clear inner plunger shield and syringe block*, page 9-310
  - *Remove the syringe plunger*, page 9-311
  - *Remove the o-ring and seal tips 1 and 2*, page 9-312
- Replacement
  - *Install the o-ring and seal tips 1 and 2*, page 9-312
  - *Install the syringe plunger*, page 9-313
  - *Install the syringe block and attach the clear inner plunger shield*, page 9-313
  - *Connect the wash solution syringe block tubing*, page 9-314
  - *Install the clear outer plunger shield*, page 9-314
  - *Prepare for operation*, page 9-315
- Verification
  - *Run quality control*, page 9-315

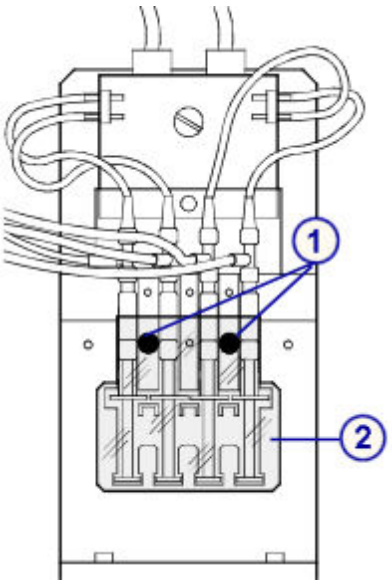
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel
Replacement parts	• LN 09D52-03 - Sample/wash solution syringe o-ring • LN 09D37-03 - Sample/wash solution syringe seal tip #1 • LN 09D38-03 - Sample/wash solution syringe seal tip #2

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

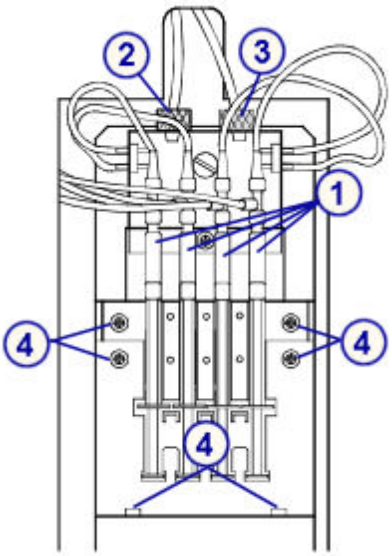
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

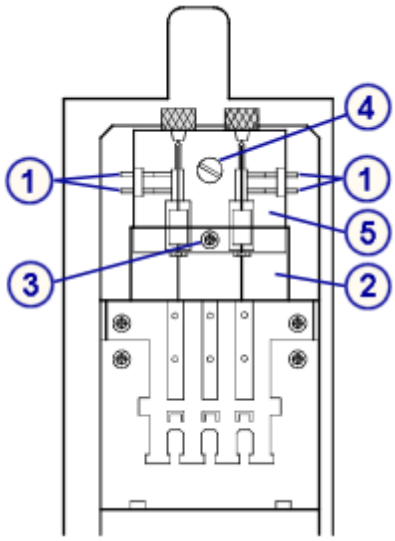
Remove the clear outer plunger shield

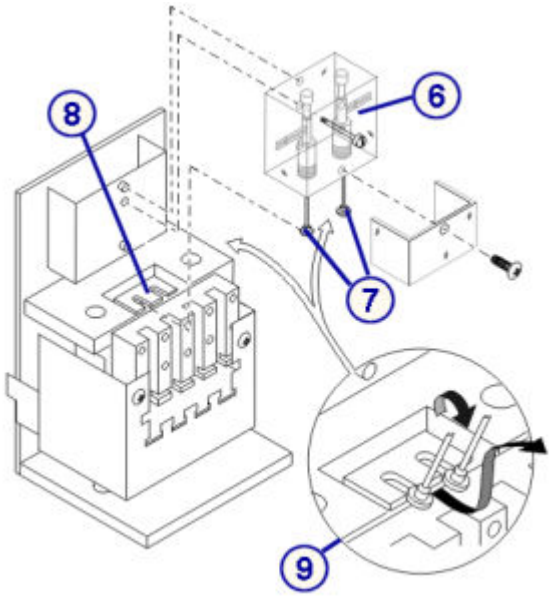
Steps	Graphic / reference
1. Open the supply center door. 2. Locate the wash solution pump. 3. Loosen and remove the black knobs [1] securing the clear outer plunger shield [2]. 4. Remove the shield.	

Disconnect the wash solution syringe block tubing

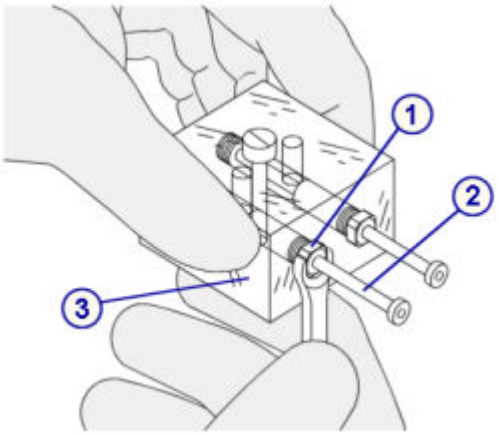
Steps	Graphic / reference
1. Place an absorbent towel under the pump area to absorb any liquid. 2. Remove the 1 mL syringes [1] from the drive block; do not disconnect them. 3. Unscrew the left-top grey knurled connection [2] from the top of the syringe block. Use the towel to collect solution dripping from the tubing. **NOTE:** The tubing labeled **2**, coming from the instrument, connects to the left-top connection [2]. The tubing labeled **3**, coming from the instrument, connects to the right-top connection [3]. Do not interchange the tubing. **CAUTION:** Do not remove the Phillips [4] screws from the syringe block. If screws are removed contact your Area Customer Support. 4. Unscrew the right-top grey knurled connection [3]. Use the towel to collect solution dripping from the tubing.	

Remove the clear inner plunger shield and syringe block

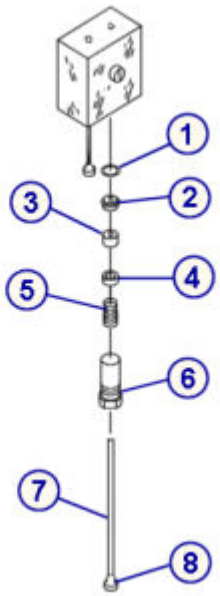
Steps	Graphic / reference
1. Disconnect the tubing [1] connecting the wash solution syringe block to the four 1 mL syringes from both sides of the syringe block. Use the towel to collect solution dripping from the tubing. 2. Remove the clear inner plunger shield [2] by removing the Phillips screw [3] securing the shield. 3. Use the slotted screwdriver to loosen the slotted screw [4] securing the clear syringe block [5] in place. The screw is captive and cannot be completely removed. 4. Pull the syringe block [6] forward to allow the plungers [7] to clear the syringe drive [8]. **NOTE:** Some slight repositioning (front to back) may be required to allow the plungers to clear the drive [9]. 5. Lift the syringe block up to remove it from the module. **NOTE:** Do not bend the plungers on removal. 6. Identify the syringe needing the new o-ring and seal tips.	

Steps	Graphic / reference
	

Remove the syringe plunger

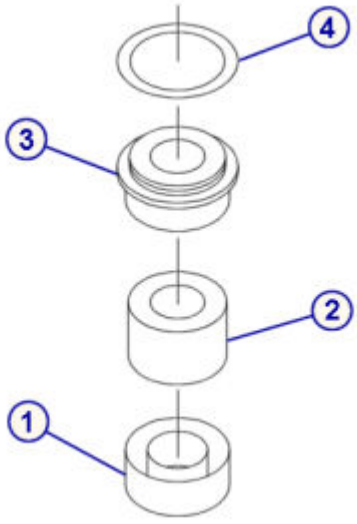
Steps	Graphic / reference
1. Use the 10 mm wrench to loosen the nut [1] securing the syringe plunger [2] on the bottom of the syringe block [3]. 2. Turn the nut by hand, once loosened, until the syringe plunger can be removed from the syringe block.	

Remove the o-ring and seal tips 1 and 2

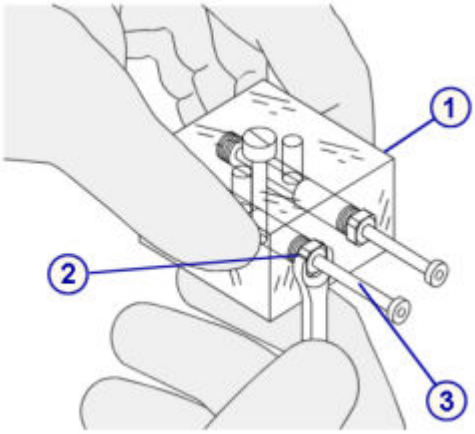
Steps	Graphic / reference
The plunger assembly includes the following parts: • O-ring [1] **IMPORTANT:** The o-ring may have remained in the syringe block when removing the plunger assembly. • Seal tip 2 [2] • Spacer [3] • Seal tip 1 [4] • Spring [5] • Nut [6] • Plunger [7] • Plunger flange [8] 1. Remove the following. Set aside or discard (except for spacer) if being replaced: – O-ring [1] – Seal tip 2 [2] – Spacer [3] - set aside, do not discard – Seal tip 1 [4] **NOTE:** Do not remove the spring. 2. Dry the interior of the syringe barrel with a cotton swab and dry the plunger completely with an absorbent towel if liquid is present.	

Replacement

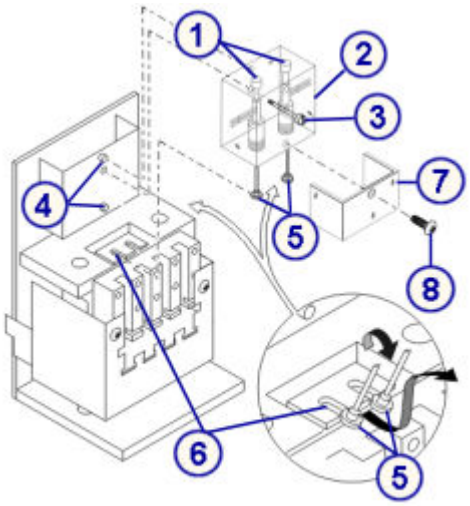
Install the o-ring and seal tips 1 and 2

Steps	Graphic / reference
1. Install seal tip 1 [1] onto the plunger so that it sits above the spring, with the open side away from the spring. 2. Install the spacer [2] so that it fits into the open side of seal tip 1. 3. Install the seal tip 2 [3] on top of the spacer with the open side toward the spacer. 4. Install the o-ring [4] so that it fits into the groove of the seal tip 2. Do not push the o-ring out of alignment. The o-ring must sit flat against the inside of the syringe block. 5. Press lightly to push all the components together.	

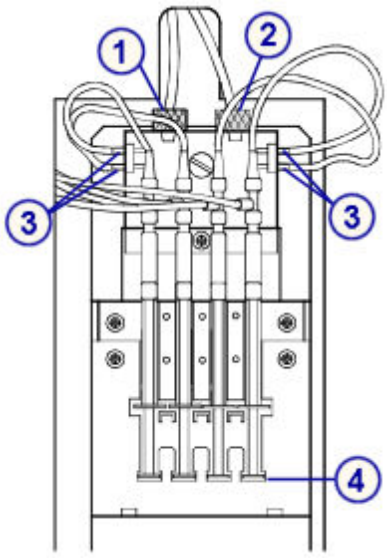
Install the syringe plunger

Steps	Graphic / reference
1. Install the plunger assembly into the syringe block [1]. 2. Tighten the nut [2] holding the plunger assembly into the syringe block until finger-tight. **NOTE:** The nut must be flush with the plunger assembly. If the nut binds when tightening, do not apply excessive force. Back the nut out a turn, and then, while pushing in to apply pressure against the spring, continue to tighten the nut. 3. Use the 10 mm wrench to further tighten the nut [2] securing the plunger [3]. Do not overtighten.	

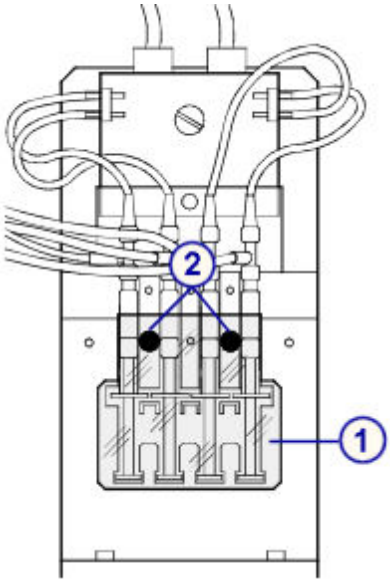
Install the syringe block and attach the clear inner plunger shield

Steps	Graphic / reference
1. Ensure a black seal remains in each of the tubing ports [1] at the top of the syringe block. 2. Hold the syringe block [2] so that the slotted screw [3] faces you. 3. Align the syringe block to the pins [4] on the syringe holder, verifying that both plunger flanges [5] are below the U-shaped holders [6]. 4. Hold the syringe block against the alignment pins and tighten the screw [3] by hand until finger-tight. Secure with a slotted screwdriver. 5. Attach the clear inner plunger shield [7] and tighten the Phillips screw [8].	

Connect the wash solution syringe block tubing

Steps	Graphic / reference
1. Connect the grey knurled connection labeled **2** coming from the instrument to the left-top port [1]. 2. Connect the grey knurled connection labeled **3** from the instrument to the right-top port [2]. 3. Connect the 1 mL syringe tubing to the two side ports [3] on each side of the syringe block. The 1 mL syringe tubing can be connected to any of the four ports. Ensure the tubing is not pinched or crimped. 4. Verify the 1 mL syringe tubing connections did not loosen during the removal and replacement procedure. 5. Reinstall the 1 mL syringes into the syringe holder. 6. Ensure the plunger flange [4] is below the U-shaped holder and that the bottom of the syringe barrel is in the groove at the bottom of the syringe holder. Ensure the tubing is not pinched or crimped.	

Install the clear outer plunger shield

Steps	Graphic / reference
1. Attach the clear outer plunger shield [1] and tighten the black knobs [2] until finger-tight. 2. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6302 Wash Syringe Maintenance*, page 9-29, to document wash solution o-ring and seal tips 1 and 2 replacement in the Maintenance log.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace sample or reagent syringe o-ring and seal tips 1 and 2 (*c*16000)

Replacing the sample or reagent syringe o-ring and seal tips 1 and 2 consists of the following procedures.

- Removal
  - *Locate the syringe and remove the plunger shield*, page 9-317
  - *Remove the syringe bracket*, page 9-317
  - *Remove the syringe block*, page 9-318
  - *Remove the syringe plunger*, page 9-318
  - *Remove the o-ring and seal tips 1 and 2*, page 9-319
- Replacement
  - *Install the o-ring and seal tips 1 and 2*, page 9-319
  - *Install the syringe plunger*, page 9-320
  - *Install the syringe block*, page 9-320
  - *Install the syringe bracket and plunger shield*, page 9-321
  - *Prepare for operation*, page 9-321
- Verification

– *Run quality control*, page 9-321

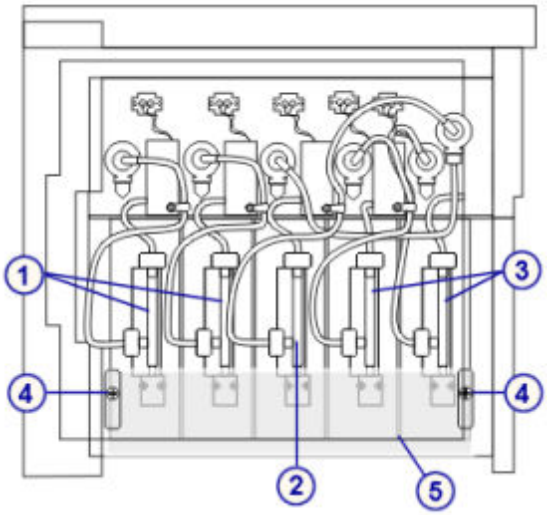
Prerequisite	The processing module must be in the Ready status.
Estimated time required	15 minutes
Tools/materials required	• Phillips screwdriver • Slotted screwdriver • 10 mm wrench • Cotton swabs • Absorbent towel
Replacement parts	• LN 09D52-03 - Sample/wash solution syringe o-ring • LN 09D37-03 - Sample/wash solution syringe seal tip #1 • LN 09D38-03 - Sample/wash solution syringe seal tip #2 • LN 09D53-03 - Reagent syringe o-ring • LN 09D39-03 - Reagent syringe seal tip #1 • LN 09D40-04 - Reagent syringe seal tip #2 **NOTE:** The o-rings and seal tips 1 and 2 for the sample and reagent syringes are different sizes. Be sure to install the correct part in the appropriate syringe.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

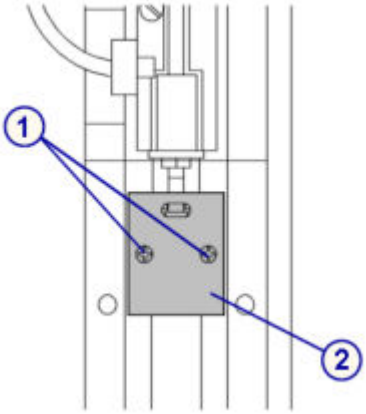
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

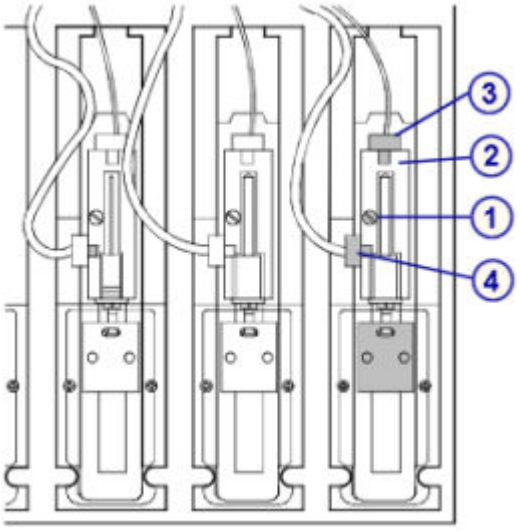
Locate the syringe and remove the plunger shield

Steps	Graphic / reference
1. Open the supply center door. 2. Locate the appropriate syringe: – R1 A and B syringes [1] – Sample syringe [2] – R2 A and B syringes [3] 3. Remove the two Phillips screws [4] securing the shield. 4. Remove the shield. [5]	

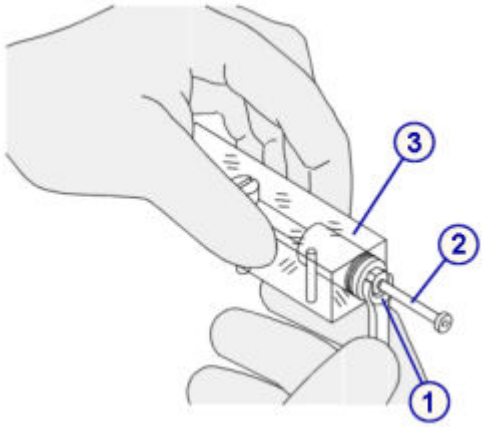
Remove the syringe bracket

Steps	Graphic / reference
Remove the syringe bracket holding the syringe plunger to the drive block by removing the two Phillips screws [1] on the syringe bracket [2]. **NOTE:** Notice that these screws are shorter than the screws from the clear plunger shield. Do not interchange the two sets of screws.	

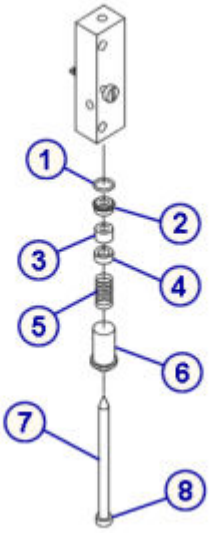
Remove the syringe block

Steps	Graphic / reference
1. Use the slotted screwdriver to loosen the slotted screw [1] securing the syringe block [2] in place. The screw is captive and cannot be completely removed. 2. Place an absorbent towel under the syringe drive to absorb any liquid. 3. Disconnect the tubing at the top [3] and side [4] of the syringe block by unscrewing the knurled connections. 4. Ensure the black seal remains in the syringe block once the tubing is disconnected.	

Remove the syringe plunger

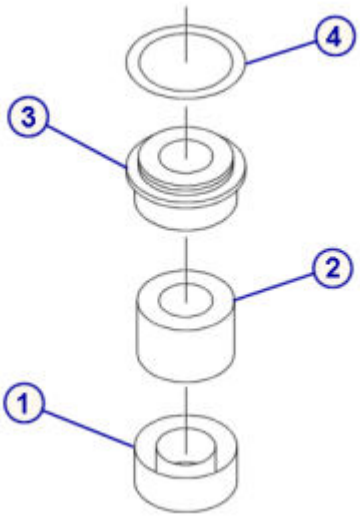
Steps	Graphic / reference
1. Use the 10 mm wrench to loosen the nut [1] securing the syringe plunger [2] on the bottom of the syringe block [3]. 2. Turn the nut by hand, once loosened, until the syringe plunger can be removed from the syringe block.	

Remove the o-ring and seal tips 1 and 2

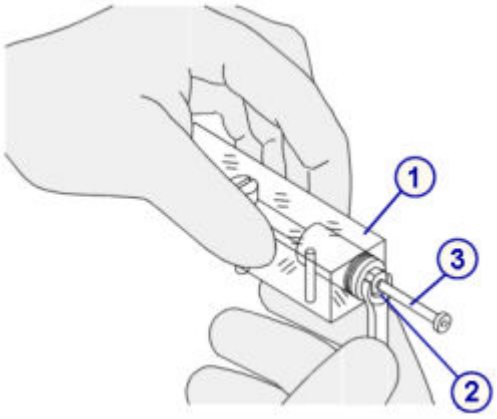
Steps	Graphic / reference
The plunger assembly includes the following parts: • O-ring [1] **NOTE:** The o-ring may have remained in the syringe block when removing the plunger assembly. • Seal tip 2 [2] • Spacer [3] • Seal tip 1 [4] • Spring [5] • Nut [6] • Plunger [7] • Plunger flange [8] 1. Remove the following. Set aside or discard (except for spacer) if being replaced: – O-ring [1] – Seal tip 2 [2] – Spacer [3] - set aside, do not discard – Seal tip 1 [4] **NOTE:** Do not remove the spring. 2. Dry the interior of the syringe barrel with a cotton swab and dry the plunger completely with an absorbent towel if liquid is present.	

Replacement

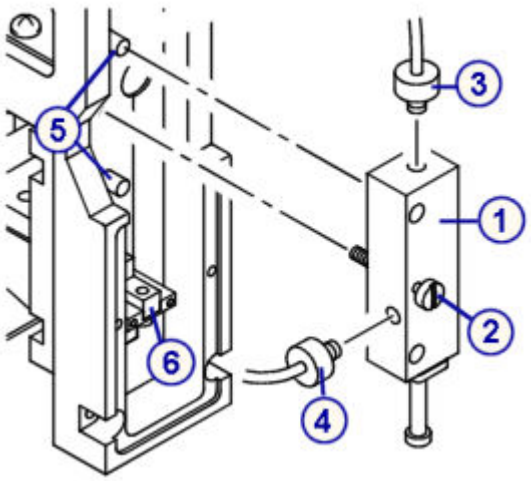
Install the o-ring and seal tips 1 and 2

Steps	Graphic / reference
1. Install seal tip 1 [1] onto the plunger so that it sits above the spring, with the open side away from the spring. 2. Install the spacer [2] so that it fits into the open side of seal tip 1. 3. Install seal tip 2 [3] on top of the spacer, with the open side toward the spacer. 4. Install the o-ring [4] so that it fits into the groove of seal tip 2. Do not push the o-ring out of alignment. The o-ring must sit flat against the inside of the syringe block. 5. Press lightly to push all the components together.	

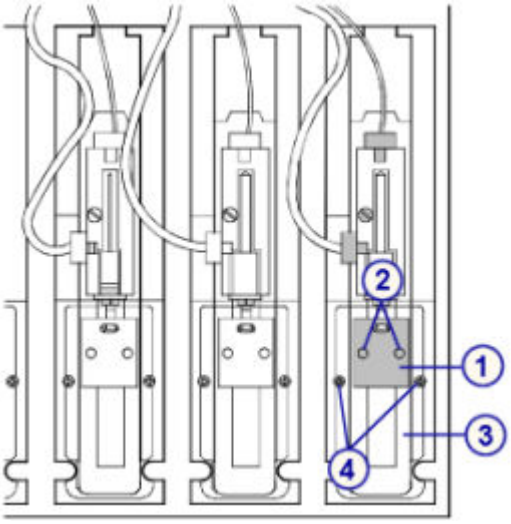
Install the syringe plunger

Steps	Graphic / reference
1. Install the plunger assembly into the syringe block [1]. 2. Tighten the nut [2] holding the plunger assembly into the syringe block until finger-tight. **NOTE:** The nut must be flush with the plunger assembly. If the nut binds when tightening, do not apply excessive force. Back the nut out a turn, and then, while pushing in to apply pressure against the spring, continue to tighten the nut. 3. Use the 10 mm wrench to further tighten the nut [2] securing the plunger [3].	

Install the syringe block

Steps	Graphic / reference
1. Hold the syringe block [1] so that the slotted screw [2] faces you. 2. Ensure the black seals remain in place in each port. Reconnect the tubing coming from the pipettor to the top [3] of the syringe block and the tubing from the syringe valve to the side [4] by screwing the knurled connections. 3. Align the syringe block to the pins [5] on the syringe holder, verifying that the plunger flange is above the drive block [6]. Move any tubing out of the way. 4. Hold the syringe block against the alignment pins and tighten the screw [2] by hand until finger-tight. Secure the screw with a slotted screwdriver.	

Install the syringe bracket and plunger shield

Steps	Graphic / reference
1. Attach the syringe bracket [1] to connect the drive block and syringe plunger. 2. Use the Phillips screwdriver to install the screws [2]. **NOTE:** Use the shorter screws to attach the syringe bracket. Use the longer screws to attach the plunger shield. 3. Attach the clear plunger shield [3] by tightening the two (2) Phillips screws [4]. 4. Remove the absorbent towel from the syringe drive.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure. 3. Perform ***quarterly*** maintenance procedure *6301 Sample Syringe Maintenance*, page 9-29 or *6303 Reagent Syringe Maintenance*, page 9-30, to document sample or reagent syringe o-ring and seal tip replacement in the Maintenance log. **NOTE:** Only perform this maintenance procedure if you replaced the o-ring and seal tips in both the R1 and R2 syringes.	

Verification

Run quality control

Steps	Graphic / reference
Run quality control to verify performance prior to reporting patient results.	

Replace the pump poppet valve set (*c*16000)

Replacing the pump poppet valve set on the cuvette wash pump and the probe wash pump consists of the following procedures.

- Removal
  - *Locate the pump poppet valve and clamp the tubing*, page 9-323
  - *Remove the pump poppet valve*, page 9-323
- Replacement
  - *Replace the pump poppet valve*, page 9-324
  - *Prepare for operation*, page 9-324
- Verification

  Verification occurs during preparation for operation. No further verification is required.

NOTE: The same procedure is used to replace the pump poppet valve set in all three pumps.

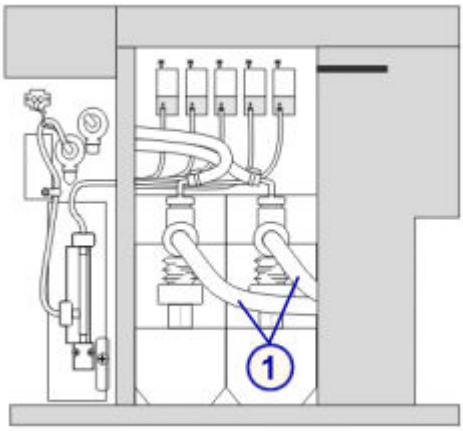
Prerequisite	The processing module must be in the Ready status.
Estimated time required	10 minutes
Tools/materials required	• Clamp or large hemostats • Absorbent towels • Purified water
Replacement parts	LN 09D36-02 - Pump poppet valve set **NOTE:** The same pump poppet valve set is used for all three pumps.

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

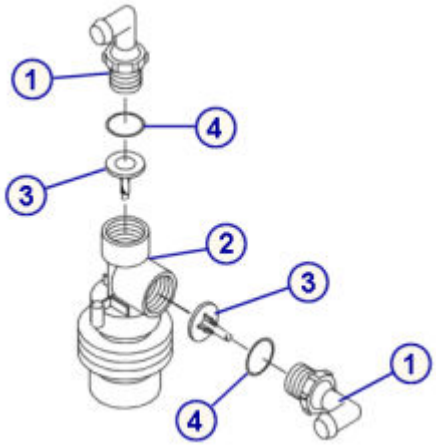
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Locate the pump poppet valve and clamp the tubing

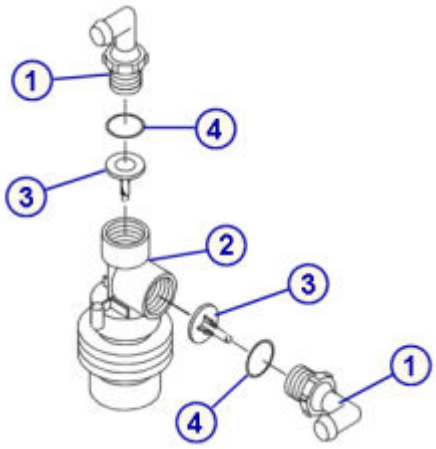
Steps	Graphic / reference
1. Locate the appropriate pump: – Probe wash pumps – Cuvette wash pump **NOTE:** See the front view illustration of the supply and pump center components for wash pump location, *ARCHITECT c16000 supply and pump center components*, page 9-294. 2. Open the supply center and pump center doors. 3. Clamp the flexible inlet tubing [1] of the pump containing the poppet valve.	

Remove the pump poppet valve

Steps	Graphic / reference
1. Place absorbent towels in the pump area to absorb any liquid. 2. Unscrew the top or side [1] elbow fitting securing the tubing to the pump connection. **NOTE:** It is recommended that the top and side poppet valves be replaced at the same time. 3. Remove the poppet valve [3] and o-ring [4] from the connection [2]. To remove the top poppet valve, it may be necessary to remove the side connector and push the top poppet valve up from the bottom. 4. Discard the valve and o-ring.	

Replacement

Replace the pump poppet valve

Steps	Graphic / reference
1. Rinse the new poppet valve and o-ring with purified water. 2. Install the poppet valve [3] and o-ring [4] onto the connection [2] as illustrated. 3. Screw the top or side [1] elbow fitting to the connection [2]. 4. Finger-tighten the fitting at the pump connection. 5. Release the clamp on the flexible tubing. 6. Remove the absorbent towels from the pump area.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure.	

Verification

Steps	Graphic / reference
Verification occurs during preparation for operation. No further verification is required.	

*i*2000/*i*2000SR component replacement

Component replacement for ARCHITECT *i*2000/*i*2000SR includes:

- *ARCHITECT i2000/i2000SR internal components' covers replacement*, page 9-325
- *ARCHITECT i2000/i2000SR internal components' covers*, page 9-325
- *i2000/i2000SR processing center component replacement*, page 9-326

- *i2000/i2000SR supply and waste center component replacement*, page 9-350

ARCHITECT *i*2000/*i*2000SR internal components' covers replacement

Internal components' covers protect the internal components of the processing center. You remove covers to:

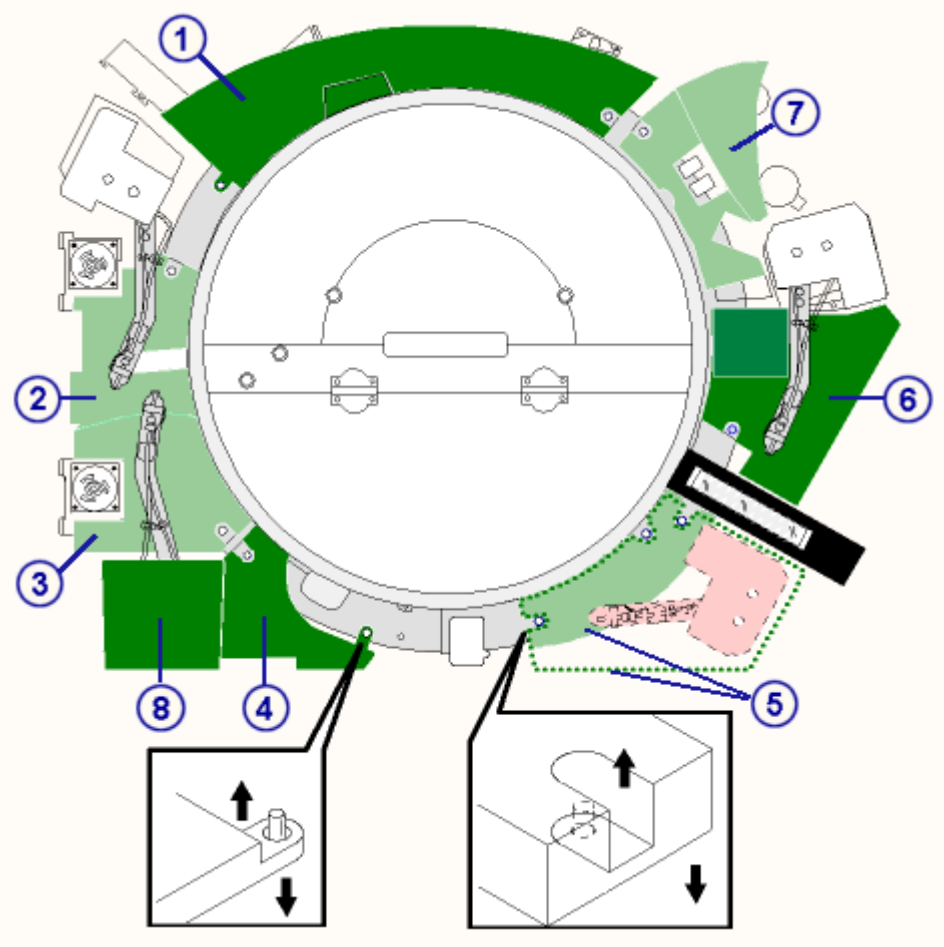
- Access the internal components
- Replace worn covers

See the *ARCHITECT i2000/i2000SR internal components' covers*, page 9-325, for instructions.

ARCHITECT *i*2000/*i*2000SR internal components' covers

Internal components' covers are located in the following areas.

Figure 9.26: Internal components' covers



Legend:

1. Internal components cover 1
2. Internal components cover 2-3

3. Internal components cover 2-3
4. Internal components cover 4
5. Internal components cover 5
6. Internal components cover 6
7. Internal components cover 7
8. Internal components cover 8 (*i*2000 System)

NOTE: Covers 4, 5, 6, and 7 are not interchangeable between the *i*2000 processing module and the *i*2000SR processing module.

Pins located on the process path are used to secure covers 1, 4, 5, and 7 on both processing modules. Cover 6 (*i*2000SR processing module) is also secured by pins. To remove the covers, gently pull up where the pin enters the hole on the cover. To replace, match the hole on the cover with the pin and gently place the cover in place.

Thumbscrews are used to secure covers 2 and 3 on both modules. Cover 6 (*i*2000 processing module) is also secured by a thumbscrew. To remove, loosen the thumbscrews and gently pull up.

NOTE: The thumbscrews are secured to the cover.

Cover 8 (*i*2000 processing module) sits on the sample pipettor. To remove, gently pull the cover up and off the pipettor.

NOTE: Each cover is labeled with a number on the inside of the cover. The number corresponds to a black number on the process path. Internal components cover 8 does not connect to the process path and does not have a corresponding number on the path.

*i*2000/*i*2000SR processing center component replacement

You may need to replace certain processing center components due to normal wear from daily operations.

Use the processing center map on the *i* System processing module for component locations when performing replacement procedures.

The following procedures provide step-by-step instructions on replacing these components:

- *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327
- *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330
- *Replace the wash zone probe (i2000/i2000SR)*, page 9-333
- *Replace the wash zone temperature tubing and sensor (i2000/i2000SR)*, page 9-340
- *Replace the waste arm probe/tubing (i2000/i2000SR)*, page 9-348

Replace sample, reagent, or STAT pipettor probes (*i*2000/*i*2000SR)

Replacing the sample, reagent, or STAT pipettor probe consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-327
  - *Remove the probe*, page 9-328
- Replacement
  - *Install the probe*, page 9-329
  - *Prepare for operation*, page 9-329
- Verification
  - *Perform as-needed maintenance procedure 1111, 1112, 1113, or 1117*, page 9-329

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	20 minutes
Tools/materials required	• Absorbent tissue • #2 Phillips screwdriver (optional)
Replacement parts	LN 08C94-47 - Probe

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

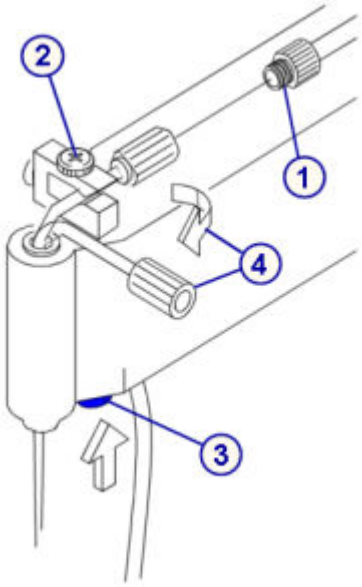
Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the appropriate processing center cover(s) to access the probe(s). 2. Locate the probe to be replaced on the appropriate pipettor. **NOTE:** See the processing center map on the *i* System processing module for pipettor locations (R1, R2, S, or ST). 3. Verify the probe is over the wash station.	

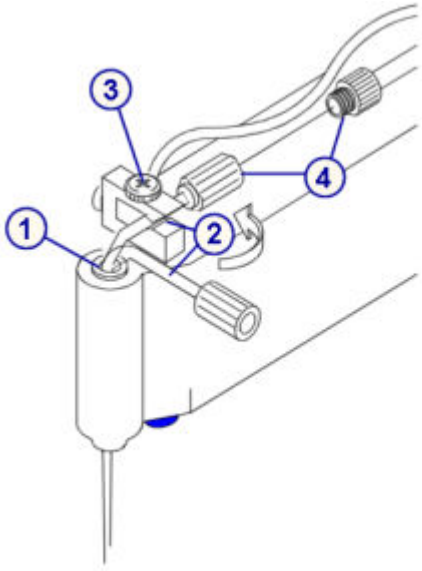
Steps	Graphic / reference
– To move the reagent probe over the wash station, perform ***modules*** diagnostic procedure *4080 Module Initialization*, page 10-635. – To move the sample or STAT probe over the wash station, initiate ***pipettors*** diagnostic procedure *1160 Pipettor Move*, page 10-648.	

Remove the probe

Steps	Graphic / reference
1. Place an absorbent tissue under the probe tubing connection. 2. Loosen the metal fitting on the probe and remove the probe tubing from the probe [1]. 3. Loosen the screw (captive) on top of the probe clamp until you feel resistance [2]. **NOTE:** You can use a #2 Phillips screwdriver to loosen the screw. Loosening the screw beyond the point of resistance can cause the clip to come apart. 4. Push up on the blue button located under the boom arm [3]. 5. Swing the probe free of the clip. Lift the probe and remove it from the boom arm [4].	

Replacement

Install the probe

Steps	Graphic / reference
1. Slide the probe into the boom arm [1]. 2. Swing the probe to the probe clip and snap it in place under the clip [2]. 3. Tighten the screw (captive) on top of the probe clamp [3]. **NOTE:** A #2 Phillips screwdriver may be used to tighten the screw. Do not over-tighten as stripping may result. 4. Connect the probe tubing to the probe and finger tighten the probe fitting [4]. 5. Complete ***pipettors*** diagnostic procedure *1160 Pipettor Move*, page 10-648, to return the sample or STAT pipettor to the park position.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure. 3. Remove the absorbent tissue. 4. Close the processing center cover(s).	

Verification

Perform as-needed maintenance procedure 1111, 1112, 1113, or 1117

Steps	Graphic / reference
Perform the appropriate ***as-needed*** maintenance procedure: • *1111 Sample Pipettor Calibration*, page 9-76 • *1112 R1 Pipettor Calibration*, page 9-77	

Steps	Graphic / reference
• *1113 R2 Pipettor Calibration*, page 9-78, or • *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78	

Replace sample, reagent, or STAT probe tubing (*i*2000/*i*2000SR)

Replacing the sample or reagent probe tubing consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-330
  - *Remove the probe tubing*, page 9-331
- Replacement
  - *Install the probe tubing*, page 9-332
  - *Prepare for operation*, page 9-332
- Verification

  Verification occurs during preparation for operation. No further verification is required.

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	10 minutes
Tools/materials required	Absorbent tissue
Replacement parts	• LN 08C94-49 - Tubing, Probe • LN 03M77-49 - Probe Tubing, STAT

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

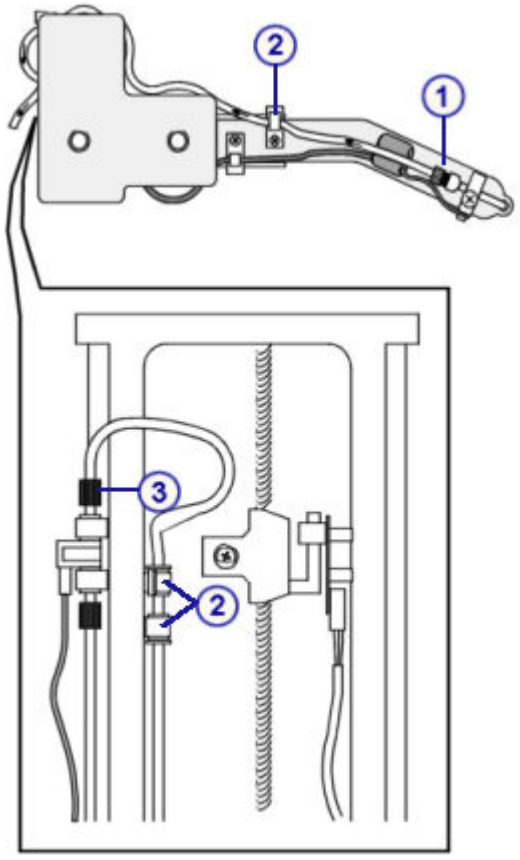
Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the appropriate processing center cover(s) to access the probe(s). 2. Locate the probe tubing to be replaced on the appropriate pipettor.	See *System startup, pause, and shutdown*, page 5-3. See *ARCHITECT i2000/i2000SR internal components' covers replacement*, page 9-325.

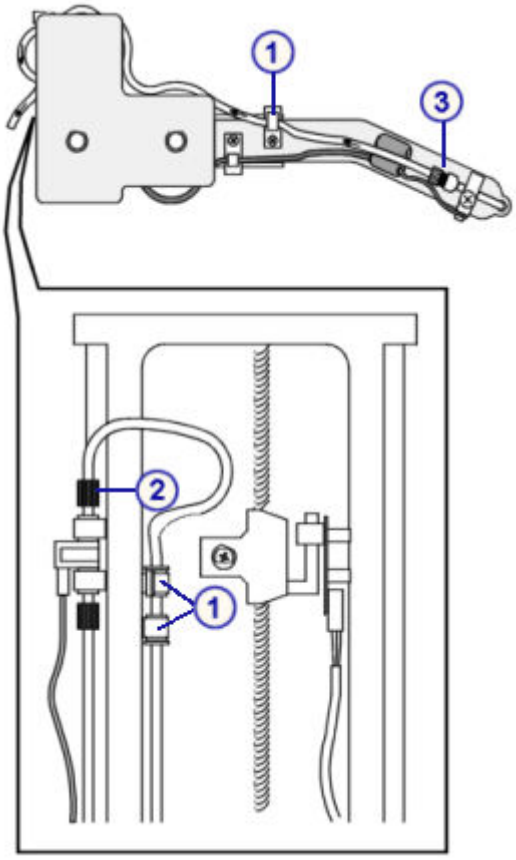
Steps	Graphic / reference
NOTE: See the processing center map on the *i* System processing module for pipettor locations (R1, R2, S, or ST). 3. Verify the probe is over the wash station. – To move the reagent probe over the wash station, perform ***modules*** diagnostic procedure *4080 Module Initialization*, page 10-635. – To move the sample or STAT probe over the wash station, initiate ***pipettors*** diagnostic procedure *1160 Pipettor Move*, page 10-648. 4. Access the probe tubing on the sample pipettor by removing its internal components cover, if present.	

Remove the probe tubing

Steps	Graphic / reference
1. Place an absorbent tissue under the probe tubing connection. 2. Loosen the metal fitting on the probe and remove the probe tubing from the probe [1]. 3. Drain any fluid from the probe tubing onto an absorbent tissue. 4. Unclip the probe tubing from the tubing routing clips [2]. 5. Place an absorbent tissue near the tubing connection at the pressure monitor [3]. 6. Remove the pressure monitor from the clips on the pipettor. 7. Disconnect the tubing connection at the pressure monitor [3]. 8. Remove the probe tubing from the module.	

Replacement

Install the probe tubing

Steps	Graphic / reference
1. Support the boom arm when replacing the tubing to prevent it from moving. 2. Place the tubing into the routing clips [1]. **NOTE:** Orient the STAT probe tubing so that the green band is located near the probe. 3. Connect the probe tubing to the pressure monitor [2]. 4. Place the pressure monitor onto the clips on the pipettor. 5. Connect the opposite end of the probe tubing to the probe and finger tighten the probe metal fitting [3]. 6. Complete ***pipettors*** diagnostic procedure *1160 Pipettor Move*, page 10-648, to return the sample or STAT pipettor to the park position.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Remove the absorbent tissue. 4. Replace the internal components cover if you removed it from the sample pipettor.	

Steps	Graphic / reference
5. Close the processing center cover(s).	

Verification

Steps	Graphic / reference
Verification occurs during preparation for operation. No further verification is required.	

Replace the wash zone probe (*i*2000/*i*2000SR)

Your ARCHITECT *i*2000/*i*2000SR has one of the following wash zone motor assemblies:

- P/N 78326
- P/N 96251

To replace the wash zone probe, refer to the instructions for the appropriate motor assembly.

Replacing the wash zone probe (motor assembly P/N 78326) consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-334
  - *Remove the wash zone probe*, page 9-335
- Replacement
  - *Install the wash zone probe*, page 9-336
  - *Prepare for operation*, page 9-336
- Verification
  - *Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test*, page 9-337
  - *Perform calibration curve verification*, page 9-337

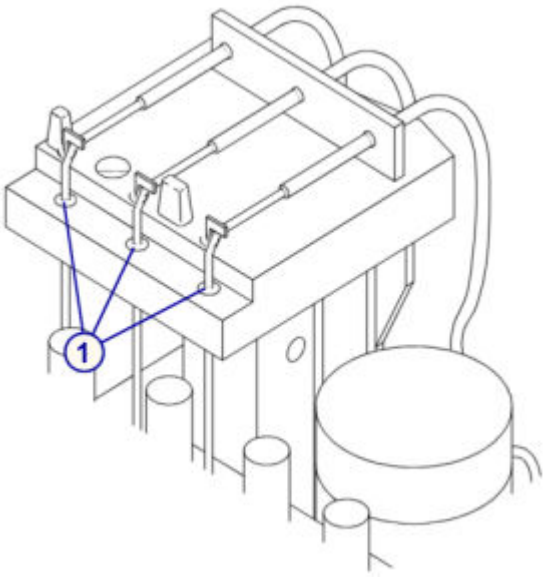
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	45 minutes (includes running quality control samples)
Tools/materials required	None
Replacement parts	LN 08C94-36 - Probe, WZ

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

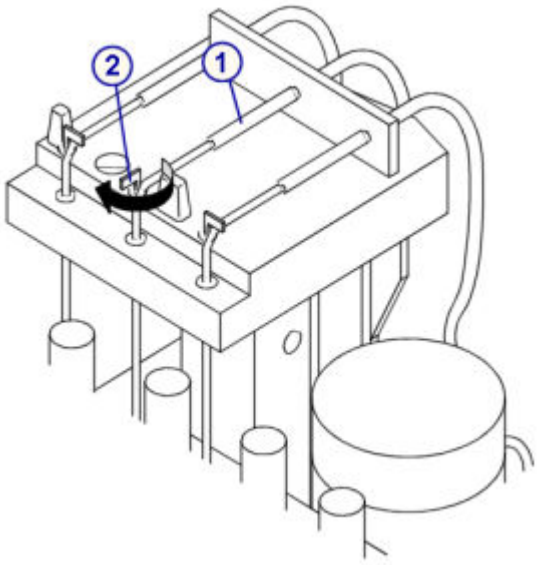
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

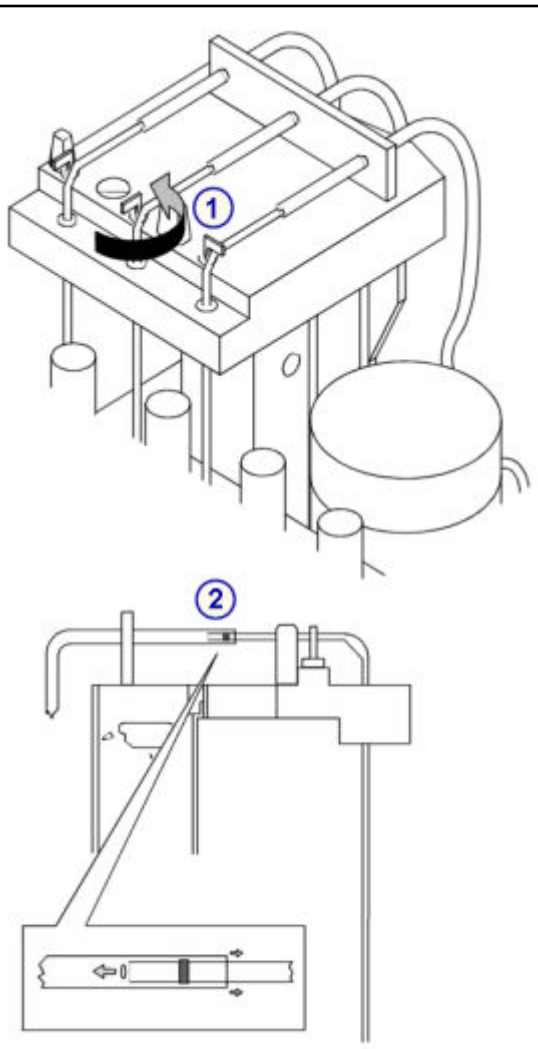
Steps	Graphic / reference
1. Lift the appropriate processing center cover(s) to access the wash zone probe. **NOTE:** The rear processing center access panel must be opened to access wash zone 2 probes. 2. Locate the wash zone probe to be replaced on the appropriate wash zone. [1] See the processing center map on the *i* System processing module for wash zone locations (WZ1 or WZ2). 3. Remove the appropriate internal components cover(s), if present. See *ARCHITECT i2000/i2000SR internal components' covers replacement*, page 9-325.	

Remove the wash zone probe

Steps	Graphic / reference
1. Remove the tubing from the wash zone probe by gently pulling the tubing and sliding it from the probe and through the hole in the back of the wash zone motor assembly [1]. 2. Rotate the wash zone probe clip clockwise toward the process path [2]. 3. Lift the probe and remove it from the front of the wash zone motor assembly.	

Replacement

Install the wash zone probe

Steps	Graphic / reference
1. Slide the probe into the wash zone motor assembly until it is fully seated. Pull up on the wash zone motor to raise it if the wash zone manifold interferes with the insertion of the probe. 2. Lift and rotate the probe clip counterclockwise until the notch in the clip sits over the wash zone probe [1]. 3. Slide the tubing through the hole in the back of the wash zone motor assembly and onto the wash zone probe until it passes the ridge on the probe [2]. **NOTE:** The tubing should be half way between the bend in the probe and the ridge. 4. Verify the wash zone probes enter the holes in the wash zone manifold by pressing down on the wash zone motor assembly.	

Prepare for operation

Steps	Graphic / reference
1. Replace the appropriate internal components cover(s), if previously removed. 2. Close the processing center cover(s).	

Verification

Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test

Steps	Graphic / reference
Perform ***fluidics/wash*** diagnostic procedure *2050 WZ Aspiration Test*, page 10-653.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting patient results.	

Replacing the wash zone probe (motor assembly P/N 96251) consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-338
  - *Remove the wash zone probe*, page 9-338
- Replacement
  - *Install the wash zone probe*, page 9-339
  - *Prepare for operation*, page 9-339
- Verification
  - *Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test*, page 9-340
  - *Perform calibration curve verification*, page 9-340

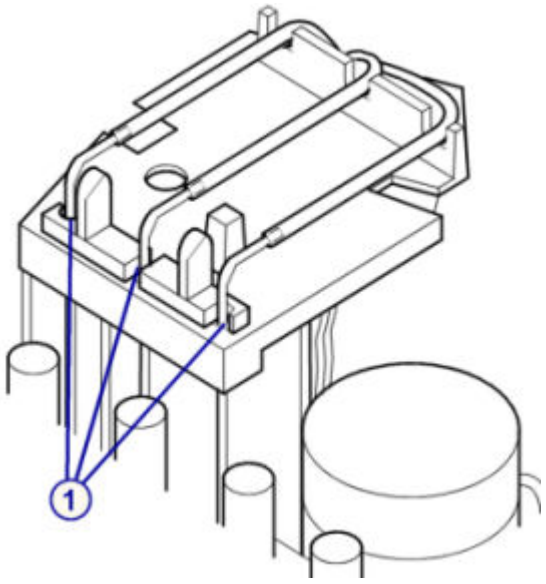
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	45 minutes (includes running quality control samples)
Tools/materials required	None
Replacement parts	LN 08C94-36 - Probe, WZ

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

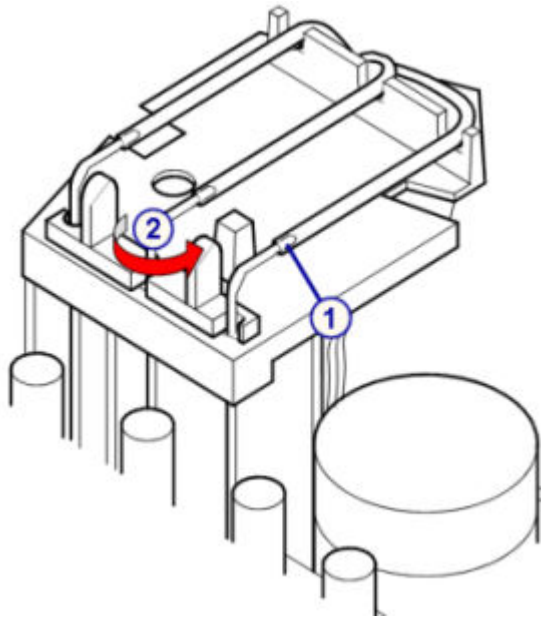
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

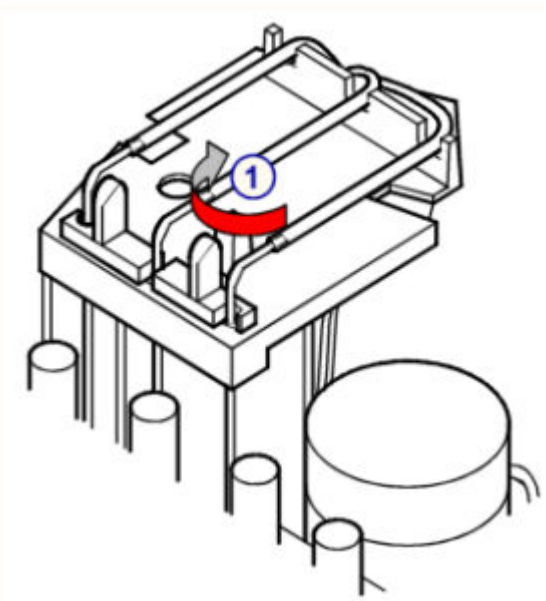
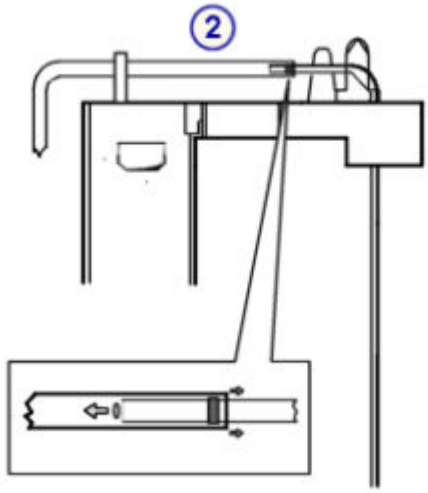
Steps	Graphic / reference
1. Lift the appropriate processing center cover(s) to access the wash zone probe. **NOTE:** The rear processing center access panel must be opened to access wash zone 2 probes. 2. Locate the wash zone probe to be replaced on the appropriate wash zone. [1] Refer to the processing center map on the *i* System processing module for wash zone locations (WZ1 or WZ2). 3. Remove the appropriate internal components cover(s), if present. For information on removing the internal component covers, refer to *ARCHITECT i2000/i2000SR internal components' covers*, page 9-325.	

Remove the wash zone probe

Steps	Graphic / reference
1. Grasp the tab on top of the wash zone clip located at the front of the wash zone motor assembly. Rotate the clip counterclockwise, [2] so the notch in the clip moves away from the wash zone probe [1]. 2. Perform one of the following depending on the probe you are replacing: – Wash zone 1 Remove the wash zone tubing from the tubing guide, and then lift the probe and the attached tubing out of the wash zone motor assembly. – Wash zone 2 Lift the probe and attached tubing out of the wash zone motor assembly. 3. Remove the tubing from the probe by gently pulling the tubing and sliding it from the probe.	

Replacement

Install the wash zone probe

Steps	Graphic / reference
1. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. **NOTE:** The tubing should be half way between the bend in the probe and the ridge [2]. 2. Slide the probe in the wash zone motor assembly until it is fully seated. Pull up on the wash zone motor to raise it if the probes do not fit into the openings on the wash zone motor assembly. 3. Perform one of the following depending on the probe you are replacing: – Wash zone 1 Place the tubing in the tubing guide. – Wash zone 2 Check the tubing to ensure it is located on the right side of the wash zone motor assembly under the liquid waste arm. Probe 1 should be located on the right side of the post on top of the wash zone motor assembly. 4. Grasp the tab on top of the clip and rotate the clip clockwise toward the probes [1]. **NOTE:** If the clips do not rotate to their locked position, ensure the probes are completely seated in the wash zone motor assembly.	 

Prepare for operation

Steps	Graphic / reference
1. Replace the appropriate internal components cover(s), if previously removed.	

Steps	Graphic / reference
2. Close the processing center cover(s).	

Verification

Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test

Steps	Graphic / reference
Perform ***fluidics/wash*** diagnostic procedure *2050 WZ Aspiration Test*, page 10-653.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting patient results.	

Replace the wash zone temperature tubing and sensor (*i*2000/*i*2000SR)

Your ARCHITECT *i*2000/*i*2000SR has one of the following wash zone motor assemblies. To replace the wash zone temperature tubing and sensor, refer to the instructions for the appropriate motor assembly.

- *Wash zone temperature tubing and sensor (P/N 78326)*, page 9-340
- *Wash zone temperature tubing and sensor (P/N 96251)*, page 9-344

Wash zone temperature tubing and sensor (P/N 78326)

Replacing the wash zone temperature tubing and sensor (motor assembly P/N 78326) consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-341
  - *Remove the wash zone temperature tubing and sensor assembly*, page 9-342
- Replacement
  - *Install the wash zone temperature tubing and sensor assembly*, page 9-342
  - *Prepare for operation*, page 9-343
- Verification
  - *Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test*, page 9-343
  - *Perform calibration curve verification*, page 9-343

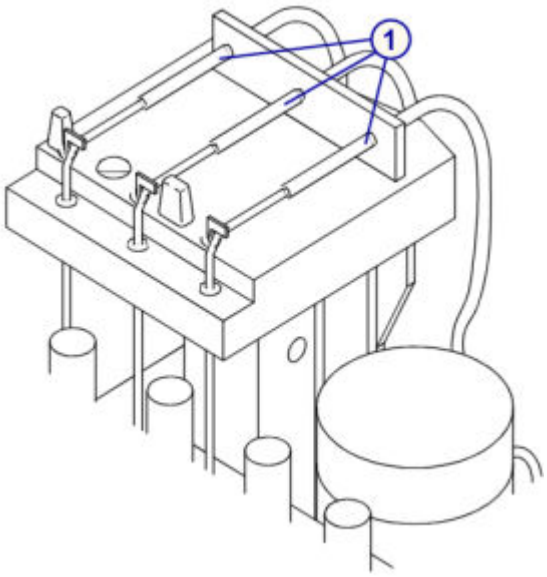
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	45 minutes (includes running quality control samples)
Tools/materials required	None
Replacement parts	LN 08C94-90 - Tubing/Sensor, temp, WZ

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

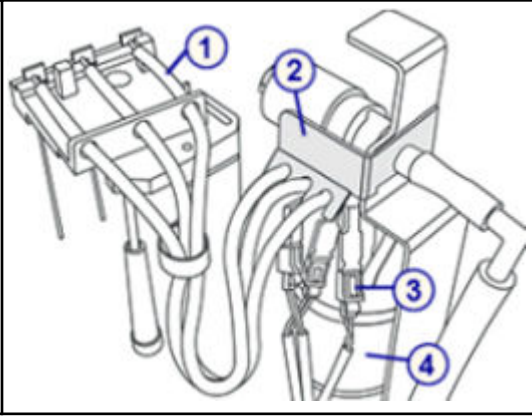
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

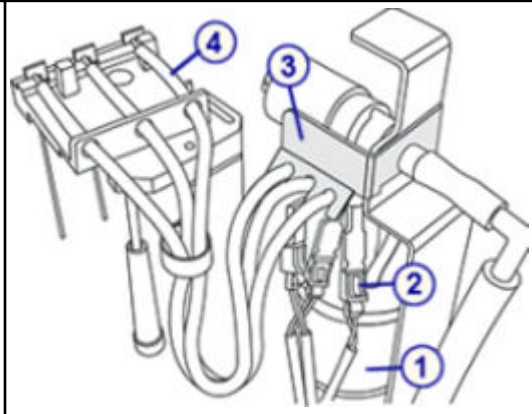
Steps	Graphic / reference
1. Lift the appropriate processing center cover(s) to access the tubing. **NOTE:** The rear processing center access panel must be opened to access wash zone 2 temperature tubing/ sensors. 2. Locate the wash zone temperature tubing/sensor to be replaced on the appropriate wash zone (WZ1 or WZ2) [1]. See the processing center map on the *i* System processing module for wash zone locations (WZ1 or WZ2). 3. Remove the appropriate internal components cover(s), if present. See *ARCHITECT i2000/i2000SR internal components' covers replacement*, page 9-325.	

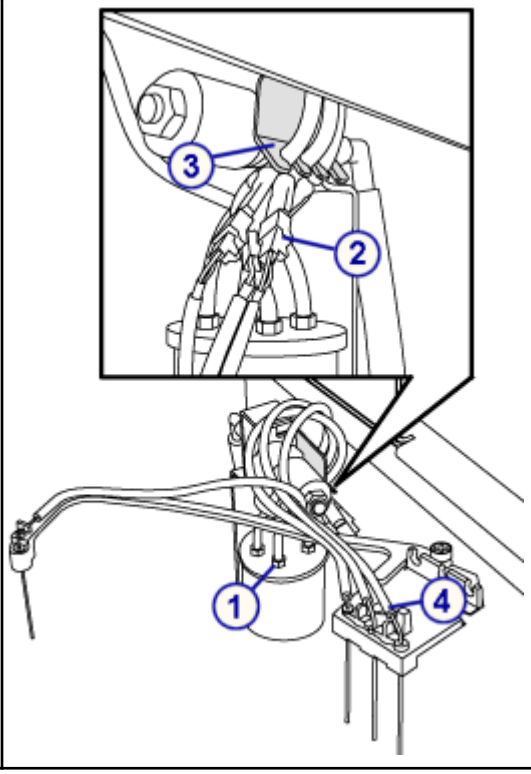
Remove the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
1. Remove the tubing from the wash zone probe by gently pulling the tubing and sliding it from the probe and through the hole of the wash zone motor [1]. 2. Slide the tubing down from the tubing bracket slots. Pulling the tubing gently forward may help facilitate removal [2]. 3. Disconnect the temperature sensor [3]. 4. Hold down the vacuum vessel with one hand. With the other hand, pull up on the tubing near the connection on the vacuum vessel [4].	

Replacement

Install the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
Wash zone 1: 1. Connect the tubing to the barb fitting on the vacuum vessel [1]. 2. Connect the temperature sensor [2]. 3. Slide the tubing up into the bracket slot that will align it to the correct wash zone. Pull the tubing gently forward to facilitate the correct positioning [3]. 4. Slide the tubing through the hole in the back of the wash zone motor assembly and onto the wash zone probe until it passes the ridge on the probe [4]. **NOTE:** The tubing should be half way between the bend in the probe and the ridge.	

Steps	Graphic / reference
Wash zone 2: 1. Connect the tubing to the barb fitting on the vacuum vessel [1]. 2. Connect the temperature sensor [2]. 3. Route the tubing from the vacuum vessel over the liquid waste arm and under the waste arm probe tubing toward the back of the wash zone motor assembly. 4. Slide the tubing up into the bracket slot as far as possible. Ensure the tubing aligns with the correct numbered sensor connection and probe. Pull the tubing gently forward to facilitate the correct positioning [3]. 5. Slide the tubing through the hole in the back of the wash zone motor assembly and onto the wash zone probe until it passes the ridge on the probe [4]. **NOTE:** The tubing should be half way between the bend in the probe and the ridge.	

Prepare for operation

Steps	Graphic / reference
1. Replace the appropriate internal components cover(s), if previously removed. 2. Close the processing center cover(s).	

Verification

Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test

Steps	Graphic / reference
Perform ***fluidics/wash*** diagnostic procedure *2050 WZ Aspiration Test*, page 10-653.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting patient results.	

Wash zone temperature tubing and sensor (P/N 96251)

Replacing the wash zone temperature tubing and sensor (motor assembly P/N 96251) consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-345
  - *Remove the wash zone temperature tubing and sensor assembly*, page 9-345
- Replacement
  - *Install the wash zone temperature tubing and sensor assembly*, page 9-346
  - *Prepare for operation*, page 9-347
- Verification
  - *Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test*, page 9-347
  - *Perform calibration curve verification*, page 9-348

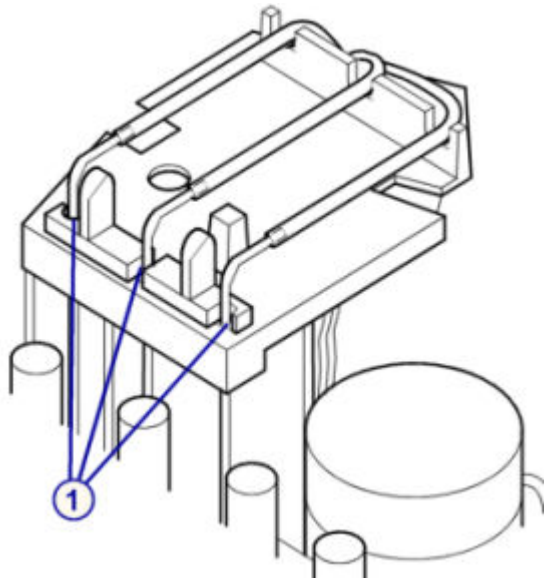
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	45 minutes (includes running quality control samples)
Tools/materials required	None
Replacement parts	LN 08C94-90 - Tubing/Sensor, temp, WZ

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

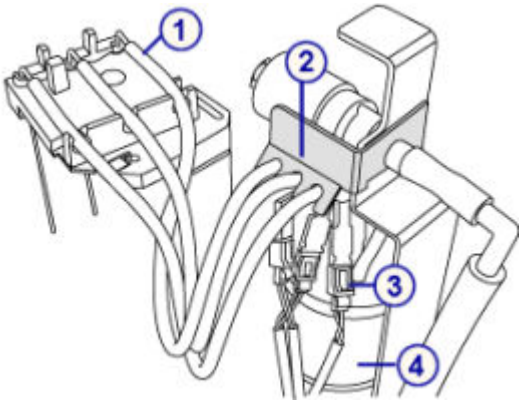
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the appropriate processing center cover(s) to access the tubing. **NOTE:** The rear processing center access panel must be opened to access wash zone 2 temperature tubing/ sensors. 2. Locate the wash zone temperature tubing/sensor to be replaced on the appropriate wash zone (WZ1 or WZ2) [1]. Refer to the processing center map on the *i* System processing module for wash zone locations (WZ1 or WZ2). 3. Remove the appropriate internal components cover(s), if present. For information on removing the internal component covers, refer to *ARCHITECT i2000/i2000SR internal components' covers*, page 9-325.	

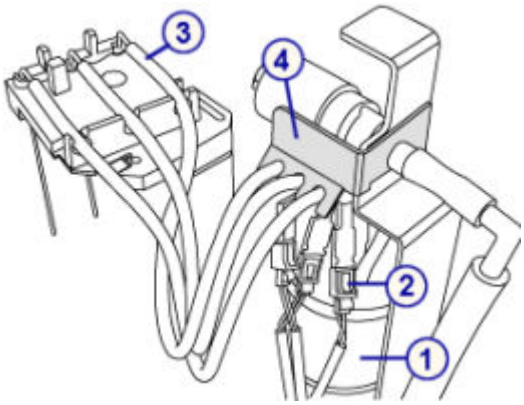
Remove the wash zone temperature tubing and sensor assembly

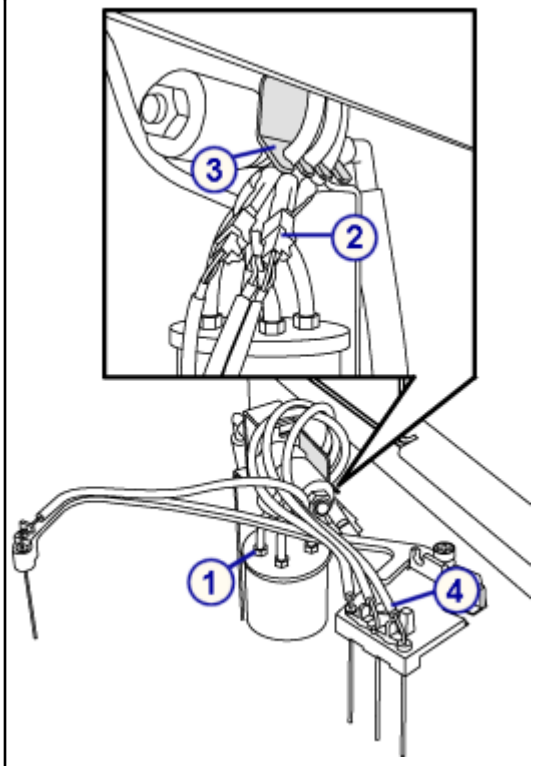
Steps	Graphic / reference
1. Grasp the tab on top of the wash zone clip located at the front of the wash zone motor assembly. Rotate the clip counterclockwise so the notch in the clip moves away from the wash zone probe [1]. 2. Perform one of the following depending on the tubing/ sensor you are replacing: – Wash zone 1 Remove the wash zone tubing from the tubing guide, and then lift the probe and the attached tubing out of the wash zone motor assembly. – Wash zone 2 Lift the probe and attached tubing out of the wash zone motor assembly. 3. Remove the tubing from the probe by gently pulling the tubing and sliding it from the probe. 4. Slide the tubing down from the tubing bracket slots. Pulling the tubing gently forward may help facilitate removal [2]. 5. Disconnect the temperature sensor [3].	

Steps	Graphic / reference
6. Hold down the vacuum vessel with one hand. With the other hand pull up on the tubing near the connection on the vacuum vessel [4].	

Replacement

Install the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
Wash zone 1: 1. Connect the tubing to the barb fitting on the vacuum vessel [1]. 2. Connect the temperature sensor [2]. 3. Slide the tubing up into the bracket slot that aligns it to the correct wash zone probe. Pull the tubing gently forward to facilitate the correct positioning [4]. 4. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. **NOTE:** The tubing should be half way between the bend in the probe and the ridge [3]. 5. Slide the probe in the wash zone motor assembly until it is fully seated. Pull up on the wash zone motor to raise it if the probes do not fit into the openings on the wash zone motor assembly. 6. Place the tubing in the tubing guide. 7. Grasp the tab on top of the clips and rotate clockwise toward the probes. **NOTE:** If the clips do not rotate to their locked position, ensure the probes are completely seated in the wash zone motor assembly.	

Steps	Graphic / reference
Wash zone 2: 1. Connect the tubing to the barb fitting on the vacuum vessel [1]. 2. Connect the temperature sensor [2]. 3. Slide the tubing up into the bracket slot that aligns with the correct wash zone probe. Pull the tubing gently forward to facilitate the correct positioning [3]. 4. Route the tubing from the vacuum vessel over the liquid waste arm and under the waste arm probe tubing to the right side of the wash zone motor assembly. 5. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. **NOTE:** The tubing should be halfway between the bend in the probe and the ridge [4]. 6. Slide the probe in the wash zone motor assembly until it is fully seated. (Probe 1 should be located on the right side of the post on top of the wash zone motor assembly.) If the probes do not fit into the openings on the wash zone motor assembly, lift the wash zone motor by pulling it up. 7. Grasp the tab on top of the clip and rotate the clip clockwise toward the probes. **NOTE:** If the clips do not rotate to their locked position ensure the probes are completely seated in the wash zone motor assembly.	

Prepare for operation

Steps	Graphic / reference
1. Replace the appropriate internal components cover(s), if previously removed. 2. Close the processing center cover(s).	

Verification

Perform fluidics/wash diagnostic procedure 2050 WZ Aspiration Test

Steps	Graphic / reference
Perform ***fluidics/wash*** diagnostic procedure *2050 WZ Aspiration Test*, page 10-653.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting patient results.	

Replace the waste arm probe/tubing (*i*2000/*i*2000SR)

Replacing the waste arm probe/tubing consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-349
  - *Remove the waste arm probe tubing*, page 9-349
- Replacement
  - *Install the waste arm probe/tubing*, page 9-350
- Verification
  - *Perform as-needed maintenance procedure 2151 Prime Wash Zones*, page 9-350

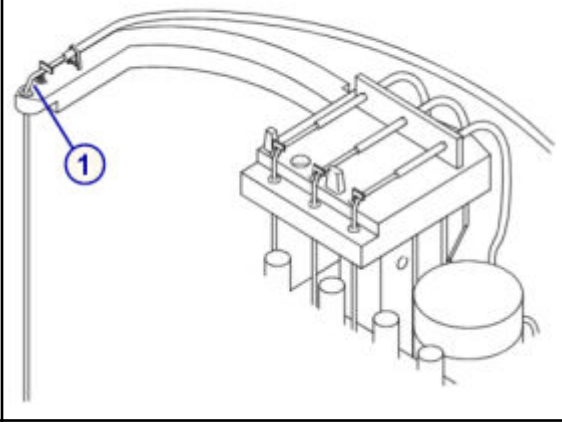
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	10 minutes
Tools/materials required	None
Replacement parts	LN 08C94-89 - Probe/tubing, waste arm

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

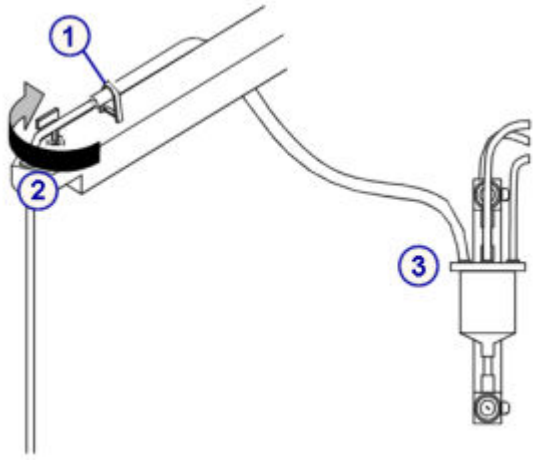
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

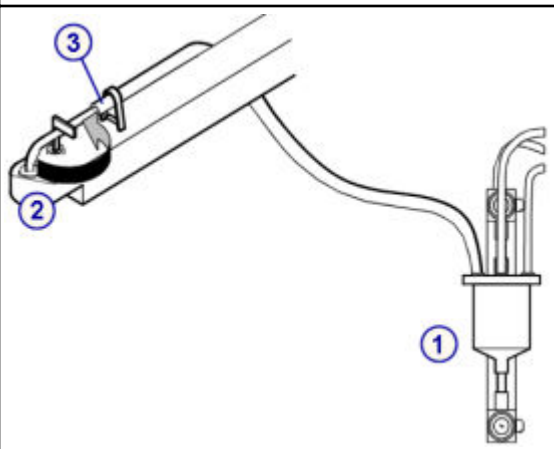
Steps	Graphic / reference
1. Lift the rear processing center cover to access the liquid waste arm. 2. Open the rear access panel. 3. Locate the waste arm probe and tubing on the liquid waste arm [1]. See the processing center map on the *i* System processing module for liquid waste arm location (A).	

Remove the waste arm probe tubing

Steps	Graphic / reference
1. If the liquid waste arm has a tubing routing clip, remove the liquid waste arm tubing from the routing clip [1]. 2. Rotate the waste arm probe clip clockwise [2]. 3. Lift the probe and remove it from the front of the liquid waste arm. 4. Hold down on the vacuum vessel with one hand. With the other hand, pull up on the waste arm tubing near the connection on the vacuum vessel [3]. 5. Remove the waste arm probe and tubing from the processing module.	

Replacement

Install the waste arm probe/tubing

Steps	Graphic / reference
1. Slide the tubing on to the probe until it passes the ridge on the probe. **NOTE:** The tubing should be half way between the bend in the probe and the ridge. 2. Connect the tubing to the barb fitting on the vacuum vessel [1]. 3. Slide the probe into the liquid waste arm until it is fully seated. 4. Lift and rotate the probe clip counterclockwise until the notch in the clip sits over the probe [2]. 5. Place the tubing in the routing clip [3], if the liquid waste arm has a clip.	

Verification

Perform as-needed maintenance procedure 2151 Prime Wash Zones

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2151 Prime Wash Zones*, page 9-80. 2. Watch the vacuum vessel as the procedure runs and verify liquid is dispensed from the waste arm probe tubing to the vacuum vessel. 3. Close the processing center cover(s).	

*i*2000/*i*2000SR supply and waste center component replacement

You may need to replace certain supply and waste center components due to normal wear from daily operations.

See *Supply and waste center (i2000/i2000SR)*, page 1-122, for component locations when performing replacement procedures.

The following procedures provide step-by-step instructions on replacing these components:

- *Replace the pre-trigger or trigger level sensor (i2000/i2000SR)*, page 9-351
- *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353
- *Replace the buffer filter (i2000/i2000SR)*, page 9-356

Replace the pre-trigger or trigger level sensor (*i*2000/*i*2000SR)

Replacing the pre-trigger or trigger level sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-351
  - *Remove the pre-trigger or trigger level sensor*, page 9-352
- Replacement
  - *Install the pre-trigger or trigger level sensor*, page 9-352
  - *Prepare for operation*, page 9-353
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3410 Level Sensors Test*, page 9-353

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	10 minutes
Tools/materials required	Absorbent tissue
Replacement parts	• LN 08C94-67 - Sensor, Level, Pre-Trigger • LN 08C94-66 - Sensor, Level, Trigger

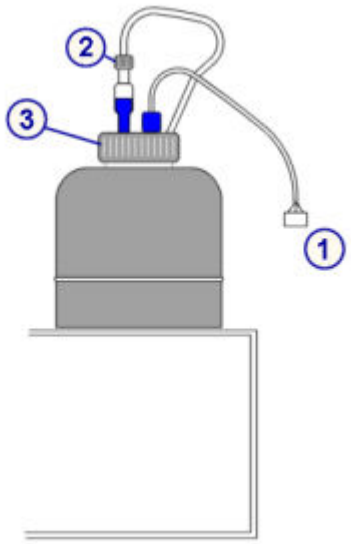
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for removal

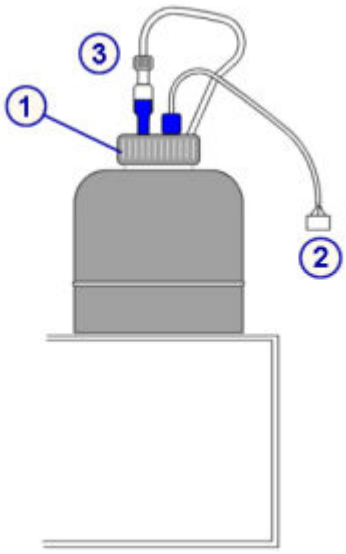
Steps	Graphic / reference
Open the supply and waste center door.	

Remove the pre-trigger or trigger level sensor

Steps	Graphic / reference
1. Slide the pre-trigger/trigger tray out. **NOTE:** Use caution when handling the level sensors. Avoid bending the tubing connected to the cap. Avoid applying stress on the wiring and connectors. 2. Disconnect the pre-trigger or trigger electrical connector [1]. 3. Use absorbent tissue to catch any spilled liquid and unscrew the tubing fitting from the level sense tube [2]. 4. Unscrew the level sensor cap [3]. 5. Remove the level sensor and wipe the outside of the assembly with an absorbent tissue.	

Replacement

Install the pre-trigger or trigger level sensor

Steps	Graphic / reference
1. Place the level sensor into the container with the arrow facing towards the front. 2. Tighten the cap [1]. **NOTE:** When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 3. Connect the pre-trigger or trigger electrical connector [2] on the processing module. **NOTE:** If you are using replacement part LN 08C94-66 or LN 08C94-67 for the first time you must connect the adapter provided to the pre-trigger or trigger level sensor cable on the cap prior to performing this step. 4. Connect the tubing fitting to the level sensor tube [3]. 5. Slide the tray into place.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3410 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3410 Level Sensors Test*, page 10-659.	

Replace the buffer level sensor (*i*2000/*i*2000SR)

Replacing the buffer level sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-354
  - *Remove the wash buffer reservoir*, page 9-354
  - *Remove the buffer level sensor*, page 9-355
- Replacement
  - *Install the buffer level sensor*, page 9-355
  - *Install the wash buffer reservoir*, page 9-356
  - *Prepare for operation*, page 9-356
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3410 Level Sensors Test*, page 9-356

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	None
Replacement parts	LN 08C94-65 - Sensor, Level, Buffer

CAUTION: Lifting Hazard. The *i* System wash buffer reservoir is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Removal

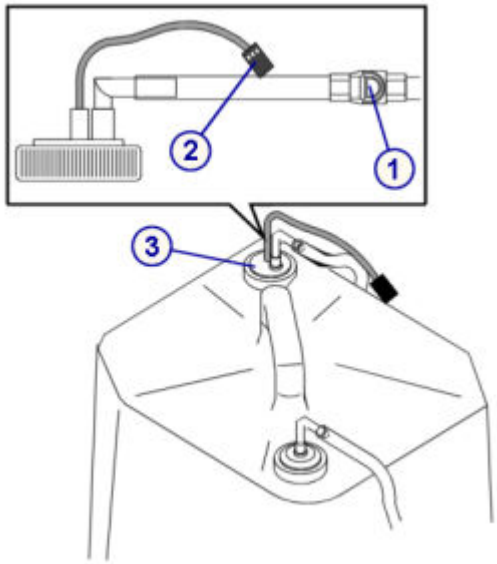
Prepare for removal

Steps	Graphic / reference
Open the supply and waste center door.	

Remove the wash buffer reservoir

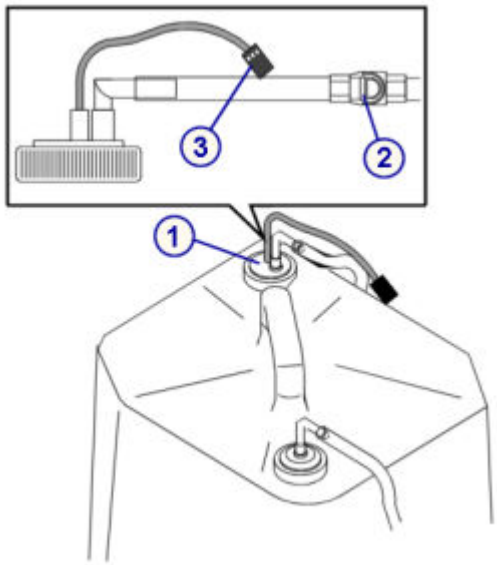
Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81, if buffer volume is greater than 10 liters. 2. Grasp the hand holds on the side of the buffer reservoir and slide it out. Place the reservoir outside the processing module on the floor. **NOTE:** Use caution when handling the level sensors. Avoid bending the tubing connected to the cap. Avoid applying stress on the wiring and connectors.	

Remove the buffer level sensor

Steps	Graphic / reference
1. Push on the white quick disconnect tab to remove the tubing [1]. 2. Disconnect the level sensor cable [2]. 3. Unscrew the cap [3]. 4. Remove the level sensor.	

Replacement

Install the buffer level sensor

Steps	Graphic / reference
1. Place the level sensor into the reservoir and tighten the cap [1]. 2. Snap the white quick disconnect into the tubing [2]. 3. Connect the level sensor cable [3] to the electrical connector on the processing module. **NOTE:** If you are using replacement part LN 08C94-65 for the first time you must connect the adapter provided to the buffer level sensor cable on the cap prior to performing this step.	

Install the wash buffer reservoir

Steps	Graphic / reference
Grasp the hand holds on the side of the buffer reservoir and slide the reservoir into the processing module. **NOTE:** If you unloaded buffer to allow for the removal of the buffer reservoir from the processing module, add wash buffer. Completely fill the wash buffer reservoir to accurately track wash buffer inventory.	See *Consumable inventory management*, page 5-40.

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79, to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3410 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3410 Level Sensors Test*, page 10-659.	

Replace the buffer filter (*i*2000/*i*2000SR)

Replacing the buffer filter consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-357
  - *Remove the wash buffer reservoir*, page 9-357
  - *Remove the buffer filter*, page 9-358
- Replacement
  - *Install the buffer filter*, page 9-358
  - *Install the wash buffer reservoir*, page 9-359
  - *Prepare for operation*, page 9-359
- Verification

– *Load wash buffer*, page 9-359

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent tissue
Replacement parts	LN 08C94-29 - Filter, Buffer

CAUTION: Lifting Hazard. The *i* System wash buffer reservoir is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Removal

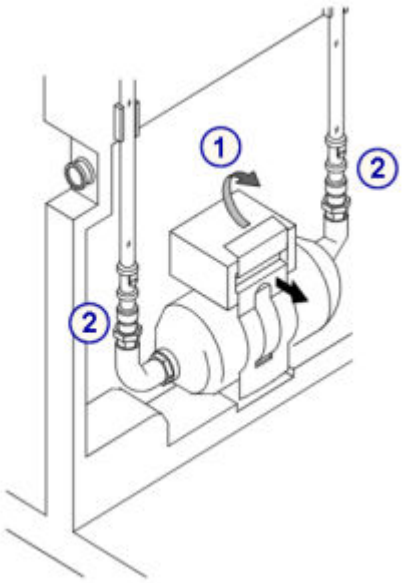
Prepare for removal

Steps	Graphic / reference
Open the supply and waste center door.	

Remove the wash buffer reservoir

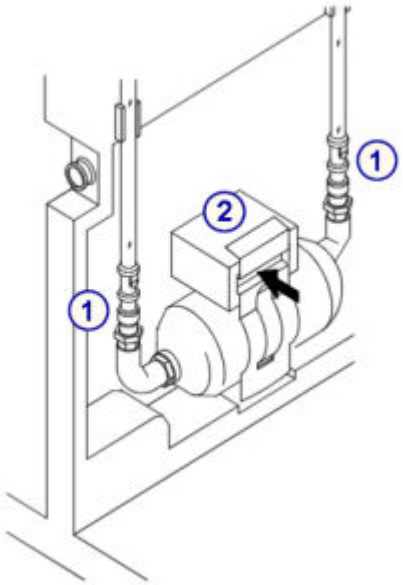
Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81, if buffer volume is greater than 10 liters. 2. Grasp the hand holds on the side of the buffer reservoir and slide it out. Place the reservoir outside the processing module on the floor.	

Remove the buffer filter

Steps	Graphic / reference
1. Press down and out on the buffer filter bracket [1]. 2. Remove the filter from the holding feature in the frame of the supply and waste center. 3. Place an absorbent tissue under the buffer filter quick disconnects. 4. Disconnect the two grey quick disconnects at either end of the filter [2].	

Replacement

Install the buffer filter

Steps	Graphic / reference
1. Connect the buffer filter to the two grey quick disconnects [1]. 2. Place the buffer filter onto the holding feature in the frame of the supply and waste center. 3. Place the buffer filter bracket over the filter and press into place, securing the filter to the frame [2].	

Install the wash buffer reservoir

Steps	Graphic / reference
Grasp the hand holds on the side of the buffer reservoir and slide the reservoir into the processing module.	

Prepare for operation

Steps	Graphic / reference
Close the supply and waste center door.	

Verification

Load wash buffer

Steps	Graphic / reference
Load wash buffer to verify the buffer filter and tubing function properly and that no leaks occur.	See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85.

*i*1000SR component replacement

Component replacement for *i*1000SR includes:

- *ARCHITECT i1000SR internal component cover replacement*, page 9-359
- *ARCHITECT i1000SR internal component cover*, page 9-359
- *i1000SR processing center component replacement*, page 9-361
- *i1000SR supply and waste center component replacement*, page 9-378

ARCHITECT *i*1000SR internal component cover replacement

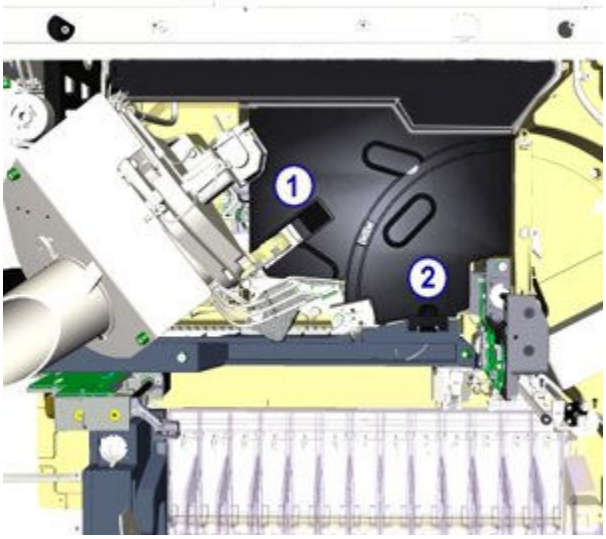
The internal cover protects the internal components of the processing center. You remove the cover to access the internal components.

See the *ARCHITECT i1000SR internal component cover*, page 9-359 for instructions.

ARCHITECT *i*1000SR internal component cover

The internal component cover is located in the following area.

Figure 9.27: Internal component cover



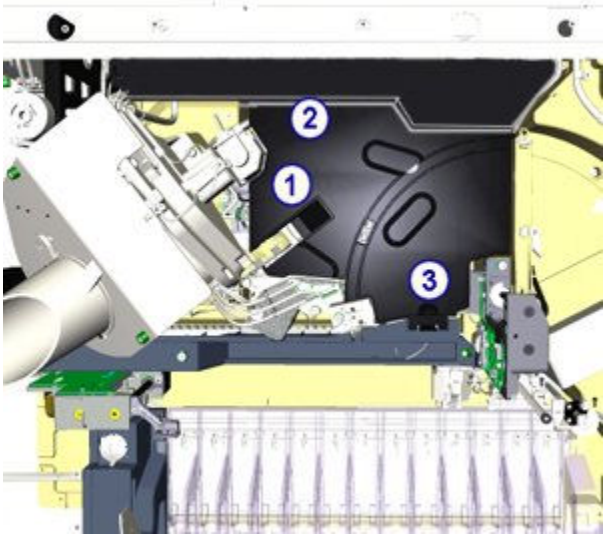
To remove the cover:

1. Raise the lower chute of the RV loader. [1]

   NOTE: To move the pipettor probe away from the wash cup, perform ***pipettors*** diagnostic procedure, *1165 Pipettor Move*, page 10-672.

2. Press the tab located to the right of the wash cup area. [2]
3. Remove the internal cover.

Figure 9.28: Internal component cover



To replace the cover:

1. Raise the lower chute of the RV loader. [1]
2. Insert the tabs on the back of the cover into rear cover. [2].

3. Press the tab into the opening located to the right of the wash cup area. [3]
4. Lower the chute of the RV loader.

*i*1000SR processing center component replacement

You may need to replace certain processing center components due to normal wear from daily operations. The following procedures provide step-by-step instructions on replacing these components:

- *Replace pipettor probe (i1000SR)*, page 9-361
- *Replace pipettor probe tubing (i1000SR)*, page 9-364
- *Replace the wash zone probe (i1000SR)*, page 9-367
- *Replace the wash zone temperature tubing and sensor (i1000SR)*, page 9-370
- *Remove/replace the RV loader assembly (i1000SR)*, page 9-372
- *Replace the wash cup baffle (i1000SR)*, page 9-374

Replace pipettor probe (*i*1000SR)

Replacing the pipettor probe consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-362
  - *Remove the probe*, page 9-362
- Replacement
  - *Install the probe*, page 9-363
  - *Prepare for operation*, page 9-363
- Verification
  - *Perform as-needed maintenance procedure 1110*, page 9-364

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	• Absorbent tissue • #2 Phillips screwdriver (optional)
Replacement parts	LN 08C94-47 - Probe

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

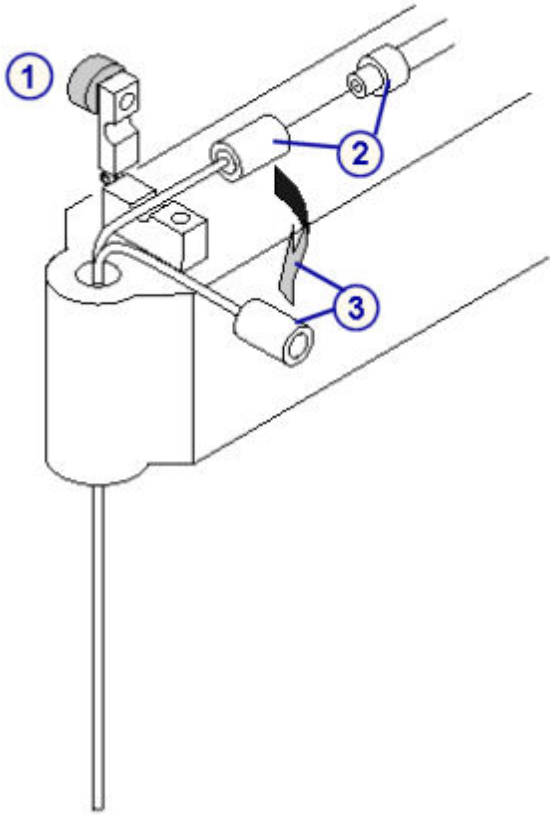
CAUTION: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

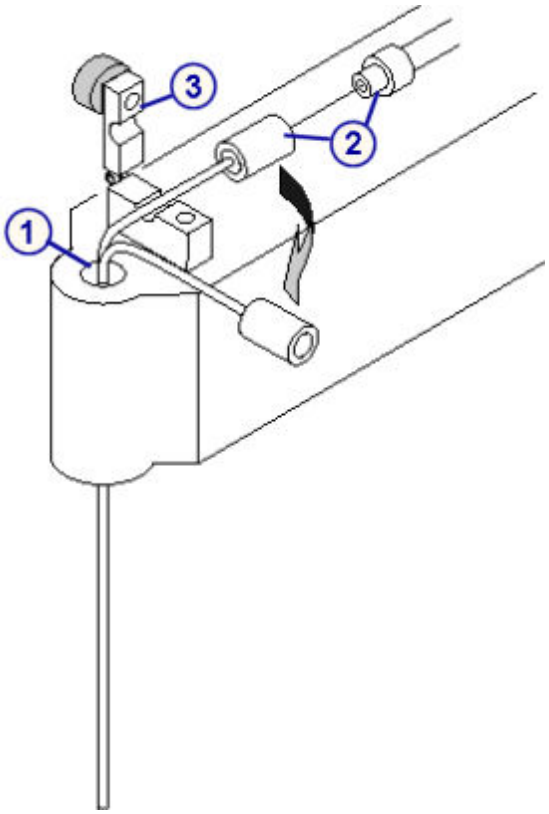
Steps	Graphic / reference
1. Lift the processing center cover to access the probe. 2. Locate the pipettor (P) on the processing center map inside the processing center cover. 3. Verify the probe is over the wash cup. To move the pipettor probe over the wash cup, perform ***pipettors*** diagnostic procedure *1165 Pipettor Move*, page 10-672.	

Remove the probe

Steps	Graphic / reference
1. Place an absorbent tissue under the probe tubing connection. 2. Loosen the screw (captive) on top of the probe clamp until you feel resistance and move the probe clamp backward to free the probe. [1] **NOTE:** You can use a #2 Phillips screwdriver to loosen the screw. Loosening the screw beyond the point of resistance can cause the clip to come apart. 3. Loosen the metal fitting on the probe and remove the probe tubing from the probe. [2] 4. Lift the probe and remove it from the boom arm. [3]	

Replacement

Install the probe

Steps	Graphic / reference
1. Slide the probe into the boom arm. [1] 2. Connect the probe tubing to the probe and finger tighten the probe fitting. [2] 3. Swing the probe clamp forward and tighten the screw (captive) on top of the probe clamp. [3] **NOTE:** You can use a #2 Phillips screwdriver to tighten the screw. Do not over tighten as stripping may result.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If drips or leaks are observed, repeat the installation procedure. 3. Remove the absorbent tissue. 4. Close the processing center cover.	

Verification

Perform as-needed maintenance procedure 1110

Steps	Graphic / reference
Perform the following ***as-needed*** maintenance procedure: • *1110 Pipettor Calibration*, page 9-91	

Replace pipettor probe tubing (*i*1000SR)

Replacing the pipettor probe tubing consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-365
  - *Remove the probe tubing*, page 9-365
- Replacement
  - *Install the probe tubing*, page 9-366
  - *Prepare for operation*, page 9-366
- Verification

  Verification occurs during preparation for operation. No further verification is required.

Prerequisite	The processing module must be in the Stopped status.
Estimated time required	10 minutes
Tools/materials required	Absorbent tissue
Replacement parts	LN 06L04-01 - Tubing, Probe or LN 06L04-02 - Tubing, Probe

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

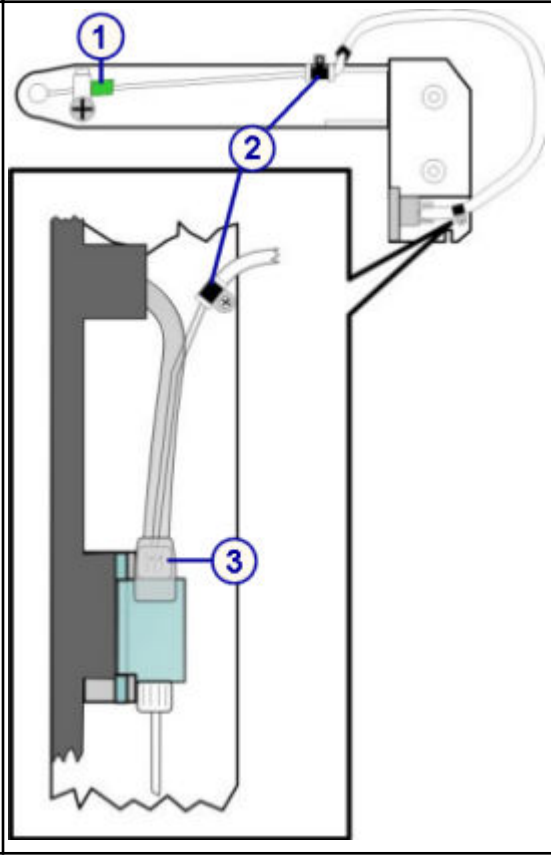
CAUTION: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

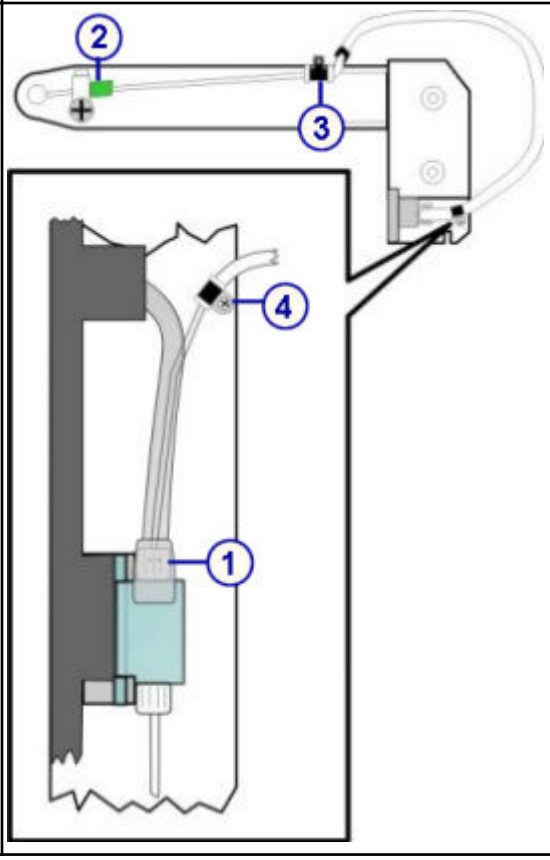
Steps	Graphic / reference
1. Lift the processing center cover to access the pipettor probe. 2. Locate the pipettor (P) on the processing center map inside the processing center cover. 3. Locate the probe tubing to be replaced on the pipettor. 4. Verify the probe is over the wash cup. To move the pipettor probe over the wash cup, perform ***pipettors*** diagnostic procedure *1165 Pipettor Move*, page 10-672.	

Remove the probe tubing

Steps	Graphic / reference
1. Place an absorbent tissue under the probe tubing connection [1]. 2. Remove the non-captive screws holding the tubing routing clips and remove the clips [2]. **NOTE:** Use care when removing the non-captive screws as they are easily dropped into the system. 3. Place an absorbent tissue near the tubing connection at the pressure monitor [3]. 4. Disconnect the tubing connection at the pressure monitor and drain any fluid from the probe tubing onto the absorbent tissue [3]. 5. Loosen the metal fitting on the probe and remove the probe tubing from the probe [1]. 6. Remove the probe tubing from the module.	

Replacement

Install the probe tubing

Steps	Graphic / reference
1. Support the boom arm when replacing the tubing to prevent it from moving. 2. Orient the probe tubing so that the green band is located near the probe. 3. Connect the probe tubing to the pressure monitor [1]. 4. Connect the opposite end of the probe tubing to the probe and finger-tighten the probe metal fitting [2]. 5. Place the tubing into the black plastic routing clip and use the screw to attach the clip to the pipettor [3]. 6. Place the tubing into the metal routing clip. Press on the pressure monitor cable to position it close to the pipettor frame and use the screw to attach the clip to the pipettor [4].	

Prepare for operation

Steps	Graphic / reference
1. *Start up the processing module and/or sample handler*, page 5-15. 2. Perform ***as needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 to remove any air that may be present. 3. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 4. Remove the absorbent tissue. 5. Close the processing center cover.	

Verification

Perform probe tubing verification

Steps	Graphic / reference
Verification occurs during preparation for operation. No further verification is required.	

Replace the wash zone probe (*i*1000SR)

Replacing the wash zone probe consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-368
  - *Remove the wash zone probe*, page 9-368
- Replacement
  - *Install the wash zone probe*, page 9-369
  - *Prepare for operation*, page 9-369
- Verification
  - *Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test*, page 9-369
  - *Perform calibration curve verification*, page 9-369

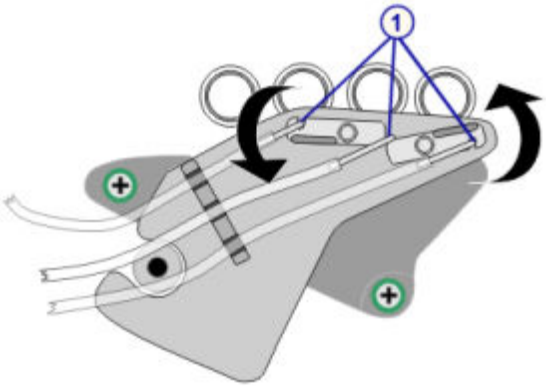
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	40 minutes (includes running quality control samples)
Tools/materials required	None
Replacement parts	LN 08C94-36 - Probe, WZ

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

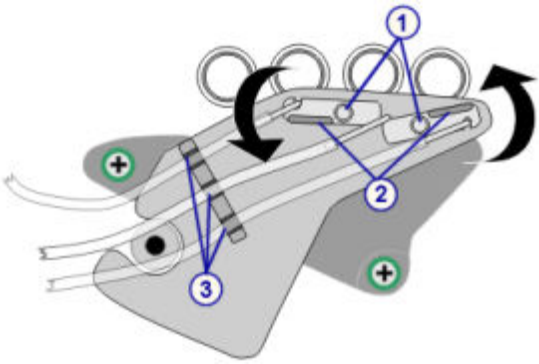
CAUTION: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

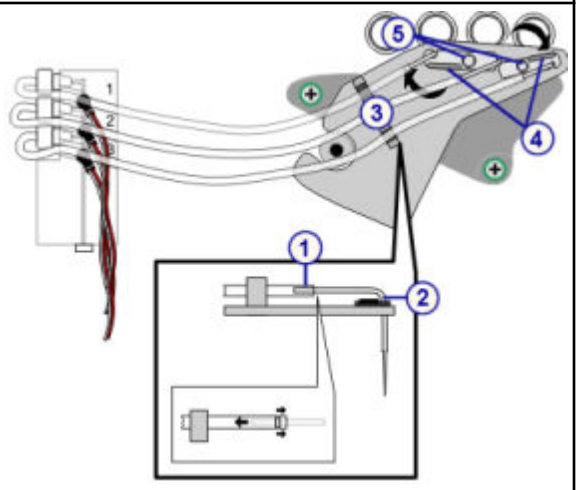
Steps	Graphic / reference
1. Lift the processing center cover to access the wash zone probe. 2. Locate the wash zone (WZ) on the processing center map inside the processing center cover. 3. Locate the wash zone probe that needs to be replaced on the wash zone. [1] 4. Verify the pipettor probe is away from the wash cup toward the rear of the process path. To move the pipettor probe away from the wash cup, perform ***pipettors*** diagnostic procedure,*1165 Pipettor Move*, page 10-672.	

Remove the wash zone probe

Steps	Graphic / reference
1. Loosen the thumb screw(s) holding the wash zone clip(s), which is located at the top side of the wash zone motor assembly. [1] 2. Grasp the tab(s) on the wash zone clip(s), which is located at the top side of the wash zone motor assembly. Rotate the clip(s) counterclockwise, so the notch in the clip(s) moves away from the wash zone probe. [2] 3. Remove the wash zone tubing from the tubing guide, and then lift the probe and the attached tubing out of the wash zone motor assembly. [3] 4. Remove the tubing from the probe by gently pulling the tubing and sliding it from the probe.	

Replacement

Install the wash zone probe

Steps	Graphic / reference
1. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. [1] **NOTE:** The tubing should be halfway between the bend in the probe and the ridge. 2. Slide the probe in the wash zone motor assembly until it is fully seated. Pull up on the wash zone motor to raise it if the probes do not fit into the openings on the wash zone motor assembly. [2] 3. Place the tubing in the tubing guide. [3] 4. Grasp the tab(s) on the clip(s) and rotate the clip(s) clockwise toward the probes. [4] **NOTE:** If the clips do not rotate to their locked position, ensure that the probes are completely seated in the wash zone motor assembly. 5. Tighten the thumb screw(s) holding the wash zone clip(s). [5]	

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test

Steps	Graphic / reference
Perform fluidics/wash diagnostic procedure *2052 WZ Aspiration Test*, page 10-674.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting the patient results.	

Replace the wash zone temperature tubing and sensor (*i*1000SR)

Replacing the wash zone temperature tubing and sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-370
  - *Remove the wash zone temperature tubing and sensor assembly*, page 9-371
- Replacement
  - *Install the wash zone temperature tubing and sensor assembly*, page 9-371
  - *Prepare for operation*, page 9-372
- Verification
  - *Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test*, page 9-372
  - *Perform calibration curve verification*, page 9-372

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	45 minutes
Tools/materials required	None
Replacement parts	LN 08C94-90 - Tubing/Sensor, Temp, WZ

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

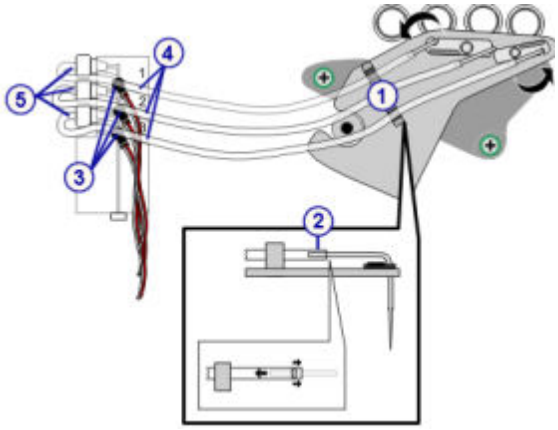
Removal

Prepare for removal

Steps	Graphic / reference
1. Lift the processing center cover to access the tubing. 2. Locate the wash zone (WZ) on the processing center map inside the processing center cover. 3. Locate the wash zone temperature tubing/sensor to be replaced on the wash zone (WZ).	

Steps	Graphic / reference
4. Verify the pipettor probe is away from the wash cup toward the rear of the process path. To move the pipettor probe away from the wash cup, perform ***pipettors*** diagnostic procedure,*1165 Pipettor Move*, page 10-672.	

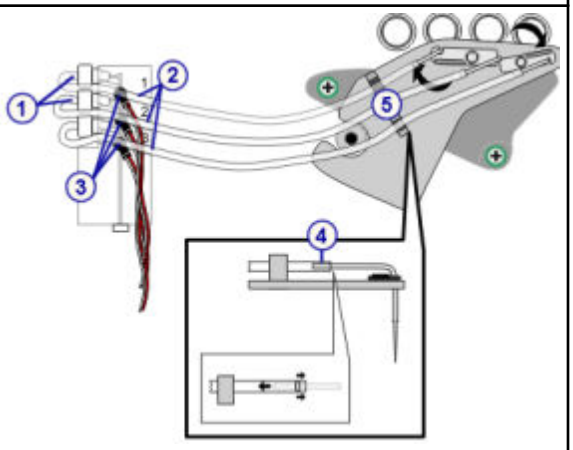
Remove the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
1. Remove the wash zone tubing from the tubing guide. [1] 2. Remove the tubing from the wash zone probe by gently pulling the tubing and sliding it from the probe. [2] 3. Remove the RV loader assembly (RVL) for easier access to the upper waste manifold (optional). **NOTE:** See the processing center map on the *i*1000SR processing module for RV loader location (RVL). 4. Disconnect the temperature sensor. [3] 5. Remove the tubing from the tubing guide on top of the upper waste manifold (UWM). [4] **NOTE:** See the processing center map on the *i*1000SR processing module for upper waste manifold location (UWM). 6. Remove the tubing from the barb fitting on the left side of the upper waste manifold. [5]	See *Remove/replace the RV loader assembly (i1000SR)*, page 9-372. 

Replacement

Install the wash zone temperature tubing and sensor assembly

Steps	Graphic / reference
1. Connect the tubing to the barb fitting on the upper waste manifold (UWM). [1] 2. Place the tubing in the tubing guide on top of the upper waste manifold. [2] 3. Connect the temperature sensor. [3] 4. Replace the RV loader assembly, if removed. 5. Push the wash zone tubing onto the wash zone probe until it passes the ridge on the probe. [4] **NOTE:** The tubing should be halfway between the bend in the probe and the ridge.	See *Remove/replace the RV loader assembly (i1000SR)*, page 9-372.

Steps	Graphic / reference
6. Place the tubing in the tubing guide. [5]	

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform fluidics/wash diagnostic procedure 2052 WZ Aspiration Test

Steps	Graphic / reference
Perform fluidics/wash diagnostic procedure *2052 WZ Aspiration Test*, page 10-674.	

Perform calibration curve verification

Steps	Graphic / reference
Run all levels of controls to validate the active calibration curves prior to reporting results.	

Remove/replace the RV loader assembly (*i*1000SR)

Perform this procedure to remove the RV loader assembly to allow easier access to internal components. Removing and replacing the RV loader assembly consists of the following procedures.

- Removal
  - *Prepare for removal*, page 9-373
  - *Remove the RV loader assembly*, page 9-373
- Replacement
  - *Install the RV loader assembly*, page 9-374

- *Prepare for operation*, page 9-374

- Verification
  - *Perform modules diagnostic procedure, 4110 Module Initialization*, page 9-374

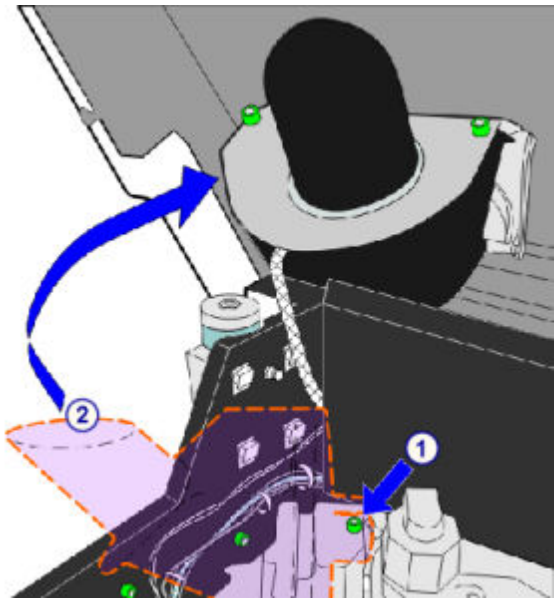
Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	2 minutes
Tools/materials required	None

Removal

Prepare for removal

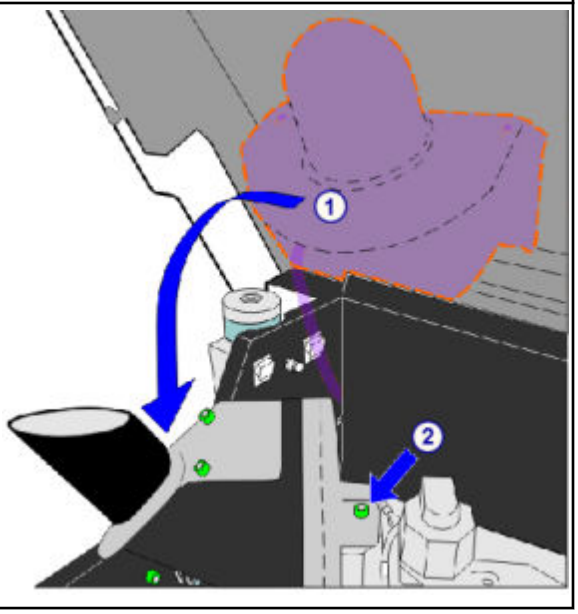
Steps	Graphic / reference
1. Lift the processing center cover to access the RV loader assembly (RVL). 2. Locate the RV loader (RVL). **NOTE:** See the processing center map on the *i*1000SR processing module for RV loader location (RVL).	

Remove the RV loader assembly

Steps	Graphic / reference
1. Loosen the green captive screw at the base of the RV loader assembly. [1] 2. Lift the RV loader lower chute and remove the RV loader assembly. 3. Place the RV loader inside the left back corner of the processing center cover. [2]	

Replacement

Install the RV loader assembly

Steps	Graphic / reference
1. Remove the RV loader assembly from the left back corner of the processing center cover. [1] 2. Place the RV loader on the mounting base and tighten the captive screw. [2] 3. Lower the RV loader chute into the load position.	

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform modules diagnostic procedure, 4110 Module Initialization

Steps	Graphic / reference
Perform modules diagnostic procedure *4110 Module Initialization*, page 10-677.	

Replace the wash cup baffle (*i*1000SR)

Replacing the wash cup baffle consists of the following procedures.

- Removal
  - *Prepare for removal*, page 9-375
  - *Remove the wash cup baffle*, page 9-376
- Replacement

- *Replace the wash cup baffle*, page 9-377
- *Prepare for operation*, page 9-378

• Verification

- *Perform modules diagnostic procedure, 4110 Module Initialization*, page 9-378

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	5 minutes
Tools/materials required	None
Replacement parts	LN 01P41-01 - Wash cup baffle

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

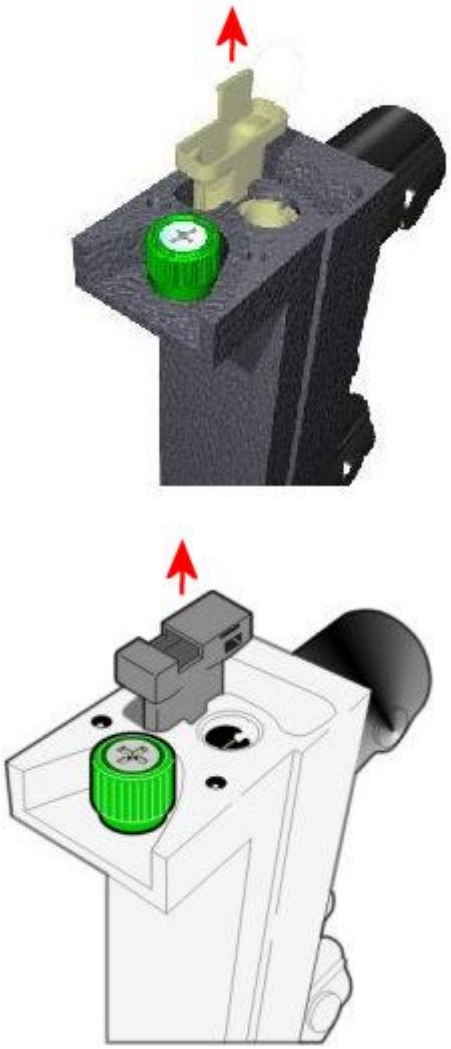
CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Removal

Prepare for removal

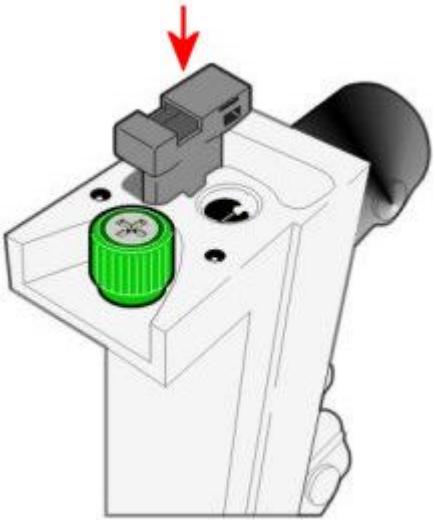
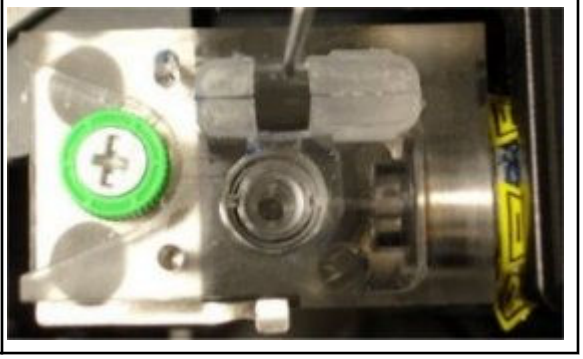
Steps	Graphic / reference
1. Lift the processing center cover to access the wash cup baffle. 2. Locate the wash cup (PW) on the processing center map inside the processing center cover. 3. Verify the pipettor probe is away from the wash cup toward the rear of the process path. To move the pipettor probe away from the wash cup, perform ***pipettors*** diagnostic procedure,*1165 Pipettor Move*, page 10-672.	

Remove the wash cup baffle

Steps	Graphic / reference
Remove the wash cup baffle.	

Replacement

Replace the wash cup baffle

Steps	Graphic / reference
1. Install the wash cup baffle. 2. Ensure that the baffle is fully seated and aligned with the wash cup as shown.	  

Prepare for operation

Steps	Graphic / reference
Close the processing center cover.	

Verification

Perform modules diagnostic procedure, 4110 Module Initialization

Steps	Graphic / reference
Perform modules diagnostic procedure *4110 Module Initialization*, page 10-677.	

*i*1000SR supply and waste center component replacement

You may need to replace certain supply and waste center components due to normal wear from daily operations.

See *Supply and waste center (i1000SR)*, page 1-145, for component locations when performing replacement procedures.

The following procedures provide step-by-step instructions on replacing these components:

- *Replace the pre-trigger or trigger level sensor (i1000SR)*, page 9-378
- *Replace the buffer level sensor (i1000SR)*, page 9-380
- *Replace the buffer outlet assembly (i1000SR)*, page 9-384
- *Replace the buffer filter (i1000SR)*, page 9-387

Replace the pre-trigger or trigger level sensor (*i*1000SR)

Replacing the pre-trigger or trigger level sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-379
  - *Remove the pre-trigger or trigger level sensor*, page 9-379
- Replacement
  - *Install the pre-trigger or trigger level sensor*, page 9-380
  - *Prepare for operation*, page 9-380
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test*, page 9-380

Prerequisite	The processing module must be in the Warming or Ready status.

Estimated time required	10 minutes
Tools/materials required	Absorbent tissue
Replacement parts	• LN 08C94-67 - Sensor, Level, Pre-Trigger • LN 08C94-66 - Sensor, Level, Trigger

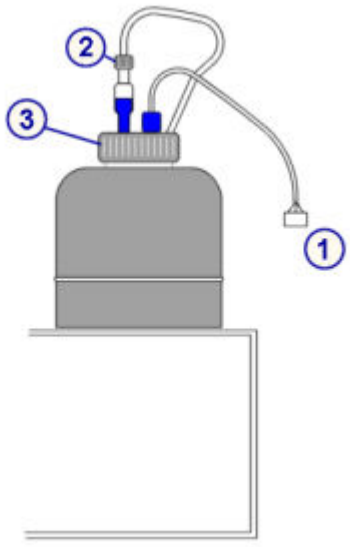
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Prepare for removal

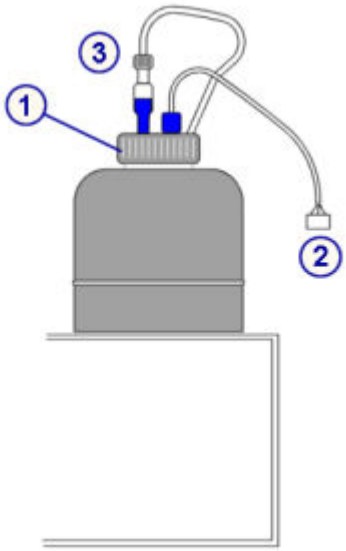
Steps	Graphic / reference
Open the supply and waste center door.	

Remove the pre-trigger or trigger level sensor

Steps	Graphic / reference
1. Slide the pre-trigger/trigger tray out. 2. Disconnect the pre-trigger or trigger electrical connector. [1] 3. Use absorbent tissue to catch any spilled liquid and unscrew the tubing fitting from the level sense tube. [2] 4. Unscrew the level sensor cap. [3] 5. Remove the level sensor and wipe the outside of the assembly with an absorbent tissue.	

Replacement

Install the pre-trigger or trigger level sensor

Steps	Graphic / reference
1. Place the level sensor into the container with the arrow on the cap facing towards the front. 2. Tighten the cap. [1] **NOTE:** When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 3. Connect the pre-trigger or trigger electrical connector. [2] 4. Connect the tubing fitting to the level sensor tube. [3] 5. Slide the tray into place.	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3420 Level Sensors Test*, page 10-678.	

Replace the buffer level sensor (*i*1000SR)

Replacing the buffer level sensor consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-381
  - *Remove the wash buffer reservoir and wash buffer level sensor*, page 9-382
- Replacement
  - *Install the wash buffer level sensor and wash buffer reservoir*, page 9-383
  - *Prepare for operation*, page 9-383
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test*, page 9-384

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	None
Replacement parts	LN 06L01-01 - Sensor, Level, Buffer

CAUTION: Lifting hazard. The *i*1000SR System wash buffer reservoir is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

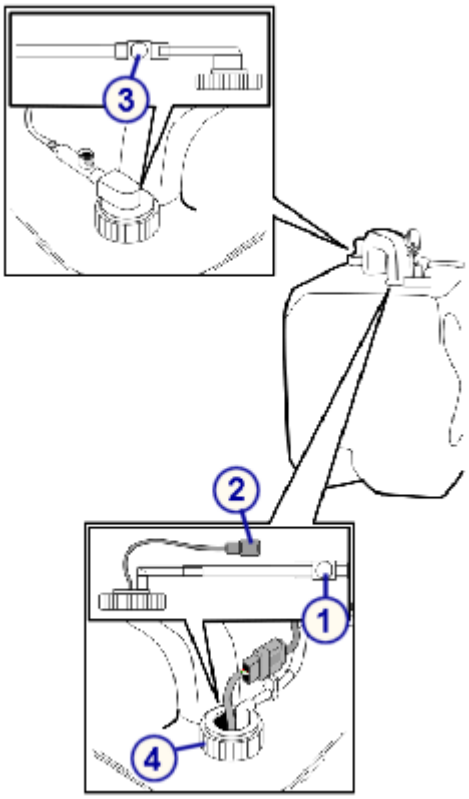
CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Removal

Prepare for removal

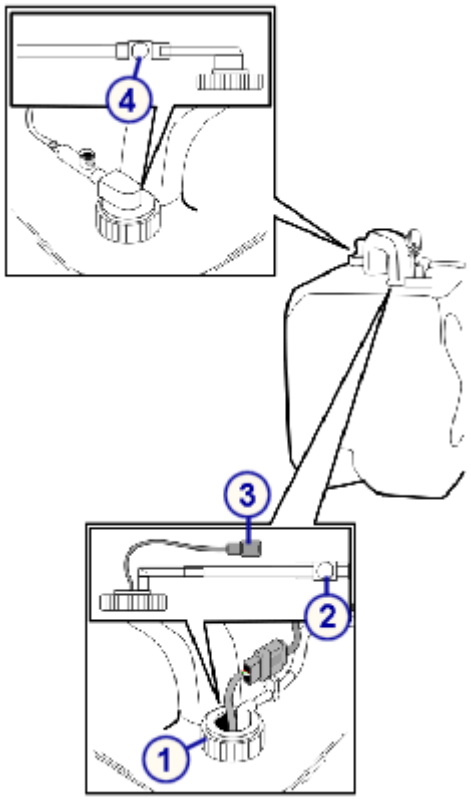
Steps	Graphic / reference
Open the supply and waste center door.	

Remove the wash buffer reservoir and wash buffer level sensor

Steps	Graphic / reference
1. Push on the quick disconnect tab to remove the tubing from the buffer filter. [1] 2. Disconnect the gray level sensor cable. [2] 3. Push on the quick disconnect tab to remove the tubing from the buffer outlet assembly. [3] 4. Grasp the handle and slide the wash buffer reservoir outside the processing module on the floor. 5. Unscrew the cap. [4] 6. Remove the level sensor.	

Replacement

Install the wash buffer level sensor and wash buffer reservoir

Steps	Graphic / reference
1. Place the level sensor into the reservoir and tighten the cap. [1] 2. Grasp the handle and place the wash buffer reservoir into the supply and waste center. 3. Snap the quick disconnect into the tubing on the buffer level sensor. [2] 4. Connect the gray level sensor cable. [3] 5. Snap the quick disconnect into the tubing on the buffer outlet assembly. [4]	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3420 Level Sensors Test*, page 10-678.	

Replace the buffer outlet assembly (*i*1000SR)

Replacing the buffer outlet assembly consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-385
  - *Remove the wash buffer reservoir and buffer outlet assembly*, page 9-385
- Replacement
  - *Replace wash buffer reservoir and buffer outlet assembly*, page 9-386
  - *Prepare for operation*, page 9-386
- Verification
  - *Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test*, page 9-387

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	None
Replacement parts	LN 01P12-01 - Buffer outlet assembly

CAUTION: Lifting hazard. The *i*1000SR System wash buffer reservoir is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

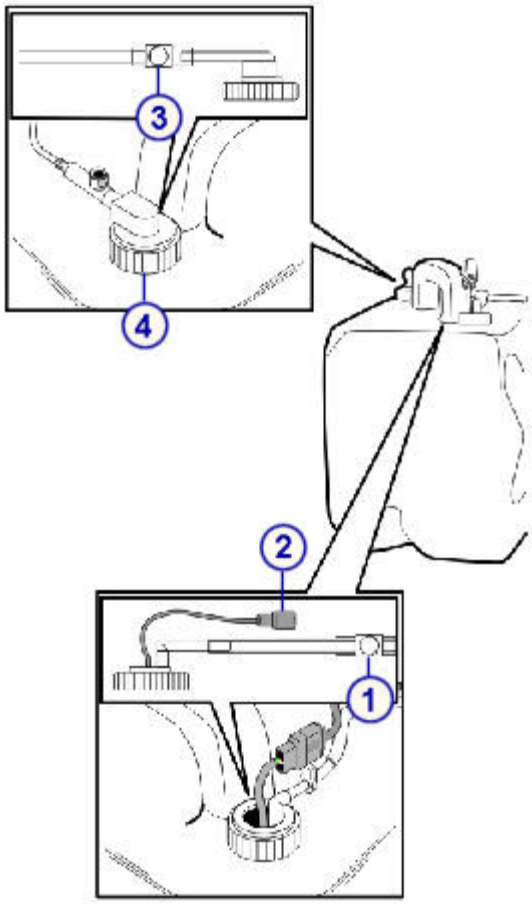
CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Removal

Prepare for removal

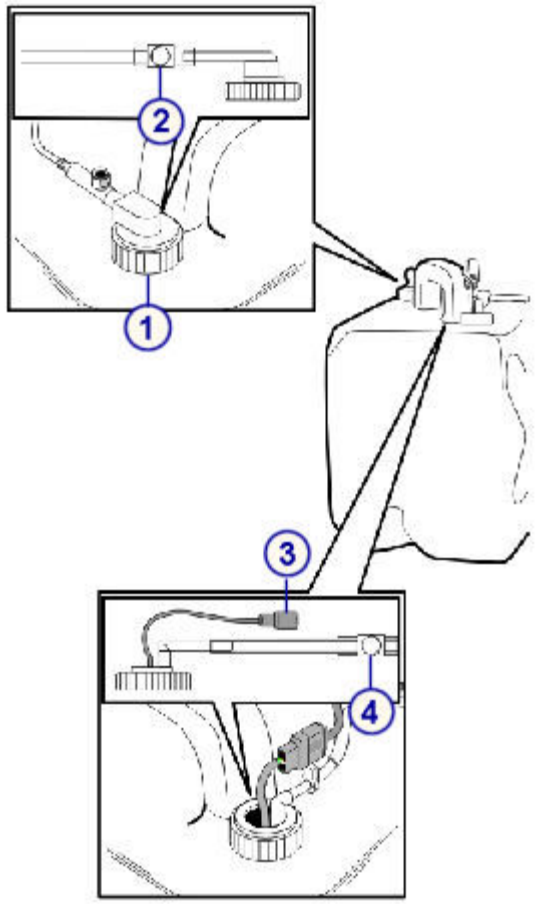
Steps	Graphic / reference
Open the supply and waste center door.	

Remove the wash buffer reservoir and buffer outlet assembly

Steps	Graphic / reference
1. Push on the quick disconnect tab to remove the tubing from the buffer filter. [1] 2. Disconnect the gray level sensor cable. [2] 3. Push on the quick disconnect tab to remove the tubing from the buffer outlet assembly. [3] 4. Grasp the handle and slide the wash buffer reservoir outside the processing module on the floor. 5. Unscrew the cap on the buffer outlet assembly. [4] 6. Remove the buffer outlet assembly.	

Replacement

Replace wash buffer reservoir and buffer outlet assembly

Steps	Graphic / reference
1. Place the buffer outlet assembly into the reservoir and tighten the cap. [1] 2. Grasp the handle and place the wash buffer reservoir into the supply and waste center. 3. Snap the quick disconnect into the tubing on the buffer outlet assembly. [2] 4. Connect the gray level sensor cable. [3] 5. Snap the quick disconnect into the tubing on the buffer level sensor. [4]	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Perform solenoids/sensors diagnostic procedure 3420 Level Sensors Test

Steps	Graphic / reference
Perform ***solenoids/sensors*** diagnostic procedure *3420 Level Sensors Test*, page 10-678.	

Replace the buffer filter (*i*1000SR)

Replacing the buffer filter consists of the following procedures:

- Removal
  - *Prepare for removal*, page 9-388
  - *Remove the wash buffer reservoir*, page 9-388
  - *Remove the buffer filter*, page 9-389
- Replacement
  - *Install the buffer filter*, page 9-389
  - *Install the wash buffer reservoir*, page 9-390
  - *Prepare for operation*, page 9-390
- Verification
  - *Load wash buffer*, page 9-390

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	15 minutes
Tools/materials required	Absorbent tissue
Replacement parts	LN 08C94-29 - Filter, Buffer

CAUTION: Lifting hazard. The *i*1000SR System wash buffer reservoir is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

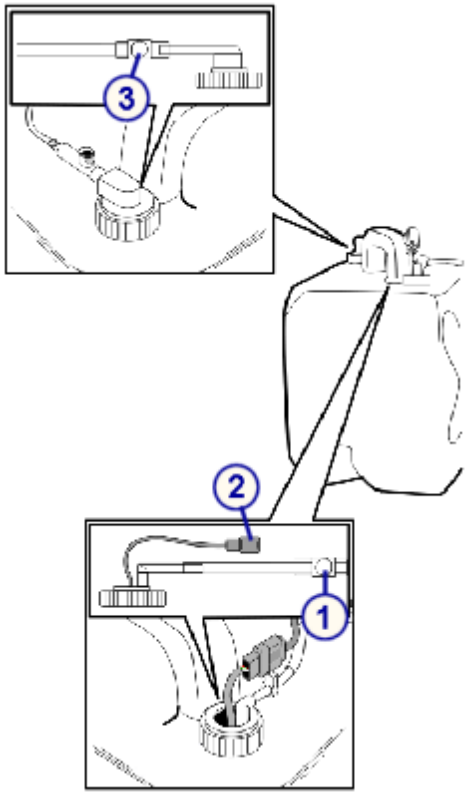
CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Removal

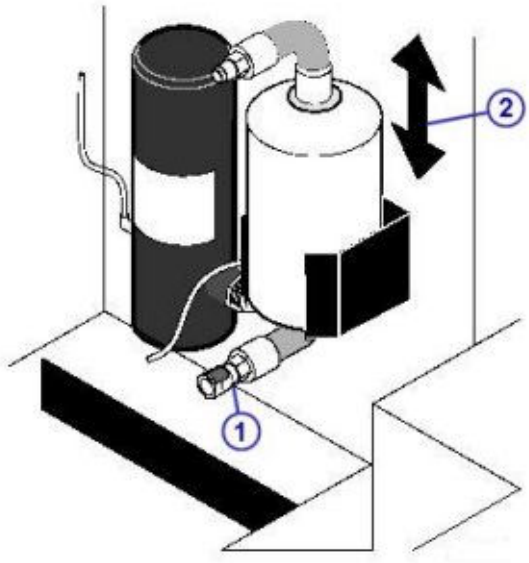
Prepare for removal

Steps	Graphic / reference
1. Open the supply and waste center door.	

Remove the wash buffer reservoir

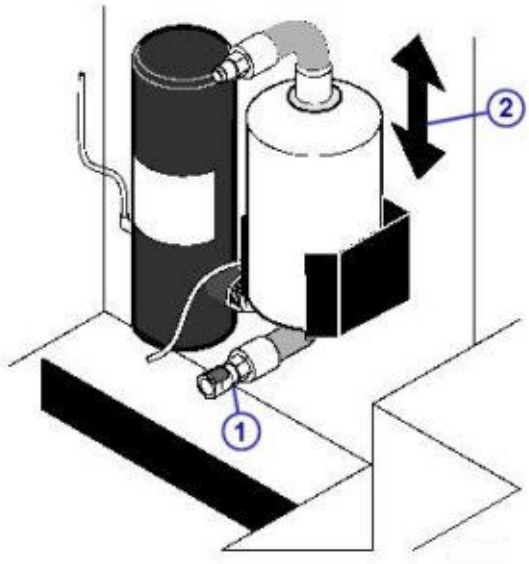
Steps	Graphic / reference
1. Place absorbent towels on the floor in front of the wash buffer storage area. 2. Push the quick disconnect tab to remove the tubing from the buffer filter. [1] 3. Disconnect the gray level sensor cable. [2] 4. Push the quick disconnect tab to remove the tubing from the buffer outlet assembly. [3] 5. Grasp the handle and slide the wash buffer reservoir outside the processing module on the floor.	

Remove the buffer filter

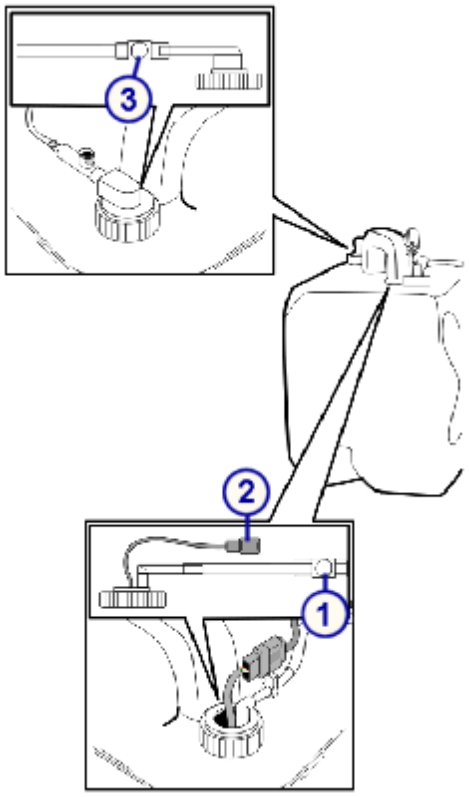
Steps	Graphic / reference
1. Place an absorbent tissue under the buffer filter quick disconnects. 2. Disconnect the bottom gray quick disconnect from the end of the filter. [1] 3. Remove the filter from the holding feature in the frame of the supply and waste center. [2]	

Replacement

Install the buffer filter

Steps	Graphic / reference
1. Connect the buffer filter to the two gray quick disconnects. [1] 2. Place the buffer filter into the holding feature in the frame of the supply and waste center. [2]	

Install the wash buffer reservoir

Steps	Graphic / reference
1. Grasp the handle and place the wash buffer reservoir into the supply and waste center. 2. Snap the quick disconnect into the tubing on the buffer level assembly. [1] 3. Connect the gray level sensor cable. [2] 4. Snap the quick disconnect into the tubing on the buffer outlet assembly. [3]	

Prepare for operation

Steps	Graphic / reference
1. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 to remove any air that may be present. 2. Visually check for leaks while performing the flush. If you observe drips or leaks, repeat the installation procedure. 3. Close the supply and waste center door.	

Verification

Load wash buffer

Steps	Graphic / reference
Load wash buffer to verify the buffer filter and tubing functions properly and that no leaks occur.	See *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Optional component replacement

You may need to replace certain optional components due to normal wear from daily operations.

The following procedures provide step-by-step instructions on replacing these components:

- *Replace the high-concentration waste bottle (c System)*, page 9-391
- *Replace the float switch cable (c System)*, page 9-393
- *Replace external waste pump (i System)*, page 9-395

Replace the high-concentration waste bottle (*c* System)

The high-concentration waste bottle is used to collect the high-concentration liquid waste from the cuvettes and the ICT unit. Replacing this component consists of the following procedures.

- Removal
  - *Remove the high-concentration waste bottle*, page 9-392
- Replacement
  - *Replace the high-concentration waste bottle*, page 9-392
- Verification
  - *Verify waste volume on the Supply status screen*, page 9-393

Prerequisite	The processing module must be in the Ready status.
Estimated time required	10 minutes
Tools/materials required	Absorbent towels
Replacement parts	LN 03E50-26 - High Concentration Waste Bottle

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

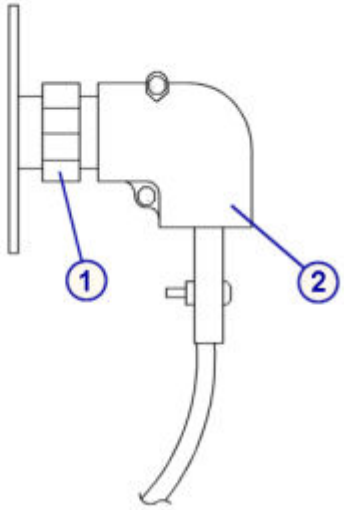
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

CAUTION: Lifting Hazard. The *c* System high-concentration waste bottle is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

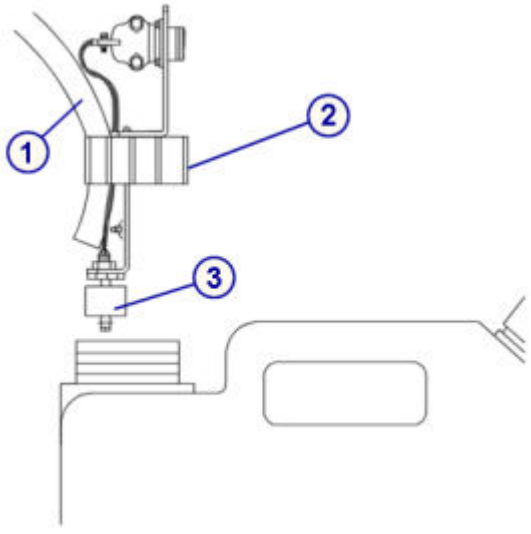
Removal

Remove the high-concentration waste bottle

Steps	Graphic / reference
1. Disconnect the float switch cable from the high-concentration waste bottle cap by unscrewing the locking ring [1] and disconnecting the float switch cable [2]. 2. Unscrew the high-concentration waste bottle from the cap. 3. Ensure the tubing is not kinked. 4. Carefully remove the tubing from the top of the waste bottle cap. 5. Discard the old bottle and cap in a biohazardous waste bottle. 6. Discard waste in accordance with the appropriate waste disposal regulations.	

Replacement

Replace the high-concentration waste bottle

Steps	Graphic / reference
1. Insert the tubing [1] into the new cap [2]. 2. Position the tubing just above, but not touching, the float switch [3]. 3. Screw the waste bottle onto the cap. 4. Ensure the tubing is not kinked. 5. Reconnect the float switch cable by inserting the cable and tightening the locking ring. 6. Ensure the waste bottle is labeled as waste.	

Verification

Verify waste volume on the Supply status screen

Steps	Graphic / reference
Verify the correct volume of waste displays on the Supply status screen.	

Replace the float switch cable (*c* System)

The float switch cable is used to connect the float switch in the high-concentration waste bottle. Replacing this component consists of the following procedures.

- Removal
  - *Disconnect the cable*, page 9-394
- Replacement
  - *Connect the cable*, page 9-394
- Verification
  - *Verify waste volume on the Supply status screen*, page 9-394

Prerequisite	The processing module must be in the Ready status.
Estimated time required	5 minutes
Tools/materials required	Absorbent towel
Replacement parts	LN 03E50-31 - High Concentration Float Switch Cable

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

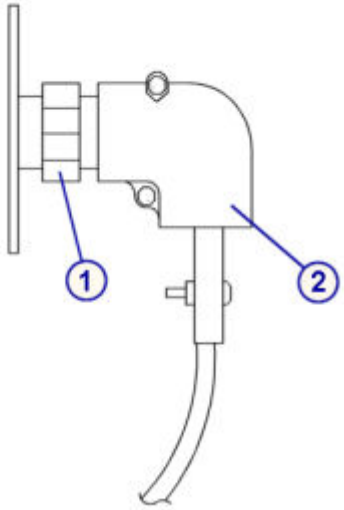
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

CAUTION: Lifting Hazard. The *c* System high-concentration waste bottle is heavy when full. Obtain assistance with lifting and/or use mechanical devices to move and/or lift full or partially full waste containers to reduce risk of injury. See *Heavy objects*, page 8-21.

CAUTION: Prevent spills. Do not move open waste containers with liquid. Close full or partially full containers before attempting to move them and keep the closures in place during the move.

Removal

Disconnect the cable

Steps	Graphic / reference
1. Disconnect the float switch cable from the high-concentration waste bottle cap by unscrewing the locking ring [1] and disconnecting the float switch cable [2]. 2. Disconnect the other end of the float switch cable from the back of the module using the information in the previous step.	

Replacement

Connect the cable

Steps	Graphic / reference
1. Connect one end of the replacement cable to the back of the module by inserting the cable and tightening the locking ring. **NOTE:** Both ends of the cable are identical. 2. Connect the other end of the cable to the high-concentration waste bottle by inserting the cable and tightening the locking ring.	

Verification

Verify waste volume on the Supply status screen

Steps	Graphic / reference
Verify the correct volume of waste displays on the Supply status screen.	

Replace external waste pump (*i* System)

Replacing the external waste pump consists of the following procedures:

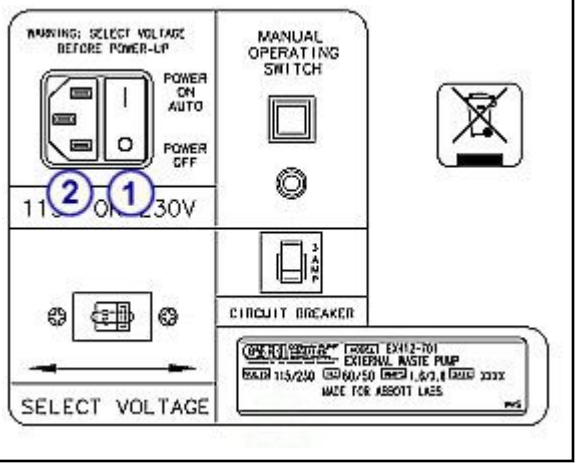
- Removal
  - *Prepare for removal*, page 9-395
  - *Remove the external waste pump*, page 9-396
- Replacement
  - *Replace the external waste pump*, page 9-396
  - *Prepare for operation*, page 9-397
- Verification
  - *Perform the appropriate maintenance procedure*, page 9-397

Prerequisite	The processing module must be in the Warming or Ready status.
Estimated time required	20 minutes
Tools/materials required	None
Replacement parts	• LN 08C94-19 - *i* System external waste pump • LN 09D61-03 - *c* System external waste pump

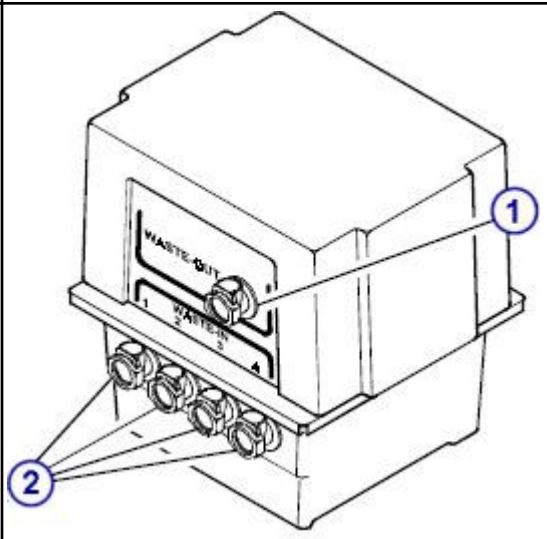
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Removal

Prepare for removal

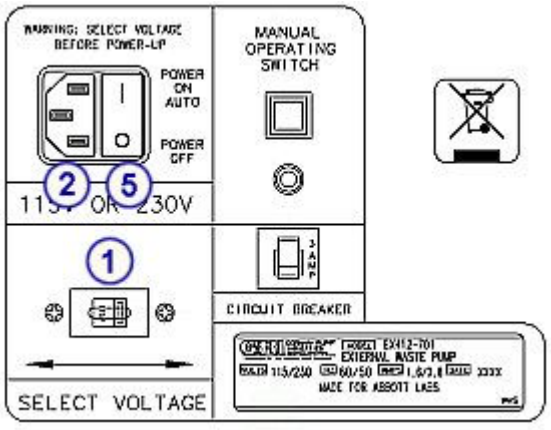
Steps	Graphic / reference
1. Power off the external waste pump [1]. 2. Unplug the power cord from the waste pump [2].	

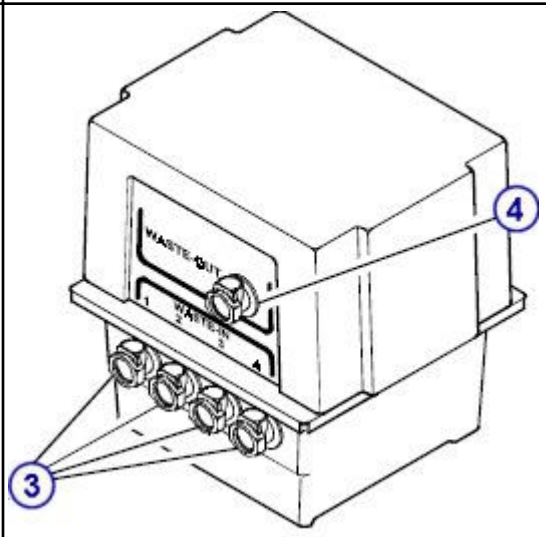
Remove the external waste pump

Steps	Graphic / reference
1. Disconnect the waste outlet quick disconnect [1]. 2. Disconnect the inlet quick disconnect [2].	

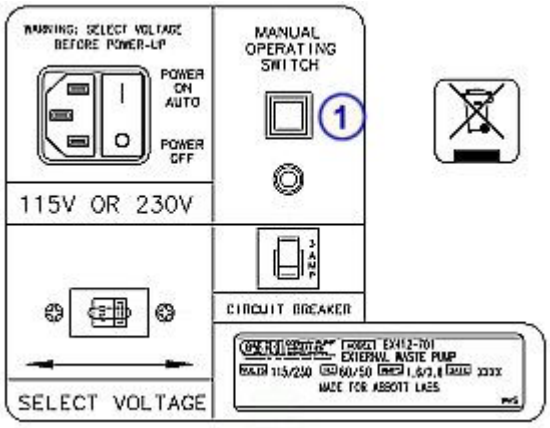
Replacement

Replace the external waste pump

Steps	Graphic / reference
1. Place the voltage select switch on the waste pump assembly to the correct position (115 V or 230 V) for your country [1]. 2. Attach the power cord [2]. 3. Connect the inlet line(s) [3]. 4. Connect the outlet waste line [4]. 5. Power on the waste pump [5].	

Steps	Graphic / reference
	

Prepare for operation

Steps	Graphic / reference
1. Press and hold the manual operating switch in until the pump turns on [1]. 2. Release the switch to leave the pump in Automatic mode.	

Verification

Perform the appropriate maintenance procedure

Steps	Graphic / reference
Perform the appropriate maintenance procedure to verify the pump turns on and transports the waste fluid to the drain. For the *i*2000/*i*2000SR perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 8 consecutive times. For *c* Systems perform *Daily maintenance description (c System processing module)*, page 9-20 2 consecutive times.	

NOTES

Introduction

Problems with your ARCHITECT System are characterized by symptoms. Troubleshooting tools, references, and suggested techniques are provided to help you trace the symptom(s) to one or more root causes. You can then perform the corrective actions to resolve the problem.

Troubleshooting and diagnostic topics include:

- *Approach to troubleshooting*, page 10-2
  Provides a general model for troubleshooting your ARCHITECT System.
- *System logs screen*, page 10-9
  Provides a description of the software screens and windows associated with system records of error-related messages, and software upgrades that have been installed.
- *Error codes*, page 10-20
  Lists possible error codes and their messages, and provides detailed information on probable causes and corrective actions.
- *Observed problems*, page 10-516
  Lists symptoms you may observe and provides detailed information on probable causes and corrective actions.
- *System diagnostics*, page 10-622
  Provides a description of all system diagnostic procedures, the software screens and windows associated with diagnostic activities, and step-by-step instructions for performing related procedures.
- *Miscellaneous corrective action procedures*, page 10-701
  Includes procedures that are frequently provided as corrective actions for resolving error codes and/or observed problems.

Approach to troubleshooting

Troubleshooting consists of implementing a practical, systematic approach to problem solving. This approach focuses on:

- Observing, recognizing, and categorizing symptoms
- Identifying the probable cause(s)
- Systematically eliminating each potential problem (from most likely to least likely)

The troubleshooting model that follows describes a five step approach to defining symptoms, identifying problems, and implementing solutions. When troubleshooting your ARCHITECT System, you should also include considerations appropriate to your specific environment.

1. Observe and recognize symptoms

To properly analyze and correct a problem you must first identify the symptoms. Symptoms can be, but are not limited to:

- Error messages
- Observed problems, such as a noise, fluid leak, trend in controls, and so forth

  NOTE: If you are able to resolve the observed problem, no further action is required.

2. Categorize the symptom(s)

By grouping like symptoms into categories, you automatically eliminate some problems as probable causes. Categories of symptoms include:

- System
- Reagents
- Operator
- Environmental

3. Isolate the root cause and create a plan of action

Based on the probable causes you identify, devise a plan that begins by addressing the most likely first and progresses to the least likely.

By addressing one probable cause at a time you are able to isolate the resolution, and then reproduce the solution to a specific problem.

Diagnostic resources and tools include:

- Error code and message

- ARCHITECT System Operations Manual and/or Help
  - Section 10 Troubleshooting and diagnostics
  - Appendix B Verification of ARCHITECT *i* System assay claims
  - Section 4 Performance characteristics and specifications
- System logs (Message history, Temporary, and Inventory)
- Levey-Jennings graph
- Diagnostic procedures
- Maintenance logs
- Maintenance procedures
- Reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet)

4. Resolve the problem

Carefully perform the steps required to solve the problem. Problems are corrected by:

- Making adjustments, such as tightening connections or removing jams
- Calibrating system components or assays
- Replacing or repairing system components
- Running new controls

5. Verify the resolution worked

Verify the symptoms no longer exist:

- Perform the appropriate verification procedure
- Check control values, if appropriate

If you continue to observe the symptoms, perform the steps to resolve the next most likely problem. Repeat this process until the problem is resolved.

Approach to troubleshooting topics include:

System troubleshooting variables (*c* System)

The system category is a high level group of symptoms that relate to system performance. Within this category, there are more specific subcategories or

variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Fluidic subsystems

Fluidic subsystems consist of hardware components that control the precision and accuracy of liquid level sensing, aspiration, and dispense. Additionally, these components distribute the fluids used to wash the probes.

Examples	Pipettors, probes, pressure monitors, syringes and valves, tubing, processing module circuit boards, pumps, and ICT unit
Symptoms	Liquid level sense error messages (3000-3999), imprecise results, and/or erratic results

Optical subsystem

The optical subsystem consists of hardware components and accessories that control concise and accurate optical readings.

Examples	Lamp, heat absorbing filter, lenses, cuvettes, water bath, optics unit
Symptoms	Optical-read error messages (6000-6999) and/or shift in values

Hardware

Hardware consists of the mechanical components that move consumables and samples through the system and distribute power and electrical signals.

Examples	Carousels, sensors, circuit boards, and bar code readers
Symptoms	Homing failures, jams, step loss, and motor stalls (robotic and sensor error messages 5000-5999) and/or bar code reader error messages (4000-4999)

Software

Software consists of computer instructions that interpret system and assay information, calculate results, and provide the interface for controlling the system hardware.

Examples	System, assay, maintenance, and diagnostic software
Symptoms	Software error messages (9000-9999), cannot power on the SCC

Consumables

Consumables are supplies that are required to run assays.

Examples	Sample cups, bulk solutions, reagent cartridges, and onboard solutions
Symptoms	Imprecise results and/or erratic results

System troubleshooting variables (*i* System)

The system category is a high level group of symptoms that relate to system performance. Within this category, there are more specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Fluidic subsystems

Fluidic subsystems are the hardware components that control the precision and accuracy of liquid level sensing, aspiration, and dispense. Additionally, these components distribute the fluids used to wash the probes.

Examples	Pipettors, probes, LLS (liquid level sense) antennae, syringes and valves, dispensers, tubing, pumps, processing module circuit boards, and WAM (wash aspirate monitor) thermistors
Symptoms	Liquid level sense error messages (3000-3999), imprecise results, and/or erratic results

Optical subsystem

The optical subsystem consists of hardware components that control concise and accurate optical readings.

Examples	CMIA reader, shutter, and reader magnet
Symptoms	Optical-read error messages (6000-6999) and/or shift in values

Hardware

Hardware consists of the mechanical components that move consumables and samples through the system and distribute power and electrical signals.

Examples	Carousel, sensors, RV (reaction vessel) loader, circuit boards, and bar code readers
Symptoms	Homing failures, jams, step loss, and motor stalls (robotic and sensor error messages 5000-5999) and/or bar code reader error messages (4000-4999)

Software

Software consists of computer instructions that interpret system and assay information, calculate results, and provide the interface for controlling the system hardware.

Examples	System, assay, maintenance, and diagnostic software
Symptoms	Software error messages (9000-9999), cannot power on the SCC

Consumables

Consumables are supplies that are required to run assays.

Examples	Sample cups, bulk solutions, and RVs (reaction vessels)
Symptoms	Imprecise results and/or erratic results

Reagent troubleshooting variables (*c* System)

The reagent category is a high level group of symptoms that relate to processing results. Within this category, there are more specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Reagent kits

Reagent kits contain the consumables that detect and/or measure specific analyte presence or concentration in samples.

Examples	Reagents, sample diluents, and pretreatments
Symptoms	Control(s) out of range and/or trends and shifts in control and/or patient results

Controls

Controls are samples with known concentrations of analytes that allow performance monitoring within a clinical range.

Examples	Analyte-specific and multiconstituent controls
Symptoms	Control out of range, imprecise control results, and/or trends and shifts in control and/or patient results

Calibrators

Calibrators are samples with known concentrations of analytes used to create the calibration against which samples are measured.

Examples	Analyte-specific and multiconstituent calibrators
Symptoms	Shift in control and patient values

Reagent troubleshooting variables (*i* System)

The reagent category is a high level group of symptoms that relate to processing results. Within this category, there are more specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Reagent kits

Reagent kits contain the consumables that detect and/or measure specific analyte presence or concentration in samples.

Examples	Antibody coated microparticles, conjugate, and assay-specific diluent
Symptoms	Control(s) out of range and/or trends and shifts in control and/or patient results

Controls

Controls are samples with known concentrations of analytes that allow performance monitoring within a clinical range.

Examples	Analyte-specific and multiconstituent controls
Symptoms	Control out of range, imprecise control results, and/or trends and shifts in control and/or patient results

Calibrators

Calibrators are samples with known concentrations of analytes used to create the calibration against which samples are measured.

Examples	Analyte-specific calibrators
Symptoms	Shift in control and patient results

Operator troubleshooting variables

The operator category is a group of symptoms that relate to proper system operation and maintenance. Within this category, the actions of a single operator and/or the actions of multiple operators can result in a variety of symptoms.

Examples	A new user and a trained operator
Symptoms	Bubbles in reagents or samples, particulate matter or fibrin in samples, general error messages (0001-0999), assay specific error messages (1000-1999), error code messages generated as a result of improper maintenance or component replacement

Environmental troubleshooting variables

The environmental category is a high level group of symptoms that relate to processing results. Within this category, there are more specific subcategories or variables. By tracing an error or problem to one of these variables, you can begin to isolate the probable cause(s).

Physical requirements

Physical requirements identify the environmental conditions needed to ensure consistent system performance.

Examples	Room temperature and/or humidity, location, processing module and sample handler clearances, and water quality
Symptoms	Temperature error messages (7000-7999) and/or inadequate airflow

Electrical requirements

Electrical requirements identify the power requirements needed to ensure consistent system performance and optical readings.

Examples	Power outlet, voltages, and dedicated line
Symptoms	Loss of power to the system

Host interface components

Host interface components enable communication between the laboratory information system and the system control center.

Examples	Ports, cables, and connections
Symptoms	Communication error messages (8000-8999)

System logs screen

From the System logs screen you can view the following information by module:

- Error message logs -
  - Temporary message log - displays non-critical error-related messages that you can address, and then delete.
  - Message history log - displays and stores a record of error-related messages that you use to troubleshoot problems associated with system performance and/or results reporting.
- Software update log - displays a history of ARCHITECT System software updates that have been installed.
- Inventory log (premium feature) - displays and stores supply-related messages and error codes.

You can also access windows from the System logs screen that allow you to:

- Print the temporary message log
- Print the message history log
- Print the inventory log
- Print the TSB installation log
- Find specific messages
- Find specific system updates

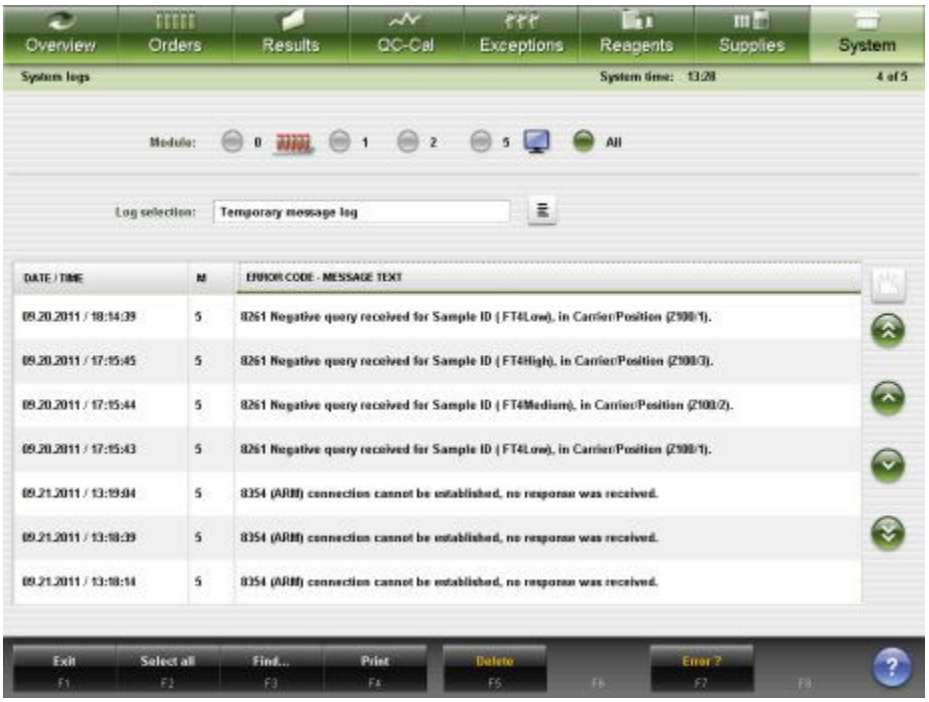
Related information…

- *System logs screen - Error message logs*, page 10-9
- *System logs screen - Software update log*, page 10-11
- *System logs screen - Inventory log (premium feature)*, page 10-12

System logs screen - Error message logs

The System logs screen - Error message logs shows the System log screen displaying temporary message logs. (Identical fields are shown for the Message History log).

Figure 10.1: System logs screen - Error message logs



For descriptions of these fields, see *System logs screen - Error message logs field descriptions*, page E-149.

When accessing the System logs screen - Error message logs the information sorts by time the error message was generated from the most recent to the oldest error message.

To sort columns on this screen, select the desired column heading. The information is sorted as described in the following table.

Column	Sort description
DATE/TIME	Chronologically in descending order
M	Numerically in ascending order
ERROR CODE	Numerically in ascending order

To display this screen, see *Access the System logs screen*, page 10-13.

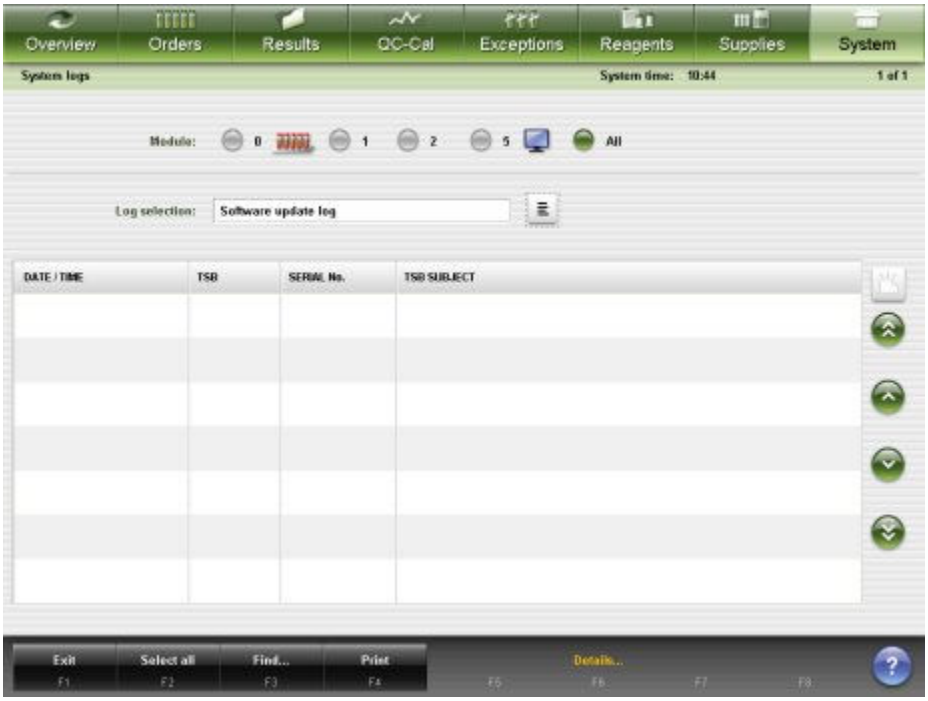
Related procedures…

- *Review logs*, page 10-13
- *Find a specific message*, page 10-14
- *View low level error messages*, page 10-15
- *Delete a temporary message*, page 10-15
- *Print a report*, page 5-403

System logs screen - Software update log

The System logs screen - Software update log shows the System log screen displaying the software update log.

Figure 10.2: System logs screen - Software update log



For descriptions of these fields, see *System logs screen - Software update log field descriptions*, page E-150.

When accessing the System logs screen - Software update log the information sorts by time the TSB was installed from the most recent to the oldest.

To sort columns on this screen, select the desired column heading. The information is sorted as described in the following table.

Column	Sort description
DATE/TIME	Chronologically in descending order
TSB	Alphanumerically in ascending order
SERIAL #	Alphanumerically in ascending order
TSB SUBJECT	Alphanumerically in ascending order

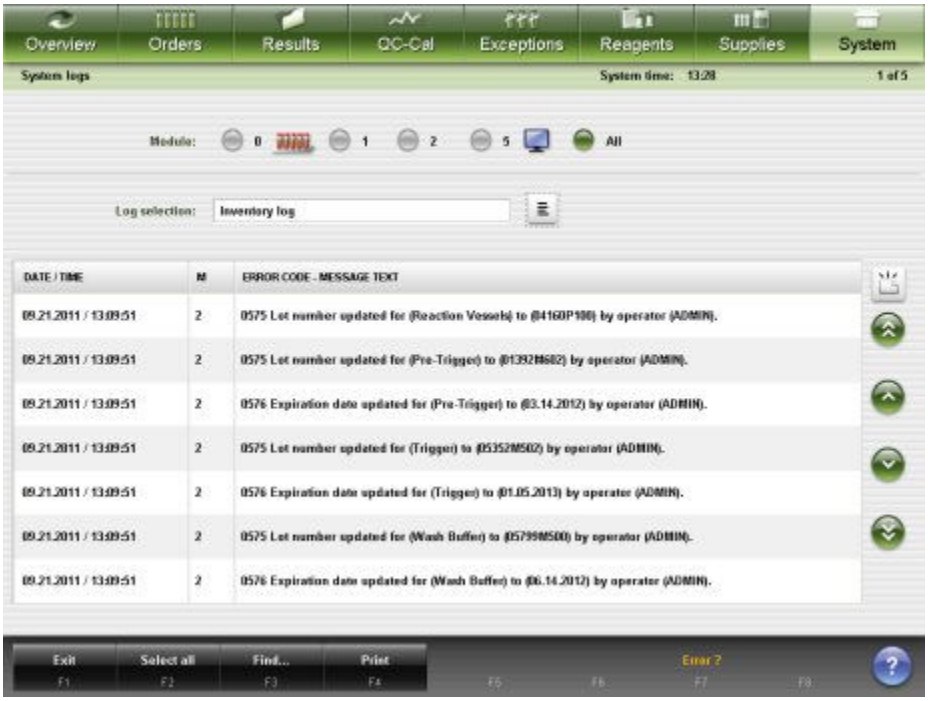
Related procedures…

- *Print a report*, page 5-403
- *Find specific installed software updates*, page 10-16

System logs screen - Inventory log (premium feature)

The System logs screen - Inventory log shows the System log screen displaying the Inventory log.

Figure 10.3: System logs screen - Inventory log



For descriptions of these fields, see *System logs screen - Inventory log (premium feature) field descriptions*, page E-150.

When accessing the System logs screen - Inventory log the information sorts by time the error message was generated from the most recent to the oldest error message.

To sort columns on this screen, select the desired column heading. The information is sorted as described in the following table.

Column	Sort description
DATE/TIME	Chronologically in descending order
M	Numerically in ascending order
ERROR CODE	Numerically in ascending order

Related procedures…

- *Review logs*, page 10-13
- *Print a report*, page 5-403
- *Find a specific message*, page 10-14

Access the System logs screen

Perform this procedure to display the System logs screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the System logs screen:

NOTE: You may also access this screen from the Snapshot screen by selecting the **LIS**, **ARM**, or **LAS** button.

Select **System** from the menu bar, and then select **System logs**.

The System logs screen displays.

Related information…

- *System logs screen*, page 10-9

Procedures - System logs screen

Procedures that can be performed from the System logs screen and its related windows include:

- *Review logs*, page 10-13
- *Find a specific message*, page 10-14
- *View low level error messages*, page 10-15
- *Delete a temporary message*, page 10-15
- *View log of installed software updates*, page 10-16
- *Find specific installed software updates*, page 10-16

Review logs

Perform this procedure to display the System logs screen. From this screen you can view the Temporary message and Message history logs, the Inventory log (premium feature), as well as the Software updates log.

To find specific messages, see *Find a specific message*, page 10-14.

To view low level messages, see *View low level error messages*, page 10-15.

To find specific software updates, see *Find specific installed software updates*, page 10-16.

Prerequisite	NA
Module status	Any

User access level	General operator
Supplies	NA

To review logs:

1. Select **System** from the menu bar, and then select **System logs**.

   The System logs screen displays.

2. Select the **Log selection** list button, and then select the desired log.

To print the Message History Report, see *Print the Message History Log report*, page 5-410. To print the Temporary Message Log report or the TSB Installation Log report see *Print a report*, page 5-403. To print the Inventory Log Report (premium feature), see *Print the Inventory Log report (premium feature)*, page 5-411.

Related information...

- *System logs screen*, page 10-9

Find a specific message

Perform this procedure to search for a specific message(s) in the system logs when necessary for troubleshooting.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	NA

To find a specific message:

1. Select **F3 - Find** on the System logs screen.

   The Find options (System logs) window displays.

2. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.

3. Select **Done** to initiate the search.

   The System logs screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *System logs screen*, page 10-9
- *Find options (System logs - Error message logs) window*, page 10-17
- *Find options (System logs - Inventory log) (premium feature) window*, page 10-18

View low level error messages

Perform this procedure to view additional error messages when necessary for troubleshooting.

To find specific error messages, see *Find a specific message*, page 10-14.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	NA

To view message details:

1. Select the **Log selection** list button on the System logs screen, and then select **Message history log**.
2. Select **F3 - Find**.

   The Find options window displays.
3. Select the **Error level: Low** check box.
4. Select **Done** to display the messages.

   The System logs screen displays with the text "Search results:" in the title bar.

   NOTE: Select the **refresh** button to display all records.

Related information...

- *System logs screen*, page 10-9
- *Find options (System logs - Software update log) window*, page 10-18
- *Find options (System logs - Error message logs) window*, page 10-17

Delete a temporary message

Perform this procedure to delete a temporary message(s) after correcting the issue that caused the error.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	NA

To delete a temporary message:

1. Select the desired message(s) from the table on the System logs screen or select **F2 - Select all**.
2. Select **F5 - Delete**.

   A confirmation message displays.

3. Select **OK** to delete the message(s).

Related information...

- *System logs screen*, page 10-9

View log of installed software updates

Perform this procedure to view a history of ARCHITECT System Software updates that have been installed on your system.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	NA

To view the log of ARCHITECT System Software updates that have been installed on your system:

Select the **Log selection** list button, and then select **Software update Log**. A list of all installed software updates will be displayed.

Related information...

- *System logs screen*, page 10-9
- *Details for TSB window*, page 10-19

Find specific installed software updates

Perform this procedure to find information about specific ARCHITECT System Software updates.

Prerequisite	*Access the System logs screen*, page 10-13
Module status	Any
User access level	General operator
Supplies	NA

To search for Architect System software updates:

1. Select the **Log selection** list button, and then select the Software update log.
2. Select **F3 - Find** on the System logs - software update log screen.
3. Select and/or enter your search conditions. You can narrow the results returned by entering/selecting more criteria.
4. Select **Done** to initiate the search. The System logs - Software update log screen displays with the text "Search results:" in the title bar.

Related information...

- *System logs screen*, page 10-9
- *System logs screen - Software update log*, page 10-11

Windows - System logs screen

Windows you can access from the System logs screen are listed below.

Windows not in this sub-section include:

- *Print options window*, page 5-415

Windows in this sub-section include:

- *Find options (System logs - Error message logs) window*, page 10-17
- *Find options (System logs - Software update log) window*, page 10-18
- *Find options (System logs - Inventory log) (premium feature) window*, page 10-18
- *Details for TSB window*, page 10-19

Find options (System logs - Error message logs) window

From the Find options (System logs - Error message logs) window, you can search for specific item(s) in the logs by entering search criteria in one or more fields.

Figure 10.4: Find options (System logs - Error message logs) window

For descriptions of these fields, see *Find options (System logs - Error message logs) window field descriptions*, page E-151.

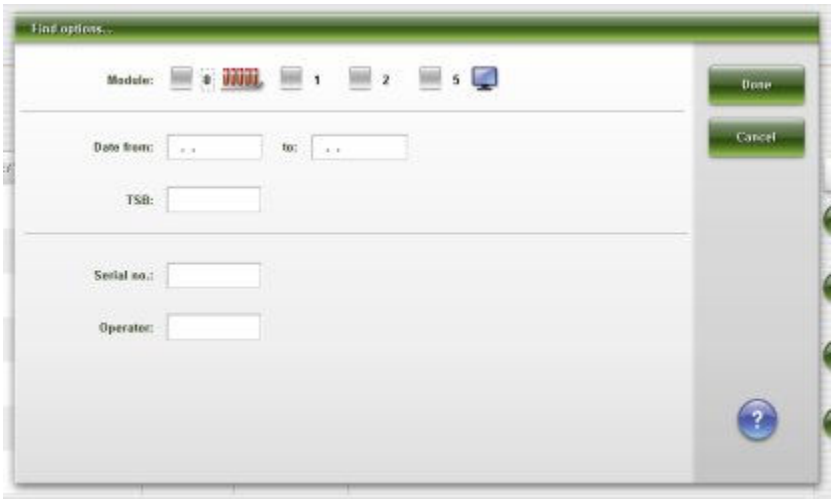
Related procedures...

- *Find a specific message*, page 10-14

Find options (System logs - Software update log) window

From the Find options (System logs - Software update log) window, you can search for specific system updates that have been installed on your system.

Figure 10.5: Find options (System logs - Software update log) window



For descriptions of these fields, see *Find options (System logs - Software update log) window field descriptions*, page E-151.

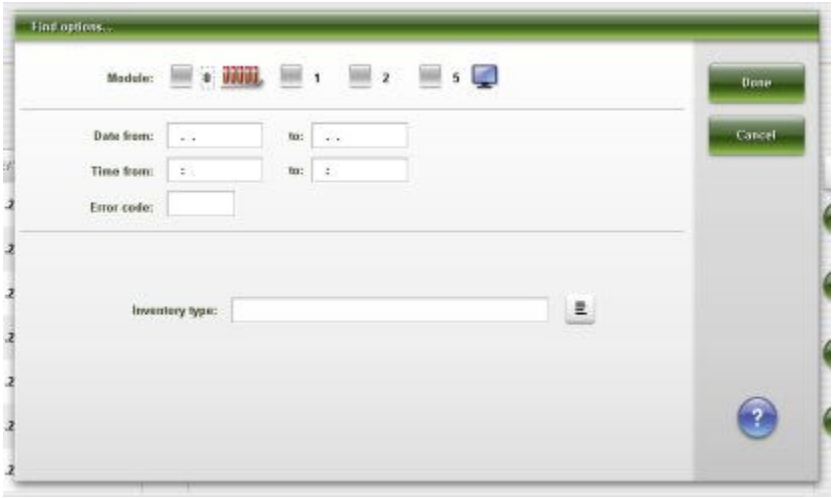
Related procedures...

- *Find specific installed software updates*, page 10-16

Find options (System logs - Inventory log) (premium feature) window

From the Find options (System logs - Inventory log) window, you can search for specific item(s) in the logs by entering search criteria in one or more fields.

Figure 10.6: Find options (System logs - Inventory log) window



For descriptions of these fields, see *Find options (System logs - Inventory log) (premium feature) window field descriptions*, page E-152.

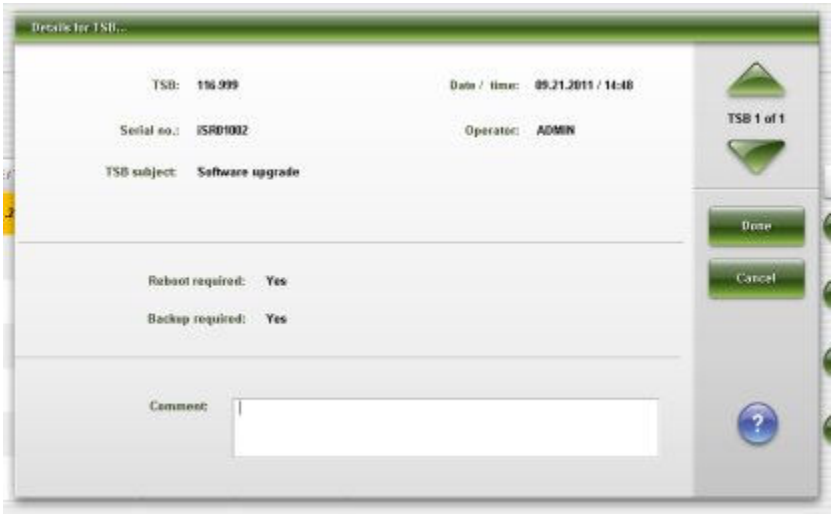
Related procedures…

- *Find a specific message*, page 10-14

Details for TSB window

From the Details for TSB window, you can view information and add comments for the TSB system update.

Figure 10.7: Details for TSB window



For a description of these fields, see *Details for TSB window field descriptions*, page E-152.

Related procedures…

- *View log of installed software updates*, page 10-16

Error codes

Error codes are divided into ten sections that reflect the major categories in which errors may occur:

General error codes (0001-0999)

The general error code category includes error codes between 0001-0999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 0102

Unable to perform requested operation, Processing Module not in correct status.

Probable cause	Corrective action
• Attempted one of the following when the processing module status did not allow the activity: – Start up – Reagent scanning – Reagent carousel advance	Perform the activity when the processing module status changes.

Probable cause	Corrective action
• The first time run was selected for the processing module, error code 4103 - "Reagent bar code reader not responding" occurred during the Run initialization.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0104

Unable to perform requested operation, Sample Handler not in correct status.

Probable cause	Corrective action
Attempted one of the following when the sample handler status did not allow the activity: • Start up • Pause	Perform the activity when the sample handler status changes.

Error code: 0105

Batch (x) terminated. Final sample is in a carrier and that carrier label cannot be read.
x = Batch name

Probable cause	Corrective action
A non-bar coded batch is in process and 5 or fewer samples remain to be identified. The bar code label on the sample carrier cannot be read by the sample ID bar code reader. The system assumes this carrier contains the last samples for the batch, therefore the batch is terminated.	1. Determine the samples present in the sample carrier that were not processed. 2. Place a new batch order for these samples. 3. Place the samples into a different sample carrier. 4. Refer to error code 4204, for corrective action, if error continues.

Error code: 0106

Unable to perform installation, a valid ARCHITECT System CD is not in the CD drive.

Probable cause	Corrective action
Software upgrade was attempted without the CD installed in the CD drive.	1. Place the ARCHITECT CD into the drive. 2. Restart the software upgrade procedure.

Error code: 0107

Unable to perform requested operation, Sample Handler or Processing Module not in correct status.

Probable cause	Corrective action
• Attempted one of the following when the processing module status did not allow the activity: – Selected pause when the status is Stopped. – Selected start up when the status is Running.	Perform a different operation or wait until the module changes status.

Probable cause	Corrective action
Attempted to perform the *Verify ARCHITECT Advisor alert tower light function*, page 10-728 procedure but the system status was not Stopped, Warming, or Ready.	Transition the processing module to the Stopped, Warming, or Ready status and repeat the procedure.
• Hardware failure: – Keypad	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0108

Unload Queue at capacity, remove Sample Carriers.

Probable cause	Corrective action
• Unload queue is full of sample carriers.	Remove carriers from the unload queue.
• Hardware failure: – Unload queue sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0109

Unable to process test, Processing Module not Running.

Probable cause	Corrective action
• User selected stop before processing began.	Start up the processing module when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0110

Unable to execute command, Processing Module or Sample Handler Stopped.

Probable cause	Corrective action
• User selected stop for either the sample handler or processing module.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Communication or hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code.

Probable cause	Corrective action
	4. Perform the corrective action for the specific error code.

Error code: 0111

Unable to perform requested operation, previously requested operation still in progress.

Probable cause	Corrective action
System is currently performing a requested activity such as flush, reagent scan, or carousel advance.	Request the new activity when the current activity is complete.

Error code: 0112

Unable to process test, Sample Handler Stopped.

Probable cause	Corrective action
• User selected stop.	Start up the sample handler when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-15.
• Processing module stopped because of a previous hardware failure.	1. *Review logs*, page 10-13, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.
• Hardware failure: – Sample handler keypad	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0113

Unable to delete assay, at least one module is not in the correct status.

Probable cause	Corrective action
Attempted to delete an assay while the processing module(s) are not in the correct status.	Delete the assay when the status for all processing modules is Stopped, Ready, or Offline.

Error code: 0114

Unable to process test, assay deleted.

Probable cause	Corrective action
Assay deleted, all pending orders for the assay are sent to exceptions.	Reinstall the assay and create new orders for the samples sent to exceptions, if required.

Error code: 0115

No assay found for reagent kit in position (x).
x = Reagent carousel position

Probable cause	Corrective action
The assay file required for the reagent kit is either not installed or it is not the correct version.	Install the correct assay file. See *Install or delete an assay file*, page 2-211.

Probable cause	Corrective action
The manually defined reagent name does not match the name, including capitalization, encoded in the bar code.	Reconfigure the reagent name. See *Configure a user-defined reagent (photometric - c System)*, page 2-92.

Error code: 0116

Invalid order, missing Carrier/Carousel or Position.

Probable cause	Corrective action
Add order was selected when the information in either the carrier/carousel or position data entry box was missing or incorrect.	Enter valid data in both the **C** (carrier/carousel) and **P** (position) data entry boxes.

Error code: 0117

Invalid entry, no assays selected.

Probable cause	Corrective action
• Add order was selected when no assay was selected.	Select one or more assays.
• Done was selected in the Select assays window with no assays selected.	Select one or more assays.

Error code: 0118

Invalid order, missing Sample ID.

Probable cause	Corrective action
Add order was selected before a sample ID was entered in the sample ID field.	Enter a sample ID in the **SID** data entry box.

Error code: 0119

Batch (x) deleted, batch (y) has been initiated.
x = Name of deleted batch
y = Name of overlapping batch

Probable cause	Corrective action
A batch was in process when a carrier was loaded containing a sample that is defined as the start of a different batch.	No corrective action is required. Remaining tests from the batch in process are deleted. Batch tests in process continue. Tests from the new batch start. To avoid future occurrences, do not start another batch until the batch in process terminates.

Error code: 0120

Invalid sample type detected in batch (y). Sample is in C/P: (x).
x = Carrier and position of sample
y = Name of batch

Probable cause	Corrective action
• When processing a non-bar coded batch, a sample with a bar code was found for which there were no tests ordered.	1. When processing a non-bar coded batch, do not place bar coded samples within the batch unless tests are ordered for the sample.

Probable cause	Corrective action
	IMPORTANT: The sample is not included as part of the batch and a SID is not assigned. Sequential SID assignment skips the sample and continues with the next sample. If the sample is part of a non-bar coded batch, an incorrect SID is assigned to subsequent samples. 2. Review the Temporary message and Message history logs for any 4200 error codes that occurred at the same time as this error message. For more information, see *Review logs*, page 10-13. 3. Perform the corrective action for the 4200 error code.
• When processing a bar coded batch, a sample with no bar code was found for which there were no tests ordered.	When processing a bar coded batch, do not place non-bar coded samples within the batch unless tests are ordered for the sample in the position.
• There are empty positions in a sample carrier during a bar coded batch.	When processing a bar coded batch, do not leave open positions in the sample carrier.

Error code: 0121

Invalid order, Assay (x), number (y) is no longer installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
• The assay file for the test to be rerun was deleted.	1. Delete the rerun test order. 2. Reinstall the assay and create new orders for the tests to be rerun, if required.
• The assay file for the test to be rerun was deleted and then reinstalled.	1. Delete the rerun test order. 2. Reorder the test for rerun.

Error code: 0122

No Reagent kits found during reagent scan.

Probable cause	Corrective action
Processing module does not have any reagents, therefore the status cannot change to Running.	Load reagents on the specified processing module, and then select run.
The R2 reagent segment was changed to one containing fewer reagent positions and a non-bar coded reagent remains defined in a position that exceeds the current segment capacity.	1. View the Reagent status screen to identify the reagent loaded in a position that exceeds the R2 segment capacity. 2. Unload the reagent. See the appropriate procedure: – *Unload non-bar coded reagents (c4000)*, page 5-148 – *Unload non-bar coded reagents (c8000/ c16000)*, page 5-163

Error code: 0123

Unable to fail calibration curve, Processing Module (x) Running.
x = Processing module number (1-4)

Probable cause	Corrective action
Attempted to fail an Active or Pending QC calibration curve when the processing module status was Running.	1. *Pause the processing module*, page 5-16. 2. Fail the desired calibration curve when the status is Ready. See *Fail a calibration curve*, page 6-33.

Error code: 0124

Ending Sample ID cannot be the same as the starting Sample ID.

Probable cause	Corrective action
When creating a bar coded batch order, the same number was entered for both the starting and ending sample ID.	Change either the starting or the ending sample ID so they are not the same.

Error code: 0125

Invalid rerun request, missing Carrier/Carousel and Position for Sample ID (x).
x = Sample ID

Probable cause	Corrective action
Ordered a rerun for an unlabeled tube without entering carrier/carousel and position information.	Enter the carrier/carousel and position for the rerun sample.

Error code: 0126

Unable to delete order, test is in progress or has already completed.

Probable cause	Corrective action
Requested deletion of an order when the test is in process or completed.	Only orders with a test status of Pending or In Process can be deleted. No corrective action required.

Error code: 0127

Invalid order, Sample ID previously assigned to Patient ID (x).
x = Patient ID

Probable cause	Corrective action
Entered an order for a sample ID already associated with a different patient ID.	1. Verify the patient ID associated with the sample ID is correct for all orders. 2. Enter the correct sample ID. **NOTE:** Patient ID is optional and is entered on the Details for sample window.

Error code: 0128

Invalid rerun request, Assay (x), number (y) no longer installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
• The assay file for the test to be rerun was deleted.	1. Delete the rerun test order. 2. Reinstall the assay and create new orders for the tests to be rerun, if required.
• The assay file for the test to be rerun was deleted and then reinstalled.	1. Delete the rerun test order. 2. Reorder the test for rerun.

Error code: 0129

The end time (x) is earlier than the start time for the specified date (y).
x = The end time
y = The date of the start time

Probable cause	Corrective action
Specified incorrect date and time in a Find window.	Enter a correct date and time.

Error code: 0130

Invalid entry, (x) not within range (y - z).
x = Value entered
y = Minimum range value
z = Maximum range value

Probable cause	Corrective action
Value entered was not within the specified range.	Enter a value within the specified range. **NOTE:** Some data entry boxes may also be left blank.

Error code: 0131

Invalid entry, user input (x) for character (y).
x = User input
y = Number of characters from left in data entry box

Probable cause	Corrective action
Character in the position specified is missing or incorrect.	Enter the correct value for the specified position.

Error code: 0132

Unable to install procedure (x), an equal or higher version already exists.
x = Procedure name

Probable cause	Corrective action
The same or higher version of the procedure is already installed.	No corrective action required if the request was made in error. To install a lower version, delete the procedure and then install the desired version. See *Install or delete a maintenance or diagnostic procedure file*, page 2-215.

Error code: 0133

Unable to install (x) procedure, system software version not compatible.
x = Procedure name

Probable cause	Corrective action
The procedure requires a newer version of ARCHITECT System software.	Upgrade the ARCHITECT System software to the appropriate version and reinstall the procedure. (Contact your Area Customer Support.)

Error code: 0134

Procedure (x) does not exist.
x = Procedure number

Probable cause	Corrective action
Wrong procedure number entered when deleting a procedure.	Enter a valid number for the procedure you are deleting.

Error code: 0135

Unable to install software. Processing Module is not in the correct status.

Probable cause	Corrective action
Processing module status is Running, Scheduled pause, Initializing, or Scanning.	Install the software when the processing module status is Stopped, Offline, Ready, or Warming.

Error code: 0136

Unable to perform procedure, Module (x) not in correct status.
x = Module number (0-4)

Probable cause	Corrective action
The specified processing module or sample handler is not in the correct status to perform the procedure.	Refer to the *Version details for procedure (diagnostics) window*, page 10-627, to determine the status required for performing the procedure.

Error code: 0137

Unable to perform (x) procedure, insufficient user access.
x = Procedure name

Probable cause	Corrective action
The current user does not have access sufficient to execute the selected procedure.	Use a logon with the access required to execute the procedure.

Error code: 0138

Unable to approve maintenance log, insufficient user access.

Probable cause	Corrective action
The current user does not have access sufficient to approve a maintenance month.	Log on with system administrator access. See *Log on (system administrator)*, page 1-27.

Error code: 0139

Unable to modify approval status for a previously approved maintenance log.

Probable cause	Corrective action
Requested an approval status update for a maintenance month that is already approved.	Select the correct month, and then select **F4 - Approve**.

Error code: 0140

Unable to approve, no maintenance activity.

Probable cause	Corrective action
Requested an approval status change for a month with no maintenance activity.	Select the correct month, and then select **F4 - Approve**.

Error code: 0141

Unable to approve current month.

Probable cause	Corrective action
Requested an approval status for the current month or a future month.	Select the correct month, and then select **F4 - Approve**.

Error code: 0142

Unable to install software, host transmission is in process.

Probable cause	Corrective action
Results are transferring to the host. Software cannot be installed during this process.	Install the software when the transmission is complete.

Error code: 0143

Unable to process test, no reagent kits eligible on the selected Processing Module.

Probable cause	Corrective action
The required reagent kit is not available on the selected processing module. All of the reagent kits on the module for the assay are either empty, expired, not calibrated, or disabled.	Verify reagent inventory for the assay. See *Verify reagent inventory on a single module*, page 5-128.

Error code: 0144

Invalid order, manual dilution factor is inconsistent with previous order for Sample ID (x).
x = Sample ID

Probable cause	Corrective action
A manual dilution was requested for a sample ID that already has an order using a different manual dilution.	1. Order the test using the same manual dilution. 2. Assign another sample ID to the new dilution, if a different manual dilution is required.

Error code: 0145

Missing entry, Level name required.

Probable cause	Corrective action
The control level name is not entered in the required field.	Enter a control level name.

Error code: 0146

Missing entry, Lot no. required.

Probable cause	Corrective action
A calibrator or control lot number is not entered in the required field.	Enter the lot number.

Error code: 0147

Invalid entry, control Level name already exists for this lot.

Probable cause	Corrective action
The entered control level name already exists for this lot.	Enter a unique control level name.

Error code: 0148

Invalid entry, control Lot no. already exists for this assay.

Probable cause	Corrective action
A duplicate lot number was entered.	Enter a unique control lot number for the control.

Error code: 0149

Invalid request, unable to delete default control lot.

Probable cause	Corrective action
Attempted to delete the default control lot.	1. Define a new control lot as the default. 2. Delete the desired control lot.

Error code: 0150

Invalid request, select another lot, then specify it as default.

Probable cause	Corrective action
Attempted to deselect the current default calibrator or control lot.	Select another lot and define it as the default lot.
All assays assigned to the calibrator set have not been added to the selected lot.	1. Add all assays assigned to the calibrator set to the list. 2. Enter the calibrator values. 3. Define the new lot as the default lot.

Error code: 0153

Missing entry, Carrier/Carousel ID required.

Probable cause	Corrective action
Add order was selected when the information in the carrier/carousel field was missing or incorrect.	Enter valid data in the carrier/carousel field.

Error code: 0154

Missing entry, Position required.

Probable cause	Corrective action
Add order was selected when the information in the position field was missing or incorrect.	Enter valid data in the position field.

Error code: 0155

Unable to delete assay (x), it is part of a batch order on the system.
x = Assay name

Probable cause	Corrective action
The assay is part of a batch order with a status of Pending.	To delete the assay without processing the batch, delete the batch and then delete the assay. To process the batch, delete the assay when the batch is complete.

Error code: 0156

Invalid entry, bar code SID must be unique.

Probable cause	Corrective action
The specified bar code SID is used for another control level in the same control lot or for another control.	Enter a unique bar code SID.

Error code: 0157

Invalid entry, day entered must be valid for the month and year specified.

Probable cause	Corrective action
The day of the month entered in the field is not correct for the month and year specified.	Enter the correct day for the month and year specified.

Error code: 0158

Invalid entry, month entered must be in the range (1 - 12).

Probable cause	Corrective action
The month entered is outside the range 1 - 12.	Enter a month from 1 - 12.

Error code: 0159

Invalid entry, year entered must be in range (1800 - 9999).

Probable cause	Corrective action
The year entered is outside the range 1800 - 9999.	Enter a year from 1800 - 9999.

Error code: 0160

Invalid entry, hour entered must be within range (0 - 23).

Probable cause	Corrective action
The hour entered is outside the range 0 - 23.	Enter an hour from 0 - 23.

Error code: 0161

Invalid entry, minute entered must be within range (0 - 59).

Probable cause	Corrective action
The minutes entered is outside the range 0 - 59.	Enter a value for minutes from 0 - 59.

Error code: 0162

System backup canceled, insufficient disk space for (x).
x = File name

Probable cause	Corrective action
There is not enough disk space to perform a backup procedure.	Contact your Area Customer Support. Please provide information specifying the operation you were attempting to perform when this error occurred.

Error code: 0164

Invalid request, select at least one restore option.

Probable cause	Corrective action
Done was selected without selecting a restore option (module calibrations, system configuration, or database).	Select at least one option from the **Restore** options list, and then select **Done**. To exit without performing a restore, select **Cancel**.

Error code: 0166

Batch (x) deleted. Batch was in process when the SCC was shut down.
x = Batch name

Probable cause	Corrective action
The batch was in process when the SCC was shutdown. All samples with a Scheduled or Running status go to exceptions.	1. Determine why the SCC was shutdown and correct the cause. 2. Rerun the tests in exceptions. 3. Order another batch for the remaining samples.

Error code: 0167

Invalid order, Carrier/Carousel and Position required for previously ordered Sample ID (x).
x = Sample ID

Probable cause	Corrective action
The same sample ID was found in one or more carrier/carousel positions and the carrier/carousel position was not specified for the test order.	Specify the carrier/carousel ID and position for each aliquot loaded when using multiple aliquots of the same sample ID.

Error code: 0168

The end date (x) is earlier than the start date (y).
x = End date
y = Start date

Probable cause	Corrective action
The end date entered is earlier than the start date.	Enter the correct date range.

Error code: 0169

Procedure not performed on selected day.

Probable cause	Corrective action
Details was selected from a Maintenance log for a date when the procedure was not run.	Select a date when the procedure was run, and then select **F5 - Details**.

Error code: 0170

Samples (x) were not processed in batch (y). Unable to read carrier label.
x = Range of Sample IDs that were not processed
y = Batch name

Probable cause	Corrective action
A non-bar coded batch is in process and the bar code label on the sample carrier can not be read by the sample ID bar code reader. The system assumes this carrier contains 5 samples for the batch, increments the sample ID by 5 samples, and does not process these samples.	1. Determine the samples present in the sample carrier that were not processed. 2. Place a new batch order for these samples. 3. Place the samples into a different sample carrier. 4. Refer to error code 4204, for corrective action, if error continues.

Error code: 0171

Invalid shutdown request, at least one module is currently Running.

Probable cause	Corrective action
• Shutdown was selected from the Snapshot screen when the status of at least one module was Running.	1. Pause the sample handler and all processing modules with a status of Running. See *System startup, pause, and shutdown*, page 5-3. 2. Shutdown the system when the status of all modules is Ready.
• Shutdown was selected from the Snapshot screen when the status of at least one module was Scheduled pause.	1. Wait until the status of the sample handler and all processing modules changes to Ready, or select the **sample handler** and/or **processing module** graphic, and then select **Stop**. 2. Shutdown the system when the status of all modules is Ready or Stopped.
• Shutdown was selected from the Snapshot screen when the status of at least one module was Maintenance.	1. Wait until all maintenance procedures are complete, or select the **sample handler** and/or **processing module** graphic, and then select **Stop**. 2. Shutdown the system when the status of all modules is Ready or Stopped.
• Shutdown was selected from the Snapshot screen while the ARM (Automatic Reconstitution Module) was transferring buffer to the wash buffer reservoir.	Shutdown the system when the ARM completes buffer transfer.

Error code: 0172

No assay found for reagent kit in section (x).
x = RSH section number

Probable cause	Corrective action
The assay file required for the reagent kit is either not installed or it is not the correct version.	Install the correct assay file. See *Install or delete an assay file*, page 2-211.

Error code: 0173

System restore canceled, backup version (x) and current software version (y) are incompatible.
x = Software version when backup was created
y = Current software version

Probable cause	Corrective action
Attempted to restore a backup with a database created with a different system software version number.	Select a backup created with the current version of system software.

Error code: 0174

Invalid order for Sample ID (x), Assay (y) disabled.
x = Sample ID
y = Assay name

Probable cause	Corrective action
Order was received with an assay that is disabled or patient disabled.	1. Change the availability of the assay when the reason for disabling the assay is corrected. See *Change the availability of an assay*, page 2-99. 2. Reorder the test.

Error code: 0175

Attempted to operate an un-initialized assembly (x).
x = Mechanism name

Probable cause	Corrective action
Hardware failure for mechanism indicated.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 0176

Invalid order, no control levels selected.

Probable cause	Corrective action
Add order was selected when no control level was selected.	Select one or more control levels.

Error code: 0177

Invalid order, Sample ID (x) exists for a different type of order (patient, calibrator, control or batch).
x = Existing Sample ID

Probable cause	Corrective action
The sample ID is already in use for an existing calibrator, control, patient, or batch order.	Assign a different sample ID for the order being created.

Error code: 0178

Unable to process test, Sample ID (x) currently configured as a control bar code SID.
x = Sample ID

Probable cause	Corrective action
A patient order was created using a previously assigned control bar code SID.	Re-order the test using a unique sample ID.

Error code: 0179

Data archive failed, previous archive still in progress.

Probable cause	Corrective action
Another archive was selected before the current archive was complete.	Request the new archive when the current archive is complete.

Error code: 0180

Unable to archive, insufficient disk space.

Probable cause	Corrective action
There is not enough space on the disk to archive the selected records.	Select fewer records to archive or insert a new disk.

Error code: 0181

Unable to archive, no disk or incorrect disk type detected.

Probable cause	Corrective action
• A disk wasn't placed in the CD drive.	Place a disk in the CD drive.
• An incorrect disk type was used.	Use a CD-R disk or non-formatted CD-RW disk.
• There is no available space on the disk to archive the selected records.	Insert a new disk.
• The disk is inserted upside down.	Turn the disk over and insert it in the drive.

Error code: 0182

Unable to archive, no CD drive detected.

Probable cause	Corrective action
• Software error	*Cycle power to the SCC*, page 5-5
• The CD-RW drive is not installed on the SCC.	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure: – Cables on the CD drive have a poor connection – CD drive – Power cable – Ribbon cable	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0183

Unable to archive, CD drive is initializing.

Probable cause	Corrective action
Done was selected before initialization was complete.	1. Select **OK** on the archive message, and then wait until initialization is complete. 2. Select **Done** to continue archiving.

Error code: 0184

Unable to archive, disk is read-only.

Probable cause	Corrective action
• A CD-ROM disk was left in the drive. Example: ARCHITECT System Assay CD-ROM, ARCHITECT System Maintenance and Diagnostic CD-ROM	Remove the CD-ROM disk and insert a CD-R or non-formatted CD-RW disk.
• The archive CD disk was used for procedures other than archive.	Use archive disk for archive only.

Error code: 0185

Unable to archive, Processing Module is not in the correct status.

Probable cause	Corrective action
Processing module status is Running, Scheduled pause, Initializing, or Scanning.	Perform the archive when the processing module status is Stopped, Offline, or Ready.

Error code: 0186

Unable to archive, archive device is in use.

Probable cause	Corrective action
The archive device is in the process of reading, writing, or initializing.	Archive results when the device is ready.

Error code: 0187

Data archive failed, duplicate archive file name found.

Probable cause	Corrective action
• Archive disk is used on multiple SCC systems which have the same ARCHITECT System number.	Verify the ARCHITECT System number matches the label on the SCC. If the number is not correct, contact your Area Customer Support.
• A write error occurred on an earlier archive attempt and could not be erased.	Use a different disk and archive.
• An archive was performed before and after a restore was performed.	Use a different disk and archive.

Error code: 0188

Data archive failed, CD tray is open.

Probable cause	Corrective action
After the CD drive was initialized, the CD tray was opened.	Close CD tray and start archive procedure.

Error code: 0189

Data archive failed, no disk found in drive.

Probable cause	Corrective action
A disk wasn't placed in the CD drive.	Place a CD-R disk or non-formatted CD-RW disk in the CD drive.

Error code: 0190

Data archive failed, incorrect disk type detected.

Probable cause	Corrective action
• An incorrect disk type was used.	Use a CD-R disk or non-formatted CD-RW disk.
• The disk is inserted upside down.	Turn the disk over and insert it in the drive.

Error code: 0191

Data archive failed, error reading/writing to disk.

Probable cause	Corrective action
• CD disk is dirty.	Clean disk. Refer to the CD cover for cleaning and handling procedures.
• CD disk is defective.	Use new disk.
• Hardware failure: – CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0192

Data archive failed, error verifying archive data on disk.

Probable cause	Corrective action
• CD disk is defective.	Use new disk.
• Hardware failure: – CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0193

Unable to archive, no archive data found. Refresh screen then select data to archive.

Probable cause	Corrective action
The screen was not refreshed before F8 - Archive was selected.	Select the **refresh** button, and then repeat the archive procedure. See *Archive stored patient results*, page 5-342 or *Archive stored control results*, page 5-356.

Error code: 0194

Unable to process test, invalid product type.

Probable cause	Corrective action
Reagent bottles for a STAT test are incorrectly loaded on an *i*2000.	Load the reagent bottles on an ARCHITECT System with STAT test capability.

Error code: 0195

Invalid order for Sample ID (x), conflicting demographics for Patient ID (y).
x = Sample ID number
y = Patient ID number

Probable cause	Corrective action
The order created contains demographic information for a PID, which is different than existing demographics for that PID.	1. Create the order with the existing demographics. 2. Delete all orders and results associated with the existing demographics and then create the order with the new demographics.

Error code: 0196

Unable to delete assay (x), pending orders exist for this assay.
x = Assay name

Probable cause	Corrective action
Attempted to delete an assay when pending or running orders exist for the assay.	Delete the pending orders or wait until the orders are complete before trying to delete the assay.

Error code: 0197

Missing entry, formula required.

Probable cause	Corrective action
A valid formula is not entered for a calculated assay.	Enter a valid formula for the calculated assay.

Error code: 0198

Unable to delete assay (x), the assay is a constituent of a calculated assay.
x = Assay name

Probable cause	Corrective action
Attempted to delete an assay that is a constituent for a calculated assay.	Delete or edit the calculated assay before deleting the constituent assay.

Error code: 0199

Unable to process test from sample carousel, invalid Processing Module for assay type.

Probable cause	Corrective action
A sample was loaded on the sample carousel with *i* System assays ordered.	Place the sample on the robotic sample handler to run the *i* System assays.

Error code: 0200

A two position reagent kit loaded in positions 25 and 1.

Probable cause	Corrective action
Bottles from a two-position reagent kit are loaded in positions 25 and 1 (not sequentially).	Load the reagents in sequential positions.

Error code: 0201

No bottle found where expected in position (x) on (y) carousel. Print reagent load error report.
x = Position in which the bottle was missing
y = Location in which the bottle was missing

Probable cause	Corrective action
• There is no bottle in the indicated position and carousel where expected.	Load the correct bottle with the kit in the correct position.
• Label on a bottle in the indicated position cannot be read.	Turn the reagent bottle to expose a different area of the bar code to the reader.

Error code: 0202

The reagent kit in position (x) has expired or exceeded the stability time.
x = Reagent carousel position

Probable cause	Corrective action
The indicated reagent is expired or has exceeded the onboard stability time.	Load a new, in-date reagent kit. See *Load bar coded reagents (c4000)*, page 5-135 or *Load non-bar coded reagents (c4000)*, page 5-139 See *Load bar coded reagents (c8000/c16000)*, page 5-150 or *Replace non-bar coded reagents (c8000/c16000)*, page 5-159. See *Load reagents (i2000/i2000SR)*, page 5-169.

Error code: 0203

Unable to change configuration, Processing Module is not in the correct status.

Probable cause	Corrective action
The processing module status is Running, Scheduled pause, Initializing, or Scanning.	Perform required configuration changes when the processing module status is Offline, Stopped, Ready, or Warming.

Error code: 0204

Unable to process test, no Reagent kits available to run test.

Probable cause	Corrective action
• The processing module does not have adequate reagent on board to run the requested test. All of the reagent kits on the module for the assay are either empty, expired, or not calibrated.	Load the required reagent kit. See *Load reagents (i2000/i2000SR)*, page 5-169.
• The selected kit does not have sufficient reagent to complete the QC or calibration order.	Select a different kit to process the test or load a new reagent kit.

Error code: 0205

Wrong lot, component or serial number in position (x) on (y) carousel. Print reagent load error report.
x = Position in which the bottle was detected

y = Location in which the bottle was detected

Probable cause	Corrective action
A bottle with the wrong lot number, component ID, or serial number is loaded in the indicated position and carousel.	Load the correct bottle for the kit in the correct position.

Error code: 0206

Bottle mismatch in position (x) on (y) carousel, bottle is already part of another Reagent kit.
x = Position in which the bottle was detected
y = Location in which the bottle was detected

Probable cause	Corrective action
A bottle in the indicated position is already part of another reagent kit.	1. Print the reagent load error report to determine the kit causing the error. 2. Load the correct bottles for the reagent kit or load a new reagent kit.

Error code: 0207

Calibration version mismatch for reagent kit in position (x).
x = Reagent carousel position

Probable cause	Corrective action
Calibration version for the reagent kit on the processing module does not match the currently installed assay.	1. Load a reagent kit matching the currently installed assay version. **NOTE:** Deplete the supply of reagents for the old assay before installing the new assay. 2. Install the new assay file when the current supply of reagents is depleted. See *Install or delete an assay file*, page 2-211.

Error code: 0208

Reagent Carousel scan error, refer to Reagent status screen for details.

Probable cause	Corrective action
• Bottle mismatch, extra bottle is in the carousel, or the required bottle is missing.	1. View the reagent status screen and correct the indicated problem. 2. *Review logs*, page 10-13, for any 0000 category error codes, if the cause is not obvious.
• Reagent bottle not loaded properly.	Reseat the reagent bottle.
• Label cannot be read on a bottle.	Clean the bottle label.
• The bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3210 Reagent Bar Code Calibration*, page 10-655 for *i*2000/*i*2000SR. Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-689 for *c*4000/*i*1000SR/*ci*4100.

Error code: 0209

Number of unreleased patient results reached limit. New orders will not be accepted.

Probable cause	Corrective action
The number of unreleased results has reached the limit.	Delete or release results, QC, exceptions, or pending orders before placing new orders.

Error code: 0210

Selected Carrier/Carousel and Position in use by another Sample ID (x), enter an available C/P.
x = Sample ID

Probable cause	Corrective action
The carrier/carousel and position is in use by another sample.	Enter a carrier/carousel and position number that is not currently in use.

Error code: 0211

Unable to process test(s), Sample ID (x) does not match scanned sample ID (y).
x = Sample ID ordered
y = Sample ID on sample tube at the bar code reader

Probable cause	Corrective action
• A carrier/carousel and position were assigned for a sample ID, then a different sample was placed into this carrier/carousel and position.	1. See the *Order status screen*, page 5-222, for carrier/carousel and position assignment. 2. Place the correct sample tube into the carrier/carousel position.
• Sample ID bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3220 SH Bar Code Calibration*, page 10-691 if you have a standard sample handler. Perform *3222 RSH Bar Code Calibration*, page 10-684 (except for *c*4000/*i*1000SR/*ci*4100) if you have a robotic sample handler. Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-689 for *c*4000/*i*1000SR/*ci*4100 if you have a robotic sample handler.

Error code: 0212

Run request denied. Solid Waste Container not present.

Probable cause	Corrective action
Waste container was not present in a processing module when run was selected.	Replace the solid waste container.

Error code: 0213

Batch is in process. Remaining unprocessed samples will be added to the batch unless you manually delete the batch.

Probable cause	Corrective action
A batch was in process when the sample handler was paused or the SCC was shutdown.	If you want the batch to continue, no corrective action is required. When you select run for the sample handler, batch processing continues.

Probable cause	Corrective action
	If you do not want the unprocessed samples remaining on the sample handler to be added to the current batch, delete the batch before restarting the sample handler.

Error code: 0214

Pause Load Queue before pressing reverse key.

Probable cause	Corrective action
• User selected reverse while the sample handler status is Running.	Pause the sample handler before pressing the reverse key.
• Hardware failure: – Keypad	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0215

Motor command aborted, operator requested Stop.

Probable cause	Corrective action
Unable to complete motor command, user selected stop.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.

Error code: 0216

Unable to process test, operator requested Stop or Processing Queue access door opened.

Probable cause	Corrective action
• User selected stop for the sample handler before the sample was aspirated.	Start up the sample handler when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-15
• Processing queue access door was opened before the sample was aspirated.	Close the door and restart the run.

Error code: 0217

Unable to process test, specified Processing Module not available.

Probable cause	Corrective action
User specified a test be processed on a specific module, but the module is unable to process the test for one of the following reasons:	
• There are no reagent kits present for the assay.	Load reagents for the assay.
• All of the reagents kits on the module for the assay are either empty, expired, or not calibrated.	1. Replace empty or expired reagents. 2. Order a calibration for the assay if a calibration is not already in process.
• The module does not have sufficient supplies to run the assay.	1. Replace empty or expired supplies. 2. *Review logs*, page 10-13, for any 2000 category error codes, if the cause is not obvious.
• The module status is not Running.	1. Select run for the processing module.

Probable cause	Corrective action
	2. Wait for the processing module status to change to Running before processing tests.
• STAT protocol percentage set to None in the module configuration screen.	Select a STAT protocol percentage of Low, Medium, or High. See *Change the STAT protocol percentage (i2000SR)*, page 2-38.
• Processing module stopped because of a previous hardware failure.	1. *Review logs*, page 10-13, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0218

Unable to process test, no Processing Modules available.

Probable cause	Corrective action
User specified that the system automatically assign the test to a module, but none of the modules are able to process the test for one of the following reasons:	
• There are no reagent kits for the assay present on any of the modules with a status of Running.	Load reagents for the assay.
• All of the reagents kits for the assay on all the modules in the Ready or Running status are either empty, expired, not calibrated, or disabled.	1. Replace empty or expired reagents. 2. Enable the reagents. 3. Order a calibration for the assay if a calibration is not already in process.
• None of the modules with a status of Running have sufficient supplies to run the assay.	1. Replace empty or expired supplies. 2. *Review logs*, page 10-13, for any 2000 category error codes, if the cause is not obvious.
• No modules have a status of Running.	1. Select run for a processing module. 2. Wait for the processing module status to change to Running before processing tests.
• Processing modules are stopped because of a previous hardware failure.	1. *Review logs*, page 10-13, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0219

Run request denied, at least one module must be Running.

Probable cause	Corrective action
Selected run for the sample handler when no modules have a status of Running.	Select run for a processing module.

Error code: 0220

Unable to perform requested operation, Processing Module not in correct status.

Probable cause	Corrective action
The processing module is not in the correct status to perform the requested activity.	Establish the correct module status, and then repeat the activity.

Error code: 0221

Invalid order, selected quality control levels do not all fit onto Carrier/Carousel (x).
x = Carrier/Carousel ID

Probable cause	Corrective action
The number of control levels ordered exceeds the number of available positions on the carrier/carousel. When requested with one control order, multiple control levels all must be run in one carrier/carousel.	1. Order fewer control levels for the selected carrier/carousel. 2. Create a new order for the remaining control levels on a new carrier/carousel.

Error code: 0222

Invalid entry, serial number (x) already exists.
x = Serial number currently in system

Probable cause	Corrective action
A serial number was entered that already exists in the SCC.	Enter a valid serial number. Example: i201099

Error code: 0223

Invalid password for (x), enter correct password.
x = User logon name

Probable cause	Corrective action
An invalid password was entered for the user who logged on.	Enter the correct password.

Error code: 0224

Invalid entry, the Sample Handler serial number must be 7 characters.

Probable cause	Corrective action
A sample handler serial number was entered that did not contain 7 characters.	Enter the sample handler serial number in the correct format. Example: SH01175

Error code: 0225

Invalid entry, date entered must be in range January 1, 1970 to February 5, 2036.

Probable cause	Corrective action
The date entered is outside the range January 1, 1970 - February 5, 2036.	Enter the correct date within the range January 1, 1970 - February 5, 2036.

Error code: 0226

Unable to perform Unload, Wash Buffer reservoir empty.

Probable cause	Corrective action
• Wash buffer container is already empty.	No corrective action is required.
• Wash buffer transfer tubing is not properly connected or is crimped.	Reconnect all tubing and repeat maintenance procedure. See ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81.
• Hardware failure: – Buffer level sensor connection is loose – Buffer level sensor failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0227

Invalid entry, Manual dilution factor not within range of (2 - 9999).

Probable cause	Corrective action
A manual dilution factor less than 2 or greater than 9999 was entered.	Enter a value from 2 - 9999.

Error code: 0228

Invalid request, Manual dilution must be defined before selecting assay(s).

Probable cause	Corrective action
Assays for a patient or control order were selected before the manual dilution factor was entered.	Define the manual dilution option prior to selecting assays for a patient order. Enter a value in the **Sample manual dilution factor** data entry box, and then select the desired assays from the **Assays** list.

Error code: 0229

Unable to perform Automatic Flush for (x), system door open.
x = Inventory item

Probable cause	Corrective action
• A door or cover is open on the processing module.	Close the door or cover when the reason for opening no longer exists.
• Hardware failure: – Sensors	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0230

Duplicate Carrier (x) detected.
x = Carrier ID

Probable cause	Corrective action
Sample carrier cannot be re-used while tests are still in process.	Wait until tests are complete before re-using a sample carrier.

Error code: 0231

Reagent carousel cover has been open for 30 minutes, close cover or remove reagents.

Probable cause	Corrective action
Reagent carousel cover has been open for more than 30 minutes.	Close the reagent carousel cover or remove reagents. See *Unload reagents (i2000/i2000SR)*, page 5-171.

Error code: 0232

Override for cover interlocks configured to On, all tests will be sent to exception.

Probable cause	Corrective action
Override for cover interlocks is set to on in the module configuration screen.	1. Status message. No corrective action is required. All tests become exceptions. The PMT does not read with covers open. 2. Contact your Area Customer Support, if results are desired.

Error code: 0233

Unable to delete control, order(s) are pending for this Lot no. and Level.

Probable cause	Corrective action
Attempted to delete a control level when orders are pending for this level.	Archive all QC results for the control level before deleting the level.

Error code: 0234

Invalid order, starting Sample ID is missing.

Probable cause	Corrective action
The starting sample ID field is empty.	Enter a valid starting sample ID.

Error code: 0235

Unable to delete control level, result(s) exist for this Lot no. and Level.

Probable cause	Corrective action
Attempted to delete a control level when orders are pending or results exist for this level.	1. *Archive stored control results*, page 5-356, with **Delete records after archive** check box selected. 2. Delete all pending orders for the control level.

Error code: 0236

Invalid request, Processing Module not in the correct status for backup or restore.

Probable cause	Corrective action
Attempted to create a backup or restore when the status of one or more modules is Running.	1. Pause all modules. Pause the sample handler and *Pause the processing module*, page 5-16. 2. Repeat the backup or restore procedure, when the processing module status is Ready.

Error code: 0237

Invalid automatic system backup request, Processing Module status must be Stopped or Ready.

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0238

Invalid order, ending Sample ID is missing.

Probable cause	Corrective action
The ending sample ID field is empty.	Enter a valid ending sample ID.

Error code: 0239

Run request denied, Processing Module hardware failure.

Probable cause	Corrective action
A previous hardware failure is preventing the Run initialization. Module status changes to Stopped.	1. Wait until all tests in process are completed. 2. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 3. *View low level error messages*, page 10-15, if you do not find any error codes. 4. Perform the corrective action for the specific error code.

Error code: 0240

Run request denied, Sample Handler hardware failure.

Probable cause	Corrective action
User selected run after a hardware failure.	1. Wait until the sample handler is Stopped. 2. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 3. *View low level error messages*, page 10-15, if you do not find any error codes. 4. Perform the corrective action for the specific error code. **NOTE:** If the hardware failure is not corrected and run is selected again for the sample handler, no

Probable cause	Corrective action
	error message is displayed and the sample handler status does not change to Running.

Error code: 0241

Invalid entry, date of birth must be today's date or earlier.

Probable cause	Corrective action
A birth date later than today's date was entered.	Enter a valid birth date.

Error code: 0242

Bottle mismatch in the (x) reagent carrier position in section (y), bottle is part of another Reagent kit.
x = Reagent carrier position in which the bottle was detected
y = RSH section number

Probable cause	Corrective action
A bottle in the indicated position is already part of another reagent kit.	Load the correct bottles for the reagent kit or load a new reagent kit.

Error code: 0243

Unable to change configuration, (x) not in the correct state.
x = Sample handler or modules.

Probable cause	Corrective action
Attempted to configure settings while the sample handler status is Running, or configure assays while a processing module status is Running.	1. Pause the sample handler or *Pause the processing module*, page 5-16. 2. Perform the required configuration when the module status is Ready or Scheduled pause.

Error code: 0244

Version mismatch for reagent kit in position (x).
x = Reagent carousel position.

Probable cause	Corrective action
The Reagent Configuration Version of the onboard reagent kit is not the expected value. **NOTE:** This error occurs if Clinical Investigation reagents or assay files are used. Clinical Investigation reagent bottles contain the text Investigational Use Only. Clinical Investigation assay files Cal Version parameter is 0 (zero).	Load the expected kit or assay file.

Error code: 0245

Invalid entry. The value for (x) must be less than the value for (y).
x = Field with invalid entry
y = Field with invalid entry

Probable cause	Corrective action
Minimum must be less than the value for maximum.	Enter a number for parameter (x) that is less than parameter (y).

Error code: 0246

Invalid entry. The value for (x) must be less than or equal to the value for (y).
x = Field with invalid entry
y = Field with invalid entry

Probable cause	Corrective action
Minimum range must be less than or equal to the value for maximum range.	Enter a value for parameter (x) that is less than or equal to parameter (y).

Error code: 0247

Invalid entry. One or more fields are empty. Enter valid data.

Probable cause	Corrective action
One or more data fields are empty.	Enter valid data in the empty fields.

Error code: 0248

Input out of range.

Probable cause	Corrective action
The number entered is outside the specified range.	Enter a number within the acceptable range.

Error code: 0249

Invalid entry, the Processing Module serial number must be in the correct format.

Probable cause	Corrective action
Processing module serial number entered is not in the correct format.	Enter the processing module serial number in the correct format.

Error code: 0250

The starting Sample ID plus the number of samples exceeds the maximum Sample ID: (x) allowed.
x = Maximum Sample ID allowed

Probable cause	Corrective action
No orders can be added in a non-bar coded batch order type for patient orders because the ending sample ID number is greater than 999,999,999.	Re-enter a valid starting sample ID that is less than the maximum sample ID number allowed. The rule is: starting SID + number of samples must be less than or equal to the maximum sample ID number allowed. • The maximum sample ID must be less than or equal to 9 characters. • The maximum number of samples allowed in a non-bar coded batch is 5000.

Error code: 0251

Calibration canceled, calibrator detected during a batch run.

Probable cause	Corrective action
A calibrator was identified at the sample ID bar code reader when a batch was in process. The batch continues processing.	Wait until the batch has finished processing before running calibrators. **Or** Terminate the batch in process then run the calibration, if a calibration is required immediately.

Error code: 0252

Duplicate Sample ID (x) detected in the batch (y), sample is ignored.
x = Sample ID
y = Batch name

Probable cause	Corrective action
In a bar coded batch, a sample was detected with the same sample ID as a sample already in process.	Rerun the ignored sample.

Error code: 0253

Duplicate Sample ID detected at (x) in batch (y). No batch orders are created.
x = Carrier and Position of sample
y = Batch name

Probable cause	Corrective action
In a non-bar coded batch one of two situations occurred: • The batch contains the same sample ID as a bar coded sample detected during the batch. • Two non-bar coded batches have overlapping sample IDs and neither of the sample IDs have completed processing.	Order and run the batch tests for the sample at the carrier and position indicated in the message.

Error code: 0254

Unable to process control (x), ID is assigned to more than one control for assay (y).
x = Control ID
y = Assay name

Probable cause	Corrective action
The same bar code SID number is assigned to two different levels within the same control lot number.	Delete the ID number for controls that are not used or assign a different ID number to the new controls.

Error code: 0255

Batch Sample ID (x) not processed, unable to read bar code in C/P: (y).
x = Batch name
y = Carrier and Position

Probable cause	Corrective action
The carrier position number cannot be read by the bar code reader.	Place a new batch order for the samples that are not processed.

Error code: 0256

Invalid entry. The LAS serial number must be 8 characters and in the correct format.

Probable cause	Corrective action
The LAS serial number is entered incorrectly. It must be 8 characters and in the correct format.	Enter the LAS serial number with 8 characters and in the correct format. Example: LAS00102

Error code: 0257

Invalid order, starting carousel position plus number of calibrators cannot exceed 20.

Probable cause	Corrective action
The number of calibrator levels exceeds the number of available positions on the LAS carousel. Example: When creating a 2-point Adjust calibration order, the starting position cannot be position 20.	Create a new order for the calibration.

Error code: 0258

C/P (x) already in use and is ignored in batch (y). An additional position will be added to batch.
x = Carrier and position of the sample.
y = Batch name

Probable cause	Corrective action
A sample carrier, in which tests were still in process, was used to load a sample for a non-bar coded batch. The position is not included in the batch and an additional position is added to the end of the batch to complete the defined number of samples. If a sample is in the added position, results are generated.	1. *Create a patient order (single order)*, page 5-192, for the sample not included in the batch. 2. Delete the additional batch sample result, if generated and not required. See *Delete a patient result*, page 5-307.

Error code: 0259

Invalid entry, SID field must not start with zero in a non-bar coded batch order.

Probable cause	Corrective action
In a non-bar coded batch order the Sample ID was started with a zero.	Enter a number (1-9) as the first digit in the **SID** data entry box.

Error code: 0260

Invalid entry, Sample ID length cannot exceed 20 characters.

Probable cause	Corrective action
The sample ID in a patient order is greater than 20 characters long.	Enter a sample ID with 20 characters or less.

Error code: 0261

Invalid entry, Sample ID length cannot exceed 9 characters in a non-bar coded batch order.

Probable cause	Corrective action
The sample ID in a non-bar coded batch order is greater than 9 numeric characters.	Enter a sample ID with 9 numeric characters or less.

Error code: 0262

The reagent kit in section (x) has expired.

x = RSH section number

Probable cause	Corrective action
The indicated reagent is expired.	Load a new, in-date reagent kit. See *Load reagents on the RSH (i1000SR)*, page 5-178.

Error code: 0263

A panel with the same name exists on the system. Choose a different panel name.

Probable cause	Corrective action
A panel with the same name exists.	Enter a different panel name.

Error code: 0264

A panel name must be defined and a panel type must be selected before a panel can be configured.

Probable cause	Corrective action
A panel name was not entered and/or a panel type was not selected.	Enter a panel name or select a panel type.

Error code: 0265

A panel should have at least 2 assays selected.

Probable cause	Corrective action
A panel was configured with less than 2 assays.	Select 2 or more assays when configuring a panel.

Error code: 0266

Invalid entry, at least one dilution replicate must be entered.

Probable cause	Corrective action
The number of replicates was not entered for an automated or manual dilution.	Enter a number from 1-10 in the replicates field for an automated or manual dilution.

Error code: 0267

The reagent kit in section (x) has exceeded stability time.
x = RSH section number

Probable cause	Corrective action
The indicated reagent has exceeded the onboard stability time.	Load a new, in-date reagent kit. See *Load reagents on the RSH (i1000SR)*, page 5-178.

Error code: 0268

Carrier pick attempt failed at bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Carrier is inserted backwards in the tray or priority position.	Reposition the carrier in the tray or priority position.
• Carrier is damaged.	Rerun the sample in a different carrier.

Probable cause	Corrective action
• The insertion sensor is tripped when you dropped a carrier back into the priority bay during removal.	Reposition the carrier in the priority section.
• Hardware failure: – Section carrier detect sensor – Carrier transport flex board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0269

The reagent kit in section (x) has expired and exceeded stability time.
x = RSH section number

Probable cause	Corrective action
The indicated reagent is expired and has exceeded the onboard stability time.	Load a new, in-date reagent kit. See *Load reagents on the RSH (i1000SR)*, page 5-178.

Error code: 0270

Insufficient consecutive positions available for calibration order. (x) sample positions required.
x = Number of sample positions required for the calibration order

Probable cause	Corrective action
For carriers:	
• The number of positions required for the calibration order exceeds the maximum number of positions in five consecutive carriers.	1. Deselect assays from the calibration order to decrease the number of calibrators required for the order. 2. Create a new calibration order for the deselected assays.
• The starting carrier ID plus the number of samples for calibration exceeds the range (C001-C999) for the carrier. Starting carrier ID cannot be greater then 995.	Re-enter a valid starting carrier ID. Start with a carrier with a lower number.
For carousels:	
• The number of positions required for the calibration order exceeds the number of available positions on the carousel.	1. Deselect assays from the calibration order to decrease the number of calibrators required for the order. 2. Create a new calibration order for the deselected assays.

Error code: 0271

Invalid entry, missing draw date or draw time.

Probable cause	Corrective action
In the patient demographics field, draw date or draw time is empty.	Enter draw date and draw time or leave both empty.

Error code: 0272

Draw date must be greater than January 1, 1970 and less than the current system time.

Probable cause	Corrective action
• A draw date earlier than January 1, 1970 was entered in the patient demographics field.	Enter a draw date greater than January 1, 1970.
• A draw date and time was entered with the current date but with the time later than the current time defined for the system.	Enter a draw time that is less than the current system time.

Error code: 0273

Priority carrier in bay (x) section (y) was removed before access was granted.
x = Bay number
y = Section number

Probable cause	Corrective action
• A priority carrier was removed before the access indicator was activated.	Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-15.
• The insertion sensor is tripped when you dropped a carrier back into the priority bay during removal.	Reposition the carrier in the priority section.
• Hardware failure: – Carrier/tray sensor – Unit detect board – Sensor interface board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0274

Tray in bay (x) was removed before access was granted.
x = Bay number

Probable cause	Corrective action
• A tray was removed before the access indicator was activated.	Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-15.
• A tray is defective.	Replace tray.
• Hardware failure: – Carrier/tray sensor – Sensor interface board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0275

Unable to process test, ICT reference solution inventory empty.

Probable cause	Corrective action
• ICT Reference Solution bottle is empty.	Load a new bottle and update the inventory. See *Replace bulk solutions and update inventory (c System)*, page 5-56. **NOTE:** ICT Reference Solution can **only** be loaded when the processing module status is Stopped or Ready.
• The supplies screen was not updated when the ICT Reference Solution bottle was replaced.	Update the inventory. See *Replace bulk solutions and update inventory (c System)*, page 5-56.

Probable cause	Corrective action
• ICT Reference Solution bottle was removed from the weight platform during the run.	1. Seat the bottle correctly on the weight platform. 2. Update the inventory. See *Replace bulk solutions and update inventory (c System)*, page 5-56.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0276

Invalid selection, a maximum of four constituent assays can be used in the formula.

Probable cause	Corrective action
Selected more than four constituent assays for a calculated assay.	Select four or less assays for the calculated assay.

Error code: 0277

Selected carrier/carousel and position in use by another control order for SID (x). Enter an available C/P.

x = Sample ID

Probable cause	Corrective action
Carrier/carousel and position is in use by another control order.	Enter a carrier/carousel and position number that is not currently in use.

Error code: 0278

User defined reagent kit in position (x) was unassigned, bar coded cartridge scanned in same position.

x = Reagent carousel segment and position

Probable cause	Corrective action
A bar coded reagent cartridge is loaded in a position in which a non-bar coded reagent was manually assigned.	1. If the non-bar coded reagent was moved to a different position, assign the new position. See *Load non-bar coded reagents (c4000)*, page 5-139. See *Load non-bar coded reagents (c8000/c16000)*, page 5-155. 2. If the non-bar coded reagent is no longer onboard, no action is required until the reagent is loaded again. At that time, assign a new position.

Error code: 0279

Invalid number of cartridges detected for (x) carousel segment (y) during reagent scan.

x = Carousel

y = Segment

Probable cause	Corrective action
Hardware failure: • Mislabeled reagent segment	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0280

Reagent kit in position (x) on carousel (y) is missing a required bottle. Print reagent load error report.
x = Reagent segment and position
y = Reagent carousel

Probable cause	Corrective action
• The R1 reagent is onboard but the R2 reagent is not loaded, or the R2 reagent is onboard and the R1 reagent is not loaded.	Load both the R1 and R2 reagent cartridges. **NOTE:** For the *c*16000 processing module ensure the R1 and R2 cartridges are both loaded in either the outer (A-line) or inner (B-line) carousels.
• The R1 or R2 reagent is already linked to a different kit.	Replace with a new unused cartridge if a reagent cartridge was used in a previous reagent kit.
• A reagent with a 1D (one-dimensional) bar code label matches a manually configured reagent kit. A manually configured reagent kit requires the R1 and R2 reagent to have the same serial number.	Delete the manually configured kit. See *Delete a reagent kit (c System)*, page 2-113.

Error code: 0281

Reagent kit in location (x) has component(s) loaded in wrong carousel(s).
x = Reagent carousel segment and position

Probable cause	Corrective action
• The reagent cartridge was placed in the wrong reagent supply center.	Move the reagent cartridge to the correct reagent supply center.
• For the *c*16000 processing module, the ICT diluent was placed in the wrong carousel.	Move the ICT diluent cartridge to the outer (A-line) carousel of the R1 reagent supply center.

Error code: 0282

Invalid selection, each reagent supply center position must have a different solution.

Probable cause	Corrective action
The same onboard solution is selected for more than one reagent supply center position on the Configure reagents - supplies screen.	Select a different onboard solution option for each reagent supply center position.

Error code: 0283

A control with the same name already exists. Choose a different multiconstituent control name.

Probable cause	Corrective action
The multiconstituent control name entered is already in use.	Enter a different control name.

Error code: 0284

Unable to add control level, all data not defined for assays. Define data or delete assay.

Probable cause	Corrective action
The manufacturer mean and SD and/or expected mean and SD are not defined for one or more assays.	Enter values for the manufacturer mean and SD and for the expected mean and SD for all assays.

Error code: 0285

Invalid entry, the RSH serial number must be 8 characters and in the correct format.

Probable cause	Corrective action
The RSH serial number is entered incorrectly. It must be 8 characters and start with RSH.	Enter the RSH serial number with 8 characters and in the correct format. Example: RSH00103

Error code: 0286

Carrier detected in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• A carrier was placed in a priority section that was not available.	Remove the carrier from the priority section.
• Hardware failure: – Section carrier detect sensor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0287

Invalid batch order, Sample ID (x) already defined for batch (y).
x = Sample ID
y = Batch name

Probable cause	Corrective action
The starting sample ID for the bar coded batch matches the starting sample ID of an existing batch on the system.	Enter a unique starting sample ID for the batch order.

Error code: 0288

Selected Carrier/Carousel and Position in use by batch (x). Enter an available C/P.
x = Batch name

Probable cause	Corrective action
The starting carrier ID and position for the non-bar coded batch matches the starting carrier ID and position for an existing batch on the system.	Enter a unique starting carrier ID/position for the batch order.

Error code: 0289

Unable to process test, sample removed from system.

Probable cause	Corrective action
The carrier or tray was removed from the RSH before the test or retest was aspirated.	Replace the sample on the RSH and rerun the exception.

Error code: 0290

Unable to process test, no sample diluent available.

Probable cause	Corrective action
• The required sample diluent is not loaded.	Load sample diluent. See *Load sample diluent(s) (c4000)*, page 5-137. See *Load sample diluent(s) (c8000/c16000)*, page 5-152.
• The required sample diluent is empty.	Replace sample diluent. See *Replace sample diluent(s) (c4000)*, page 5-142. See *Replace sample diluent(s) (c8000/c16000)*, page 5-157.

Error code: 0291

Unable to process test, sample handler not in the correct status.

Probable cause	Corrective action
The sample handler status is not Scheduled pause or Running.	Start up the sample handler. See *Start up the processing module and/or sample handler*, page 5-15.

Error code: 0292

The reagent bottle in position (x) on carousel (y) has an undefined reagent name (z).
x = Reagent carousel segment and position
y = Reagent carousel
z = Scanned reagent name (first 5 digits of the bar code)

Probable cause	Corrective action
• A new reagent with a 1D (one-dimensional) bar code label was loaded and scanned before the new reagent was configured.	Configure the new reagent before scanning the 1D bar code. See *Configure a user-defined reagent (photometric - c System)*, page 2-92.
• The reagent name defined for a reagent is not identical to the first 5 digits of the 1D bar code label.	1. Configure the reagent ensuring the reagent name is identical to the first five digits of the 1D bar code label. See *Configure a user-defined reagent (photometric - c System)*, page 2-92. 2. Delete the incorrectly defined reagent, if desired. See *Delete a reagent (c System)*, page 2-112
• The 1D bar code label did not print correctly and the first 5 digits do not match the first 5 digits of the defined reagent name.	Reprint the 1D bar code labels ensuring the first five digits are identical to the defined reagent name.

Error code: 0293

Carrier detected in section (x).
x = RSH section number

Probable cause	Corrective action
• A carrier was placed in a section that was not available.	Remove the carrier from the section.
• Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Carrier sensor arm – RSH distribution board	

Error code: 0294

Carrier pick attempt failed at section (x).
x = RSH section number

Probable cause	Corrective action
• Carrier is inserted backwards in the section.	Reposition the carrier in the section.
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0295

Carrier in section (x) was removed before access was granted.
x = RSH section number

Probable cause	Corrective action
• A carrier was removed before the access indicator was activated.	Restart the RSH. Start up the processing module and/or sample handler.
• A carrier is not seated in the section.	Remove and reseat the carrier. Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0296

Carrier pick attempt failed at reagent carousel position (x).
x = Reagent carousel position

Probable cause	Corrective action
• Reagent carrier is not seated correctly in the reagent carousel.	Remove the reagent carrier and perform a startup on the RSH.
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0297

Processing Module Stopped, RV unloader removed.

Probable cause	Corrective action
• RV unloader was removed during initialization or while the system was running.	Ensure that the RV unloader is placed in the unload position.
• Hardware failure: – RV unloader sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0299

No bottle found in the (x) reagent carrier position in section (y). Print reagent load error report.
x = Reagent carrier position in which the bottle was missing

y = RSH section number

Probable cause	Corrective action
• There is no bottle in the indicated reagent carrier position where expected.	Load the correct bottle with the kit in the correct reagent carrier position.
• Label on a bottle in the indicated reagent carrier position cannot be read.	Turn the reagent bottle to expose a different area of the bar code to the reader. See *Load reagent bottles into reagent carrier(s) (i1000SR)*, page 5-176.

Error code: 0300

Run request denied, hardware failure.

Probable cause	Corrective action
Hardware failure on a mechanism.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0301

Unable to process test, hardware failure.

Probable cause	Corrective action
Hardware failure on an item unique to either a one-step test or two-step test.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0302

Unable to process test, hardware failure or the user pressed Stop.

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Hardware failure	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message.

Probable cause	Corrective action
	2. *View low level error messages*, page 10-15, if you do not find any 0304 error codes. 3. Perform the corrective action for the specific error code.

Error code: 0303

Unable to process test, hardware failure or inventory item limited.

Probable cause	Corrective action
The processing module status changed to Scheduled pause before this test arrived at the module. This happened for one of the following reasons:	
• User selected pause.	Restart the processing module or sample handler when the reason for the pause no longer exists.
• An inventory item is limited on the module.	Review the Supplies status screen. Add and update the supplies. See *Verify supply and waste inventory*, page 5-54. **NOTE:** Pre-Trigger and Trigger Solutions can only be loaded when the processing module status is Stopped, Ready, or Warming. Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• A hardware failure occurred.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0304

(x) failure.

x = Mechanism name

Probable cause	Corrective action
Hardware failure for the mechanism indicated.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 0305

The One Step assay is disabled due to a hardware failure.

Probable cause	Corrective action
Hardware failure on an item required for processing a one-step assay.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0306

The Two Step assay is disabled due to a hardware failure.

Probable cause	Corrective action
Hardware failure on an item required for processing a two-step assay.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0307

Attempted to operate an un-initialized assembly (x).
x = Mechanism name

Probable cause	Corrective action
Hardware failure for mechanism indicated.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0308

The (x) assay is disabled due to a hardware failure.
x = Assay type

Probable cause	Corrective action
Hardware failure on an item required for processing the specified assay type.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0310

Unable to process test, sample pipettor failed at sample cup/tube.

Probable cause	Corrective action
• Test is not processed due to sample pipettor that is left in the sample cup or tube due to: – User selected stop for the processing module. **Or** – Damaged pipettor.	1. Start up the processing module to remove the probe from the sample cup or tube. See *Start up the processing module and/or sample handler*, page 5-15. 2. Contact your Area Customer Support to resolve any hardware failure, if the error continues.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0311

Unable to process test, sample handler component failed.

Probable cause	Corrective action
A sample handler component failed and the sample could not be delivered to the aspiration location.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 0312

(x) has been in process for (y) hours and will be cancelled in (z) hours.
x = Procedure name
y = Number of hours
z = Number of hours

Probable cause	Corrective action
A maintenance or diagnostic procedure is in process and an action is required by the operator.	1. Ensure the maintenance or diagnostics procedure is successfully completed. 2. Select **Done**.

Error code: 0314

Control point excluded.

Probable cause	Corrective action
User excluded a control point, data is logged to QC log.	Status message. No corrective action is required.

Error code: 0315

Control point excluded by system.

Probable cause	Corrective action
System excluded a control point, data is logged to QC log.	Status message. No corrective action is required.

Error code: 0316

RV hopper door solenoid activation attempted.

Probable cause	Corrective action
Solenoid activation attempted which allows RV to drop from the upper hopper to the lower hopper.	Status message. No corrective action is required.

Error code: 0317

Processing module stopped, no RV detected in process path.

Probable cause	Corrective action
RV (reaction vessel) inventory is empty.	1. Replenish RVs and update inventory (*i*1000SR). 2. Start up the processing module. See *Start up the processing module and/or sample handler*, page 5-15.

Error code: 0318

Alternate wash operation failed.

Probable cause	Corrective action
• Communication error.	1. *Review logs*, page 10-13, for any 5531 error code that occurred at the same time as this message. 2. Perform the corrective action for the specific error code.
• Failure to verify a successful alternate wash.	Contact your Area Customer Support to resolve any hardware failure. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 0319

Induction heating operation failed.

Probable cause	Corrective action
Hardware failure.	1. *Review logs*, page 10-13, for any 5394 or 5395 error codes that occurred at the same time as this message. 2. Perform the corrective action for the specific error code.

Error code: 0320

Induction heating operation failed, interrupted wash buffer dispense.

Probable cause	Corrective action
Buffer pump stopped rotating during induction heating wash.	1. *Review logs*, page 10-13, for any 5503 error codes that occurred at the same time as this message. 2. Perform the corrective action for the specific error code.

Error code: 0350

Unable to process test, lamp failure.

Probable cause	Corrective action
An optics or lamp error occurred before or during processing of this test.	1. *Review logs*, page 10-13, for any 6500 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 6500 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0351

Unable to process test, water bath level low or temperature out of range.

Probable cause	Corrective action
Water bath level or temperature error occurred while processing the test.	1. *Review logs*, page 10-13, for any water bath level or temperature error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any water bath level or temperature category error codes. 3. Perform the corrective action for the specific error code.

Error code: 0352

Unable to process test due to previous processing module error.

Probable cause	Corrective action
The test was not processed due to a previous failure on the processing module.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 0353

System is configured to run in exhibition mode.

Probable cause	Corrective action
Hardware failure: • CPU board is configured for Exhibition Mode.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0400

Control point excluded by system, outside (x) standard deviation limit.
x = Standard deviation limit.

Probable cause	Corrective action
Control point excluded. The value is outside the system configured standard deviation limit, data is logged to QC log.	1. Verify the correct level was run. 2. See Observed Problems for corrective action. See *Controls out of range (c System)*, page 10-534. See *Controls out of range (i System)*, page 10-547. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0401

System QC inhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0402

Westgard rule (x) enabled for Assay (y).
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was enabled for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0403

Westgard rule (x) disabled for Assay (y).
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was disabled for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0404

Westgard rule (x) for Assay (y) changed to Failure.
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was changed from Warning to Failure for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0405

Westgard rule (x) assay (y) changed to Warning.
x = Name of Westgard rule
y = Assay name

Probable cause	Corrective action
A Westgard rule was changed from Failure to Warning for the specified assay, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0406

Control configuration, original data.

Probable cause	Corrective action
The control configuration was edited for a defined control level, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0407

Control configuration, current data.

Probable cause	Corrective action
The control configuration was edited for a defined control level, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0408

Control point included.

Probable cause	Corrective action
User included a control point, data is logged to QC log.	Status message. No corrective action is required.

Error code: 0409

Units changed for Assay (x) number (y). Existing QC values will be excluded from the QC data plot.
x = Assay name

y = Assay number

Probable cause	Corrective action
The unit used to report results for the indicated assay was changed. All QC results for the previous units will be excluded from the QC data Levey-Jennings plot. Excluded data is not used during Westgard analysis.	Status message. No corrective action is required.

Error code: 0411

System QC uninhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0412

Operator inhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0413

Operator uninhibits Assay (x) on Processing Module (y).
x = Assay name
y = Processing module number (1-4)

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0414

Westgard control warning (x) for reagent in position (y).
x = Assay name, control name, control level, Westgard rule symbolic name
y = Reagent position

Probable cause	Corrective action
The control received a Westgard Warning flag.	1. Review QC results for specified control. 2. See Observed Problems for corrective action. See *Controls out of range (c System)*, page 10-534. See *Controls out of range (i System)*, page 10-547. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0415

System QC excludes result, Westgard rule (x) was activated.
x = Name of Westgard rule

Probable cause	Corrective action
Feature not available at this time.	Status message. No corrective action is required.

Error code: 0416

Westgard control failure (x) for reagent in position (y).
x = Assay name, control name, control level, Westgard rule symbolic name
y = Reagent position

Probable cause	Corrective action
The control received a Westgard failure flag.	1. Review QC results for specified control. 2. See Observed Problems for corrective action. See *Controls out of range (c System)*, page 10-534. See *Controls out of range (i System)*, page 10-547. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0417

Control range failure (x) for reagent in position (y).
x = Assay name, control name, control level
y = Reagent position

Probable cause	Corrective action
The control received a control range failure.	1. Review QC results for specific control. 2. See Observed Problems for corrective action. See *Controls out of range (c System)*, page 10-534. See *Controls out of range (i System)*, page 10-547. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0418

Lot (x) for control (y) is the default lot.
x = Default control lot number
y = Control name

Probable cause	Corrective action
Control configuration was edited for a defined control level, information is logged to QC log.	Status message. No corrective action is required.

Error code: 0419

Westgard Run Specification changed.

Probable cause	Corrective action
Changed the Westgard time limit definition for a Run. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0420

Westgard failure auto-exclusion feature enabled.

Probable cause	Corrective action
Changed the Westgard failure auto-exclusion from FALSE to TRUE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0421

Westgard failure auto-exclusion feature disabled.

Probable cause	Corrective action
Changed the Westgard failure auto-exclusion from TRUE to FALSE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0422

Control result outside (x) standard deviation auto-exclusion feature enabled.
x = Standard Deviation limit

Probable cause	Corrective action
Changed the Westgard Standard Deviation Limit or changed the statistical accumulation criteria from FALSE to TRUE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0423

Control result outside (x) standard deviation auto-exclusion feature disabled.
x = Standard Deviation limit

Probable cause	Corrective action
Changed the Westgard Standard Deviation Limit or changed the statistical accumulation criteria from TRUE to FALSE. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0424

Reduction of lot or level limits not allowed.

Probable cause	Corrective action
Changed the Westgard control configuration limits to a smaller size. Action performed by an Abbott Representative at the request of the customer.	Status message. No corrective action is required.

Error code: 0425

QC time interval expired: control (x) level (y) for assay (z). Load specified control.
x = Control name
y = Control level name
z = Assay name

Probable cause	Corrective action
• The configured QC time interval was exceeded.	Run specified control(s).
• The configured QC time interval for a prior control lot is still active.	Verify the configured QC time interval is zero for all previous control lots.

Error code: 0426

QC test count interval expired: control (x) level (y) for assay (z). Load specified control.
x = Control name
y = Control level name
z = Assay name

Probable cause	Corrective action
The configured QC test count interval was exceeded.	Run specified control(s).

Error code: 0428

Automatic QC order was not generated, control (x), lot number (y) has expired.
x = Control name
y = Control lot number

Probable cause	Corrective action
Control material has expired.	Status message. No corrective action is required.

Error code: 0500

Operator requested Stop on Sample Handler.

Probable cause	Corrective action
Unable to complete the motor command because user selected stop.	Start up the sample handler when the reason for the stop no longer exists. See *Start up the processing module and/or sample handler*, page 5-15.

Error code: 0501

Power On Self Test (POST) starting on module (x).
x = Module Number (0-4)

Probable cause	Corrective action
Power on self tests (POST) are starting on the indicated module.	Status message. No corrective action is required.

Error code: 0502

Optics values modified.

Probable cause	Corrective action
The optics values for linearity or normalization were modified by the user.	Status message. No corrective action is required.

Error code: 0503

System Control Center (SCC) shutdown.

Probable cause	Corrective action
System control center shutdown correctly.	Status message. No corrective action required.

Error code: 0504

User (x) logged on.
x = User name

Probable cause	Corrective action
The indicated user successfully logged on the system control center.	Status message. No corrective action is required.

Error code: 0505

Configuration changes take effect next time SCC is started.

Probable cause	Corrective action
Edited serial port configuration.	*Cycle power to the SCC*, page 5-5, for new configuration to take effect.

Error code: 0506

Retest rule (x) for Assay number (y) was deleted because an assay required for this rule was deleted.
x = Name of retest rule
y = Assay number

Probable cause	Corrective action
An assay required for the retest rule was deleted.	Reinstall the deleted assay and re-define the rule, if the retest rule is required.

Error code: 0507

Decimal separator changed from (x) to (y). Make sure your host system, if configured, supports this number format.
x = Previously used separator
y = New separator

Probable cause	Corrective action
The symbol used as the decimal separator was changed from the SCC Configuration screen. **NOTE:** Data generated prior to this change does not have the new format. All data generated after this change uses the new format.	Status message. No corrective action is required.

Error code: 0508

Batch (x) deleted, unreleased results are at the limit.
x = Name of Batch

Probable cause	Corrective action
The number of unreleased results is at the maximum.	Release or delete unreleased patient results, quality controls, and exceptions currently on the system.

Error code: 0509

Unreleased patient results are at 90 percent of capacity. Release patient results or delete patient exceptions.

Probable cause	Corrective action
Unreleased results are at 90% of the system capacity.	Release or delete unreleased patient results, quality controls, and exceptions currently on the system.

Error code: 0510

System backup complete.

Probable cause	Corrective action
The system backup procedure is complete.	Status message. No corrective action is required.

Error code: 0511

Thousands separator changed from (x) to (y). Make sure your host system, if configured, supports this number format.
x = Previously used separator
y = New separator

Probable cause	Corrective action
The symbol used as the thousands separator was changed using the SCC Configuration screen. **NOTE:** Data generated prior to this change does not have the new format. All data generated after this change uses the new format.	Status message. No corrective action is required.

Error code: 0512

System (x) restore complete.
x = Name of backup

Probable cause	Corrective action
The requested restore was complete.	Status message. Contact your Area Customer Support if the backup data was not restored.

Error code: 0513

User manually failed calibration curve.

Probable cause	Corrective action
User manually failed a calibration curve.	Status message. No corrective action is required.

Error code: 0514

Control (x) excluded by system, outside (y) standard deviation limit.
x = Control name, control level, assay name
y = Standard Deviation limit

Probable cause	Corrective action
Control point excluded. The value is outside the system configured standard deviation limit, data is logged to QC log.	1. Verify the correct level was run. 2. See Observed Problems for corrective action. See *Controls out of range (c System)*, page 10-534. See *Controls out of range (i System)*, page 10-547. 3. Rerun the same control level(s) after performing corrective action.

Error code: 0515

Control (x) excluded by system, Westgard rule (y) activated.
x = Control name, control level name, assay name
y = Rule name

Probable cause	Corrective action
Auto-exclusion feature is active and a control point failed the specified Westgard rule. The control point is not used in statistical analysis.	Status message. No corrective action is required.

Error code: 0516

It will take (x) minutes to pause the modules. Are you sure you want to pause the selected modules?
x = Number of minutes

Probable cause	Corrective action
User selected pause for a processing module while test were scheduled or running.	Select **OK** to pause the processing module. **Or** Select **Cancel** if you do not want to pause the processing module.

Error code: 0517

System time and/or date setting was changed.

Probable cause	Corrective action
The system time, date or daylight savings settings were changed.	Status message. No corrective action is required.

Error code: 0518

Avoid loading calibrators, QC, priority samples or leaving empty spaces in a carrier when running a non-bar coded batch.

IMPORTANT: Loading any of the above samples will result in an incorrect SID assigned to the sample and every subsequent sample.

Probable cause	Corrective action
Informational message telling the user to avoid loading calibrators, controls, priority samples, or leaving empty spaces in a carrier when running a non-bar coded batch.	Status message. No corrective action is required.

Error code: 0519

Data archive complete.

Probable cause	Corrective action
The requested data archive procedure successfully completed.	Status message. No corrective action is required.

Error code: 0520

System language changed to (x) by user (y).
x = Language
y = User ID

Probable cause	Corrective action
The system language was changed on the system control center configure screen.	Status message. No corrective action is required.

Error code: 0521

Data archive canceled.

Probable cause	Corrective action
The Cancel button on the progress bar was selected while archiving data.	Status message. No corrective action is required.

Error code: 0522

Retest rule (x) for Assay number (y) was modified because an assay required for this rule was deleted.
x = Retest rule number
y = Assay number

Probable cause	Corrective action
An assay required for the retest rule was deleted.	Status message. No corrective action is required.

Error code: 0523

For module configuration changes to take effect, the SCC will shutdown.

Probable cause	Corrective action
A change to the module configuration was made. The system automatically shuts down.	Status message. No corrective action is required.

Error code: 0524

Incomplete module configuration, system shutting down.

Probable cause	Corrective action
The Cancel button was selected on the initial module configuration screen.	1. Repeat the initial module configuration after rebooting the system. 2. Select **Done**.

Error code: 0525

An automatic screen refresh has been performed.

Probable cause	Corrective action
The screen was automatically refreshed due to a 2 hour period of inactivity.	Status message. No corrective action is required.

Error code: 0526

Empty tray detected in bay (x).
x = The number of the bay containing the empty tray

Probable cause	Corrective action
• An empty tray was loaded in the bay.	Status message. No corrective action is required.
• Hardware failure: – Carrier/Tray sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0527

Number of Unreleased Control Results reached limit. New orders will not be accepted.

Probable cause	Corrective action
The number of unreleased control results has reached the limit.	Delete or release QC results, exceptions, or pending orders.

Error code: 0528

Unreleased Control Results are at 90 percent of capacity. Release Control Results or delete exceptions.

Probable cause	Corrective action
Unreleased control results are at 90% of the system capacity.	1. Delete or release unreleased control results currently on the system. 2. Delete exceptions and stored exceptions currently on the system.

Error code: 0529

c System module powered ON.

Probable cause	Corrective action
The user powered on the module or the module powered on after a power failure.	Status message. No corrective action is required.

Error code: 0530

Suspend processing for sample (x).
x = Sample ID

Probable cause	Corrective action
Suspend was selected for a sample that was pending.	1. Select **OK** to suspend the sample. 2. Wait until the RSH indicator lights to signal that the sample is available to remove.

Error code: 0531

No test orders found for Carrier (x), Position (y).
x = Carrier ID or CRSL

y = Carrier or carousel position

Probable cause	Corrective action
A bar coded tube scanned by the sample handler did not have pending test orders.	Place an order for the sample in the carrier.
A sample with the starting SID or in the starting carrier/ position for a batch was loaded in the RSH priority bay.	Batch processing is not supported in the RSH priority bay. Load the sample in an RSH routine bay.
A sample with the starting SID for a batch was received from the RSH Extension.	Batch processing is not supported with the RSH Extension. Load the sample in an RSH routine bay.

Error code: 0532

Suspend request denied, sample not present.

Probable cause	Corrective action
The sample was removed from the system.	Status message. No corrective action is required.

Error code: 0534

Suspend processing for sample (x) on bay (y).
x = Sample ID
y = Bay number

Probable cause	Corrective action
Suspend was selected for a sample in process on the RSH.	1. Select **OK** to suspend the sample. 2. Wait until the RSH indicator lights signal that the sample is available to remove.

Error code: 0535

Number of calibrator tests reached limit. New Calibration orders will not be accepted.

Probable cause	Corrective action
The number of unreleased calibrator results has reached the limit.	Delete calibrator exceptions or pending orders, or wait until in-process calibrations complete.

Error code: 0536

No database found. A new database will be created. Wait for the snapshot screen to display (up to 5 minutes).

Probable cause	Corrective action
No database exists, a new database will be created.	Status message. No corrective action is required.

Error code: 0537

Improper shutdown on SCC. Discard samples in carrier if carrier is located on RSH carrier transport.

Probable cause	Corrective action
Main power source to the SCC was interrupted causing an improper shutdown.	1. Remove sample carrier(s) from the carrier transport and carrier positioner(s). If the carrier is located on the RSH carrier, see *Remove sample carrier(s) from the carrier transport*

Probable cause	Corrective action
	and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100), page 10-715. If the carrier is located on the RSH carrier, see *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716. 2. Determine the cause of the power interruption and resolve.

Error code: 0538

RSH has gone offline. Discard samples in carrier if carrier is located on carrier transport.

Probable cause	Corrective action
Main power source to the RSH was interrupted while the module status was Scheduled pause or Running.	1. Discard samples in carrier if carrier is located on carrier transport. See *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715. See *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716. 2. Determine the cause of the power interruption and resolve. 3. *Power on the processing module and/or sample handler*, page 5-7

Error code: 0540

Dilution for Assay number (y) was modified or deleted. Retest rule (x) may become invalid.
x = Retest rule number
y = Assay number

Probable cause	Corrective action
An assay dilution used in a retest rule was deleted from the assay parameter file.	Review the configured retest rules to determine if a change to an existing retest rule or a new retest rule is desired. See *Viewing assay settings*, page 2-97.

Error code: 0542

Unable to process test, reagent kit is unavailable.

Probable cause	Corrective action
User selected a reagent kit to be unloaded that had scheduled tests in process.	Load the required reagent kit. See *Load reagents on the RSH (i1000SR)*, page 5-178.

Error code: 0544

Assay (x) number (y) definition has been changed by (z).
x = Assay name
y = Assay number

z = Operator ID

Probable cause	Corrective action
An assay parameter was edited.	Status message. No corrective action is required.

Error code: 0545

Calculated Assay (x) number (y) was created.
x = Assay name
y = Assay number

Probable cause	Corrective action
A calculated assay was automatically created during assay installation.	Status message. No corrective action is required.

Error code: 0546

Panel (x) was created.
x = Panel name

Probable cause	Corrective action
A panel name was automatically created during assay installation.	Status message. No corrective action is required.

Error code: 0547

Retest rule for Assay (x) number (y) was created.
x = Assay name
y = Assay number

Probable cause	Corrective action
A retest rule was automatically created during assay installation.	Status message. No corrective action is required.

Error code: 0548

Replenished RVs and updated inventory.

Probable cause	Corrective action
RVs were added to the hopper and the inventory was updated.	Status message. No corrective action is required.

Error code: 0550

Cuvette washing not completed, hardware failure or user pressed Stop. Promptly perform the Wash cuvettes procedure.

Probable cause	Corrective action
• User selected stop.	Restart the run that was in process as soon as the reason for the stop no longer exists. **Or** Perform ***as-needed*** maintenance procedure Wash Cuvettes if the run will not be restarted immediately. The cuvettes should not be left dirty for extended periods of time.

Probable cause	Corrective action
	See *6052 Wash Cuvettes*, page 9-39.
• Hardware failure.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code. 4. If the run will not be started immediately, perform ***as-needed*** maintenance procedure Wash Cuvettes as soon as the instrument is operational. The cuvettes should not be left dirty for extended periods of time. See *6052 Wash Cuvettes*, page 9-39.

Error code: 0551

Units changed for CC Assay (x) number (y). Existing QC values will be excluded from the QC data plot.
x = Assay name
y = Assay number

Probable cause	Corrective action
The unit used to report results for the indicated assay was changed. All QC results for the previous units will be excluded from the QC data Levey-Jennings plot. Excluded data is not used during Westgard analysis.	Status message. No corrective action is required.

Error code: 0552

Update of *c* System module CPU firmware complete. Cycle the module power to complete the update process.

Probable cause	Corrective action
The system has completed the upgrade of the *c* System module CPU firmware that was required during the upgrade of the ARCHITECT System software.	*Cycle power to the processing module and/or sample handler*, page 5-14.

Error code: 0553

Update of *c* System module DAQ firmware complete. Cycle the module power to complete the update process.

Probable cause	Corrective action
The system has completed the upgrade of the *c* System module DAQ firmware that was required during the upgrade of the ARCHITECT System software.	*Cycle power to the processing module and/or sample handler*, page 5-14.

Error code: 0554

User-defined reagent kit in location (x) was unloaded, new segment type was scanned.
x = Reagent carousel segment and position

Probable cause	Corrective action
A new reagent supply center segment was scanned with fewer positions than the previous segment in the location. A non-bar coded reagent was assigned to a position that no longer exists.	Define a new position for the non-bar coded reagent. See *Load non-bar coded reagents (c4000)*, page 5-139. See *Load non-bar coded reagents (c8000/c16000)*, page 5-155.

Error code: 0555

c System CPU firmware update required. Do not perform any module tasks until completion message appears (up to 20 min).

Probable cause	Corrective action
An upgrade of the *c* System module CPU firmware is in process.	Do not perform any activity on the module including the following which send commands to the CPU board: • Pressing any keypad or sample carousel buttons • Opening or removing any carousel covers • Emptying the high-concentration waste bottle A message displays when the upgrade is complete. Wait for the message before performing any activity.

Error code: 0556

c System DAQ firmware update required. Do not perform any module tasks until completion message appears (up to 20 min).

Probable cause	Corrective action
An upgrade of the *c* System module DAQ firmware is in process.	Do not perform any activity on the module including the following, which send commands to the DAQ board: • Pressing any keypad or sample carousel buttons • Opening or removing any carousel covers • Emptying the high-concentration waste bottle Wait for the message indicating the upgrade is complete.

Error code: 0557

TSB (x) is removed from system.
x = TSB number

Probable cause	Corrective action
A TSB was removed from the system.	Status message. No corrective action required.

Error code: 0558

TSB (x) selected to install.
x = TSB number

Probable cause	Corrective action
A TSB was selected for installation.	Status message. No corrective action required.

Error code: 0559

TSB (x) is installed.
x = TSB number

Probable cause	Corrective action
A TSB was installed.	Status message. No corrective action required.

Error code: 0560

No information available to print for selected update.

Probable cause	Corrective action
Customer letter or installation instructions are not available for this TSB.	Status message. No corrective action required.

Error code: 0561

Unable to process test, reagent kit is unavailable.

Probable cause	Corrective action
A reagent kit with scheduled tests pending has been removed from the system.	1. Load reagent for the scheduled tests. 2. Rerun tests.

Error code: 0562

Reagent calibration type changed for the following assays (x).
x = List of the affected assays

Probable cause	Corrective action
The option to run calibrations by kit or lot was changed.	Status message. No corrective action required.

Error code: 0563

Assay (x) has been assigned to assay (y).
x = File assay
y = User-defined system assay

Probable cause	Corrective action
Assay from a calibrator or QC import file was assigned to a user-defined system assay with a different assay number.	Status message. No corrective action required.

Error code: 0564

Assay (x) has been unassigned.
x = User-defined system assay

Probable cause	Corrective action
A user-defined system assay was unassigned from a calibrator or control import file assay.	Status message. No corrective action required.

Error code: 0565

Suspend processing for sample (x) on bay (y) section (z).
x = Sample ID
y = Bay number
z = Section number

Probable cause	Corrective action
Suspend was selected for a sample in process on the RSH.	1. Select **OK** to suspend the sample. 2. Wait until the RSH indicator lights signal that the sample is available for removal.

Error code: 0566

Premium features have been activated. Activation key entered: (x)
x = Activation key

Probable cause	Corrective action
The premium features were successfully activated.	Status message. No corrective action required.

Error code: 0567

(y) position (x) scanned and user-defined reagent cartridge size does not match. Scanned size will be used.
x = Position number
y = Reagent Carousel

Probable cause	Corrective action
A user-defined reagent cartridge size does not match the reagent bar code label.	Status message. No corrective action required.

Error code: 0568

Premium features have been deactivated.

Probable cause	Corrective action
The premium features were successfully deactivated.	Status message. No corrective action required.

Error code: 0569

Updated (x) level to (y) by operator (z).
x = Inventory name
y = Percentage
z = Operator ID

Probable cause	Corrective action
User updated the bulk solution inventory level.	Status message. No corrective action required.

Error code: 0570

Updated (w) low alert from/to (x/y) by operator (z).
w = Supply name
x = Previous value (%)
y = New value (%)
z = Operator ID

Probable cause	Corrective action
User updated the supply low alert setting.	Status message. No corrective action required.

Error code: 0571

(x) Reagent in position (y) was enabled by (z).

x = Assay name
y = Reagent carousel position
z = Operator ID

Probable cause	Corrective action
Operator manually enabled a disabled reagent kit.	Status message. No corrective action is required.

Error code: 0572

(x) reagent lot no. (y) serial no. (z) disabled due to QC failure.
x = Assay name
y = Reagent lot number
z = Reagent serial number

Probable cause	Corrective action
Reagent kit disabled by system due to a QC failure.	1. Review QC results for specific control. 2. See Observed Problems for corrective action. See *Controls out of range (c System)*, page 10-534. See *Controls out of range (i System)*, page 10-547. 3. Rerun the same control level(s) after performing corrective action. When one level of control is in range the reagent kit will be enabled by the system.

Error code: 0573

Assay (x) version (y) is available for installation. Current version installed is (z).
x = Assay name and assay number
y = Downloaded assay version
z = Installed assay version

Probable cause	Corrective action
A new assay file version is available for installation.	Status message. Refer to the e-assay CD-ROM letter, Special Instructions section, prior to installing the assay.

Error code: 0574

Host communication disabled by user.

Probable cause	Corrective action
User disabled host communication from LIS Communication screen.	Status message. No corrective action is required.

Error code: 0575

Lot number updated for (x) to (y) by operator (z).
x = Supply name and location
y = New lot number
z = Operator ID

Probable cause	Corrective action
User updated the supply lot number.	Status message. No corrective action required.

Error code: 0576

Expiration date updated for (x) to (y) by operator (z).
x = Supply name and location
y = New expiration date
z = Operator ID

Probable cause	Corrective action
User updated supply expiration date.	Status message. No corrective action required.

Error code: 0577

Secondary HL7 communication disabled by user.

Probable cause	Corrective action
User disabled secondary HL7 communication from LIS Communication screen.	Status message. No corrective action is required.

Error code: 0578

New lot (x) is detected (previous lot: y, download language: z).
x = Reagent lot number
y = Reagent lot number
z = Downloaded language

Probable cause	Corrective action
A new reagent lot is detected during the reagent scan.	Status message. No corrective action required.

Error code: 0579

Unable to process test, required reagent has a calibration status of pending QC.

Probable cause	Corrective action
A control is required after a calibration and patients were processed prior to the control completing.	1. Run controls for the pending calibration. 2. Rerun test after the controls pass.

Error code: 0580

Calibrator or control (x), lot number (y), expiration date (z) was updated.
x = Calibrator or control name
y = Calibrator or control lot number
z = Calibrator or control expiration date

Probable cause	Corrective action
Operator updated a calibrator or control expiration date.	Status message. No corrective action is required.

Error code: 0581

Serial Number (x) and Expiration Date (y) updated for ICT Module by operator (z).
x = ICT Module serial number
y = ICT Module expiration date
z = Operator ID

Probable cause	Corrective action
User updated the ICT Module serial number and expiration date.	Status message. No corrective action required.

Error code: 0582

Control (x) assay (y) definition has been changed by (z).
x = Control name and lot number
y = Assay name
z = Operator ID

Probable cause	Corrective action
A control parameter was edited.	Status message. No corrective action is required.

Error code: 0583

Cal set (x) assay (y) definition has been changed by (z).
x = Calibrator set name and lot number
y = Assay name
z = Operator ID

Probable cause	Corrective action
A calibrator set parameter was edited.	Status message. No corrective action is required.

Error code: 0585

ICT Module Serial Number (x) has expired.
x = ICT Module serial number

Probable cause	Corrective action
The ICT module has expired.	Replace the ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148, *Replace the ICT module or probe (c8000)*, page 9-215, or *Replace the ICT module or probe (c16000)*, page 9-285.

Error code: 0586

Warranty exceeded for ICT Module Serial Number (x).
x = ICT Module serial number

Probable cause	Corrective action
The ICT module has exceeded the warranty period of three months on board or 20,000 samples.	Status message. No corrective action required unless calibration or quality control results do not meet acceptance criteria.

Error code: 0587

Previous ICT Module Serial Number was (x) with Sample count (y) and Days on board (z).
x = ICT Module serial number
y = Number of Samples
z = Number of days

Probable cause	Corrective action
ICT module was replaced. The previous serial number, sample counts and days on board were entered into the inventory log.	Status message. No corrective action required.

Error code: 0588

Corruption detected in database, database repair successful.

Probable cause	Corrective action
Software status message.	No corrective action is required.

Error code: 0589

(x) reagent in position (y) was disabled by (z).
x = Assay name
y = Reagent carousel position
z = Operator ID

Probable cause	Corrective action
Operator manually disabled a reagent kit.	Status message. No corrective action is required.

Error code: 0590

Alternate Wash Delivery System is present.

Probable cause	Corrective action
Alternate Wash Delivery System is configured.	Status message. No corrective action is required.

Error code: 0591

Induction Heating System is present.

Probable cause	Corrective action
Induction Heating hardware is configured.	Status message. No corrective action is required.

Error code: 0600

Unable to install (x) number (y) as correlation assay, primary assay with same or higher version exists.
x = Assay name
y = Assay number

Probable cause	Corrective action
Feature not currently available.	No corrective action is required.

Error code: 0601

Unable to install (x) number (y) as correlation assay, primary assay does not exist.
x = Assay name
y = Assay number

Probable cause	Corrective action
Feature not currently available.	No corrective action is required.

Error code: 0602

Assay (x) number (y) installation error, a higher version of the assay is already installed.

x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an older assay version when a newer assay version is already installed on the system.	If the older assay version is required: 1. Delete the most recently installed assay version. 2. Install the older assay version. See *Install or delete an assay file*, page 2-211.

Error code: 0603

Assay (x) number (y) installation error, assay with a higher calibration version already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an older assay version when a version with a higher calibration version is already installed on the system.	If the older assay version is required: 1. Delete the most recently installed assay version. 2. Install the older assay version. See *Install or delete an assay file*, page 2-211.

Error code: 0604

Unable to install assay, at least one module is not in the correct status.

Probable cause	Corrective action
Attempted to install an assay while the processing module(s) are not in the correct status.	Install the assay when the status for all processing modules is Stopped, Ready, or Offline. See *Install or delete an assay file*, page 2-211.

Error code: 0605

Assay (x) number (y) installation error, assay with same version is already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an assay when the same version is already installed on the system.	Status message. No corrective action is required.

Error code: 0606

Assay (x) number (y) installation error. Higher reagent version already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an assay whose reagent configuration version is less than that of the installed assay.	If the older assay version is required: 1. Delete the most recently installed assay version.

Probable cause	Corrective action
	2. Install the older assay version. See *Install or delete an assay file*, page 2-211.

Error code: 0607

Assay (x) number (y) installation error. The module does not support this assay type.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install a stat assay on the *i*2000.	Status message. No corrective action is required.

Error code: 0608

Assay (x) number (y) installation error. Invalid module configuration.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install an assay not supported by the module configuration.	Configure the system with the appropriate module(s) and reinstall the assay.

Error code: 0609

Primary wavelength cannot be the same as the Secondary wavelength.

Probable cause	Corrective action
The primary wavelength cannot be the same as the secondary wavelength.	Select a different primary or secondary wavelength or select the option of "None" for the secondary wavelength.

Error code: 0610

Reaction check Read time A or Read time B not defined.

Probable cause	Corrective action
A Reaction check option is selected on the Configure assay parameters window - General - Validity check view, but the Read time A and/or Read time B is not defined.	Define a range for both the Read time A and B settings or select the Reaction check option of "None".

Error code: 0611

Invalid R1 or R2 reagent volume. (Range: 20-345 µL)

Probable cause	Corrective action
A value outside the limit of 20-345 µL is entered for the R1 or R2 reagent volume.	Enter a value between 20-345 µL.

Error code: 0612

Invalid R1 or R2 Water volume. (Range: 45-300 µL, or field can be blank)

Probable cause	Corrective action
A value outside the limit of 45-300 µL is entered for the R1 or R2 water volume.	Enter a value between 45-300 µL or leave the field blank for undiluted reagents.

Error code: 0615

Invalid total dilution volume. Sum of Sample, Diluent, and Water volumes must total 100-360 µL.

Probable cause	Corrective action
The combined sample, diluent, and water volume defined for a sample or calibrator dilution is less than 100 µL or greater than 360 µL. At least 100 µL is required to ensure complete mixing and 360 µL is the volume limit of the cuvette.	Change the entries in the **Sample**, **Diluent**, and/or **Water** volume data entry boxes so the combined volume is 100-360 µL.

Error code: 0616

Diluent volume must be defined if Diluted sample and/or Water volume are defined.

Probable cause	Corrective action
A Diluted sample or Water volume is defined for a sample or calibrator dilution, but the Diluent volume is not defined.	Enter a value between 20-345 µL for the Diluent volume or leave the Diluted sample and Water volume fields blank for undiluted samples.

Error code: 0617

Assay name already exists, enter a different name.

Probable cause	Corrective action
The assay name entered is already used for another assay parameter file.	Enter a unique assay name.

Error code: 0618

Assay number already exists, enter a different assay number.

Probable cause	Corrective action
The assay number entered is already used for another assay parameter file.	Enter a unique assay number.

Error code: 0619

Undefined dilution selected as Default dilution. Select a different dilution as default.

Probable cause	Corrective action
The dilution option selected as the default does not have sample or diluent volumes defined.	Select a different dilution option as the default, or define the volumes for the selected option.

Error code: 0621

Invalid Assay Number. Assay Number for user-defined assays must be 2000 - 2999.

Probable cause	Corrective action
A user-defined assay can only be defined with an assay number between 2000-2999.	Enter an assay number between 2000-2999.

Error code: 0622

Last required read value (x) must be greater than or equal to the last read defined for all read times.
x = Read point value defined in the last required read field

Probable cause	Corrective action
One of the following read times is defined with a read point larger than the read point defined for the last required read. • Main read time • Blank read time • Flex read time • Color correction read time • Reaction check - Read time A • Reaction check - Read time B	Change the last required read to a read point equal to or greater than the largest read point defined for all the read times.

Error code: 0623

Reagent name already exists, enter a different name.

Probable cause	Corrective action
The reagent name entered is already used for another reagent.	Enter a unique reagent name.

Error code: 0624

Missing entry, Reagent name required.

Probable cause	Corrective action
The reagent name was not defined for a new reagent configuration.	Enter a unique reagent name.

Error code: 0625

Assay (x) number (y) installation error, reference assay does not exist.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to install a sample interference index assay before installing the photometric assay that is used as a reference (for example, HILref or AST).	1. Install the desired reference photometric assay. Example: HILref or AST 2. Install the sample interference index assay.
Attempted to install an assay that uses a reference calibration before installing the assay that is used as the reference.	1. Install the desired reference assay. 2. Install the assay that uses the reference assay.

Error code: 0626

Missing entry, Serial number required.

Probable cause	Corrective action
The serial number was not defined for a new reagent kit configuration.	Enter a serial number.

Error code: 0627

Serial number already exists for this lot number, enter a different Serial number.

Probable cause	Corrective action
The serial number entered is already used for the reagent lot.	Enter a unique serial number for the reagent lot.

Error code: 0628

Assay (x) number (y) installation error, assay name already exists for a different assay.
x = Assay name
y = Assay number

Probable cause	Corrective action
An assay parameter file with the same name but a different assay number already exists.	Rename or delete the assay with the same name prior to installing the new assay.

Error code: 0629

Sum of Sample/Calibrator, R1 and R2 volumes must be 160-360 µL. If R2 is used, Sample/Calibrator + R1 volume must be more than 100 µL.

Probable cause	Corrective action
• The combined sample and reagent volumes defined for a sample dilution is less than 160 µL or greater than 360 µL.	Change the Sample (or Diluted sample) volume, R1 volume, R1 Water volume, R2 volume, and/or R2 Water volume so the combined volume is 160-360 µL.
• The combined sample and reagent volumes defined for a calibrator dilution is less than 160 µL or greater than 360 µL.	Change the Calibrator Sample (or Diluted sample) volume, R1 volume, R1 Water volume, R2 volume, and/or R2 Water volume so the combined volume is 160-360 µL.
• The combined sample and R1 volumes defined for two reagent assay is less than 100 µL.	Change the Sample (or Diluted sample) volume, R1 volume, and/or R1 Water volume so the combined volume is equal to or greater than 100 µL.
• The combined calibrator and R1 volumes defined for two reagent assay is less than 100 µL.	Change the Calibrator Sample (or Diluted sample) volume, R1 volume, and/or R1 Water volume so the combined volume is equal to or greater than 100 µL.

Error code: 0630

Calibrator set name already exists, enter a different name.

Probable cause	Corrective action
The calibrator name entered is already used for another calibrator set.	Enter a unique calibrator name.

Error code: 0631

Lot number already exists for a different reagent, enter a unique lot number.

Probable cause	Corrective action
The lot number entered is already used for a reagent.	Enter a unique lot number for the reagent.

Error code: 0632

A sample diluent must be specified when a Diluent volume is defined.

Probable cause	Corrective action
A Diluent volume is defined for a sample or calibrator dilution, but a diluent is not selected.	Select the **Diluent** list button, and then select the desired sample diluent from the list.

Error code: 0634

Diluted sample volume must be defined if Diluent volume is defined.

Probable cause	Corrective action
A Diluent volume is defined for a sample or calibrator dilution, but the Diluted sample volume is not defined.	Enter a value between 1.5 - 15.0 µL for the Diluted sample volume or leave the Diluent volume field blank for undiluted samples.

Error code: 0635

Unable to save assay, missing parameter. Verify all assay parameters are defined.

Probable cause	Corrective action
A required parameter is not defined.	Verify all required assay parameters are defined.

Error code: 0636

Assay (x) number (y) installation error, reagent name exists for a different reagent or sample diluent.
x = Assay name
y = Assay number

Probable cause	Corrective action
The reagent name defined for the assay being installed is used for a different reagent or sample diluent already defined on the system. The assay installation does not complete.	Perform one of the following prior to installing the assay: • Edit the assay to be installed with a unique reagent name. • Delete or edit the reagent or sample diluent already defined on the system.

Error code: 0637

Assay (x) number (y) installation error, sample diluent name exists for a reagent.
x = Assay name
y = Assay number

Probable cause	Corrective action
The sample diluent name defined for the assay being installed is used for a reagent already defined on the system. The assay installation does not complete.	Perform one of the following prior to installing the assay: • Edit the assay to be installed with a unique sample diluent name. • Delete or edit the reagent already defined on the system.

Error code: 0638

Missing entry, Lot Number required.

Probable cause	Corrective action
The lot number was not defined for a new reagent kit configuration.	Enter a lot number.

Error code: 0639

Interpretation categories must be defined consecutively starting with the first row.

Probable cause	Corrective action
An interpretation row was skipped when defining interpretation names.	Define interpretations consecutively starting with the first row.

Error code: 0640

Same calibrator selected for more than one level, calibrator concentrations must be the same.

Probable cause	Corrective action
Entered different concentrations for the same calibrator level.	Enter the same concentration for each use of the calibrator level.

Error code: 0641

Reagent Lot contains non-alphanumeric characters.

Probable cause	Corrective action
The reagent lot entered contains a space or other non-alphanumeric character.	Remove the space and make sure the reagent lot contains only alphanumeric characters.

Error code: 0642

Assay (x) number (y) installation error, assay is already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Attempted to import an assay when the same assay is already installed on the system.	If the new assay is required: 1. Delete the assay file currently installed. See *Install or delete an assay file*, page 2-211. 2. Import the new assay file.

Error code: 0643

Dilution Protocols must be defined in consecutive order starting from the first dilution.

Probable cause	Corrective action
The sample dilution protocols were not defined consecutively. The first and/or second row was left undefined.	Define the dilution protocols in the correct order starting from the first row. Do not leave a row empty and define a row below it.

Error code: 0644

Sample probe wash type converted to Maximum Wash for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
The sample probe wash changed from Optimized throughput (*c*8000 only) to Maximum wash for an assay file exported from *c*8000 and then imported to an ARCHITECT *c*4000 or *c*16000 System.	No corrective action required. For more information see *Descriptions of import status messages*, page E-186.

Error code: 0645

One or more wavelengths were changed for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
A wavelength was changed for an assay file exported and then imported between different ARCHITECT *c* Systems.	No corrective action required. For more information see *Descriptions of import status messages*, page E-186.

Error code: 0646

Reagent/Diluent dispense mode converted to Type 1 for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
An assay file with a dispense mode of either Type 3 or Type 4 was installed on a CC module.	No corrective action required. For more information see *Configure assay parameters window - General - Reaction definition view (photometric - c System) field descriptions*, page E-191.

Error code: 0647

Unable to create user-defined reagent. System is configured for (x) user-defined reagents and (y) are currently in use.
x = Number of user-defined reagents available to configure
y = Number of configured user-defined reagents

Probable cause	Corrective action
The user attempted to configure a user-defined reagent and the defined limit has been reached.	1. Determine the number of new user-defined reagents needed. 2. Delete the existing user-defined reagents as required to permit configuration of the new user-defined reagents without exceeding the available limit.

Error code: 0700

Run request denied, Processing Module cover open.

Probable cause	Corrective action
• A processing module cover is open.	Close all covers, and then select run.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0701

Processing Module Stopped, cover opened.

Probable cause	Corrective action
• A processing module cover was opened during a run.	Close the cover and restart the run.
• A processing module cover was opened during a diagnostic procedure.	Select **OK**. No corrective action required.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0702

Reagent scan canceled, Reagent Carousel Cover opened.

Probable cause	Corrective action
• Reagent carousel cover is open.	Close the cover and repeat the scan.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0703

Request canceled, Reagent Carousel Cover is open.

Probable cause	Corrective action
• Reagent carousel cover is open.	Close the reagent carousel cover.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0704

Run request denied, Processing Queue access door open module (x), close door and press Run.
x = Processing module number (1-4)

Probable cause	Corrective action
• Processing queue access door is open on the sample handler.	Close the processing queue access door.
• Hardware failure: – Sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0705

Processing Queue access door opened on Processing Module (x).
x = Processing module number (1-4)

Probable cause	Corrective action
• A processing queue access door was opened	1. Close the processing queue access door. 2. Start up the sample handler if status is Stopped. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – Sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0706

Run request denied, LAS Carousel cover is open. Close cover and press Run.

Probable cause	Corrective action
• LAS carousel cover is open.	Close the LAS carousel cover and select run.
• Hardware failure: – LAS carousel cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0707

LAS Carousel cover opened.

Probable cause	Corrective action
• LAS carousel cover was opened while the LAS carousel status was Running or Scheduled pause.	1. Close the LAS carousel cover. 2. *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – LAS carousel cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0708

Run request denied, cover(s) open. Close cover(s) and press Run.

Probable cause	Corrective action
• A processing module or RSH cover was open when starting a run.	Close the cover and select run.
• Hardware failure: – RSH cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0709

RSH stopped, cover opened.

Probable cause	Corrective action
• A processing module or RSH cover was opened while the sample handler status was Running, Scheduled pause, or Initializing.	1. Close the cover. 2. Start up the sample handler. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – RSH cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0710

Reagent supply center cover is open.

Probable cause	Corrective action
A reagent supply center cover is open: • When attempting to initiate a run. • During a run when the access light on the keypad is not illuminated. • When attempting a reagent scan.	1. Close the reagent supply center covers. 2. Restart the run or perform another reagent scan.

Error code: 0711

Sample carousel cover is open.

Probable cause	Corrective action
• The sample carousel cover is open: – When attempting to initiate a run. – During a run when the sample carousel access indicator (square) is not illuminated.	1. Close the sample carousel cover. 2. Restart the run.
• Sample carousel cover sensor did not detect that the cover was closed.	1. Verify the status of the sample carousel access indicator button. If the button is not illuminated, select the button to pause the sample carousel. 2. Open and then firmly close the sample carousel cover.

Error code: 0712

Startup request denied, Processing Module cover open.

Probable cause	Corrective action
• The processing module cover was open when start up was selected.	Close the processing module cover.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0713

Startup request denied, cover(s) open. Close cover(s) and press Startup.

Probable cause	Corrective action
• A processing module or RSH cover was open when start up was selected.	1. Close the cover. 2. Start up the sample handler. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – RSH cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0714

Startup request denied, LAS Carousel cover is open.

Probable cause	Corrective action
• The LAS carousel cover was open when start up was selected.	Close the LAS carousel cover.
• Hardware failure: – LAS carousel cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0715

Reagent supply center cover is open or the reagent supply center maintenance cover not detected.

Probable cause	Corrective action
• The reagent supply center cover is open.	Close the cover and restart the run.
• The reagent supply center maintenance cover has been removed or is not seated correctly.	Install or reseat the reagent supply center maintenance cover.

Probable cause	Corrective action
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0716

Front processing center cover is open.

Probable cause	Corrective action
• The front processing center cover is open.	Close the cover and restart the run.
• Hardware failure: – Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0717

Rear processing center cover is open.

Probable cause	Corrective action
The rear processing center cover is open.	No corrective action required.

Error code: 0718

Reagent access door is open.

Probable cause	Corrective action
The reagent access door is open.	No corrective action required.

Error code: 0719

Processing module cover interlock (x) opened.
x = Interlock sensor

Probable cause	Corrective action
A processing module cover was opened during a run.	Close the cover and restart the run.
A processing module cover was opened during a diagnostic procedure.	Select **OK**. No corrective action required.
Hardware failure: • Cover sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0800

Unable to perform requested operation, remove carrier(s) from carrier positioner(s).

Probable cause	Corrective action
Carriers are present on the carrier positioner while attempting to perform a start up for the RSH. Carriers may be present because a user selected stop while the RSH was running, power to the processing module(s) and RSH was interrupted, or the RSH was stopped or transitioned to Ready due to hardware failure.	Remove carrier(s) from carrier positioner(s). See *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715. See *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716.

Error code: 0801

Unable to save edits when orders exist for the selected assay (x).
x = Assay name

Probable cause	Corrective action
Attempted to edit an assay when pending or running orders exist for the assay.	Delete the pending orders or wait until the orders are complete before trying to edit the assay.

Error code: 0802

Carrier in carrier transport arm. Please remove.

Probable cause	Corrective action
• The RSH was stopped and a carrier was detected in the transport arm. The RSH may be stopped because a user selected stop while the RSH was running, power to the processing module(s) and RSH was interrupted, or the RSH was stopped due to hardware failure.	Remove carrier(s) from transport arm. See *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715. See *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0803

Unable to delete assay (x), it is being referenced by another assay (y).
x = Assay name of the assay to be deleted
y = Assay name of the assay that is referring to assay to be deleted

Probable cause	Corrective action
The assay to be deleted is referenced in another assay file.	Perform one of the following to the assay that is referring to the assay to be deleted: • Delete the assay. See *Install or delete an assay file*, page 2-211. • For a photometric assay, select the **Use Cal Factor** from the list button, and then select a different assay. • For a sample interference assay, select the **Reference photometric** assay list button, and then select a different assay.

Error code: 0804

Unable to delete reagent until all kits are deleted and any assay file defined to use this reagent is edited.

Probable cause	Corrective action
• Reagent kits are defined for the reagent.	Delete all reagent kits prior to deleting the reagent. Contact your Area Customer Support.
• The reagent is defined for use in an assay parameter file.	Perform one of the following prior to deleting the reagent: • Change the Reagent parameter in the assay to use a different reagent. • Delete the assay that uses the reagent. See *Install or delete an assay file*, page 2-211.

Error code: 0805

Unable to configure, a reagent is currently assigned to position D1.

Probable cause	Corrective action
A bar coded reagent was scanned or non-bar coded reagent was assigned in position D1 of reagent supply center 1 and/or 2.	Unload the reagent in position D1 prior to configuring an onboard solution into the position. See *Unload bar coded reagents (c8000/c16000)*, page 5-161 or *Unload non-bar coded reagents (c8000/c16000)*, page 5-163.

Error code: 0806

Unable to use (x) inventory in position (y), bar coded reagent found in the same location.
x = Inventory item
y = Reagent carousel segment and position

Probable cause	Corrective action
A bar coded reagent was scanned in an onboard solution position of the reagent supply center.	1. Unload the reagent. See *Unload bar coded reagents (c4000)*, page 5-146. See *Unload bar coded reagents (c8000/c16000)*, page 5-161. 2. Load the expected onboard solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 0808

Unable to perform requested operation, cuvette segment alignment tool was not removed.

Probable cause	Corrective action
• The cuvette segment alignment tool was not removed after performing a pipettor calibration procedure.	Remove the cuvette segment alignment tool and replace the cuvette segment into the position.
• Water is present on the slotted edges of a cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace the cuvette segment. See *Replace a cuvette segment (c4000)*, page 9-140. See *Replace a cuvette segment (c8000)*, page 9-207 or *Replace a cuvette segment (c16000)*, page 9-277.
• Hardware failure. – Optics trigger sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0809

Unable to change level, level has not been added.

Probable cause	Corrective action
A multiconstituent control level was not added before the user tried to create another level.	Add the multiconstituent control level before selecting another level.

Error code: 0810

Unable to change lot number, level for current lot has not been added.

Probable cause	Corrective action
Attempted to edit the lot number for a multi-constituent control before adding the control level.	Add the control level for the current lot before trying to change the lot number.

Error code: 0811

Unable to delete assay (x), it is being referenced by another assay.
x = Assay name of the assay to be deleted

Probable cause	Corrective action
Attempted to delete an assay that is referenced in another assay parameter file.	Delete or edit the assay file that is referencing the assay before deleting the assay.

Error code: 0812

Unable to delete assay (x), the assay is a constituent of a calculated assay (y).
x = Assay name
y = Calculated assay name

Probable cause	Corrective action
Attempted to delete an assay that is defined as a constituent of a calculated assay.	Delete or edit the calculated assay before deleting the constituent assay.

Error code: 0813

Unable to process test, carrier cannot be transported.

Probable cause	Corrective action
The carrier could not be picked up from either a tray section or carrier positioner pocket due to:	
• Carrier is inserted backwards in the tray or priority position.	Reposition the carrier in the tray or priority position.
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform Transport Calibration. See ***as-needed*** maintenance procedure *1114 Carrier Transport Calibration*, page 9-104 (*c*4000/*i*1000SR/*ci*4100). See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102 (except for *c*4000/*i*1000SR/*ci*4100).

Error code: 0815

Unable to process test, carrier ID/position bar code read error at aspiration point.

Probable cause	Corrective action
If error occurs for one carrier: • Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Use a different carrier, if error continues.
If error occurs for multiple carriers: • Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0816

Unable to process test, sample suspend requested.

Probable cause	Corrective action
Suspend was selected on the Sample status screen and the sample becomes an exception and is not processed.	Rerun the sample.

Error code: 0817

Unable to suspend processing, sample located on sample carousel.

Probable cause	Corrective action
Suspend was selected on the Sample status screen for a sample processing on the sample carousel.	1. Verify the status of the sample carousel access indicator button. 2. If the button is not illuminated, select the button to pause the sample carousel or wait until the sample carousel is finished processing all the samples before accessing the sample.

Error code: 0818

Unable to suspend processing, sample has not been scanned by the RSH.

Probable cause	Corrective action
Suspend was selected for a sample that was not scanned by the RSH.	Wait until the sample is identified before attempting to suspend the sample.

Error code: 0819

Unable to suspend processing, sample handler not in correct status.

Probable cause	Corrective action
Suspend was selected for a sample when the RSH status is not Running or Scheduled pause.	Sample access is allowed unless the RSH status is Running or Scheduled pause.

Error code: 0820

Unable to suspend processing, batch is in process.

Probable cause	Corrective action
Suspend was selected for a sample when batch was in process.	Wait until the batch is completed or delete the batch.

Error code: 0821

Unable to suspend processing, blank calibrator sample selected.

Probable cause	Corrective action
Suspend was selected for a water blank calibrator sample.	Select a different calibrator level located on the RSH.

Error code: 0822

Unable to delete calibrator set, calibrator is used by an assay.

Probable cause	Corrective action
The calibrator set is defined for use in an assay parameter file.	Perform one of the following prior to deleting the calibrator set: • Assign the assays to a different calibrator set. See *Change photometric assay calibrator settings (c System)*, page 2-173. • Delete the assay that uses the calibrator set. See *Delete a reagent kit (c System)*, page 2-113 and *Delete a reagent (c System)*, page 2-112.

Error code: 0823

Unable to reduce number of calibrator set levels.

Probable cause	Corrective action
Attempted to reduce the number of calibrator set levels for a calibrator.	You must perform one of the following to reduce the number of levels for the calibrator set: • Edit the number of calibrator levels used in the Configure assay parameters - Calibration - Calibrators view window. See *Configure a photometric assay (c System)*, page 2-87. • Reassign the assay to a different calibrator set that uses fewer calibrator levels. See *Change photometric assay calibrator settings (c System)*, page 2-173.

Error code: 0824

You have selected too many results. Select no more than (x) results for each Absorbance report print request.

x = Maximum number of results

Probable cause	Corrective action
More than 1000 results were selected when attempting to print an Absorbance report.	Select less than 1000 results when printing an Absorbance report and try again.

Error code: 0825

Unable to perform the selected procedure, another procedure is already in process on the module.

Probable cause	Corrective action
Attempted to perform a diagnostic procedure or a new maintenance procedure on a module that already has a maintenance procedure in process.	Wait until the maintenance procedure currently in process is complete before starting a diagnostic procedure or a new maintenance procedure.

Error code: 0826

Unable to perform the selected procedure, a required module is being used by another procedure already in process.

Probable cause	Corrective action
Attempted to perform a maintenance procedure on a module that is being used by a maintenance procedure in process on another module.	Wait until the maintenance procedure currently in process is complete before starting a new maintenance procedure.

Error code: 0827

Unable to perform diagnostic procedures while any module is in the Maintenance state.

Probable cause	Corrective action
Attempted to perform a diagnostic procedure on a module that has a maintenance procedure in process.	Wait until the maintenance procedure currently in process is complete before starting a diagnostic procedure.

Error code: 0828

Unable to unload reagent carrier, RSH sections full.

Probable cause	Corrective action
• Carriers are loaded in every RSH section.	Remove a carrier from an RSH section to make room to unload the reagent carrier.
• Hardware failure: – Carrier sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0829

Unable to load reagent carrier, all reagent carousel positions full.

Probable cause	Corrective action
• Reagent carriers are loaded in every reagent carousel position.	Unload a reagent carrier for an assay that is no longer required for testing to make room to load the reagent carrier.
• Hardware failure: – Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0830

Request canceled, RV unloader is not detected.

Probable cause	Corrective action
• RV unloader was not detected during initialization.	Ensure that the RV unloader is placed in the unload position.
• RV unloader is not seated correctly.	Reseat the RV unloader.

Probable cause	Corrective action
• Hardware failure: – RV unloader sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0831

Unable to perform requested operation, remove carrier from aspiration area.

Probable cause	Corrective action
A carrier is present in the aspiration area while attempting to perform a Startup on the RSH. A carrier may be present because a user selected stop while the RSH was running, power to the processing module and RSH was interrupted, or the RSH was stopped due to hardware failure.	Remove the sample carrier(s) from the carrier transport and aspiration area.

Error code: 0832

Carrier transport preventing (x) from performing initialization.
x = Mechanism name

Probable cause	Corrective action
Attempted to initialize the processing module when the carrier transport is not initialized.	1. Start up the sample handler. 2. Start up the processing module. See *Start up the processing module and/or sample handler*, page 5-15.

Error code: 0833

Invalid entry. None is not a valid calibrator set name. Define a different calibrator set name.

Probable cause	Corrective action
The word "None" was entered as a calibrator set name.	Enter a different calibrator set name.

Error code: 0834

Invalid entry. Lot number already exists for this calibrator set.

Probable cause	Corrective action
A duplicate calibrator lot number was entered.	Enter a unique calibrator lot number.

Error code: 0835

Unable to delete assay from the calibrator set default lot.

Probable cause	Corrective action
Attempted to delete an assay from the default lot of a calibrator set.	Assign the assay to a different calibrator set.

Error code: 0836

Assay cannot be enabled. Calibrator values must be defined for the calibrator set.

Probable cause	Corrective action
Calibrator values have not been entered for this assay in the calibrator set.	1. Enter the calibrator values. See *Change photometric assay calibrator settings (c System)*, page 2-173. 2. Enable the assay.

Error code: 0837

Unable to delete this lot, pending orders exist or it is the default lot.

Probable cause	Corrective action
Attempted to delete a calibrator lot when pending or running orders exist for an assay included in the lot.	Delete the pending orders or wait until the orders are complete before deleting the lot.
Attempted to delete the default calibrator lot. A default lot must be defined.	1. Define a new default calibrator lot. 2. Delete the desired calibrator lot.

Error code: 0838

Unable to import data, no eligible file found.

Probable cause	Corrective action
Import data file is not found on the CD-ROM or flash drive.	1. Locate the CD or flash drive with the files to be imported. 2. Repeat the data import procedure. See *Import calibrator data (c System)*, page 2-179, *Import control data (c System)*, page 2-176, or *Import control data (i System)*, page 2-178.
Attempted to import a file after a previous import without removing the USB flash drive	1. Remove and reinsert the flash drive. 2. Repeat the data import procedure. See *Import calibrator data (c System)*, page 2-179, *Import control data (c System)*, page 2-176, or *Import control data (i System)*, page 2-178.
System calibrator set name does not match the import file.	Select the system calibrator set that corresponds to the import file.
Attempted to import a QC data file in the Configure calibrator set window.	Select the appropriate function for the file type.
Attempted to import a calibrator set data file in the Configure multiconstituent control window.	Select the appropriate function for the file type.
CD disk is dirty.	Clean disk. Refer to the CD cover for cleaning and handling procedures.
CD disk is defective.	Copy data files to a new disk.
Hardware failure: • CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0839

Unable to process test, reagent is disabled.

Probable cause	Corrective action
• Your system is configured to automatically run QC or calibrations and reagent kits are disabled.	1. To run QC or calibrators create a manual order. 2. To allow automated QC or calibrator orders enable the reagent kit.
• The reagent kit is disabled and therefore will not process patient samples.	Enable the reagent kit.
• A manual calibration or QC was ordered for a disabled reagent kit but the disabled kit was not selected on the Assay options window.	Select the disabled kit when creating the order.

Error code: 0840

Reagent kits (x) and (y) cannot be loaded on the same reagent line.
x = Reagent 1 Name
y = Reagent 2 Name

Probable cause	Corrective action
The two reagent kits must be loaded on separate lines of the *c*16000 System to prevent potential reagent carryover.	1. Reload the reagents. Place one reagent in the outer carousel of the reagent supply center (A-Line) and one in the inner carousel (B-Line). 2. Perform a reagent scan.

Error code: 0841

Unable to process Cal or Control test using the selected reagent kit.

Probable cause	Corrective action
• The selected kit is no longer on the processing module.	Load the reagent kit or select a different kit to process the test.
• The selected kit is empty, expired, or does not have an active calibration.	1. Select a different kit if the previously selected kit is empty or expired. 2. Order a calibration for the assay if a calibration is not already in process.
• The module with the selected kit does not have sufficient supplies to process the test.	1. *Verify supply and waste inventory*, page 5-54. 2. Replenish the supplies.
• The module with the selected kit is not in the correct state to process the test.	1. Select run for the processing module. 2. Wait for the processing module status to change to Running before processing tests.

Error code: 0842

Unable to process test due to previous aspiration error on sample ID (x).
x = Sample ID

Probable cause	Corrective action
A pressure monitor error was generated during the aspiration of the sample for a prior test.	1. *Review logs*, page 10-13 for any 3350 category error codes that occurred at the same time and on the same sample as this message.

Probable cause	Corrective action
	2. Perform the corrective action for the 3350 category error code.

Error code: 0843

Invalid entry, month entered must be in the range (Jan-Dec).

Probable cause	Corrective action
The month entered for the ICT module expiration was spelled incorrectly or entered with numbers instead of alpha characters.	Re-enter the expiration month using the appropriate three alpha characters from the range Jan-Dec.

Error code: 0844

Downloaded file is not available for the selected download language (x).
x = Download language

Probable cause	Corrective action
For e-assay PDF files: All available language files on abbottdiagnostics.com are downloaded. • Attempted to display or print an e-assay PDF file in a language that is not available.	1. Configure an available language as the download selection language. 2. Contact your Area Customer Support to obtain the desired language information.

Error code: 0845

Unable to process test, non-bar coded sample was received from the RSH Extension.

Probable cause	Corrective action
A non-bar coded sample was detected in a carrier received from the RSHx. Test orders for that C/P were sent to exceptions and were not processed.	Place the appropriate bar coded label on the sample and rerun the exception.

Error code: 0846

Unable to provide empty sample carrier to RSH Extension. Empty carrier storage contains no carriers.

Probable cause	Corrective action
• Internal software error	1. *Cycle power to the SCC*, page 5-5 2. Cycle power to the ACCELERATOR p540.

Error code: 0847

Unable to return empty sample carrier to RSH Extension. Empty carrier storage is full.

Probable cause	Corrective action
• Internal software error	1. *Cycle power to the SCC*, page 5-5 2. Cycle power to the ACCELERATOR p540.

Error code: 0848

Processing module stopped, RV status unknown.

Probable cause	Corrective action
• The process path is not fully loaded with unused RVs.	Perform a Startup on the processing module. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0900

Wrong lot, component or serial number in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the bottle was detected
y = RSH section number

Probable cause	Corrective action
A bottle with the wrong lot number, component ID, or serial number is loaded in the indicated reagent carrier position and RSH section.	1. Print the reagent load error report. 2. Load the correct bottle for the kit in the correct position.

Error code: 0901

Calibration version mismatch for reagent kit in section (x).
x = RSH section number

Probable cause	Corrective action
Calibration version for the reagent kit in the RSH section indicated does not match the currently installed assay.	1. Load a reagent kit matching the currently installed assay version. **NOTE:** Deplete the supply of reagents for the old assay before installing the new assay. 2. Install the new assay file when the current supply of reagents is depleted. See *Install or delete an assay file*, page 2-211.

Error code: 0902

Version mismatch for reagent kit in section (x).
x = RSH section number

Probable cause	Corrective action
The Reagent Configuration Version of the reagent kit in the RSH section indicated is not the expected value. **NOTE:** This error occurs if Clinical Investigation reagents or assay files are used. Clinical Investigation reagent bottles contain the text Investigational Use Only. Clinical Investigation assay files Cal Version parameter is 0 (zero).	Load the expected kit or assay file.

Error code: 0903

Reagent kit in location (x) has R1 and R2 components loaded on different Reagent Lines.
x = Reagent carousel segment and position

Probable cause	Corrective action
A reagent kit with 2 cartridges (R1 and R2) has cartridges loaded on different lines (outer and inner) in the R1 and R2 reagent supply centers.	Load the reagent cartridges for the assay on the same line in both the R1 and R2 reagent supply centers. Choose one of the following options: • Load the reagent cartridges for the assay on the outer (A-line) carousel of R1 and R2 reagent supply centers. • Load the reagent cartridges for the assay on the inner (B-line) carousel of R1 and R2 reagent supply centers.

Error code: 0904

Reagent carrier in section (x) is a 500 test reagent kit. This kit cannot be used on this system.
x = RSH section number

Probable cause	Corrective action
A 500 test reagent kit was loaded on the *i*1000SR.	Remove the 500 test reagent kit.

Error code: 0905

Unload the two carrier reagent kit in sections (x) before trying to reload.
x = RSH section number

Probable cause	Corrective action
• One reagent carrier of a two carrier kit was removed from the load/unload area.	Remove both carriers of a two carrier reagent kit before reloading the reagent kit on the system.
• A two carrier reagent kit's on board stability has been overridden and one reagent carrier has been removed from the load/unload area.	Remove both carriers of a two carrier reagent kit from the load/unload area and reload them.

Error code: 0906

Reagent Packs for Assay (x) loaded on both reagent lines.
x = Assay

Probable cause	Corrective action
Reagent packs for the same assay were found on both the outer (A-line) and inner (B-line) carousels for the R1 and R2 reagent supply centers.	Load reagent cartridges for the same assay on the same line, either outer (A-line) or inner (B-line), in the R1 and R2 reagent supply centers.

Error code: 0907

Invalid reagent location: R(x), segment (y), position (z). Position occupied by wash solution.
x = Carousel
y = Segment
z = Position

Probable cause	Corrective action
An attempt was made to assign a non-bar coded reagent to a position occupied by a wash solution.	Select a different location to assign the non-bar coded reagent.

Error code: 0908

Invalid calibration order, Sample ID (x) already exists.
x = Sample ID

Probable cause	Corrective action
A duplicate calibration order was requested for an assay.	Wait until the first calibration completes for the assay before creating another calibration order for the same assay.

Error code: 0909

Invalid entry. The value for Low Linearity must not be less than 0.

Probable cause	Corrective action
A value less than zero was entered.	Enter a value greater than or equal to zero.

Error code: 0910

Invalid entry. The value for High Linearity must be less than (x) for dilution description 1.
x = Assay default High Linearity

Probable cause	Corrective action
A value greater than the assay default High Linearity was entered.	Enter a value lower than the assay default High Linearity.

Error code: 0911

Carrier partially inserted, inserted too slowly, or inserted then dropped into section (x).
x = RSH section number

Probable cause	Corrective action
Carrier was partially inserted or inserted too slowly.	Status message. No corrective action is required.

Error code: 0912

Carrier detected in section (x). This section is not available. Remove carrier.
x = RSH section number

Probable cause	Corrective action
A carrier was placed in a section that was not available.	Remove the carrier and place the carrier in a section that is available.

Error code: 0913

Unable to save calibrator set, missing data. Define calibrator values for assay (x) in lot (y).

Probable cause	Corrective action
Required calibrator values have not been entered for the assays and lots indicated.	Enter the calibrator values. See *Change photometric assay calibrator settings (c System)*, page 2-173.

Error code: 0914

Carrier detected in bay (x) section (y). This section is not available. Remove carrier.
x = Bay number
y = Section number

Probable cause	Corrective action
A carrier was placed in a section that was not available.	Remove the carrier and place the carrier in a section that is available.

Error code: 0915

Carrier detected in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• A carrier was placed in a section that was not available.	Remove the carrier and place the carrier in a section that is available.
• Hardware failure: – Section carrier detect sensor – Carrier sensor arm – RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0916

Carrier pick attempt failed at bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Carrier is inserted backwards in the section.	Reposition the carrier in the section.
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0917

Carrier in bay (x) section (y) was removed before access was granted.
x = Bay number
y = Section number

Probable cause	Corrective action
• A carrier was removed before the access indicator was activated.	Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-15.
• A carrier is not seated in the section.	1. Remove and reseat the carrier. 2. Remove and reseat the carrier. Restart the RSH. See *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 0918

Carrier partially inserted, inserted too slowly, or inserted then dropped into bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
Carrier was partially inserted or inserted too slowly.	Status message. No corrective action is required.

Error code: 0919

Unable to perform requested operation or procedure, previous reagent scan error.

Probable cause	Corrective action
• The last reagent scan performed did not complete successfully.	Perform a reagent scan. See *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132.
• Both types of ICT sample diluents (ICT and ICTD5) are loaded on the reagent carousel.	Remove the appropriate ICT sample diluent and perform a reagent scan. See *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132.

Error code: 0920

Invalid activation key: x.
x = Activation key

Probable cause	Corrective action
An invalid activation key was entered to activate the premium features.	Enter the correct activation key.

Error code: 0921

User name (x) is not configured.
x = User name entered

Probable cause	Corrective action
The user name is not configured.	Configure a new user name. See *Configure user name and password (premium feature)*, page 2-9
An invalid user name was entered.	1. Enter the correct user name. 2. User names are case sensitive. Verify Caps Lock on your keyboard is not on.

Error code: 0922

Invalid entry. (x) is a reserved user name.
x = User name configured

Probable cause	Corrective action
The user name being configured is reserved.	Configure a different user name.

Assay specific error codes (1000-1999)

The assay specific error code category includes error codes between 1000-1999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 1000

Assay (x) Number (y) Calibration failure, Cal 1 or Cal 2 final read is below specifications.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform *as-needed* maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform *as-needed* maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.

Probable cause	Corrective action
• Pre-trigger and trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Hardware failure: – Pre-trigger or trigger pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – Motor driver board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1001

Assay (x) Number (y) Calibration failure, final read too high for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1002

Assay (x) Number (y) Calibration failure, final read too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1003

Assay (x) Number (y) Calibration failure, final read too high for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.

Probable cause	Corrective action
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1004

Assay (x) Number (y) Calibration failure, final read too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1005

Result cannot be calculated, final RLU read is outside the specification of the lowest calibrator.

Probable cause	Corrective action
RLU read is outside the specification for the ascending curve assay.	
If error occurs on one sample:	
• Normal for some non-reactive samples.	1. Follow the sample handling instructions in the ARCHITECT *i* System assay-specific package insert. 2. Rerun the sample. 3. Source another sample. 4. Contact your Area Customer Support to resolve.
• Sample handling error.	1. Follow the sample handling instructions in the ARCHITECT *i* System assay-specific package insert. 2. Rerun the sample. 3. Source another sample.
If error occurs for more than one sample:	
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79.

Probable cause	Corrective action
	• *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Pre-trigger or trigger bottles were replaced while processing tests so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79, – *2152 Prime Pre-Trigger and Trigger*, page 9-80. • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Hardware failure: – Pre-trigger or trigger pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1006

Unable to process test, background read failure.

Probable cause	Corrective action
• Ambient light level is too high.	1. Move the processing module or block it from direct sunlight. 2. Ensure all system panels are properly installed.

Probable cause	Corrective action
• Optics linearity and/or Normalization values are not entered correctly on the Configure modules window.	Update the Configure modules window with the correct values from the optics assembly. See *Configure modules window (i2000)*, page 2-54, or *Configure modules window (i2000SR)*, page 2-54. See *Configure modules window (i1000SR)*, page 2-55.
• Hardware failure: – Pre-trigger or trigger or pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – DC driver I/O board in the card cage has a poor connection or failed – Dirty light pipes – CMIA reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1007

Unable to process test, activated read failure.

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 is used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR.

Probable cause	Corrective action
	Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Pre-Trigger or Trigger Solution is expired.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Pre-trigger or trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Optics linearity and/or Normalization values are not entered correctly on the Configure modules window.	Update the Configure modules window with the correct values from the optics assembly. See *Configure modules window (i2000)*, page 2-54 or *Configure modules window (i2000SR)*, page 2-54. See *Configure modules window (i1000SR)*, page 2-55.
• Ambient light level is too high.	1. Move the processing module or block it from direct sunlight. 2. Ensure all system panels are properly installed.
• Hardware failure: – Pre-trigger or trigger valve – Pre-trigger or trigger pumps – Pre-trigger or trigger tubing connections are loose – Pre-trigger or trigger level sensor is broken – Dirty light pipes – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1008

Unable to process test, final read failure.

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Pre-Trigger or Trigger Solution is expired.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Pre-trigger and trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79, – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Optics linearity and/or Normalization values are not entered correctly on the Configure modules window.	Update the Configure modules window with the correct values from the optics assembly.

Probable cause	Corrective action
	See *Configure modules window (i2000)*, page 2-54 or *Configure modules window (i2000SR)*, page 2-54. See *Configure modules window (i1000SR)*, page 2-55.
• Ambient light level too high.	1. Move the processing module or block it from direct sunlight. 2. Ensure all system panels are properly installed.
• Hardware failure: – Pre-trigger and trigger valve – Pre-trigger and trigger pumps – Pre-trigger and trigger tubing connections are loose – Pre-trigger and trigger level sensor is broken – Dirty light pipes – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1009

Unable to calculate result, constituent assay (x) number (y) result is not available.
x = Assay name
y = Assay number

Probable cause	Corrective action
• A constituent result was deleted before other constituents of a calculated result completed.	Reorder the constituent assay.
• The constituent result was flagged outside the linear range of the assay.	Rerun the constituent assay with manual or automatic dilution, if available.
• One of the constituent results became an exception.	Determine the cause of the exception, correct and rerun the sample.

Error code: 1050

Unable to calculate result, absorbance collection error.

Probable cause	Corrective action
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1051

Unable to calculate result, absorbance exceeded optical limits.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Cuvettes are dirty.	Clean the cuvettes. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Clean the cuvette washer. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If

Probable cause	Corrective action
	blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1052

Unable to calculate result, endpoint absorbance reads are unstable.

Probable cause	Corrective action
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1053

Unable to calculate result, rate reaction linearity failure.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure.

Probable cause	Corrective action
	See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Cuvettes are dirty.	Clean the cuvettes. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• R2 pipettor is out of alignment.	Calibrate the pipettor. Perform ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.

Probable cause	Corrective action
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1054

Unable to calculate result, Reaction check failure.

Probable cause	Corrective action
If error occurs for patient or control samples:	
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet). **NOTE:** View the reaction graph to confirm the high sample concentration. See *View the reaction graph and absorbance data for a result (c System)*, page 5-304.
• Sample interferences (e.g., hemolysis, lipemia, etc.).	Visually inspect the sample for possible interference due to hemolysis, icterus, and/or turbidity and perform one of the following: • Redraw and rerun the sample if interference is present. • Rerun the sample if no interference is observed. **NOTE:** You may use the Sample interference indices to determine increased interference levels, or you may view the reaction graph to confirm abnormal absorbance readings during the Blank read time (compare to normal result with this error). See *View the reaction graph and absorbance data for a result (c System)*, page 5-304
• High anticoagulant to plasma ratio (i.e., sample tube is improperly filled).	Redraw the sample into a sufficiently-filled anticoagulant tube or use a serum sample. For specimen collection and handling information, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
If error occurs for calibration samples:	
• Wrong calibrator was used or the calibrator was loaded incorrectly	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Probable cause	Corrective action
If error occurs for all samples:	
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.

Error code: 1055

Unable to calculate result, Flex read absorbance invalid for calibration.

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1056

Unable to calculate result, absorbance below calibration curve lower limit.

Probable cause	Corrective action
• Sample concentration is too low.	Rerun the sample.
• Calibration curve is not optimal.	Recalibrate the assay.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure.

Probable cause	Corrective action
	See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Reagent is not performing as expected.	Open new reagent(s).
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1057

Unable to calculate result, the Last required read in reference assay (x) number (y) must be defined as 5 or 33.
x = Assay name
y = Assay number

Probable cause	Corrective action
The reference photometric assay selected in the sample interference assay file does not have the Last required read setting defined as 5 or 33.	Change the last required read setting in the reference assay to a value of 5 or 33 as indicated in the reference photometric assay file.

Error code: 1100

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1101

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1102

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal C.
x = Assay name

y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1103

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1104

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1105

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1106

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.

Probable cause	Corrective action
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1107

Assay (x) Number (y) Calibration failure, deviation between reference and fit curve too large for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1108

Assay (x) Number (y) Calibration failure, ratio too large for Cal B/Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1109

Assay (x) Number (y) Calibration failure, ratio too small for Cal B/Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1110

Assay (x) Number (y) Calibration failure, Log: Logit slope exceeds maximum parameter.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1111

Assay (x) Number (y) Calibration failure, Log: Logit slope is below minimum parameter.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1112

Assay (x) Number (y) Calibration failure, RMSE too large.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1113

Assay (x) Number (y) Calibration failure, minimum upper curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1114

Assay (x) Number (y) Calibration failure, maximum lower curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1115

Assay (x) Number (y) Calibration failure, minimum lower curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1116

Unable to calculate result, index formula error, parameter to LOG function.

Probable cause	Corrective action
• Wrong Cal 1 or Cal 2 used for the assay calibration.	If other assays are performing without error, place fresh Cal 1 and Cal 2 into sample cup ensuring they are for the correct assay and are placed in the correct positions.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Pre-trigger or trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79

Probable cause	Corrective action
	– *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Hardware failure: – Pre-trigger or trigger valve – Pre-trigger or trigger pumps – Pre-trigger or trigger tubing connections are loose – Pre-trigger or trigger level sensor is broken – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1117

Assay (x) Number (y) Calibration failure, intercept out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1118

Assay (x) Number (y) Calibration failure, maximum upper curve asymptote exceeded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1119

Assay (x) Number (y) Calibration failure, curve validity check failed.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.

Probable cause	Corrective action
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1120

Assay (x) Number (y) Calibration failure, fit response too low for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1121

Assay (x) Number (y) Calibration failure, fit response too low for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1122

Assay (x) Number (y) Calibration failure, fit response too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1123

Assay (x) Number (y) Calibration failure, fit response too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1124

Assay (x) Number (y) Calibration failure, ratio too small for Cal 1/Cal 2.

x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1125

Assay (x) Number (y) Calibration failure, ratio too large for Cal 1/Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1126

Assay (x) Number (y) Calibration failure, ratio too small for Calibrators.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1127

Assay (x) Number (y) Calibration failure, ratio too large for Calibrators.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1150

Assay (x) Number (y) calibration failure, insufficient calibrator replicates.
x = Assay name
y = Assay number

Probable cause	Corrective action
Required number of replicates for a calibrator failed to complete due to an error.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1151

Assay (x) Number (y) calibration failure, convergence error.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove air bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Reaction mode is incorrectly defined.	Select the **Reaction mode** list button on the Configure assay parameters window - General - Reaction Definition view, and then select the appropriate reaction mode.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1152

Assay (x) Number (y) calibration failure, maximum curve fit too large.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing.

Probable cause	Corrective action
	• Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1153

Assay (x) Number (y) calibration failure, Slope is too low.
x = Assay name
y = Assay number

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154.

Probable cause	Corrective action
	See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1154

Unable to calculate result, convergence error.

Probable cause	Corrective action
• The sample absorbance is on the border between two segments of a Spline calibration curve and the system cannot confirm the correct segment was used for calculation.	Rerun the sample.
• An invalid Spline calibration curve was generated.	Recalibrate the assay.

Error code: 1155

Unable to calculate result, calibration curve allows multiple solutions.

Probable cause	Corrective action
An invalid calibration curve was generated.	Recalibrate the assay.

Error code: 1156

Assay (x) Number (y) calibration failure, slope is outside of defined range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.

Probable cause	Corrective action
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1200

Assay (x) Number (y) Calibration failure, concentration too low for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1201

Assay (x) Number (y) Calibration failure, concentration too low for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1202

Assay (x) Number (y) Calibration failure, concentration too low for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1203

Assay (x) Number (y) Calibration failure, concentration too low for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1204

Assay (x) Number (y) Calibration failure, concentration too low for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1205

Assay (x) Number (y) Calibration failure, concentration too low for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1206

Assay (x) Number (y) Calibration failure, concentration too high for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1207

Assay (x) Number (y) Calibration failure, concentration too high for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1208

Assay (x) Number (y) Calibration failure, concentration too high for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1209

Assay (x) Number (y) Calibration failure, concentration too high for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1210

Assay (x) Number (y) Calibration failure, concentration too high for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.

Probable cause	Corrective action
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1211

Assay (x) Number (y) Calibration failure, concentration too high for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1212

Assay (x) Number (y) Calibration failure, concentration too low for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1213

Assay (x) Number (y) Calibration failure, concentration too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1214

Assay (x) Number (y) Calibration failure, concentration too high for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1215

Assay (x) Number (y) Calibration failure, concentration too high for Cal 2.

x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1216

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1217

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1218

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1219

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1220

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1221

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1222

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1223

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.

Probable cause	Corrective action
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1224

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1225

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1226

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1227

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1228

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal 1.

x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1229

Assay (x) Number (y) Calibration failure, fit concentration too low for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1230

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1231

Assay (x) Number (y) Calibration failure, fit concentration too high for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1232

Result cannot be calculated, final RLU read is outside the specification of the highest calibrator.

Probable cause	Corrective action
RLU read is outside the specification for the descending curve assay.	
If error occurs on one sample:	

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. See the Sample Dilution Procedures in the ARCHITECT *i* System assay-specific package insert.
• Sample contains an interfering substance.	1. See the Limitations of the Procedure in the ARCHITECT *i* System assay-specific package insert. 2. Redraw and rerun the sample if interference is present.
• Sample handling error.	1. Follow the sample handling instructions in the ARCHITECT *i* System assay-specific package insert. 2. Rerun the sample. 3. Source another sample.
If error occurs for more than one sample:	
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Pre-trigger or trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.

Probable cause	Corrective action
• Pre-trigger or trigger bottles were replaced while processing tests, so air may have been aspirated instead of reagent.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Hardware failure: – Pre-trigger or trigger pumps – Pre-trigger or trigger valves – Pre-trigger or trigger tubing connections are loose – Motor driver board has a poor connection or failed – DC driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1250

Unable to calculate result, absorbance exceeds highest calibrator.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181.

Probable cause	Corrective action
	See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1251

Assay (x) Number (y) calibration failure, concentration out of range for ICT index.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong index calibrator was used for calibration.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Index calibrator is not performing as expected.	Open new calibrator bottles.
• Index concentration or index range is incorrectly defined.	Define the correct **Index concentration** and **Index range** on the Configure assay parameters - Calibration window.

Error code: 1300

Assay (x) Number (y) Calibration failure, range failed for Cal A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1301

Assay (x) Number (y) Calibration failure, range failed for Cal B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1302

Assay (x) Number (y) Calibration failure, range failed for Cal C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1303

Assay (x) Number (y) Calibration failure, range failed for Cal D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1304

Assay (x) Number (y) Calibration failure, range failed for Cal E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1305

Assay (x) Number (y) Calibration failure, range failed for Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.

Probable cause	Corrective action
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1306

Assay (x) Number (y) Calibration failure, range failed for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1307

Assay (x) Number (y) Calibration failure, range failed for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1308

Assay (x) Number (y) Calibration failure, range failed for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1309

Assay (x) Number (y) Calibration failure, range failed for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1310

Assay (x) Number (y) Calibration failure, range too large Cal A to Cal F.

x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1311

Assay (x) Number (y) Calibration failure, range too small Cal A to Cal F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1312

Assay (x) Number (y) Calibration failure, deviation too large for CAL A.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1313

Assay (x) Number (y) Calibration failure, deviation too large for CAL B.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1314

Assay (x) Number (y) Calibration failure, deviation too large for CAL C.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1315

Assay (x) Number (y) Calibration failure, deviation too large for CAL D.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1316

Assay (x) Number (y) Calibration failure, deviation too large for CAL E.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1317

Assay (x) Number (y) Calibration failure, deviation too large for CAL F.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1318

Assay (x) Number (y) Calibration failure, deviation too large for CAL 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.

Probable cause	Corrective action
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1319

Assay (x) Number (y) Calibration failure, deviation too large for CAL 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1320

Assay (x) Number (y) Calibration failure, CV too large for Cal 1.
x = Assay name
y = Assay number

Probable cause	Corrective action
Calibrator 1 failed the CV specification defined in the assay settings.	1. Place fresh calibrators into clean sample cups or tubes. 2. Repeat calibration. 3. See Sample results observed problems for corrective action if error continues. See *Sample results observed problems (c System)*, page 10-531. See *Sample results observed problems (i System)*, page 10-546.

Error code: 1321

Assay (x) Number (y) Calibration failure, CV too large for Cal 2.
x = Assay name
y = Assay number

Probable cause	Corrective action
Calibrator 2 failed the CV specification defined in the assay settings.	1. Place fresh calibrators into clean sample cups or tubes. 2. Repeat calibration. 3. See Sample results observed problems for corrective action if error continues. See *Sample results observed problems (c System)*, page 10-531. See *Sample results observed problems (i System)*, page 10-546.

Error code: 1322

Assay (x) Number (y) Calibration failure, CV too large for a Calibrator.
x = Assay name
y = Assay number

Probable cause	Corrective action
One of the calibrator replicates (A-F) failed the CV specification defined in the assay settings.	1. Place fresh calibrators into clean sample cups or tubes. 2. Repeat calibration. 3. See Sample results observed problems for corrective action if error continues. See *Sample results observed problems (c System)*, page 10-531. See *Sample results observed problems (i System)*, page 10-546.

Error code: 1323

Unable to calculate result, constituent assay (x) number (y) result is out of specified range.
x = Assay name
y = Assay number

Probable cause	Corrective action
A constituent result was outside of the constituent range specified in the calculated assay file.	Status message. No corrective action is required.

Error code: 1324

Unable to calculate result, result exceeds numerical limits.

Probable cause	Corrective action
A calculated result cannot be computed because the result exceeds the numerical limit of the software.	Modify the calculated result formula or constituent assay ranges. See *Configure a calculated assay*, page 2-83.

Error code: 1350

Unable to calculate result, no absorbance reads within absorbance range.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
	See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Reagent is not performing as expected.	Open new reagent(s).
• Cuvettes are dirty.	Clean the cuvettes. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1351

Unable to calculate result, insufficient absorbance reads within absorbance range.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Reagent is not performing as expected.	Open new reagent(s).
• Cuvettes are dirty.	Clean the cuvettes. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000).

Probable cause	Corrective action
	– If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1352

Assay (x) Number (y) calibration failure, calibrator deviation too large.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Bubbles in the calibrator sample cup.	Remove any bubbles in the sample cup using a clean applicator stick for each calibrator.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1353

Assay (x) Number (y) calibration failure, calibration factor out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Calibrator concentration values are incorrectly defined.	Verify the correct values for the lot number used. See *Change photometric assay calibrator settings (c*

Probable cause	Corrective action
	System), page 2-173. Refer to the calibrator-specific value sheet for the correct calibrator values.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Calibrators were onboard too long.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Expected cal factor or expected cal factor tolerance% values need to be re-evaluated.	Perform the following steps, if it becomes necessary to re-evaluate the expected cal factor for your laboratory: 1. Collect Cal factor values from multiple calibration curves, or review calibration curve details reports for recent historical curves. (A thorough study requires multiple cartridges and multiple reagent lots.) During this collection period, be sure the control values run against those Cal factors are in range and do not display trends or shifts. 2. Average the acceptable Cal factors and enter the mean in the expected cal factor field on the Configure assay parameters - Calibration - Validity checks window. 3. If the average expected cal factor is correct and the control values have been in range, consider slightly increasing the expected cal factor tolerance%.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1354

Assay (x) Number (y) calibration failure, defined Span out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Bubbles in the calibrator sample cup.	Remove any bubbles in the sample cup using a clean applicator stick for each calibrator.
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp is not performing as expected.	Replace the lamp.

Probable cause	Corrective action
	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1355

Assay (x) Number (y) calibration failure, Blank absorbance out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Water quality is below specifications (if the blank calibrator is defined to use water).	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Calibrator is not performing as expected (if the blank calibrator is defined to use a zero concentration calibrator rather than water).	Open new calibrator bottles.
• Reagent is not performing as expected.	Open new reagent(s).
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Cuvettes are dirty.	Clean the cuvettes. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve.

Probable cause	Corrective action
	See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1356

Unable to calculate calibrator result, insufficient absorbance reads within absorbance range.

Probable cause	Corrective action
• Bubbles for foam on the surface of the reagent.	Remove the bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.

Probable cause	Corrective action
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Cuvettes are dirty.	Clean the cuvettes. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1400

Assay (x) Number (y) Calibration failure, inadequate number of replicates.
x = Assay name
y = Assay number

Probable cause	Corrective action
Required number of replicates for a calibrator failed to complete due to an error.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1401

Assay (x) Number (y) Calibration failure did not receive results for all calibrator levels.
x = Assay name
y = Assay number

Probable cause	Corrective action
No results for all replicates of one or more calibrator levels.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1402

Assay (x) Number (y) Calibration failure, calibrators incorrectly loaded.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.
• Wash buffer not correctly prepared.	1. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81. 2. Remove the buffer reservoir and rinse with purified water. 3. Replace buffer reservoir and load new wash buffer.

Error code: 1403

Assay (x) Number (y) Calibration failure, unable to generate calibration curve.
x = Assay name
y = Assay number

Probable cause	Corrective action
Unable to converge points on calibration curve.	
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1404

Unable to calculate result, assay is not calibrated.

Probable cause	Corrective action
No Active calibration currently stored for the assay and no assay calibration in process. Patients run after a failed calibration cannot be calculated if there is no previously stored calibration data.	1. Run assay calibration before running samples. Always priority load carriers containing calibrators.

Probable cause	Corrective action
	2. Refer to specific assay calibration report or calibration detail screen to determine reason for the failed calibration. 3. Refer to the corrective action for the specific error code.

Error code: 1405

Calibrator out of order, calibration failed.

Probable cause	Corrective action
• Carriers loaded out of order.	Load the carriers in sequential order. In the robotic sample handler priority bay or section, you must physically place the carriers in the positions in sequential order. Carriers are processed in the order they are placed on the sample handler, not by position number.
• The carriers arrived at the aspiration position out of order due to robotic sample handler routing.	Reorder the calibration.
• A bar code label was detected in a position in which there was a calibrator order.	Load the calibrators in the ordered positions ensuring there are no bar codes on the calibrator cups or tubes.
• Bar code reader detecting sample cups.	Use clean sample cups. Do not write on the sample cups or use tape or labels on the sample cups.

Error code: 1406

Calibration canceled, processing interrupted between carriers containing calibrators.

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 1407

Unable to process test, constituent assay (x) number (y) is disabled.
x = Assay name
y = Assay number

Probable cause	Corrective action
An assay used for computing a calculated assay was disabled.	The assay should be enabled prior to processing a calculated result which uses the assay as a constituent.

Error code: 1408

Unable to calculate result, constituent assay (x) number (y) does not support manual dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
A calculated assay was ordered on a manually diluted patient sample. The calculated assay has a constituent assay which does not support a manual dilution.	Order the calculated assay for a patient sample that is undiluted or that uses an automated dilution protocol.

Error code: 1409

Unable to calculate result, constituent assays used two different reagent lot numbers.

Probable cause	Corrective action
Constituent assays of a calculated assay that use the same reagent kit were not run on the same reagent lot number.	Ensure enough reagent of the same lot is onboard the system. Rerun the calculated assay.

Error code: 1410

Unable to calculate result. Duplicate calculation detected.

Probable cause	Corrective action
A calculated assay was added to an order which contained the same calculated assay. Constituent assay results do not exist for the added calculated assay.	Rerun the calculated assay.

Error code: 1411

Unable to process test, constituents for this calculated assay can not be ordered by the system.

Probable cause	Corrective action
The calculated assay ordered does not allow for system orderable constituents.	Order the calculated assay and the constituent assay with proper dilutions.

Error code: 1412

Automatic calibration order was not generated, calibrator (x), lot number (y) has expired.
x = Calibrator name
y = Calibrator lot number

Probable cause	Corrective action
Calibrator material has expired.	Status message. No corrective action is required.

Error code: 1450

Assay (x) Number (y) calibration failure.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Required assay parameter is not defined for an ARCHITECT *c* System assay.	Compare the following assay parameter settings to those in the assay package insert to determine which parameter is missing a value: • All calibrator value fields (including BLANK and WATER concentration) • Blank absorbance range lower limit • Blank absorbance range upper limit • Expected calibration factor • Expected calibration factor tolerance (%) • Span absorbance range lower limit • Span absorbance range upper limit
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 1451

Assay (x) Number (y) calibration failure, invalid mathematical calculation occurred.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used, or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.

Error code: 1452

Unable to calculate result, invalid mathematical calculation occurred.

Probable cause	Corrective action
• Sample concentration is too low.	Rerun the sample.
• Calibration curve is not optimal.	Recalibrate the assay.
• Bubbles for foam on the surface of the reagent.	Remove the bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.

Probable cause	Corrective action
	• Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Reagent is not performing as expected.	Open new reagent(s).
• Required assay parameter is not defined for an ARCHITECT *c* System assay.	Compare the following assay parameter settings to those in the assay package insert to determine which parameter is missing a value: • Reaction check calculation lower limit • Reaction check calculation upper limit • Factor (for assays using the Factor calibration method) • Correlation factor • Intercept
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1453

Assay (x) Number (y) calibration failure, assay configuration error.
x = Assay name
y = Assay number

Probable cause	Corrective action
• The combined sample and reagent volume is less than 160 µL at a defined read time.	Verify the combined volume defined for: • Sample (or Diluted sample) • R1 reagent • R1 water is greater than or equal to 160 µL, if the assay uses a read point less than 17 for any defined read time.
• Assay has been configured with **None** as the calibrator set when one was previously defined.	Select or configure a calibrator set for the assay and recalibrate. See *Configure a new calibrator set (c System)*, page 2-158.
• An assay setting is defined incorrectly.	Verify the settings on the *Windows - Configuration screen - Assay settings view*, page 2-119.

Error code: 1454

Unable to calculate result, assay configuration error.

Probable cause	Corrective action
• The combined sample and reagent volume is less than 160 µL at a defined read time.	Verify the combined volume defined for: • Sample (or Diluted sample) • R1 reagent • R1 water

Probable cause	Corrective action
	is greater than or equal to 160 µL, if the assay uses a read point less than 17 for any defined read time.
• An assay setting is defined incorrectly.	Verify the settings on the *Windows - Configuration screen - Assay settings view*, page 2-119.

Error code: 1455

Assay (x) Number (y) calibration failure, calibrator out of order.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes.
• Calibrator concentration values are incorrectly defined.	Verify the correct values for the lot number used. See *Change photometric assay calibrator settings (c System)*, page 2-173. Refer to the calibrator-specific value sheet for the correct calibrator values.
• Dispense system is not performing correctly.	Check dispense components. Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Calibrators or reagents are not performing as expected.	Open new calibrators or reagents.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1456

Assay (x) Number (y) calibration failure, no calibration curve available for adjustment.
x = Assay name
y = Assay number

Probable cause	Corrective action
No active full calibration curve currently stored for the assay. An adjustment calibration cannot be performed if there is no previously stored full calibration curve.	1. *Create a calibration order*, page 6-12, and then select **Calibration type: Full**. 2. Create an adjustment type calibration order when the full calibration is complete, if desired.

Error code: 1457

Assay (x) Number (y) calibration failure, calibration curve full interval has expired.
x = Assay name
y = Assay number

Probable cause	Corrective action
Adjustment calibration order failed because the full calibration interval has expired or the full calibration failed.	1. *Create a calibration order*, page 6-12, and then select **Calibration type: Full**. 2. Create an adjustment type calibration order when the full calibration is complete, if desired.

Error code: 1458

Assay (x) Number (y) calibration failure, did not complete results for all calibrator levels.
x = Assay name
y = Assay number

Probable cause	Corrective action
Required number of replicates for a calibrator failed to complete due to an error.	Review exceptions to determine the reason for the failed calibrator replicate(s). Refer to the corrective action for the specific error.

Error code: 1461

Unable to recalculate result, assay does not exist.

Probable cause	Corrective action
Assay was deleted since the original result was run.	Install the assay and create new test orders for the sample, if required.

Error code: 1462

Unable to edit result, assay does not exist.

Probable cause	Corrective action
Assay was deleted since the original result was generated.	Install the assay and create new test orders for the sample, if required.

Error code: 1463

Unable to recalculate result, a reaction definition assay parameter was edited.

Probable cause	Corrective action
An assay parameter setting was edited making recalculation of the result invalid (ex. Primary wavelength or Sample volume)	Rerun the sample.

Error code: 1464

Unable to recalculate a result that is a constituent of a calculated result.

Probable cause	Corrective action
The system prevents recalculation of a result used for computing a calculated result.	Rerun the sample.

Error code: 1465

Unable to edit a result that is a constituent of a calculated result.

Probable cause	Corrective action
The system prevents editing of a result used for computing a calculated result.	Status message. No corrective action is required.

Error code: 1500

Assay (x) Number (y) Calibration failure, correlation coefficient is out of range.
x = Assay name
y = Assay number

Probable cause	Corrective action
• Wrong calibrator was used or the calibrator was loaded incorrectly.	Place fresh calibrators into clean sample cups or tubes ensuring they are placed in the correct positions.
• Calibrators are not performing as expected.	Open new calibrator bottles.
• Reagent is not performing as expected.	Load new reagent bottles.

Error code: 1600

Unable to calculate result, mV reading outside measurable range of ICT Unit.

Probable cause	Corrective action
• Black electrical connector for the ICT module is loose or not connected.	Reseat the connection. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148.

Probable cause	Corrective action
	See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1601

Unable to calculate result, ICT reference solution voltage drift error.

Probable cause	Corrective action
• Black electrical connector for the ICT module is loose or not connected.	Reseat the connection. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148.

Probable cause	Corrective action
	See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Flush ICT cup. Perform ***as-needed*** maintenance procedure *2131 Flush ICT Cup*, page 9-36.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1602

Unable to calculate result, ICT reference solution voltage out of range.

Probable cause	Corrective action
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Flush ICT cup. Perform ***as-needed*** maintenance procedure *2131 Flush ICT Cup*, page 9-36.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1603

Unable to calculate result, ICT reference solution voltage drift exceeds 3 mV. Invalid value received (x)
x = Invalid value

Probable cause	Corrective action
• A temporary fluidic disturbance occurred within the ICT module (air bubbles, fluid blockage, etc.) during the ICT measurement.	Rerun the sample. If this error occurs several times a day, see other probable causes and corrective actions.
• The ICT sample concentration is outside the reportable range as defined in the assay package insert, **AND** Low_Linearity and/or High_Linearity values are not defined in the assay parameters.	1. Ensure sample type is appropriate for the ICT application tested. For example, ensure a urine sample was not run as a serum sample. 2. Define the missing linearity values in the ICT assay parameters. 3. Rerun the sample.
• The sample contains elevated concentrations of a substance that interferes with ICT electrode performance. Examples: Chloride is impacted by samples with elevated Bromide or Iodide concentrations. Sodium and Potassium are impacted by samples with elevated concentrations of cationic surfactants such as Benzalkonium chloride.	Test the sample using an alternative methodology. Although it may be possible to generate error-free results by running two or more sample replicates, the results will be elevated due to the presence of the interfering substances.
• Black electrical connector for the ICT module is loose or not connected.	Reseat the connection. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.

Probable cause	Corrective action
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Flush ICT cup. Perform ***as-needed*** maintenance procedure *2131 Flush ICT Cup*, page 9-36.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 1700

Unable to process test, due to interference from Assay number (x).
x = Assay number

Probable cause	Corrective action
Interference from another assay.	1. Review logs for any 1701 error codes that occurred at the same time and on the same sample as this message to determine the number of washes completed. See *1701*, page 10-175 for more information. 2. Refer to the assay-specific package insert for further instructions.

Error code: 1701

The number of washes required is (x). The number of washes completed is (y).
x = Number of required washes
y = Number of completed washes

Probable cause	Corrective action
The required number of washes was not completed.	Refer to the assay-specific package insert for further instructions.

Error code: 1702

Insufficient number of Alternate Washes performed.

Probable cause	Corrective action
The required number of washes was not completed.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time and on the same sample as this message. 2. Perform the corrective action for the specific error code.

Maintenance error codes (2000-2999)

The maintenance error code category includes error codes between 2000-2999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens

- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 2000

Solid waste chute full. Install empty waste container, update supplies and press Run.

Probable cause	Corrective action
• The solid waste chute is full. This chute is designed to hold approximately 50 used RVs (reaction vessels) while the waste container is removed for emptying.	*Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76.
• Hardware failure: – Waste chute sensor board #7	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2001

RV Hopper empty, add RVs, update supplies and press Run.

Probable cause	Corrective action
• No RVs (reaction vessels) in the RV Hopper.	*Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82. *Replenish RVs and update inventory (i1000SR)*, page 5-83.
• RVs are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-16, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.
• Hardware failure: – RV Hopper sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2003

(x) inventory discrepancy, update supplies.
x =Inventory item

Probable cause	Corrective action
For *i* System:	
Expected inventory does not match the available inventory. Supply inventory was updated on the system, but the replacement of inventory was not performed.	1. Check the physical inventory level of the item against the reported inventory shown on the Supply status screen. 2. Update supplies on the Update supplies window as required.
• Pre-Trigger or Trigger Solution	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• RVs (reaction vessels)	*Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82.

Probable cause	Corrective action
• Wash buffer	*Replenish RVs and update inventory (i1000SR)*, page 5-83. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.
• During manual buffer transfer, not enough buffer was transferred to trip the full sensor.	Fill the buffer reservoir until the icon shows full.
• Wash buffer inventory level was manually adjusted. The revised level was inconsistent with the level indicated by the sensor.	No corrective action is necessary. The *i* System adjusts the inventory value to one that is consistent with the sensors.
• Hardware failure: – Cables to the pre-trigger, trigger, or wash buffer level sensors are loose – Level sensor	Contact your Area Customer Support to resolve any hardware failure.
For *c* System:	
Expected inventory does not match the available inventory. Supply inventory was updated on the system, but the replacement of inventory was not performed. • Alkaline Wash • Acid Wash • ICT Reference Solution	1. Check the physical inventory level of the item against the reported inventory shown on the Supply status screen. 2. Update supplies on the Update supplies window as required. *Replace bulk solutions and update inventory (c System)*, page 5-56.
• The ICT Reference Solution, Acid Wash, or Alkaline Wash inventory level was manually adjusted. The revised level was inconsistent with the level indicated by the bulk solution weight sensor.	No corrective action is necessary. The *c* System adjusts the inventory value to one that is consistent with the bulk solution sensor.
• Hardware failure: – Sensor cable to the weight platform is loose – Weight platform sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2004

(x) inventory is close to empty, update supplies.
x =Inventory item

Probable cause	Corrective action
For *i* System:	
The indicated inventory item is low. • Pre-Trigger or Trigger Solution • RVs (reaction vessels)	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. *Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82.

Probable cause	Corrective action
• Wash buffer • Solid waste	*Replenish RVs and update inventory (i1000SR)*, page 5-83. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88. *Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76. *Remove solid waste and update inventory (i1000SR)*, page 5-79.
• RVs are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-16, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.
• Wash buffer inventory close to empty during a maintenance procedure.	Select **OK** and proceed with the maintenance procedure.
For *c* System:	
The indicated inventory item is low. • Alkaline Wash • Acid Wash • ICT Reference Solution	*Replace bulk solutions and update inventory (c System)*, page 5-56.

Error code: 2006

(x) inventory has exceeded on-board stability, update supplies.
x =Inventory item

Probable cause	Corrective action
Onboard stability for either Pre-Trigger or Trigger Solution is exceeded.	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.

Error code: 2007

Unable to process test, insufficient supplies.

Probable cause	Corrective action
• The available inventory for Pre-Trigger and/or Trigger Solution, wash buffer, or RVs (reaction vessels) is not sufficient to complete the test order.	Load the required inventory items on the system and update inventory. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming. Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.

Probable cause	Corrective action
Onboard stability for either Pre-Trigger or Trigger Solution is exceeded.	Load a new bottle of pre-trigger and/or trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.
• RVs are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-16, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.

Error code: 2008

Unable to process test, Pre-Trigger expired.

Probable cause	Corrective action
Onboard stability for Pre-Trigger Solution is exceeded.	Load a new bottle of pre-trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.

Error code: 2009

Unable to process test, Trigger expired.

Probable cause	Corrective action
Onboard stability for Trigger Solution is exceeded.	Load a new bottle of pre-trigger. See *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. See *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.

Error code: 2010

Empty reagent kit in position (x).
x =Reagent carousel position

Probable cause	Corrective action
Reagent carousel contains an empty reagent kit in the indicated position.	Load a new reagent kit or continue processing samples with the other reagent kits on the module. **NOTE:** Reagents can only be loaded when the processing module status is Ready.

Error code: 2011

Extra reagent bottle detected in position (x) on (y) carousel. Print reagent load error report.
x = Position in which extra bottle was detected.
(1-25 for *i* System; A1-D20 for *c*8000/*c*16000; A1-06 for *c*4000)
y = Location in which extra bottle was detected.
(Inner, Middle, or Outer for *i* System; R1 or R2 for *c*8000/*c*16000)

Probable cause	Corrective action
For *c* System: • The R1 and R2 reagent cartridges onboard are not the same lot number.	Load R1 and R2 reagent cartridges with the same lot number.
For *i* System: • An extra bottle not belonging to the reagent kit in this position was detected by the system.	Load the correct bottle for the kit in the correct position.

Error code: 2012

Extra reagent bottle detected in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which extra bottle was detected
y = RSH section number

Probable cause	Corrective action
An extra bottle not belonging to the reagent kit in this reagent carrier position was detected by the system.	1. Print the reagent load error report. 2. Load the correct bottle for the kit in the correct position.

Error code: 2013

Empty reagent kit in section (x).
x =RSH section number

Probable cause	Corrective action
Reagent carrier contains an empty reagent kit in the RSH section indicated.	Load a new reagent kit.

Error code: 2014

Inventory discrepancy between hardware and software, update supplies.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 2015

Insufficient or expired inventory, update supplies.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 2017

(x) inventory full, empty the container.
x = Inventory item

Probable cause	Corrective action
The waste container is full or the inventory was not updated the last time the container was emptied.	*Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76. *Remove solid waste and update inventory (i1000SR)*, page 5-79. *Empty liquid waste and update inventory (i1000SR)*, page 5-80.
The waste drawer is pulled out during a maintenance procedure (*i*1000SR).	1. Select **OK**. 2. Push the waste drawer back into place and proceed with the maintenance procedure.

Error code: 2018

Unable to perform procedure, insufficient supplies on Processing Module (x).
x = Processing module (1-4)

Probable cause	Corrective action
• The available inventory for Pre-Trigger and/or Trigger Solution, wash buffer, or RVs (reaction vessels) is not sufficient to complete the requested procedure.	Load the required inventory items on the system and update inventory.
• RVs are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-16, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.

Error code: 2019

(x) inventory empty, update supplies.
x = Inventory item

Probable cause	Corrective action
For *i* System:	
The indicated inventory item is empty or the supplies status screen was not updated when the inventory item was added.	

Probable cause	Corrective action
• Pre-Trigger or Trigger Solution	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• RVs (reaction vessels)	*Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82. *Replenish RVs and update inventory (i1000SR)*, page 5-83.
• Wash buffer	*Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.
• Solid waste	*Remove solid waste and update inventory (i2000/ i2000SR)*, page 5-76. *Remove solid waste and update inventory (i1000SR)*, page 5-79.
• Hardware failure: – Pre-trigger or trigger sensor – Wash buffer sensor – RV sensor	Contact your Area Customer Support to resolve any hardware failure.
For *c* System:	
• The indicated inventory item is empty or the supplies status screen was not updated when the inventory item was added. – Alkaline Wash – Acid Wash – ICT Reference Solution	*Replace bulk solutions and update inventory (c System)*, page 5-56.
• Hardware failure: – Weight platform sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2020

Inventory error, review Supplies status screen.

Probable cause	Corrective action
• One or more inventory items are low or empty.	Load the required inventory items on the system and update inventory. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming. Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• RVs (reaction vessels) are bridged above the sensor in the RV hopper.	1. Stir the RVs in the hopper. 2. *Pause the processing module*, page 5-16, if error continues. When the status is Ready, remove RVs from the RV hopper then reload them.

Error code: 2021

Solid waste pan full. Install empty solid waste container, update supplies and press Run.

Probable cause	Corrective action
The limit has been exceeded for the number of RVs to drop into the solid waste pan while the waste container has been removed for emptying.	1. Remove the solid waste and update inventory. 2. After the tests in process have completed, remove the solid waste container and clean the solid waste pan. See the supply and waste center instructions of ***as-needed*** maintenance procedure *6038 External Decontamination*, page 9-108 for more information.

Error code: 2022

RV unload not performed. Solid waste chute full.

Probable cause	Corrective action
• The solid waste chute is full. This chute is designed to hold approximately 50 used RVs (reaction vessels) while the waste container is removed for emptying.	Remove the solid waste and update inventory. See *Remove solid waste and update inventory (i2000/i2000SR)*, page 5-76
• Hardware failure: – Waste chute sensor board in slot #7 in the lower card cage.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2024

(x) inventory has expired, update supplies.
x = Supply name and location

Probable cause	Corrective action
The onboard or bulk solution has expired.	Replace the expired supply. See the following procedures: *Replace bulk solutions and update inventory (c System)*, page 5-56 *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62 *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70 *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93 *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88

Error code: 2050

(x) inventory low.
x = Inventory item

Probable cause	Corrective action
The indicated bulk solution inventory is low.	Replace bulk solutions and update inventory. See *Replace bulk solutions and update inventory (c System)*, page 5-56.

Error code: 2051

(x) inventory empty, update supplies.
x = Inventory item

Probable cause	Corrective action
• The indicated bulk solution is empty.	Replace bulk solutions and update inventory. See *Replace bulk solutions and update inventory (c System)*, page 5-56.
• The supply status was not updated when the solution was added.	Update the inventory of the solution. See *Replace bulk solutions and update inventory (c System)*, page 5-56.
• Hardware failure: – Weight platform sensor cable has a poor connection – Weight platform not adjusted properly – Weight platform sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2054

High concentration waste container is Full.

Probable cause	Corrective action
• The high-concentration waste bottle is full.	Empty the high-concentration waste bottle. See *Empty the high-concentration waste bottle (c System)*, page 5-73.
• The high-concentration waste bottle float switch is dirty.	Clean the high-concentration waste sensor. Perform ***quarterly*** maintenance procedure *6307 Check/ Clean HC Waste Sensor*, page 9-32.
• Float switch cable has a poor connection.	Reseat the float switch cable to the module and to the high-concentration waste bottle.
• Float switch cable failed.	Replace the float switch cable. See *Replace the float switch cable (c System)*, page 9-393.
• Float switch failed.	Replace the high-concentration waste bottle. See *Replace the high-concentration waste bottle (c System)*, page 9-391.

Error code: 2100

Wash Buffer reservoir full, ignored fill request.

Probable cause	Corrective action
• Wash buffer container was full when a request to fill was made.	Do not attempt to add wash buffer if wash buffer container is full. **NOTE:** Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• Hardware failure: – Buffer level sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2101

Wash Buffer transfer canceled, Processing Module stop requested.

Probable cause	Corrective action
Wash buffer transfer canceled because of a processing module stop.	1. Start up the processing module. See *Start up the processing module and/or sample handler*, page 5-15. 2. When processing module status is Ready, load wash buffer.

Error code: 2102

Unable to prime Wash Buffer transfer pump, transfer canceled.

Probable cause	Corrective action
• Wash buffer container is empty.	*Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88. **NOTE:** Wash buffer can be loaded when the processing module is in any status except Initializing, Stopped, or Offline.
• Wash buffer transfer tubing is not connected.	Reconnect the wash buffer transfer tubing to the quick disconnect fitting.
• Buffer filter not properly connected.	Remove and reconnect the two gray quick disconnects at either end of the filter.
• Buffer filter clogged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer filter (i2000/i2000SR)*, page 9-356 • For *i*1000SR: – *Replace the buffer filter (i1000SR)*, page 9-387
• Buffer level sensor failed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380

Probable cause	Corrective action
• Hardware failure: – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2103

Wash Buffer transfer timed out, transfer canceled.

Probable cause	Corrective action
• Wash buffer transfer tubing is crimped.	Reposition the wash buffer transfer tubing.
• Wash buffer transfer tubing is not connected properly.	Reconnect the transfer tubing.
• Hardware failure: – Transfer pump	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2104

Unable to perform automatic Flush, (x) inventory is not adequate.
x = Inventory item

Probable cause	Corrective action
The indicated inventory item is empty or the supplies screen was not updated when the inventory item was added.	
• Pre-Trigger or Trigger Solution	*Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93. *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96. **NOTE:** Pre-trigger and trigger can only be loaded when the processing module status is Stopped, Ready, or Warming.
• RVs (reaction vessels) or wash buffer	*Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82. *Replenish RVs and update inventory (i1000SR)*, page 5-83.
• Liquid Waste	*Empty liquid waste and update inventory (i1000SR)*, page 5-80.
• Hardware failure: – Pre-trigger or trigger sensor – Wash buffer sensor – RV sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2200

(x) procedure failed, refer to Activity window for details.
x = Procedure name

Probable cause	Corrective action
• A system error message occurred.	Refer to corrective action for the error indicated in the Activity list on the Maintenance Perform or Diagnostic perform window.

Probable cause	Corrective action
• Criteria for acceptance specified in the procedure was not met.	If there is no error in the Activity list, the criteria for acceptance specified in the maintenance or diagnostic procedure was not met.

Error code: 2201

(x) procedure canceled by user or terminated due to inactivity.
x = Procedure name

Probable cause	Corrective action
• User selected Quit while performing a procedure.	Status message. No corrective action is required.
• A maintenance or diagnostic procedure was terminated due to inactivity, the user did not select Done.	Status message. Review if the maintenance or diagnostic procedure needs to be repeated.

Error code: 2202

(x) procedure report not available.
x = Procedure name

Probable cause	Corrective action
Requested to print a report for a procedure not performed on the selected module.	Select a different module or perform the procedure for the selected module, and then select print.

Error code: 2203

Procedure (x), version mismatch due to restored database. Install version (y).
x = Maintenance or diagnostic procedure number
y = Procedure version number

Probable cause	Corrective action
The database was restored but the correct version of the maintenance or diagnostic procedures has not been installed.	Install all maintenance and diagnostic procedures from the hard drive. See *Install or delete a maintenance or diagnostic procedure file*, page 2-215.

Error code: 2204

Unable to perform procedure (x), version mismatch due to restored database. Install version (y).
x = Maintenance or diagnostic procedure number
y = Procedure version number

Probable cause	Corrective action
The database was restored but the correct version of the maintenance or diagnostic procedure has not been installed.	Install all maintenance and diagnostic procedures from the hard drive. See *Install or delete a maintenance or diagnostic procedure file*, page 2-215.

Error code: 2300

Unable to perform Sample pipettor calibration, sample carousel cover is closed.

Probable cause	Corrective action
• The sample carousel cover was closed during the procedure.	Do not close the sample carousel cover unless instructed to do so in the procedure.

Probable cause	Corrective action
	Repeat ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2301

Unable to perform Reagent 1 pipettor calibration, reagent 1 carousel cover is closed.

Probable cause	Corrective action
• The reagent carousel cover was closed during the calibration procedure.	Do not close the reagent carousel cover unless instructed to do so in the procedure. Repeat ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2302

Unable to perform Reagent 2 pipettor calibration, reagent 2 carousel cover is closed.

Probable cause	Corrective action
• The reagent carousel cover was closed during the calibration procedure.	Do not close the reagent carousel cover unless instructed to do so in the procedure. Repeat ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2303

Unable to perform Sample pipettor calibration, sample carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2304

Unable to perform Reagent 1 pipettor calibration, reagent outer carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel (*c*8000/*c*16000) or reagent outer carousel (*c*4000).	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2305

Unable to perform Reagent 1 pipettor calibration, reagent inner carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel (*c*8000/*c*16000) or reagent inner carousel (*c*4000).	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2306

Unable to perform Reagent 2 pipettor calibration, reagent 2 carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2307

Unable to perform (x) pipettor calibration, pipettor homing error.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is damaged.	Perform the appropriate probe replacement procedure. • *Replace the sample probe (c4000)*, page 9-118. • *Replace the sample probe (c8000)*, page 9-185. • *Replace the sample probe (c16000)*, page 9-256. • *Replace reagent probes (c4000)*, page 9-122. • *Replace reagent probes (c8000)*, page 9-188. • *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2308

Unable to perform Sample pipettor calibration, error while moving Sample carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2309

Unable to perform Reagent 1 pipettor calibration, error while moving Reagent 1 outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2310

Unable to perform Reagent 1 pipettor calibration, error while moving Reagent 1 inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2311

Unable to perform Reagent 2 pipettor calibration, error while moving Reagent 2 carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2312

Unable to perform (x) pipettor calibration, pipettor horizontal movement error.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2313

Unable to perform (x) pipettor calibration, pipettor error while moving down.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is preventing the pipettor from moving down.	Look for and remove any physical obstruction.
• Probe is damaged.	Perform the appropriate probe replacement procedure. • *Replace the sample probe (c4000)*, page 9-118. • *Replace the sample probe (c8000)*, page 9-185. • *Replace the sample probe (c16000)*, page 9-256. • *Replace reagent probes (c4000)*, page 9-122. • *Replace reagent probes (c8000)*, page 9-188. • *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2314

Unable to perform (x) pipettor calibration, pipettor error while moving up.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Probe is damaged.	Perform the appropriate probe replacement procedure. • *Replace the sample probe (c4000)*, page 9-118. • *Replace the sample probe (c8000)*, page 9-185. • *Replace the sample probe (c16000)*, page 9-256. • *Replace reagent probes (c4000)*, page 9-122. • *Replace reagent probes (c8000)*, page 9-188. • *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2315

Unable to perform Sample pipettor calibration, sample carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2316

Unable to perform Reagent 1 pipettor calibration, reagent outer carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel (*c*8000/*c*16000) or reagent outer carousel (*c*4000).	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2317

Unable to perform Reagent 1 pipettor calibration, reagent inner carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel (*c*8000/*c*16000) or reagent inner carousel (*c*4000).	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2318

Unable to perform Reagent 2 pipettor calibration, reagent carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel (*c*8000/*c*16000) or reagent supply center carousel(s) (*c*4000).	Look for and remove any physical obstruction

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2319

Unable to perform Sample pipettor calibration, exceeded sample carousel target vertical range.

Probable cause	Corrective action
• Sample carousel is not seated properly.	Reseat the sample carousel properly on the alignment pins.
• Sample carousel is not present.	Place the sample carousel in position.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2320

Unable to perform Sample pipettor calibration, exceeded cuvette target vertical range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.

Probable cause	Corrective action
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2321

Unable to perform Sample pipettor calibration, exceeded sample handler target vertical range.

Probable cause	Corrective action
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2322

Unable to perform (x) pipettor calibration, exceeded cuvette target vertical range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122.

Probable cause	Corrective action
	See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2323

Unable to perform Reagent 1 pipettor calibration, exceeded outer carousel target vertical range.

Probable cause	Corrective action
• The segment in position A of reagent supply center 1 is not present or does not have the calibration target (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 1 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the outer carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2324

Unable to perform Reagent 1 pipettor calibration, exceeded inner carousel target vertical range.

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not present (*c*8000/*c*16000).	Install a segment into position D of reagent supply center 1 (*c*8000/*c*16000).

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position D of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2325

Unable to perform Reagent 2 pipettor calibration, exceeded cuvette target vertical range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2326

Unable to perform Reagent 2 pipettor calibration, exceeded carousel target vertical range.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the outer or inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer or inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer or inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer or inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2327

Unable to perform Sample pipettor calibration, exceeded wash cup target horizontal range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.

Probable cause	Corrective action
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2328

Unable to perform Sample pipettor calibration, exceeded cuvette target horizontal range.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2329

Unable to perform (x) pipettor calibration, exceeded cuvette target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.

Probable cause	Corrective action
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2330

Unable to perform (x) pipettor calibration, exceeded wash cup target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2331

Unable to perform (x) pipettor calibration, exceeded cuvette target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver.

Probable cause	Corrective action
	3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2332

Unable to perform (x) pipettor calibration, exceeded wash cup target horizontal range.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2333

(x) pipettor calibration failed probe straightness check.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Probe is damaged.	Perform the appropriate probe replacement procedure. • *Replace the sample probe (c4000)*, page 9-118. • *Replace the sample probe (c8000)*, page 9-185.

Probable cause	Corrective action
	• *Replace the sample probe (c16000)*, page 9-256. • *Replace reagent probes (c4000)*, page 9-122. • *Replace reagent probes (c8000)*, page 9-188. • *Replace reagent probes (c16000)*, page 9-259.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Probe is dirty.	Clean the probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.

Error code: 2334

Unable to perform (x) pipettor calibration, cuvette segment alignment tool not found.
x = Pipettor name

Probable cause	Corrective action
• The cuvette segment alignment tool was not installed.	Install the cuvette segment alignment tool when instructed to do so in the procedure.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water is present on the slotted edges of the cuvette segment alignment tool.	Remove the cuvette segment alignment tool and dry the slotted edges before reinstalling it to repeat the procedure.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2335

Unable to perform Sample pipettor calibration, sample carousel target not found.

Probable cause	Corrective action
• Sample carousel is not seated properly.	Reseat the sample carousel properly on the alignment pins.
• Sample carousel is not present.	Place the sample carousel in position.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe.

Probable cause	Corrective action
	See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2336

Unable to perform Sample pipettor calibration, cuvette target not found.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2337

Unable to perform (x) pipettor calibration, cuvette target not found.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
	See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2338

Unable to perform Reagent 1 pipettor calibration, outer carousel target not found.

Probable cause	Corrective action
• The segment in position A of reagent supply center 1 is not present or does not have the calibration target (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 1 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the outer carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2339

Unable to perform Reagent 1 pipettor calibration, inner carousel target not found.

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not present (*c*8000/*c*16000).	Install a segment into position D of reagent supply center 1 (*c*8000/*c*16000).

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position D of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2340

Unable to perform Reagent 2 pipettor calibration, cuvette target not found.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2341

Unable to perform Reagent 2 pipettor calibration, carousel target not found.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the outer or inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer or inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer or inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer or inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2342

Unable to perform Sample pipettor calibration, unable to determine target position.

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver.

Probable cause	Corrective action
	3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2343

Unable to perform Reagent 1 pipettor calibration, calibration target not found in outer carousel.

Probable cause	Corrective action
• A reagent segment without a calibration target was detected in position A of reagent supply center 1 (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 1 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A reagent segment with a calibration target was not found in the outer carousel (*c*4000).	Install a segment with a calibration target in the outer carousel (*c*4000).
• The reagent segment with a calibration target is not seated properly (*c*4000).	Reseat the reagent segment with the calibration target (*c*4000).
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2344

Unable to perform Reagent 2 pipettor calibration, calibration target not found.

Probable cause	Corrective action
• A reagent segment without a calibration target was detected in position A of reagent supply center 2 (*c*8000/*c*16000).	Install the segment with the calibration target in position A of reagent supply center 2 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A reagent segment with a calibration target was not found in the outer carousel (*c*4000).	Install a segment with a calibration target in the outer carousel (*c*4000).
• The reagent segment with a calibration target is not seated properly (*c*4000).	Reseat the reagent segment with the calibration target (*c*4000).
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2345

Unable to perform (x) pipettor calibration, water bath level low.

x = Pipettor name

Probable cause	Corrective action
• DI water system failure.	1. Turn on the water supply. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• System power was off.	Perform either Daily Maintenance or Change Water Bath procedures to fill the water bath. See ***daily*** maintenance procedure *6070 Daily Maintenance*, page 9-21 or ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Hardware failure: – Module is not level – Level sensor is dirty or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2346

Unable to perform Sample pipettor calibration, LLS error occurred at sample carousel.

Probable cause	Corrective action
• Sample carousel is not seated properly.	Reseat the sample carousel properly on the alignment pins.
• Sample carousel is not present.	Place the sample carousel in position.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2347

Unable to perform Sample pipettor calibration, LLS error occurred at wash cup.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2348

Unable to perform Sample pipettor calibration, LLS error occurred at cuvette.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	

Error code: 2349

Unable to perform Sample pipettor calibration, LLS error occurred at sample handler.

Probable cause	Corrective action
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2350

Unable to perform (x) pipettor calibration, LLS error occurred at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver.

Probable cause	Corrective action
	3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2351

Unable to perform (x) pipettor calibration, LLS error occurred at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range)	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	

Error code: 2352

Unable to perform Reagent 1 pipettor calibration, LLS error occurred at outer carousel.

Probable cause	Corrective action
• The segment in position A of reagent supply center 1 is not present or does not have the calibration target (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 1 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the outer carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2353

Unable to perform Reagent 1 pipettor calibration, LLS error occurred at inner carousel.

Probable cause	Corrective action
• The segment in position D of reagent supply center 1 is not present (*c*8000/*c*16000).	Install a segment into position D of reagent supply center 1 (*c*8000/*c*16000).
• The segment in position D of reagent supply center 1 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position D of reagent supply center 1 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2354

Unable to perform (x) pipettor calibration, LLS error occurred at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver.

Probable cause	Corrective action
	3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2355

Unable to perform (x) pipettor calibration, LLS error occurred at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range)	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	

Error code: 2356

Unable to perform Reagent 2 pipettor calibration, LLS error occurred at carousel.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*8000/*c*16000).
• A segment with a calibration target is not present in the outer or inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer or inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer or inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer or inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2357

Unable to perform Sample pipettor calibration, pipettor movement restricted at sample carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2358

Unable to perform Sample pipettor calibration, pipettor movement restricted at wash cup.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2359

Unable to perform Sample pipettor calibration, pipettor movement restricted at cuvette.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2360

Unable to perform Sample pipettor calibration, pipettor movement restricted at sample handler.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Remove any obstruction from the area of movement of the sample pipettor.
• Probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2361

Unable to perform (x) pipettor calibration, pipettor movement restricted at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2362

Unable to perform (x) pipettor calibration, pipettor movement restricted at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2363

Unable to perform Reagent 1 pipettor calibration, pipettor movement restricted at outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2364

Unable to perform Reagent 1 pipettor calibration, pipettor movement restricted at inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe.

Probable cause	Corrective action
	See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2365

Unable to perform (x) pipettor calibration, pipettor movement restricted at cuvette.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2366

Unable to perform (x) pipettor calibration, pipettor movement restricted at wash cup.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2367

Unable to perform Reagent 2 pipettor calibration, pipettor movement restricted at carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2368

Unable to perform Sample pipettor calibration, sample handler target not found.

Probable cause	Corrective action
• Carrier calibration tool is not present.	Place the carrier calibration tool in the carrier.
• Carrier calibration tool is not seated properly.	Reseat the carrier calibration tool in the carrier.
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstruction.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is damaged.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2369

Unable to perform (x) pipettor calibration, pipettor is not properly aligned with cuvette target.
x = Pipettor name

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• The cuvette segment alignment tool is not seated properly.	Reseat the cuvette segment alignment tool on the alignment pins.
• Hardware failure: – Reagent 2 pipettor requires manual alignment.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2370

Unable to perform Reagent 2 pipettor calibration, reagent 2 outer carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2371

Unable to perform Reagent 2 pipettor calibration, reagent 2 inner carousel homing failed.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2372

Unable to perform Reagent 2 pipettor calibration, error while moving Reagent 2 outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2373

Unable to perform Reagent 2 pipettor calibration, error while moving Reagent 2 inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2374

Unable to perform Reagent 2 pipettor calibration, reagent 2 inner carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2375

Unable to perform Reagent 2 pipettor calibration, reagent 2 outer carousel rotation error.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2376

Unable to perform Reagent 2 pipettor calibration, exceeded outer carousel target vertical range.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target (*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*16000).
• A segment with a calibration target is not present in the outer carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2377

Unable to perform Reagent 2 pipettor calibration, exceeded inner carousel target vertical range.

Probable cause	Corrective action
• The segment in position D of reagent supply center 2 is not present (*c*16000).	Install a segment with the calibration target into position D of reagent supply center 2 (*c*16000).
• The segment in position D of reagent supply center 2 is not seated properly (*c*16000).	Reseat the segment in position D of reagent supply center 2 on the alignment pins (*c*16000).
• A segment with a calibration target is not present in the inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the inner carousel of the reagent supply center (*c*4000).

Probable cause	Corrective action
• The segment with the calibration target is not seated properly in the inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2378

Unable to perform Reagent 2 pipettor calibration, outer carousel target not found.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target (*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*16000).
• A segment with a calibration target is not present in the outer carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
	See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2379

Unable to perform Reagent 2 pipettor calibration, inner carousel target not found.

Probable cause	Corrective action
• The segment in position D of reagent supply center 2 is not present (*c*16000).	Install a segment with the calibration target into position D of reagent supply center 2 (*c*16000).
• The segment in position D of reagent supply center 2 is not seated properly (*c*16000).	Reseat the segment in position D of reagent supply center 2 on the alignment pins (*c*16000).
• A segment with a calibration target is not present in the inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2380

Unable to perform Reagent 2 pipettor calibration, calibration target not found in outer carousel.

Probable cause	Corrective action
• A 15-position reagent segment was detected in position A of reagent supply center 2 (*c*8000/*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*8000/*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*8000/*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*8000/*c*16000).
• A reagent segment with a calibration target was not found in the outer carousel (*c*4000).	Install a segment with a calibration target in the outer carousel (*c*4000).

Probable cause	Corrective action
• The reagent segment with a calibration target is not seated properly (*c*4000).	Reseat the reagent segment with the calibration target (*c*4000).
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2381

Unable to perform Reagent 2 pipettor calibration, LLS error occurred at outer carousel.

Probable cause	Corrective action
• The segment in position A of reagent supply center 2 is not present or does not have the calibration target (*c*16000).	Install a segment with the calibration target into position A of reagent supply center 2 (*c*16000).
• The segment in position A of reagent supply center 2 is not seated properly (*c*16000).	Reseat the segment in position A of reagent supply center 2 on the alignment pins (*c*16000).
• A segment with a calibration target is not present in the outer carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the outer carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the outer carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the outer carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure. – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2382

Unable to perform Reagent 2 pipettor calibration, LLS error occurred at inner carousel.

Probable cause	Corrective action
• The segment in position D of reagent supply center 2 is not present (*c*16000).	Install a segment with the calibration target into position D of reagent supply center 2 (*c*16000).
• The segment in position D of reagent supply center 2 is not seated properly (*c*16000).	Reseat the segment in position D of reagent supply center 2 on the alignment pins (*c*16000).
• A segment with a calibration target is not present in the inner carousel of the reagent supply center (*c*4000).	Install a segment with the calibration target into the inner carousel of the reagent supply center (*c*4000).
• The segment with the calibration target is not seated properly in the inner carousel of the reagent supply center (*c*4000).	Reseat the segment with the calibration target in the inner carousel of the reagent supply center (*c*4000).
• A physical interference is blocking the movement of the pipettor.	Remove any obstruction from the area of movement of the pipettor.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover ensuring the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure. – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2383

Unable to perform Reagent 2 pipettor calibration, pipettor movement restricted at outer carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 2384

Unable to perform Reagent 2 pipettor calibration, pipettor movement restricted at inner carousel.

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent pipettor.	Remove any obstruction from the area of movement of the reagent pipettor.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Level sense error codes (3000-3999)

The level sense error code category includes error codes between 3000-3999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 3000

Unable to process test, Liquid not found for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform the appropriate ***fluidics/wash*** diagnostic procedure: • For *i*2000/*i*2000SR: – *3600 LLS Test*, page 10-653, for the sample pipettor – *3610 Sample Handler LLS Test*, page 10-653, for the STAT pipettor

Probable cause	Corrective action
	• For *i*1000SR: – *3630 LLS Test*, page 10-674, for the pipettor
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Reagent bottle is empty.	Replace empty reagents.
• WZ probe maintenance water bottle was filled with DI water instead of tap water or saline during a procedure.	Repeat the appropriate ***daily*** or ***as-needed*** maintenance procedure, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of tap water or saline: **NOTE:** Do not use DI water for these procedures: • For *i*2000/*i*2000SR: – *6043 WZ Probe Cleaning - Bleach*, page 9-83 • For *i*1000SR: – *6440 Daily Maintenance*, page 9-89
• WZ probe maintenance water bottle was over-filled with tap water or saline during a procedure.	Repeat the appropriate ***daily*** or ***as-needed*** maintenance procedure, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of tap water or saline: • For *i*2000/*i*2000SR:

Probable cause	Corrective action
	– *6043 WZ Probe Cleaning - Bleach*, page 9-83 • For *i*1000SR: – *6440 Daily Maintenance*, page 9-89
• Maintenance cleaning bottle was overfilled with sodium hypochlorite solution during a procedure.	Repeat the appropriate ***daily*** or ***as-needed*** maintenance procedure, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of sodium hypochlorite solution: • For *i*2000/*i*2000SR: – *6041 Daily Maintenance*, page 9-74 – *6043 WZ Probe Cleaning - Bleach*, page 9-83 • For *i*1000SR: – *6445 Pipettor/WZ Probe Cleaning*, page 9-90
• WZ probe maintenance water bottle was not loaded or was not loaded in the correct position during a procedure.	Repeat the appropriate ***daily*** or ***as-needed*** maintenance procedure, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of tap water or saline: • For *i*2000/*i*2000SR: – *6043 WZ Probe Cleaning - Bleach*, page 9-83 • For *i*1000SR: – *6440 Daily Maintenance*, page 9-89
• Maintenance cleaning bottle was not loaded or was not loaded in the correct position during a procedure.	Repeat the appropriate ***daily*** or ***as-needed*** maintenance procedure, ensuring the WZ probe maintenance water bottle is 1/2 to 3/4 full of sodium hypochlorite solution: • For *i*2000/*i*2000SR: – *6041 Daily Maintenance*, page 9-74 – *6043 WZ Probe Cleaning - Bleach*, page 9-83 • For *i*1000SR: – *6445 Pipettor/WZ Probe Cleaning*, page 9-90
• Pipettor probe clamp is loose.	Tighten the probe clamp finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform the appropriate ***fluidics/wash*** diagnostic procedure: • For *i*2000/*i*2000SR: – *3600 LLS Test*, page 10-653, for the reagent pipettor • For *i*1000SR: – *3630 LLS Test*, page 10-674, for the pipettor
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR:

Probable cause	Corrective action
	– Replace the R1 or R2 pipettor probe. See *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327. • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3001

Unable to process test, liquid not found for sample pipettor at Sample Carousel or Sample wash solution position (x).
x = Position number

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185.

Probable cause	Corrective action
	See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board (threshold voltage is out of range) – Liquid level sense cable – Liquid level sense board – SMC board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3002

Unable to process test, liquid not found for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	

Error code: 3003

Unable to process test, liquid not found for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3004

Unable to process test, liquid not found for sample pipettor at sample carrier.

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3005

Unable to process test, liquid not found for reagent 1 pipettor.

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottles) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3006

Unable to process test, liquid not found for reagent 2 pipettor.

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver.

Probable cause	Corrective action
	3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3050

Unable to process test, Liquid too low for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clip, then perform the appropriate ***fluidics/wash*** diagnostic procedure: • For *i*2000/*i*2000SR: – *3600 LLS Test*, page 10-653, for the sample pipettor – *3610 Sample Handler LLS Test*, page 10-653, for the STAT pipettor. • For *i*1000SR: – *3630 LLS Test*, page 10-674, for the pipettor
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR

Probable cause	Corrective action
	– *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR – *Replace pipettor probe (i1000SR)*, page 9-361
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed. – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Reagent bottle is empty.	Replace empty reagents.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clip, then perform the appropriate ***fluidics/wash*** diagnostic procedure: • For *i*2000/*i*2000SR: – *3600 LLS Test*, page 10-653, for the reagent pipettor • For *i*1000SR: – *3630 LLS Test*, page 10-674, for the pipettor
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – Replace the R1 or R2 pipettor probe. See *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327. • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361

Probable cause	Corrective action
• Hardware failure: – Liquid level sense and Z cable – Antenna board or cables have a poor connection or failed – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3051

Unable to process test, liquid too high for (y) at (x).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• Too much sample in cup or tube.	Load a properly filled sample cup or tube. See *Sample volume requirements*, page 5-242.
• Probe is dirty.	Wipe the exterior of the sample probe with a lint free tissue dampened with DI water.
• Pipettor probe clip loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	
For reagent pipetting:	
• Liquid on reagent bottle septum.	1. Verify reagent bottle is not over filled. 2. Place a new septum on all reagent bottles.
• Probe is dirty.	Wipe the exterior of the probe with a lint free tissue dampened with DI water.
• Pipettor probe clip loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Hardware failure: – Pressure monitor cables have a poor connection – Pipettor pressure monitor board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3052

Unable to process test, liquid too low for sample pipettor at (x) position (y).
x = Sample wash solution (*c*4000)
x = Sample carousel (*c*8000/*c*16000)
y = Position number

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover.

Probable cause	Corrective action
	2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3053

Unable to process test, liquid too low for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe.

Probable cause	Corrective action
	See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3054

Unable to process test, liquid too low for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• No reagent cartridge present or the cartridge is empty.	Load reagents or replace empty reagents.
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	

Error code: 3055

Unable to process test, liquid too high for sample pipettor at Sample Carousel or Sample wash solution position (x).

x = Position number

Probable cause	Corrective action
• Too much sample in cup or tube.	Load a properly filled sample cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3056

Unable to process test, liquid too high for (x) pipettor at position (y).

x = Pipettor name

y = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3057

Unable to process test, liquid too high for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent cartridge is not seated properly.	Verify there is nothing preventing the reagent cartridge from seating against the bottom of the carousel. For reagents using the 20 mL (bottle) cartridge in the adapter, verify the bottle was pressed down against the bottom of the carousel.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.

Probable cause	Corrective action
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3058

Unable to process test, liquid too low for sample pipettor at sample carrier.

Probable cause	Corrective action
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense board is defective – Loose connector on SMC board	

Error code: 3059

Unable to process test, liquid too high for sample pipettor at sample carrier.

Probable cause	Corrective action
• Too much sample is in cup or tube.	Load a properly filled sample cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3060

Unable to process test, liquid too high for reagent 1 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.

Probable cause	Corrective action
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3061

Unable to process test, liquid too high for reagent 2 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Water quality is below specifications.	Check DI water purity.

Probable cause	Corrective action
	Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3100

Liquid contact broken during aspiration for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample cup or tube is tilted in the carrier.	Reposition the sample cup or tube in the carrier so that it is not tilted.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten probe tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364

Probable cause	Corrective action
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Drop of liquid on the end of the probe.	Tighten probe tubing connections finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	

Error code: 3101

Unable to process test, liquid contact broken during aspiration for sample pipettor at Sample Carousel position (x).
x = Position number

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample cup or tube is tilted in the carousel.	Reposition the sample cup or tube in the carousel so that it is not tilted.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year (*c*8000) or greater than four months (*c*16000).	Replace the sample probe. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the sample probe tubing (c8000)*, page 9-192.

Probable cause	Corrective action
	See *Replace the sample probe tubing (c16000)*, page 9-263.
• Sample probe tubing is damaged.	Replace the sample probe tubing. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3102

Unable to process test, liquid contact broken during aspiration for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195.

Probable cause	Corrective action
	See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3103

Unable to process test, liquid contact broken during aspiration for (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128.

Probable cause	Corrective action
	See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3104

Unable to process test, liquid contact broken during aspiration for sample pipettor at sample carrier.

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette applicator stick.
• Sample cup or tube is tilted in the carrier.	Reposition the sample cup or tube in the carrier so that it is not tilted.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185.

Probable cause	Corrective action
	See *Replace the sample probe (c16000)*, page 9-256.
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Sample probe tubing is damaged.	Replace the sample probe tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3105

Unable to process test, liquid contact broken during aspiration for reagent 1 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.

Probable cause	Corrective action
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3106

Unable to process test, liquid contact broken during aspiration for reagent 2 pipettor.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Clean reagent probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.

Probable cause	Corrective action
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3107

Unable to process test, liquid contact broken during aspiration for sample pipettor at wash solution position (x).
x = Position number

Probable cause	Corrective action
• Bubbles or foam are on top of the liquid.	Remove bubbles or foam from the surface of the sample using a clean disposable pipette or applicator stick.
• Sample cup/tube is tilted in the carrier.	Reposition the sample cup/tube in the carrier so that it is not tilted.
• Drop of liquid on the side of the sample cup/ tube.	Transfer the sample to a new sample cup/tube.
• Sample probe is dirty.	Clean sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Pipettor cover, probe screw, or probe ground wire screw is loose.	1. Remove the pipettor cover. 2. Tighten the probe screw and the probe ground wire screw with a slotted screwdriver. 3. Replace the pipettor cover and ensure the cover is seated firmly on the end above the pipettor shaft.
• Sample probe is out of alignment.	Perform sample pipettor calibration.

Probable cause	Corrective action
	See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged or has been in use for greater than one year.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118.
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the sample probe tubing (c4000)*, page 9-125.
• Sample probe tubing is damaged.	Replace the sample probe tubing. See *Replace the sample probe tubing (c4000)*, page 9-125.
• Water quality is below specifications.	Check DI water purity. Perform ***daily*** maintenance procedure *6028 Check DI Water Purity*, page 9-20.
• Hardware failure: – Liquid level sense board threshold voltage is out of range – Liquid level sense cable is defective – Liquid level sense board is defective – Loose connector on SMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3200

Unable to process test, maximum number of LLS errors exceeded for a reagent.

Probable cause	Corrective action
Consecutive liquid level sense, aspiration or movement restriction errors detected for the indicated pipettor.	1. *Review logs*, page 10-13, for any 3000 or 5000 category error codes that occurred at the same time as this message to determine the specific error with the R1 or R2 pipettor. 2. *View low level error messages*, page 10-15, if you do not find any 3000 or 5000 category error codes. 3. Perform the corrective action for the specific error code. **NOTE:** After the cause has been corrected and the system status is Ready, perform the appropriate procedure to remove the reagent pack LLS error status: • *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132. • *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278. • *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Error code: 3201

Maximum number of LLS errors exceeded for reagent located in position (x) on carousel (y).
x = Position in which the error occurred (A1 - D20 for *c* System; 1 - 25 for *i* System)

y = Location in which the error occurred (R1 or R2 for *c* System; inner, middle, or outer ring for *i* System)

Probable cause	Corrective action
Consecutive liquid level sense, aspiration or movement restriction errors detected for the indicated pipettor in the indicated position.	1. *Review logs*, page 10-13, for any 3000 or 5000 category error codes that occurred at the same time as this message to determine the specific error with the R1 or R2 pipettor. 2. *View low level error messages*, page 10-15, if you do not find any 3000 or 5000 category error codes. 3. Perform the corrective action for the specific error code. **NOTE:** After the cause has been corrected and the system status is Ready, perform the appropriate procedure to remove the reagent pack LLS error status: • *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132. • *Initiate or resume sample processing (LAS carousel sample handler - i2000)*, page 5-278. • *Initiate or resume sample processing (RSH and SSH)*, page 5-277.

Error code: 3202

Maximum number of LLS errors exceeded in (x) position of reagent carrier located on reagent carousel position (y).
x = Reagent carrier position in which the error occurred
y = Reagent carousel position

Probable cause	Corrective action
Consecutive liquid level sense, aspiration or movement restriction errors detected for the indicated reagent carrier position.	1. *Review logs*, page 10-13, for any 3000 or 5000 category error codes that occurred at the same time as this message to determine the specific error with the pipettor. 2. *View low level error messages*, page 10-15, if you do not find any 3000 or 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 3300

High or low pressure detected on (x).
x = Pipettor name

Probable cause	Corrective action
For sample pipetting:	
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.

Probable cause	Corrective action
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Tubing connections are loose.	Tighten tubing connections finger tight.
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or have failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum	Place a new septum on all reagent bottles.
• Probe is out of alignment.	Perform the appropriate **as-needed** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Tubing connections are loose.	Tighten tubing connections finger tight.
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Antenna board – Liquid level sense board in the upper card cage has a poor connection or failed in:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	

Error code: 3350

Unable to process test, aspiration error for (x) at (y).
x = Pipettor name
y = Location

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327. • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330. • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364

Probable cause	Corrective action
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed – Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327. • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Pipettor pressure monitor cables have a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Pipettor pressure monitor board – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	

Error code: 3351

Aspiration error on liquid level sense board (x), output enable bit value.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3352

Aspiration error on liquid level sense board (x), invalid syringe start.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3354

Aspiration error on liquid level sense board (x), foam detection failure.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3355

Aspiration error on liquid level sense board (x), incomplete aspiration.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3356

Aspiration error on liquid level sense board (x), clot score.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76

Probable cause	Corrective action
	– *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77

Probable cause	Corrective action
	– *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3358

Aspiration error on liquid level sense board (x), back end average pressure.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	

Error code: 3359

Aspiration error on liquid level sense board (x), front end and back end average pressure correlation.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3360

Aspiration error on liquid level sense board (x), communication failure.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3361

High pressure detected on liquid level sense board (x).
x = Board number for pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Probe for the specific pipettor is obstructed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR:

Probable cause	Corrective action
	– *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3362

Low pressure detected on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3363

Aspiration error on liquid level sense board (x), invalid detail status code.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3364

Aspiration error on liquid level sense board (x), output enable bit number.

x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed • Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3365

(x) disabled, maximum number of aspiration errors exceeded.
x = Pipettor name

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed (S = slot 10, R1 = slot 8, R2 = slot 6, STAT = slot 4) – Pressure monitor board for the indicated pipettor has a poor connection or failed (S = slot 10, R1 = slot 8, R2 = slot 6, STAT = slot 4)	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3366

Aspiration error on liquid level sense board (x), pressure discord score.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.

Probable cause	Corrective action
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.

Probable cause	Corrective action
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3367

Aspiration error on liquid level sense board (x), slope score failure.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Hardware failure: – Cables to the pipettor board for the pipettor have a poor connection or failed – Pipettor board for the pipettor has a poor connection or failed (*i*1000SR) – Pressure monitor board for the indicated pipettor has a poor connection or failed. – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (S) (*i*2000/*i*2000SR) Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3368

Aspiration error on liquid level sense board (x), shape conform score.
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
For sample pipetting:	
• A sample cup or tube is not present.	Ensure sample cup or tube is present.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Bubbles, foam, or fibrin clots in the sample.	Remove bubbles, foam, or fibrin clots using a clean disposable pipette or applicator stick.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new sample cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR:

Probable cause	Corrective action
	– *Replace pipettor probe (i1000SR)*, page 9-361
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 10 (*i*2000/*i*2000SR) Slot 4 (STAT) (*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 11 (*i*2000/*i*2000SR) Slot 7 and 9 (STAT) (*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	
• Bubbles or foam are on the surface of the reagent	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Liquid on the reagent septum.	Place a new septum on all reagent bottles.
• Reagent bottle is empty.	Replace empty reagents.
• Drop of liquid on the end of the probe.	Tighten tubing connections finger tight.
• Pipettor probe clip is loose.	Tighten the probe clip finger tight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361

Probable cause	Corrective action
• Probe tubing is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330 • For *i*1000SR: – *Replace pipettor probe tubing (i1000SR)*, page 9-364
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed – Pipettor pressure monitor – Pipettor syringe – Liquid level sense board in the upper card cage has a poor connection or failed in: Slot 8 (R1) (*i*2000/*i*2000SR) Slot 6 (R2) (*i*2000/*i*2000SR) Slot 2 (*i*1000SR) – Indexer board in the upper card cage has a poor connection or failed in: Slot 9 (R1) (*i*2000/*i*2000SR) Slot 7 (R2) (*i*2000/*i*2000SR) Slot 3 (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3375

Unable to process test, aspiration error occurred.

Probable cause	Corrective action
• Bubbles, foam, or fibrin clots present in the sample.	Remove bubbles or foam using a clean disposable pipette or applicator stick. Remove fibrin clots using an applicator stick, or recentrifuge the sample.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample cup or tube not seated properly in sample carrier or sample carousel.	Ensure sample cup or tube is pushed completely down into the sample carrier or sample carousel.
• Sample probe is obstructed.	Clean the sample probe. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185.

Probable cause	Corrective action
	See *Replace the sample probe (c16000)*, page 9-256.
• Sample probe tubing is damaged.	Replace the sample probe tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Drop of liquid on the side of the sample cup or tube.	Transfer the sample to a new cup or tube.
• Drop of liquid on the end of the probe.	Tighten tubing connection finger tight.
• Hardware failure: – PM Sensor defective – PM sensor cable disconnected – PM board defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3376

Unable to process test, dispense error occurred.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3377

Unable to process test, wash error occurred.

Probable cause	Corrective action
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Sample probe tubing is damaged.	Replace the sample probe tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Water source supply was interrupted.	1. Verify the water source supply is functioning.

Probable cause	Corrective action
	2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Hardware failure: – Probe wash pump – Tubing damaged – PM sensor – PM sensor cable disconnected – PM board – Solenoid valve	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3378

Unable to initialize run, wash error occurred.

Probable cause	Corrective action
• Sample probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Sample probe tubing is damaged.	Replace the sample probe tubing. See *Replace the sample probe tubing (c4000)*, page 9-125. See *Replace the sample probe tubing (c8000)*, page 9-192. See *Replace the sample probe tubing (c16000)*, page 9-263.
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.

Probable cause	Corrective action
• Hardware failure: – Probe wash pump – Tubing damaged – PM sensor – PM sensor cable disconnected – PM board – Solenoid valve	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3380

Unable to process test, aspiration error (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Bubbles or foam in reagent container.	Remove bubbles or foam from the reagent surface using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Perform ***weekly*** maintenance procedure to clean probe. See *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34 or *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace the probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Reagent cartridge level low or empty.	Load reagents or replace empty cartridges.
• Hardware failure: – PM PCB defective – PM sensor defective – PM sensor cable disconnected – Solenoid valve	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3381

Unable to process test, dispense error (x) pipettor at position (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Bubbles or foam in reagent container.	Remove bubbles or foam from the reagent surface using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Perform ***weekly*** maintenance procedure to clean probe. See *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34 or *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace the probe.

Probable cause	Corrective action
	See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Reagent cartridge level low or empty.	Load reagents or replace empty cartridges.
• Hardware failure: – PM PCB defective – PM sensor defective – PM sensor cable disconnected	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3382

Unable to process test, internal wash pressure (x) error (y) pipettor.
x = Error type
y = Pipettor name

Probable cause	Corrective action
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe tubing is damaged.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34 or *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace the probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure: – Defective internal probe wash pump – Defective reagent valve assembly – PM PCB defective – PM sensor defective – PM sensor cable disconnected	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3385

Unable to process test, Reagent 1 aspiration error occurred.

Probable cause	Corrective action
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the reagent probe tubing. See *Replace the reagent probe tubing (c16000)*, page 9-266.

Probable cause	Corrective action
• Bubbles or foam in reagent container.	Remove bubbles or foam from the reagent surface using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Perform ***weekly*** maintenance procedure to clean probe. See *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace the probe. See *Replace reagent probes (c16000)*, page 9-259.
• Reagent cartridge level low or empty.	Load reagents or replace empty cartridges.
• Hardware failure: – PM PCB defective – PM sensor defective – PM sensor cable disconnected	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3386

Unable to process test, Reagent 2 aspiration error occurred.

Probable cause	Corrective action
• Reagent probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c16000)*, page 9-266.
• Bubbles or foam in reagent container.	Remove bubbles or foam from the reagent surface using a clean applicator stick for each bottle.
• Reagent probe is dirty.	Perform ***weekly*** maintenance procedure to clean probe. See *6023 Clean Sample/Reagent Probes*, page 9-24.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace the probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c16000)*, page 9-259.
• Reagent cartridge level low or empty.	Load reagents or replace empty cartridges.
• Hardware failure: – PM PCB defective – PM sensor defective – PM sensor cable disconnected – Solenoid valve	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3500

Pressure monitoring failure on liquid level sense board (x).

x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3501

LLS Command timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3502

LLS data read timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3503

LLS data write timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3504

Pressure Monitoring timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3505

Pressure Monitoring data read timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3506

Pressure Monitoring data write timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3507

Invalid timeout bit on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3508

Communication failure on liquid level sense board for (x).
x = Pipettor name

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Cables to the pressure monitor board for the pipettor indicated have a poor connection or failed – Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed – Pressure monitor board for the indicated pipettor has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 3550

Self test failure on liquid level sense board (x).

x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3551

Self test failure on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3552

No response from liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3553

Invalid address detected on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3554

Self test timeout on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3556

Self test failed on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3557

POST failed on Liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3574

PM code invalid at end of dispense.

Probable cause	Corrective action
Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3575

DI water tank is empty.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.

Probable cause	Corrective action
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3576

DI water tank, timeout during automatic fill.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– AC/DC driver board is defective – AC/DC controller board is defective	

Error code: 3577

DI water tank not filling.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3578

DI water tank, timeout during initialization.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications.

Probable cause	Corrective action
	See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Hardware failure: – Supply water tubing is disconnected – Incoming On/Off valve failure – Float sensor is disconnected or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3579

Internal Low concentration waste tank is full.

Probable cause	Corrective action
• Drainage or overflow tubing is crimped.	Reposition the drainage and overflow tubing so there are no crimps.
• Waste tubing is too high.	Adjust the waste tubing so it is less than 4 inches (100 mm) from the ground.
• Hardware failure: – Drain line is plugged – Float switch is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3580

PM board not in ready mode.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3581

PM board does not respond.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3582

PM board POST error.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3583

PM board not in ready mode to request PM software version.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3584

PM board does not respond to request for PM software version.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3585

PM board not in ready status during seek.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3586

PM board not in ready status beginning aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3587

PM board not in ready status ending aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3588

PM board not in ready status before dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3589

PM board not in ready status at start of dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3590

PM board not in ready status at end of dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3591

PM board not in ready status before wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3592

PM board not in ready status at start of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3595

PM board not in ready status at end of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3596

PM board not responding at end of aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3597

PM board not responding at end of dispense.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3598

PM board not responding at end of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3599

PM code invalid at end of aspiration.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3600

PM code invalid at end of wash.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3601

Invalid data terminator received from Liquid Level Sense board (x).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)

Probable cause	Corrective action
Hardware failure: • Liquid level sense board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3602

(x) liquid level sense antenna verification failure.
x = Pipettor name

Probable cause	Corrective action
Hardware failure: • The liquid level sense antenna indicated in the message is not responding.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3603

POST passed, Liquid level sense board (x), version (y).
x = Board number for Pipettor, 0 = S (slot 10 - *i*2000/*i*2000SR), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)
x = Board number for Pipettor, 0 = P (slot 2 - *i*1000SR)
y = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the indicated liquid level sense board.	Status message. No corrective action is required.

Error code: 3604

PM board not in ready status at beginning of seek.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3700

Unable to process test, (x) wash aspiration error for probe(s) (y).
x = Wash Zone
y = Probe number

Probable cause	Corrective action
If error occurs on one sample:	

Probable cause	Corrective action
• Fibrin or clots in the sample.	Remove fibrin clots with a clean applicator stick.
If error occurs on multiple samples:	
• Poor tubing connections to the wash zone probes.	Reconnect tubing to the affected probe(s) for the indicated wash zone.
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Wash zone probe obstructed.	1. Perform the appropriate ***as-needed*** maintenance procedure: – For *i*2000/*i*2000SR: • *6043 WZ Probe Cleaning - Bleach*, page 9-83. – For *i*1000SR: • *6445 Pipettor/WZ Probe Cleaning*, page 9-90. 2. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace the wash zone probe (i2000/ i2000SR)*, page 9-333. – For *i*1000SR: • *Replace the wash zone probe (i1000SR)*, page 9-367.
• Wash zone temperature sensor obstructed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone temperature tubing and sensor (i2000/i2000SR)*, page 9-340. • For *i*1000SR: – *Replace the wash zone temperature tubing and sensor (i1000SR)*, page 9-370.
• Poor tubing connections to the vacuum vessels.	Reseat the tubing connection at the vacuum valve of the vacuum vessel.
• Hardware failure: – DC driver I/O board in slot 7 in the lower card cage has a poor connection or failed (*i*2000/ *i*2000SR) – DC driver I/O board in slot 4 in the lower card cage has a poor connection or failed (*i*1000SR) – Wash zone manifold valve failure	Contact your Area Customer Support to resolve any hardware failure.
If error occurs after daily maintenance:	
• Processing module status is in the Warming status.	Repeat daily maintenance once the processing module is in the Ready status.

Error code: 3701

(x) disabled, maximum number of wash aspiration errors exceeded.
x = Wash Zone name

Probable cause	Corrective action
Error 3700 occurred shortly before or at the same time as this message. Determine the specific probe(s) 1, 2, or 3 experiencing the 3700 error message.	
• Poor tubing connections to the wash zone probes.	Reconnect tubing to the affected probe(s) for the indicated wash zone.
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Wash zone probe obstructed.	1. Perform the appropriate ***as-needed*** maintenance procedure: – For *i*2000/*i*2000SR: • *6043 WZ Probe Cleaning - Bleach*, page 9-83. – For *i*1000SR: • *6445 Pipettor/WZ Probe Cleaning*, page 9-90. 2. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace the wash zone probe (i2000/i2000SR)*, page 9-333. – For *i*1000SR: • *Replace the wash zone probe (i1000SR)*, page 9-367.
• Wash zone temperature sensor obstructed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone temperature tubing and sensor (i2000/i2000SR)*, page 9-340. • For *i*1000SR: – *Replace the wash zone temperature tubing and sensor (i1000SR)*, page 9-370
• Poor tubing connections to the vacuum vessels.	Reseat the tubing connection at the vacuum valve of the vacuum vessel.
• Hardware failure: – DC driver I/O board in slot 7 in the lower card cage has a poor connection or failed (*i*2000/*i*2000SR) – DC driver I/O board in slot 4 in the lower card cage has a poor connection or failed (*i*1000SR) – Wash zone manifold valve failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3702

Wash water supply warning (x), decreased flow detected, (y).
x = Wash cup name
y = Measured water flow rate / minimum flow rate

Probable cause	Corrective action
Fluctuation or a slight decrease in water wash flow.	No corrective action required.

Error code: 3703

Unable to process test, wash water supply failure (x), (y).
x = Wash cup name
y = Measured water flow rate / minimum flow rate

Probable cause	Corrective action
Wash water supply is restricted or requires adjustment.	Contact your Area Customer Support.

Error code: 3840

(x) timeout during rotation.
x = High concentration waste pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3841

(x) homing failure.
x = High concentration waste pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3850

(x) timeout while moving to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3851

Unexpected sensor status (Up and Down not activated) while moving (x) to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3852

Unexpected sensor status (only Down activated) while moving (x) to upper limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3853

Unexpected sensor status (Up and Down activated) while moving (x) to upper limit.

x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3854

(x) timeout while moving to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3855

Unexpected sensor status (Up and Down not activated) while moving (x) to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3856

Unexpected sensor status (only Up activated) while moving (x) to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3857

Unexpected sensor status (Up and Down activated) while moving (x) to lower limit.
x = Probe wash pump name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3858

Cuvette wash pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3859

Unexpected sensor status (Up and Down not activated) while moving Cuvette wash pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3860

Unexpected sensor status (only Down activated) while moving Cuvette wash pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3861

Unexpected sensor status (Up and Down activated) while moving Cuvette wash pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3862

Cuvette wash pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3863

Unexpected sensor status (Up and Down not activated) while moving Cuvette wash pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3864

Unexpected sensor status (only Up activated) while moving Cuvette wash pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3865

Unexpected sensor status (Up and Down activated) while moving Cuvette wash pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3866

Cuvette wash pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3867

Unexpected sensor status (Up and Down not activated) while homing Cuvette wash pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3868

Unexpected sensor status (only Up activated) while homing Cuvette wash pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3869

Unexpected sensor status (Up and Down activated) while homing Cuvette wash pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3870

Wash solution pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3871

Unexpected sensor status (Up and Down not activated) while moving Wash solution pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3872

Unexpected sensor status (only Down activated) while moving Wash solution pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3873

Unexpected sensor status (Up and Down activated) while moving Wash solution pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3874

Wash solution pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3875

Unexpected sensor status (Up and Down not activated) while moving Wash solution pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3876

Unexpected sensor status (only Up activated) while moving Wash solution pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3877

Unexpected sensor status (Up and Down activated) while moving Wash solution pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3878

Wash solution pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3879

Unexpected sensor status (Up and Down not activated) while homing Wash solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3880

Unexpected sensor status (only Down activated) while homing Wash solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3881

Unexpected sensor status (Up and Down activated) while homing Wash solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3882

High concentration waste pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3883

Unexpected sensor status (Up and Down not activated) while moving High concentration waste pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3884

Unexpected sensor status (only Down activated) while moving High concentration waste pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3885

Unexpected sensor status (Up and Down activated) while moving High concentration waste pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3886

High concentration waste pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3887

Unexpected sensor status (Up and Down not activated) while moving High concentration waste pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3888

Unexpected sensor status (only Up activated) while moving High concentration waste pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3889

Unexpected sensor status (Up and Down activated) while moving High concentration waste pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3890

High concentration waste pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3891

Unexpected sensor status (Up and Down not activated) while homing High concentration waste pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3892

Unexpected sensor status (only Down activated) while homing High concentration waste pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3893

Unexpected sensor status (Up and Down activated) while homing High concentration waste pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3894

Sample syringe drive timeout during movement.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3895

Sample syringe drive homing failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3896

(x) syringe drive timeout during movement.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3897

(x) syringe drive homing failure.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3898

(x) syringe drive timeout during movement.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3899

(x) syringe drive homing failure.
x = Syringe drive name

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 3900

The Processing Module is (x), inlet valve cannot be opened for ARM buffer transfer.
x = Processing module status

Probable cause	Corrective action
User manually requested buffer transfer and the processing module is not in the correct status for receiving buffer from the ARM.	Processing module cannot be in an Offline or Stopped status. For the iARM, see Appendix F, *Initiate wash buffer transfer from the iARM*, page F-13. For the ARM, see *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.

Error code: 3901

(x) failed: (y).
x = Type of request
y = Text that describes the failure

Probable cause	Corrective action
The ARM cannot respond to the SCC request to transfer buffer to a processing module.	For the iARM, view the message on the iARM display. For the associated probable causes and corrective actions, refer to Appendix F, *Troubleshooting*, page F-33. For the ARM, refer to the ARM ***Observed Problems*** in this section, for the text in the last field of the ARM error code: • *A to D timeout (ARM)*, page 10-605 • *ARM accessory is stopped*, page 10-605 • *ARM decontamination mode aborted*, page 10-606 • *ARM message not sent*, page 10-606 • *Calibration check failure (ARM)*, page 10-609 • *Checksum failure (ARM)*, page 10-609 • *Communication timeout (ARM)*, page 10-610 • *Concentrated wash buffer empty (ARM)*, page 10-610 • *Decontamination is in process (ARM)*, page 10-611 • *Flood condition (ARM)*, page 10-611 • *Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)*, page 10-607 • *High outlet pressure indicator illuminates (ARM)*, page 10-612 • *Temperature indicator illuminates (ARM)*, page 10-618 • *Invalid ARM error code*, page 10-612 • *Invalid ARM status code*, page 10-613 • *Invalid format of ARM message "message string"*, page 10-614 • *System flush is in process (ARM)*, page 10-617 • *Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)*, page 10-608

Probable cause	Corrective action
	• *Low inlet pressure indicator illuminates (ARM)*, page 10-614 • *Meter handshaking failure (ARM)*, page 10-615 • *Motor stall (ARM)*, page 10-615 • *Water quality error indicator illuminates (ARM)*, page 10-618 • *SCI (serial communication interface) process timeout (ARM)*, page 10-616

Error code: 3902

x : y
x = Type of message
y = Text that describes the failure

Probable cause	Corrective action
The ARM is not able to respond to a request to transfer buffer to a processing module, because it is not in the correct status.	For the iARM, view the message on the iARM display. For the associated probable causes and corrective actions, refer to Appendix F, *Troubleshooting*, page F-33. For the ARM, refer to the ARM ***Observed Problems*** in this section, for the text in the last field of the ARM error code: • *A to D timeout (ARM)*, page 10-605 • *ARM accessory is stopped*, page 10-605 • *ARM decontamination mode aborted*, page 10-606 • *ARM message not sent*, page 10-606 • *Calibration check failure (ARM)*, page 10-609 • *Checksum failure (ARM)*, page 10-609 • *Communication timeout (ARM)*, page 10-610 • *Concentrated wash buffer empty (ARM)*, page 10-610 • *Decontamination is in process (ARM)*, page 10-611 • *Flood condition (ARM)*, page 10-611 • *Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)*, page 10-607 • *High outlet pressure indicator illuminates (ARM)*, page 10-612 • *Temperature indicator illuminates (ARM)*, page 10-618 • *Invalid ARM error code*, page 10-612 • *Invalid ARM status code*, page 10-613 • *Invalid format of ARM message "message string"*, page 10-614 • *System flush is in process (ARM)*, page 10-617 • *Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)*, page 10-608 • *Low inlet pressure indicator illuminates (ARM)*, page 10-614 • *Meter handshaking failure (ARM)*, page 10-615 • *Motor stall (ARM)*, page 10-615

Probable cause	Corrective action
	• *Water quality error indicator illuminates (ARM)*, page 10-618 • *SCI (serial communication interface) process timeout (ARM)*, page 10-616 • *Sensor cable disconnected (ARM)*, page 10-617

Error code: 3903

Unable to configure Wash Buffer transfer to automatic, ARM port error.

Probable cause	Corrective action
• The ARM RS-232 cable was not connected when the SCC was configured to automatic wash buffer transfer.	Connect the RS-232 cable to the SCC port then configure the SCC to automatic wash buffer transfer.
• Another cable is connected to the port used for the ARM RS-232 cable.	Reseat the RS-232 cable connection to the SCC port and to the ARM.
• The SCC hyperterminal program is running.	Contact your Area Customer Support.

Error code: 3904

ARM turned off, SCC communication to a Processing Module failed.

Probable cause	Corrective action
Buffer was transferring to a processing module when communication to the SCC failed.	1. Determine why the communication failed between the SCC and the processing module and correct the cause. 2. *Cycle power to the processing module and/or sample handler*, page 5-14. 3. *Power off the ARM (i2000/i2000SR)*, page 5-21. 4. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21.

Bar code reader error codes (4000-4999)

The bar code reader error code category includes error codes between 4000-4999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens

- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 4000

Unable to read reagent bar code in position (x) on (y) carousel.
x = Position in which the unreadable bar code was detected.
(1-25 for *i* System; A1-D20 for *c*8000/*c*16000; A1 - O6 for *c*4000)
y = Location in which the unreadable bar code was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• Reagent bottle not loaded properly.	Reseat the reagent bottle.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701, if error occurs with multiple reagent bottles.
For *c* System:	
• 1D reagent bar code label has an invalid checksum.	See *1D reagent bar code label data format*, page 4-33.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
For *i* System:	
• Reagent bar code reader requires calibration.	Calibrate the bar code reader. Perform ***bar code readers*** diagnostic procedure *3210 Reagent Bar Code Calibration*, page 10-655.
• Reagent bar code reader was not calibrated correctly.	Repeat ***bar code readers*** diagnostic procedure and ensure the bar code calibration tools are not tilted and the bar codes face the center of the reagent carousel. See *3210 Reagent Bar Code Calibration*, page 10-655.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4001

Unable to read reagent 1 bar code in position (x).
x = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4002

Unable to read reagent 2 bar code in position (x).
x = Reagent carousel segment and position

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4003

Unable to read reagent 1 bar code.

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4004

Unable to read reagent 2 bar code.

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Condensation on reagent bottle bar code label.	Wipe the label with a clean lint-free tissue.
• Reagent bottle bar code is damaged	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4005

Unable to read segment ID bar code on reagent carousel 1 segment (x).
x= Reagent carousel segment

Probable cause	Corrective action
• Segment bar code label is dirty.	Clean the label.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Segment bar code label is damaged.	Replace the reagent carousel segment.
• Communication failure with the reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4006

Unable to read segment ID bar code on reagent carousel 2 segment (x).
x= Reagent carousel segment

Probable cause	Corrective action
• Segment bar code has too much condensation.	Wipe the label with a clean lint-free tissue.
• Segment bar code label is dirty.	Clean the label.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Segment bar code label is damaged.	Replace the reagent carousel segment.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4007

User-defined reagent kit in location (x) was unloaded, bar code read error in same position.
x= Reagent carousel segment and position

Probable cause	Corrective action
A bar coded reagent cartridge was detected in a position in which a non-bar coded reagent was manually assigned.	1. If the non-bar coded reagent was moved to a different position, assign the new position. See *Load non-bar coded reagents (c4000)*, page 5-139. See *Load non-bar coded reagents (c8000/c16000)*, page 5-155. 2. If the non-bar coded reagent is no longer onboard, no action is required until the reagent is loaded again. At that time, assign a new position.

Error code: 4008

Unable to read reagent bar code in the (x) reagent carrier position in section (y).
x = Position in which the unreadable bar code was detected
y = RSH bay/section number

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• Reagent bottle not loaded properly.	Reseat the reagent bottle.
• Bar code reader window is dirty.	Perform bar code reader test or bar code reader calibration if error occurs with multiple reagent bottles.

Probable cause	Corrective action
	See *Bar code reader diagnostics description (RSH - c4000/i1000SR /ci4100)*, page 10-688.
• Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure. See *3240 Bar Code Calibration*, page 10-689.
• Bar code reader was not calibrated correctly.	Repeat ***bar code readers*** diagnostic procedure. See *3240 Bar Code Calibration*, page 10-689.
• Hardware failure. – Bar Code Reader – RSH Distribution Board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4100

Termination character not received from Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: • Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4101

Invalid checksum received from Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: • Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4102

Invalid command sent to Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: • Reagent bar code reader • Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4103

Reagent bar code reader not responding.

Probable cause	Corrective action
• Communication failure with the Reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4104

Acknowledge command not received from Reagent bar code reader.

Probable cause	Corrective action
Hardware failure: • Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4105

POST failed, Reagent bar code reader.

Probable cause	Corrective action
• Communication failure with the Reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4106

POST passed, Reagent Bar code Reader (x).
x = Firmware Version.

Probable cause	Corrective action
Power on self tests (POST) passed on the reagent bar code reader.	Status message. No corrective action is required.

Error code: 4200

Unable to read bar code label at Carrier (x) Position (y).
x = Carrier ID
y = Position

Probable cause	Corrective action
If error code 4203 occurred at the same time, the carrier label cannot be read. If there is no other error code, the sample label cannot be read.	
• A cup or tube is not in position.	No corrective action is required.
• A bar code label is not on the sample tube.	Place a bar code label on the sample tube.
• Tube is not correctly positioned in the carrier.	Place the tube in the carrier so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Sample cup or tube is scratched or dirty.	1. Clean the sample cup or tube. 2. Replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-35 for guidelines.
• System bar code configuration does not match bar code label.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-29, *Change the sample bar code settings for code 39*, page 2-30, or *Change the sample bar code settings for I 2 of 5*, page 2-30.
• Sample ID bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure *3220 SH Bar Code Calibration*, page 10-691, if you have a standard sample handler. Perform ***bar code readers*** diagnostic procedure *3222 RSH Bar Code Calibration*, page 10-684 if you have a

Probable cause	Corrective action
	robotic sample handler (except for *c*4000/*i*1000SR/*ci*4100). Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-689 if you have a robotic sample handler (*c*4000/*i*1000SR/*ci*4100).
• Hardware failure: – RSH bar code reader or sample load queue bar code reader – Bar code transition value is not set correctly	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4201

Unable to read Carrier ID (x) at Load Queue bar code reader, samples will not be processed.
x = Carrier ID

Probable cause	Corrective action
Carrier ID read at the processing queue bar code reader but was unable to be read at the load queue bar code reader.	
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Sample ID bar code reader requires calibration.	Calibrate the bar code reader. See ***bar code readers*** diagnostic procedure *3220 SH Bar Code Calibration*, page 10-691.
• Hardware failure: – Load queue SID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4202

Carrier position numbers detected out of sequence on Carrier (x).
x = Carrier ID

Probable cause	Corrective action
• Carrier mis-labeled.	Use a different carrier.
• Load queue bar code reader requires calibration.	Perform bar code reader calibration. See ***bar code readers*** diagnostic procedure *3250 SH Bar Code Reader Test*, page 10-691. Perform ***bar code readers*** diagnostic procedure *3220 SH Bar Code Calibration*, page 10-691, if *3250 SH Bar Code Reader Test*, page 10-691, failed.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4203

Unable to read Position number (x) on Carrier at the Load Queue bar code reader.
x = Position

Probable cause	Corrective action
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Sample ID bar code reader requires calibration.	Perform bar code reader calibration. See ***bar code readers*** diagnostic procedure *3220 SH Bar Code Calibration*, page 10-691.
• Hardware failure: – Load queue SID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4204

Unable to read Carrier ID at Sample ID bar code reader.

Probable cause	Corrective action
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Sample ID bar code reader requires calibration.	Perform bar code reader calibration. See ***bar code readers*** diagnostic procedure *3220 SH Bar Code Calibration*, page 10-691.
• Hardware failure: – Sample ID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4205

Unable to read Carrier ID (x) at RSH bar code reader.
x = Carrier ID

Probable cause	Corrective action
• Carrier bar code label is damaged, wet, or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Bar code reader requires calibration.	Perform bar code reader calibration. Perform ***bar code readers*** diagnostic procedure *3222 RSH Bar Code Calibration*, page 10-684 (except for *c*4000/*i*1000SR/*ci*4100). Perform ***bar code readers*** diagnostic procedure *3240 Bar Code Calibration*, page 10-689 (*c*4000/*i*1000SR/*ci*4100).
• Hardware failure: – Sample ID bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4206

Unable to read Carrier ID for carrier in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
If error occurs for one carrier:	
• Carrier bar code label is wet or dirty.	Clean and dry the carrier bar code label.
• Carrier bar code is damaged.	Use a different carrier.
If error occurs for more than one carrier:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Bar code reader requires calibration.	Perform bar code reader calibration. See ***bar code readers*** diagnostic procedure *3222 RSH Bar Code Calibration*, page 10-684.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4207

Unable to read Carrier ID for carrier in section (x).
x = RSH section number

Probable cause	Corrective action
If error occurs for one carrier:	
• Carrier bar code label is wet or dirty.	Clean and dry the carrier bar code label.
• Carrier bar code is damaged.	Use a different carrier.
If error occurs for more than one carrier:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure. See *3240 Bar Code Calibration*, page 10-689.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4208

Invalid Sample ID scanned by the Sample ID bar code reader. The Sample ID contains an invalid character.

Probable cause	Corrective action
The sample ID contains an invalid character.	Use valid characters only. Valid characters are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Error code: 4209

Unable to read Carrier ID for carrier in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
If error occurs for one carrier:	
• Carrier bar code label is wet or dirty.	Clean and dry the carrier bar code label.
• Carrier bar code is damaged.	Use a different carrier.

Probable cause	Corrective action
If error occurs for more than one carrier:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure. See *3240 Bar Code Calibration*, page 10-689.
• Hardware failure: – Bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4300

Unable to read position number (x) on Carrier at the (y).
x = Position number
y = Bar code reader

Probable cause	Corrective action
• Carrier bar code label is damaged or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4301

Unable to read Carrier ID at the (x) on module (y).
x = Bar code reader
y = Processing module number (1-4)

Probable cause	Corrective action
• Carrier bar code label is damaged or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Hardware failure: – Processing queue bar code reader.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4302

Invalid Carrier ID detected at (x) on module (y).
x = Bar code reader
y = Processing module number (1-4)

Probable cause	Corrective action
• Carrier bar code label is damaged or dirty.	1. Clean the carrier bar code label. 2. Place carrier on the load queue. 3. Use a different carrier, if error continues.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4400

Sample ID bar code reader not responding.

Probable cause	Corrective action
• Hardware failure: – Controller board has a poor connection or failed (*ci* System/*i* System - slot 3 in the upper card cage, *c* System - slot 2 in lower card cage) – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4401

Invalid checksum received from sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4402

Termination character not received from sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4403

Sample ID bar code reader not detected.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader – Controller board has a poor connection or failed (*ci* System/*i* System - slot 3 in the upper card cage, *c* System - slot 2 in lower card cage)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4404

Invalid command sent to sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4405

Sample ID bar code reader communication error.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4406

Unable to perform read, sample ID bar code reader in use.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4407

Invalid configuration for sample ID bar code reader.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4408

POST failed, sample ID bar code reader.

Probable cause	Corrective action
• Communication failure with the sample ID bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Controller board has a poor connection or failed (*ci* System/*i* System - slot 3 in the upper card cage, *c* System - slot 2 in lower card cage) – RSH bar code reader or sample load queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4409

POST passed, sample ID bar code reader, version (x).
x = Firmware version

Probable cause	Corrective action
Power on self tests (POST) passed for the sample load queue bar code reader or RSH bar code reader.	Status message. No corrective action is required.

Error code: 4410

Timing sequence error detected with RSH bar code reader.

Probable cause	Corrective action
• RSH bar code reader calibration was not performed.	Perform bar code reader calibration. See ***bar code readers*** diagnostic procedure *3222 RSH Bar Code Calibration*, page 10-684.

Probable cause	Corrective action
• Hardware failure: – RSH bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4411

Invalid checksum received from the bar code reader.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4412

Invalid command sent to the bar code reader.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4413

Bar code reader communication error.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4414

Bar code reader not detected.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR) • Controller board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4415

Termination character not received from the bar code reader.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4416

Unable to perform read, bar code reader in use.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4417

Invalid configuration for the bar code reader.

Probable cause	Corrective action
Hardware failure: • Bar code reader (*i*1000SR) • RSH bar code reader (*c* System/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4418

Reagent barcode reader communication error.

Probable cause	Corrective action
Hardware failure: • Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4419

Invalid configuration for reagent barcode reader.

Probable cause	Corrective action
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4420

Unable to perform read, reagent barcode reader in use.

Probable cause	Corrective action
• Hardware failure: – Reagent bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4500

(x) not responding on Processing Module (y).
x = Bar code reader
y = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4501

Processing Queue bar code reader (x) in use.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4502

Invalid reader number (x) requested for Processing Queue bar code reader.
x = Reader number

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4503

Invalid configuration on Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4504

Processing Queue barcode reader (x) communication error.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4505

Invalid checksum received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4506

Termination character not received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4507

Invalid terminator received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4508

Processing Queue bar code reader (x) not detected.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4509

Invalid reader address received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4510

Invalid command received from Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4511

Processing Queue bar code reader (x) not responding.
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Controller board in slot 3 in the upper card cage has a poor connection or failed – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4520

POST passed, Processing Queue Bar code Reader (x) version (y).
x = Processing module number (1 - 4)
y = Firmware version

Probable cause	Corrective action
Power on self tests (POST) passed on the processing queue bar code reader.	Status message. No corrective action is required.

Error code: 4530

POST failed, Processing Queue bar code reader (x).
x = Processing module number (1 - 4)

Probable cause	Corrective action
• Communication failure with the processing queue bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Controller board in slot 3 in the upper card cage has a poor connection or failed – Processing Queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4600

Unable to read carousel ID at Processing Queue bar code reader.

Probable cause	Corrective action
• Carousel is not present.	Place carousel on the LAS carousel platform.
• Carousel ID label is not on the carousel.	Apply a carousel ID label to the carousel.
• The carousel is not seated correctly.	Seat the carousel correctly.
• Carousel bar code label is damaged, wet, or dirty.	1. Clean the carousel bar code label or replace the label if damaged. 2. Place carousel on the LAS carousel platform. 3. Use a different carousel, if error continues.
• Processing queue bar code reader (used to read the LAS carousel) requires calibration.	Perform bar code reader calibration. See ***bar code readers*** diagnostic procedure *3225 LAS Crsl Bar Code Calibration*, page 10-694.
• Hardware failure: – Processing queue bar code reader.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4601

LAS bar code read failed for SID (x).
x - Sample ID

Probable cause	Corrective action
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Sample tube is not correctly positioned in the carrier.	Position the tube in the carrier so the bar code is visible.
• Bar code label does not meet specifications.	1. See *Sample bar code label requirements*, page 4-35, for guidelines. 2. Contact your LAS vendor.
• Hardware failure: – Processing queue bar code reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4602

LAS bar code read mismatched for SID (x).
x = Sample ID ordered

Probable cause	Corrective action
The bar code read by the LAS did not match the SID data ordered.	
• The wrong tube is at the aspiration point.	1. Rerun the sample. 2. Contact your LAS vendor.

Error code: 4800

Unable to read Sample ID at sample carousel position (x).
x = Sample carousel position

Probable cause	Corrective action
If error occurs on one sample:	
• Tube is not correctly positioned in the carousel.	Place the tube in the carousel so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-35, for guidelines.
If error occurs with multiple samples:	
• System bar code configuration does not match bar code labels.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-29, *Change the sample bar code settings for code 39*, page 2-30, or *Change the sample bar code settings for I 2 of 5*, page 2-30.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4801

Unable to read Sample ID at sample carousel.

Probable cause	Corrective action
If error occurs on one sample:	
• Tube is not correctly positioned in the carousel.	Place the tube in the carousel so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-35, for guidelines.
If error occurs with multiple samples:	
• System bar code configuration does not match bar code labels.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-29, *Change the sample bar code settings for code 39*, page 2-30, or *Change the sample bar code settings for I 2 of 5*, page 2-30.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4900

(x) bar code reader Power On Self Test failure.
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
• Communication failure with bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4901

(x) bar code reader failure (port initialize error).
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
• Communication failure with bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4902

(x) bar code reader failure.
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
• Communication failure with bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 4906

(x) bar code reader parity error.
x = Sample Carousel, Reagent 1, or Reagent 2

Probable cause	Corrective action
For sample carousel:	
• Tube is not correctly positioned in the carousel.	Place the tube in the carousel so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-35, for guidelines.
• System bar code configuration does not match bar code labels.	Edit the bar code configuration as required for the bar code label symbology. See *Change the sample bar code settings for codabar*, page 2-29, *Change the sample bar code settings for code 39*, page 2-30, or *Change the sample bar code settings for I 2 of 5*, page 2-30.
For Reagent 1 or 2:	
• Reagent bottle bar code label is dirty.	Clean the label.
• Reagent bottle bar code label is damaged.	Load a new reagent kit.
• The bar code label on the 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL cartridge in the adapter so it faces the outside of the reagent supply center.
For all bar code readers:	
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Robotic and sensor error codes (5000-5999)

The robotic and sensor error code category includes error codes between 5000-5999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp

- Removing system waste

Error code: 5000

(x) movement restricted at (y) step number (z).
x = Pipettor name
y = Location
z = Position

Probable cause	Corrective action
For sample pipetting:	
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample cup or tube was not properly placed in the carrier.	Ensure sample cup or tube is fully seated into sample carrier and is positioned straight.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform the appropriate ***fluidics/wash*** diagnostic procedure: • For *i*2000/*i*2000SR: – *3600 LLS Test*, page 10-653 for the sample pipettor – *3610 Sample Handler LLS Test*, page 10-653 for the STAT pipettor • For *i*1000SR: – *3630 LLS Test*, page 10-674
• Sample carrier is damaged.	Use a different carrier.
• Hardware failure: – Indexer board has a poor connection or failed – Liquid level sense board has a poor connection or failed – Liquid level sense and Z cable failure – Pipettor	Contact your Area Customer Support to resolve any hardware failure.
For reagent pipetting:	

Probable cause	Corrective action
• Reagent bottle cap was not removed.	Remove the cap from the reagent bottle, and then install septum.
• Reagent bottle is empty.	Replace empty reagents.
• Vacuum vessel tubing obstructing probe.	Adjust vacuum vessel tubing so the pipettor does not touch it when washing the probe.
• Reagent bottle is not seated correctly in the reagent carousel.	Reseat the reagent bottle in the carousel.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Liquid level sense and Z cable has a poor connection.	Tighten the screw holding the cable to the probe clamp, then perform the appropriate ***fluidics/wash*** diagnostic procedure: • For *i*2000/*i*2000SR: – *3600 LLS Test*, page 10-653 • For *i*1000SR: – *3630 LLS Test*, page 10-674
• Hardware failure: – Liquid level sense board has a poor connection or failed – Indexer board has a poor connection or failed – Liquid level sense and Z cable – Pipettor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5001

Sample Pipettor probe may be in sample cup/tube on Processing Module (x) due to prior hardware failure.

x = Processing module number (1-4)

Probable cause	Corrective action
Sample pipettor failure occurred on the specified processing module that could possibly leave the probe inside the sample cup or tube.	1. Start up the processing module to remove probe from sample cup or tube. Do not perform start up on the sample handler at the same time. See *Start up the processing module and/or sample handler*, page 5-15. 2. Perform a start up on the sample handler when processing module status is Ready.

Probable cause	Corrective action
	3. *Review logs*, page 10-13, for any 3000 or 5000 category error codes that occurred at the same time as this message. 4. *View low level error messages*, page 10-15, if you do not find any 3000 or 5000 category error codes. 5. Perform the corrective action for the specific error code.

Error code: 5002

Sample pipettor timeout during vertical movement.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor in the cuvette dispense or wash cup positions.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5003

Sample pipettor vertical homing failure.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5004

Sample pipettor timeout during horizontal movement.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5005

Sample pipettor horizontal homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5006

(x) pipettor timeout during vertical movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 1 pipettor in the cuvette dispense or wash cup positions.	Look for and remove any physical obstructions.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5007

(x) pipettor vertical homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 1 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5008

(x) pipettor timeout during horizontal movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5009

(x) pipettor horizontal homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5010

(x) pipettor timeout during vertical movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 2 pipettor in the cuvette dispense or wash cup positions.	Look for and remove any physical obstructions.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5011

(x) pipettor vertical homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 2 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5012

(x) pipettor timeout during horizontal movement.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5013

(x) pipettor horizontal homing failure.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5014

Sample pipettor movement restricted at Sample Carousel or Sample wash solution position (x).
x = Position number

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.

Probable cause	Corrective action
• Sample cup or tube was not seated or aligned properly.	Ensure sample cup or tube is fully seated and is positioned straight.
• Sample carousel cover is not seated properly.	Reseat the sample carousel cover.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5015

(x) pipettor movement restricted at (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5016

(x) pipettor movement restricted at (y).
x = Pipettor name
y = Reagent carousel segment and position

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5017

Unable to perform horizontal movement, sample pipettor not in up position.

Probable cause	Corrective action
• The sample pipettor was physically pushed down from its vertical home position.	1. Select the **processing module graphic**, and then select **Stop**. 2. Start up the processing module when the status is Stopped. See *Start up the processing module and/or sample handler*, page 5-15.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5018

Sample pipettor movement restricted at sample carrier.

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample cup or tube was not properly placed in the carrier.	Ensure sample cup or tube is fully seated into the sample carrier and is positioned straight.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration.

Probable cause	Corrective action
	See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5019

Unable to process test, reagent 1 pipettor movement restricted.

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5020

Unable to process test, reagent 2 pipettor movement restricted.

Probable cause	Corrective action
• Cap not removed from a reagent cartridge.	Remove cap from reagent bottles.
• Reagent cartridge and/or adapter is not seated correctly.	Reseat the reagent cartridge and/or adapter.
• Empty reagent cartridge.	Replace the reagent.
• Carousel cover is not seated properly.	Reseat the carousel cover.
• A physical interference is blocking the movement of the reagent pipettor.	Look for and remove any physical obstructions.
• Non-bar coded reagent is not loaded or is not loaded in the correct position.	Load the non-bar coded reagent in the correct assigned position.
• Reagent probe is out of alignment.	Perform pipettor calibration.

Probable cause	Corrective action
	See ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• Reagent probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188. See *Replace reagent probes (c16000)*, page 9-259.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5021

Sample pipettor movement restricted at LAS.

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample cup or tube was not properly placed in the carousel.	Ensure sample cup or tube is fully seated into the carousel and is positioned straight.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5022

Sample pipettor movement restricted at dilution cuvette position.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5023

Sample pipettor movement restricted.

Probable cause	Corrective action
• Stopper not removed from the sample tube.	Remove stopper from sample tube.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample cup or tube was not properly placed in the carrier or carousel.	Ensure sample cup or tube is fully seated into sample carrier or carousel and is positioned straight.
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstructions.
• Sample probe is out of alignment.	Perform sample pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118. See *Replace the sample probe (c8000)*, page 9-185. See *Replace the sample probe (c16000)*, page 9-256.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5024

Unexpected SMC status after (x) movement.
x = Hardware component

Probable cause	Corrective action
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is out of alignment.	Perform pipettor calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34, *1121 R1 Pipettor Calibration*, page 9-34, or *1122 R2 Pipettor Calibration*, page 9-35.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5025

Sample Pipettor (vertical) did not stop as expected.

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5026

(x) pipettor (vertical) did not stop as expected.
x = Pipettor name

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5027

(x) pipettor (vertical) did not stop as expected.
x = Pipettor name

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5100

(x) disabled, maximum number of errors exceeded.
x = Name of mechanism taken offline

Probable cause	Corrective action
For vortexer:	
Hardware failure: • Cable for the specified vortexer has a poor connection or failed • Vortexer in the indicated position • DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For other motors:	
Hardware failure: • Cable for the specified motor has a poor connection or failed • DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5101

(x) did not disengage from RV.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: • Cable for the specified vortexer has a poor connection or failed • Vortexer in the specified position • DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5102

Unable to process test, failure on (x).
x = Mechanism name

Probable cause	Corrective action
Intermittent failure with the specified mechanism.	1. *Review logs*, page 10-13, for any 5000 or 7000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 5000 or 7000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5103

(x) did not mix RV for required time.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: • Cable for the specified vortexer has a poor connection or failed • Vortexer in the specified position • DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5104

(x) did not reach required speed.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: • Cable for the specified vortexer has a poor connection or failed • Vortexer in the specified position • DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5105

(x) did not engage with RV.
x = Vortexer number

Probable cause	Corrective action
Hardware failure: • Cable for the specified vortexer has a poor connection or failed • Vortexer in the specified position • DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5106

Process path jam was detected and a recovery was successfully performed. Process path may require servicing.

NOTE: Frequent occurrences of this error code may indicate a pending hardware failure. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• An RV (reaction vessel) was jammed in the process path track.	A recovery was performed to clear the jammed RV. No further action required.
• RVs are damaged or have an irregular shape.	A recovery was performed to clear the jammed RV. No further action required.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5107

Process path jam was detected and a recovery was successfully performed. Process path may require servicing.

NOTE: Frequent occurrences of this error code may indicate a pending hardware failure. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• An RV (reaction vessel) was jammed in the process path track.	A recovery was performed to clear the jammed RV. No further action required.
• RVs are damaged or have an irregular shape.	A recovery was performed to clear the jammed RV. No further action required.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5151

Reaction carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reaction carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5152

Reaction carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reaction carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5153

Reagent 1 outer carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5154

Reagent 1 outer carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5155

Reagent 1 inner carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5156

Reagent 1 inner carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5157

Reagent 2 carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5158

Reagent 2 carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5159

Sample carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5160

Sample carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5161

Reagent 1 outer carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5162

Reagent 1 outer carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 outer carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5163

Reagent 1 inner carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5164

Reagent 1 inner carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 1 inner carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5165

Reagent 2 carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5166

Reagent 2 carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5167

Cuvette tab not detected at cuvette (x).
x = Cuvette #

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment. See *Replace a cuvette segment (c4000)*, page 9-140. See *Replace a cuvette segment (c8000)*, page 9-207 or *Replace a cuvette segment (c16000)*, page 9-277.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5168

Cuvette tab not detected.

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment. See *Replace a cuvette segment (c4000)*, page 9-140. See *Replace a cuvette segment (c8000)*, page 9-207 or *Replace a cuvette segment (c16000)*, page 9-277.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5169

Optics trigger sensor auto adjustment value (x) out of range.
x = Trigger value

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment. See *Replace a cuvette segment (c4000)*, page 9-140. See *Replace a cuvette segment (c8000)*, page 9-207 or *Replace a cuvette segment (c16000)*, page 9-277.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5170

Sample carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5171

Sample carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the sample carousel.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5172

Optics trigger sensor auto adjustment error.

Probable cause	Corrective action
• Water is present on the slotted edges of the cuvette segment.	Dry off the slotted edge of the cuvette segment.
• Cuvette tab is broken.	Replace cuvette segment. See *Replace a cuvette segment (c4000)*, page 9-140. See *Replace a cuvette segment (c8000)*, page 9-207 or *Replace a cuvette segment (c16000)*, page 9-277.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5173

Unable to complete reagent scan.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information specifying the operation you were attempting to perform when this error occurred.

Error code: 5174

Duplicate reagent bottle detected in position (x) on carousel (y). The bottle will not be used.
x = Position in which the bottle was detected
y = Location in which the bottle was detected

Probable cause	Corrective action
• Reagent bar code reader requires calibration.	Calibrate the bar code reader. Perform ***bar code readers*** diagnostic procedure *3210 Reagent Bar Code Calibration*, page 10-655.
• The reagent carousel is slipping and the same bottle was scanned twice.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5175

Duplicate reagent bottle detected in position (x) on carousel (y). The bottle will not be created.
x = Reagent segment and position
y = Reagent carousel

Probable cause	Corrective action
A user printed reagent bar code was created with the same lot number and serial number as a reagent already scanned on the system.	Remove the duplicate bottle and recreate the reagent bar code with a unique serial number.

Error code: 5176

No carrier detected at reagent carousel position (x).
x = Reagent carousel position number

Probable cause	Corrective action
Hardware failure: • Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5177

Carrier detected in reagent carousel position (x).
x = Reagent carousel position number

Probable cause	Corrective action
Hardware failure: • Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5178

Reagent carrier detect sensor failed.

Probable cause	Corrective action
Hardware failure: • Reagent carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5179

Duplicate reagent bottle detected in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the bottle was detected
y = RSH section number

Probable cause	Corrective action
Bar code reader requires calibration.	Perform ***bar code readers*** diagnostic procedure. See *3240 Bar Code Calibration*, page 10-689.

Error code: 5180

Unable to load reagent carrier from section (x) due to a previous mechanism failure.
x = RSH section number

Probable cause	Corrective action
A mechanism failure prevented loading of the reagent carrier.	Restart the RSH.

Error code: 5181

Unable to unload reagent carrier from reagent carousel position (x) due to a previous mechanism failure.
x = Position number on the reagent carousel

Probable cause	Corrective action
A mechanism failure prevented unloading of the reagent carrier.	Restart the RSH.

Error code: 5182

Carrier not detected in reagent carousel position (x).
x = Position number on the reagent carousel

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Reagent carrier detect sensor – Carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5183

Reagent 2 outer carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5184

Reagent 2 inner carousel failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5185

Reagent 2 outer carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5186

Reagent 2 inner carousel rotation error from (x) to (y).
x = Start position
y = Destination

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5187

Reagent 2 outer carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5188

Reagent 2 inner carousel homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5189

Reagent 2 outer carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 outer carousel.	Remove any obstruction from the area of movement of the carousel.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5190

Reagent 2 inner carousel timeout during rotation.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the reagent 2 inner carousel.	Remove any obstruction from the area of movement of the carousel.

Probable cause	Corrective action
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5191

Unable to reset reagent carousel cover monitor.

Probable cause	Corrective action
• The reagent access door was opened.	Close the reagent access door and perform a Startup.
• Hardware failure: – Reagent access door sensor – Reagent cooler monitor sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5192

Unable to load reagent carrier from bay (x) section (y) due to a previous mechanism failure.

Probable cause	Corrective action
A mechanism failure prevented loading of the reagent carrier.	Restart the RSH.

Error code: 5193

Reagent supply center cover failed to open or close.

Probable cause	Corrective action
• Hardware failure: – Cover sensors – Reagent supply center cover motor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5200

RV detected below drop point when none was expected.

Probable cause	Corrective action
• An RV is jammed at the load point in the RV transport.	1. Remove the RV transport shield. 2. Remove RV from the RV loader drop point on the RV transport. 3. Replace the RV transport shield. 4. *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed – RV loader drop point sensor is dirty or dusty – RV loader drop point sensor board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5201

RVs have not been picked up for an extended period of time.

Probable cause	Corrective action
• RVs (reaction vessels) are blocking the access path to the RV loader wheel.	1. Open the RV access door and stir the RVs in the hopper by hand. 2. Wait until all tests in process are complete if the RVs are still not picked up, and then *Pause the processing module*, page 5-16. 3. Remove all RVs from the hopper, when the processing module status is Ready. 4. Inspect the path to the RV loader wheel and remove any RVs. 5. Place RVs back into the Hopper.
• Hardware failure: – RV loader wheel missing fingers – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5202

Drop point sensor on RV Loader failed.

Probable cause	Corrective action
Hardware failure: • CMIA optics board in slot 12 in the upper card cage has a poor connection or failed • RV loader drop point sensor is dirty or dusty • RV transport drop point sensor board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5203

RV Loader Transport assembly depleted of RVs.

Probable cause	Corrective action
• There are no RVs (reaction vessels) in the hopper.	Add reaction vessels to the RV loader hopper and then select Run.
• The hopper baffle is not attached to the RV loader.	Secure the baffle on the hopper to the RV loader.
• Hardware failure: – RV loader – RV loader wheel is missing fingers – RV HOP LVL SNSR W104 cable underneath the hopper has a poor connection	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5204

RV load verification sensor failure detected.

Probable cause	Corrective action
Except for *i*1000SR:	
• An RV (reaction vessel) is jammed at the load point in the RV transport.	1. Remove RV transport shield. 2. Remove all RVs from the RV transport. 3. Replace the RV transport shield.

Probable cause	Corrective action
	4. *Start up the processing module and/or sample handler*, page 5-15.
Sensor board #6 is not calibrated.	Perform ***as-needed*** maintenance procedure *3131 RV Loader Sensor Calibration*, page 9-81.
• Hardware failure: – Sensor board #6 – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For *i*1000SR:	
• An RV (reaction vessel) is jammed at the load point on the process path.	1. Raise the lower chute or remove the lower chute cover to remove the jammed RV. 2. *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – RV present sensor	Contact your Area Customer Support to resolve hardware failure.

Error code: 5205

Sensor detected an RV in the Process Path when attempting to load a new RV.

Probable cause	Corrective action
If error is infrequent, it is probably due to an occasional failure to move a clean RV into the processing path.	No corrective action is required.
Sensor board #6 not calibrated.	Calibrate the self-calibrating RV transport sensor board. Perform ***as-needed*** maintenance procedure *3131 RV Loader Sensor Calibration*, page 9-81.
Hardware failure: • Sensor board #6 • Load diverter • STAT diverter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5207

No RV detected at drop point.

Probable cause	Corrective action
• RV fell off the orienter wheel before reaching the chute.	If this occurs infrequently (three times a day or less) no corrective action is required.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed – RV sensor cable has a poor connection – RV sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5208

Unable to process test, RVs are not available.

Probable cause	Corrective action
• RVs (reaction vessels) blocking the access path to the RV loader wheel.	1. Open the RV access door and stir the RVs in the hopper by hand. 2. Wait until all tests in process are complete if the RVs are still not picked up, and then *Pause the processing module*, page 5-16. 3. Remove all RVs from the hopper, when the processing module status is Ready. 4. Inspect the path to the RV loader wheel and remove any RVs. 5. Place RVs back into the Hopper.
• RV pickers are broken off the RV loader wheel.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5209

No RV detected in process path after RV load attempt.

Probable cause	Corrective action
• RV loader chute is not in position to load RVs.	Reseat the RV loader chute into the wash zone manifold.
• Hardware failure: – RV present sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5210

RV detected in process path when no RV was expected.

Probable cause	Corrective action
Hardware failure: • RV present sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5211

An RV could not be loaded in the allotted time.

Probable cause	Corrective action
Hardware failure: • RV pickup assembly • RV picked sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5212

Empty RV hopper detected during initialization. Add RVs, update supplies and press Run.

Probable cause	Corrective action
No RVs (reaction vessels) in the RV Hopper.	*Replenish RVs and update inventory (i2000/i2000SR)*, page 5-82. *Replenish RVs and update inventory (i1000SR)*, page 5-83.
Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• RV hopper sensor • RV hopper door solenoid (*i*1000SR)	

Error code: 5213

RV Loader Transport assembly depleted of RVs.

Probable cause	Corrective action
Temporarily unable to load RVs in the RV Loader Transport assembly.	No corrective action required. Error code 5203 occurs if the error continues.

Error code: 5214

Unable to process test, RV not loaded.

Probable cause	Corrective action
If error is infrequent, it is probably due to an occasional failure to move a clean RV into the processing path.	No corrective action is required.
Sensor board #6 not calibrated.	Calibrate the self-calibrating RV transport sensor board. Perform ***as-needed*** maintenance procedure *3131 RV Loader Sensor Calibration*, page 9-81.
Hardware failure: • Sensor board #6 • Load diverter • STAT diverter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5251

Wash Buffer Transfer sensor failed, transfer canceled.

Probable cause	Corrective action
Hardware failure: • Air sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5252

Wash buffer level sensor disconnected.

Probable cause	Corrective action
• Wash buffer level sensor cable has a poor connection.	Reconnect the buffer level sensor.
• Wash buffer level sensor failed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/ i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Hardware failure: – Buffer level sensor cable	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5300

(x) vacuum failure during aspiration.

x = Wash Zone name

Probable cause	Corrective action
• Tubing/sensor at probe on one of the wash zones has a poor connection.	Reseat the wash zone tubing onto each probe one at a time.
• Wash zone probe obstructed.	1. Perform the appropriate ***as-needed*** maintenance procedure: – For *i*2000/*i*2000SR: • *6043 WZ Probe Cleaning - Bleach*, page 9-83 – For *i*1000SR: • *6445 Pipettor/WZ Probe Cleaning*, page 9-90 2. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 – For *i*1000SR: • *Replace the wash zone probe (i1000SR)*, page 9-367
• Tubing/sensor for one of the wash zones was obstructed or failed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone temperature tubing and sensor (i2000/i2000SR)*, page 9-340 • For *i*1000SR: – *Replace the wash zone temperature tubing and sensor (i1000SR)*, page 9-370
• Wash zone probe is dirty.	Clean the exterior of the probes on the wash zone indicated in the error message.
• Hardware failure: – Vacuum filter – Vacuum valve – Vacuum vessel drain valve – Vacuum pump	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5301

Vacuum system failure.

Probable cause	Corrective action
Hardware failure: • Vacuum tubing • Vacuum vessel drain blocked • Vacuum valve • Vacuum pump • Vacuum filter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5302

Vacuum initialization failed, vacuum sensor.

Probable cause	Corrective action
Hardware failure: • Vacuum vessel • Vacuum vessel drain valve • Vacuum valve • Vacuum sensor has a poor connection	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5303

Vacuum system failure - vacuum too low.

Probable cause	Corrective action
Hardware failure: • Vacuum low pressure sensor • Vacuum pump • Vacuum tubing • Vacuum valve • Vacuum filter • DC driver board in slot 12 in the lower card cage (*i*2000/*i*2000SR) • CMIA optics board in slot 12 in the upper card cage (*i*2000/*i*2000SR) • Module controller board in slot 14 in the upper card cage (*i*2000/*i*2000SR) • Vacuum vessel drain blocked (*i*2000/*i*2000SR) • Heater cooler board (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5304

Vacuum system failure - liquid too high.

Probable cause	Corrective action
Except for *i*1000SR	
Hardware failure: • Accumulator drain valve clogged • DC driver board in slot 7 in the lower card cage • CMIA optics board in slot 12 in the upper card cage • Module controller board in slot 14 in the upper card cage	Contact your Area Customer Support to resolve any hardware failures.
For *i*1000SR	
• External waste tubing is crimped.	Reposition the external waste tubing so there are no crimps.
• Liquid waste quick disconnect is not connected.	Connect the liquid waste quick disconnect.
• Hardware failure: – Waste pump – Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5305

Liquid too high in vacuum accumulator.

Probable cause	Corrective action
NOTE: Processing module will go to paused if running tests.	
• Liquid waste is full.	Empty liquid waste container.
• Liquid waste tubing is not connected at the quick disconnect.	Reconnect the liquid waste container tubing at the quick disconnect.
• Liquid waste tubing is crimped or obstructed.	Remove any obstructions.
• External waste tubing is obstructed.	Remove any obstructions.

Error code: 5306

Run request denied, liquid too high in vacuum accumulator. Wait (x) minute(s) and try again.

Probable cause	Corrective action
Attempted to run a test when there is still too much liquid in the vacuum accumulator.	Wait the designated amount of time before trying to initiate a run.

Error code: 5307

Liquid waste high pressure condition detected.

Probable cause	Corrective action
• Liquid waste is full.	Empty liquid waste container.
• Liquid waste tubing is not connected at the quick disconnect.	Reconnect the liquid waste container tubing at the quick disconnect.
• Liquid waste tubing is crimped or obstructed.	Remove any obstructions.
• External waste tubing is obstructed.	Remove any obstructions.
• While performing a maintenance procedure the liquid waste tubing: – Was not connected as instructed – Has been disconnected for an extended period of time – Is not properly connected at the quick disconnect fitting on the liquid waste container	1. Select **OK**. 2. Reconnect the liquid waste tubing to the quick disconnect fitting on the liquid waste container.

Error code: 5350

POST failed, Indexer board (x).
x = Board number 0 = slot 11, 1 = slot 9, 2 = slot 7, 3 = slot 5

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Indexer board in the indicated position in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5351

DC Driver I/O board not present.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5352

POST passed, DC Driver I/O board, version (x).
x = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the DC Driver I/O board.	Status message. No corrective action is required.

Error code: 5353

POST failed, DC Driver I/O board.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – DC Driver I/O board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5354

Controller board failed.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i*2000/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5355

Controller board register reset failure.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i*2000/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5356

System Stopped, I/O communication error.

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i*2000/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5357

Digital I/O interrupt failure.

Probable cause	Corrective action
Generic 6000 or 8000 error code.	1. *Review logs*, page 10-13, for any 6000 or 8000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 6000 or 8000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5358

POST passed, Controller board version (x).
x = Version number

Probable cause	Corrective action
Power on self tests (POST) passed on the controller board.	Status message. No corrective action is required.

Error code: 5359

POST failed, Controller board.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i*2000/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5360

Controller board checksum failed.

Probable cause	Corrective action
• Communication failure between the processing module and the SCC.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in slot 3 in the upper card cage has a poor connection or failed (*i*2000/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5361

POST passed, Motor Indexer board (x) version (y).
x = Board number
y = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the Motor indexer board.	Status message. No corrective action is required.

Error code: 5362

False interrupt generated on bit (x).
x = Digital I/O bit number

Probable cause	Corrective action
A false signal is sent to a sensor, the sensor is read and determined to be in the correct state. The message is ignored.	This message is used to aid in troubleshooting electronic noise on the system. No corrective action is required.

Error code: 5363

DC Driver I/O board overcurrent failure.

Probable cause	Corrective action
Hardware failure: • DC driver I/O board in slot 7 in the lower card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5364

POST passed, Sensor Interface Board, version (x).
x = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the Sensor Interface Board.	Status message. No corrective action is required.

Error code: 5365

POST failed, Sensor Interface Board.

Probable cause	Corrective action
• Communication failure with Sensor Interface Board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Sensor Interface Board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5366

Sensor Interface Board not present.

Probable cause	Corrective action
• Communication failure with Sensor Interface Board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Sensor Interface Board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5367

POST failed. Induction Heater board

Probable cause	Corrective action
• Power on self tests (POST) failed for the induction heater board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5368

POST passed. Induction Heater board.

Probable cause	Corrective action
Power on self tests (POST) passed on the induction heater board.	Status message. No corrective action is required.

Error code: 5370

DAQ failure, invalid interrupt.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5371

Invalid command received by the AC/DC controller board from the CPU board.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5372

Timeout: AC/DC board busy.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5373

AC/DC controller board failure.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5374

Communication error between SMC and CPU board.

Probable cause	Corrective action
• Communication failure between SMC and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5375

Disk On Chip failure.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5376

System memory check error for main CPU.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5377

DAQ backup memory error.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5378

Communication error between DAQ board and CPU board.

Probable cause	Corrective action
• Communication failure between DAQ board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5379

Communication error between SMC board and CPU board.

Probable cause	Corrective action
• Communication failure between SMC board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5380

Communication error between AC/DC board and CPU board.

Probable cause	Corrective action
• Communication failure between AC/DC board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5381

Communication error between PM board and CPU board.

Probable cause	Corrective action
• Communication failure between PM board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5382

Initialization error for AC/DC board.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5383

Initialization error for SMC board.

Probable cause	Corrective action
• Communication failure with SMC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5384

c System module CPU floppy disk error.

Probable cause	Corrective action
• Communication failure with CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5385

Initialization error for DAQ board.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5386

Step loss detected for (x).
x = Hardware component

Probable cause	Corrective action
For pipettors:	
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is out of alignment.	Perform probe calibration. See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34, *1121 R1 Pipettor Calibration*, page 9-34 or *1122 R2 Pipettor Calibration*, page 9-35.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
For other components:	
• A physical interference is blocking the movement of the component.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5387

Acknowledge command not received from RSH distribution board.

Probable cause	Corrective action
Hardware failure: • RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5388

Invalid checksum received from RSH distribution board.

Probable cause	Corrective action
Hardware failure: • RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5389

Termination character not received from RSH distribution board.

Probable cause	Corrective action
Hardware failure: • RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5390

Invalid command sent to RSH distribution board.

Probable cause	Corrective action
Hardware failure: • RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5391

RSH distribution board command timeout.

Probable cause	Corrective action
Hardware failure: • RSH distribution board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5392

Communication error between SM AC/DC board and CPU board.

Probable cause	Corrective action
• Communication failure between the SM AC/DC board and CPU board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5393

Initialization error for SM AC/DC board.

Probable cause	Corrective action
• Communication failure with the SM AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5394

Induction heating operation failed, device not ready.

Probable cause	Corrective action
• Induction Heating hardware is not ready.	1. *Start up the processing module and/or sample handler*, page 5-15 2. *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5395

Induction heating wash operation failed. Trigger acknowledgement failed.

Probable cause	Corrective action
• Induction Heating hardware is unable to communicate with the system software.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5396

Induction heating system warning.

Probable cause	Corrective action
• Warning signal from heater firmware was received.	Status message. No corrective action is required.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure, if error continues.

Error code: 5400

Load or Unload Transfer assembly or multi-module Load Queue Gate failed to transfer Sample Carrier.

Probable cause	Corrective action
• A physical interference is blocking the movement of the load or unload queue (load queue gate for multi-module systems).	Look for and remove any physical obstructions found in the load queue, unload queue or load queue gate (multi-module only).
• Hardware failure: – Load transfer sensor board failure – Unload transfer sensor board failure – Unload transfer motor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5401

No trays detected in RSH Extension routine bays.

Probable cause	Corrective action
No RSHx trays are loaded in the RSH routine bays allocated to the RSHx.	Place RSHx trays into all of the RSH routine bays allocated to the RSHx.

Error code: 5402

Unable to move carrier into Unload Queue.

Probable cause	Corrective action
• A physical interference is blocking the movement of the load or unload queue (load queue gate for multi-module systems).	Look for and remove any physical obstructions found in the load queue, unload queue or load queue gate (multi-module only).
• Hardware failure: – Unload queue transfer assembly – Micro switch	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5403

Outer Load Queue or Outer Unload Queue not available.

Probable cause	Corrective action
Hardware failure: • Outer lane of the load queue or the unload queue	1. If the outer load queue is not working, continue processing samples by placing sample carriers on the inner load queue. 2. If the outer unload queue is not working, remove sample carriers from the inner unload queue more frequently to avoid filling the queue with sample carriers. 3. Contact your Area Customer Support to resolve any hardware failure.

Error code: 5404

Solenoid (x) failed.

x = Sample Handler or Processing Module solenoid name

Probable cause	Corrective action
• Selected start up for the *i*2000 SSH when the processing module status has not completed the transition from Offline to Stopped.	Wait for the processing module status to change to Stopped before initiating a start up on the *i*2000 SSH.
• RVs were left in the outer process path after exiting Diagnostic procedure 5133, Other Valves & Diverter Test.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Specified solenoid on sample handler or processing module – DC driver I/O board in the card cage has a poor connection or failed.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5405

Sample Handler (x) failed.

x = Mechanism name

Probable cause	Corrective action
Hardware failure: • Sample handler	1. *Review logs*, page 10-13, for any 5000 category error codes that occurred at the same time as this message.

Probable cause	Corrective action
	2. *View low level error messages*, page 10-15, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5406

Carrier jammed on Unload Transfer assembly.

Probable cause	Corrective action
• A physical interference is blocking the movement of the carrier to the unload queue.	1. Remove carrier from the processing queue at the unload transfer. 2. Look for and remove any physical obstructions on the processing queue.
• Hardware failure: – Unload queue sensor failure – Processing module skin alignment	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5407

Sensor (x) blocked by sample carrier.
x = Sensor name

Probable cause	Corrective action
• Sample carrier is blocking the sensor.	1. Remove sample carrier from the sample handler area where the indicated sensor is located. 2. *Start up the processing module and/or sample handler*, page 5-15.
• Hardware failure: – Sensor connector cable not connected – Sensor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5408

Carrier transport not aligned with tray section.

Probable cause	Corrective action
• Carrier transport not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102.
• Hardware failure: – Section align sensor – Carrier transport drive belt slipped – Carrier transport motor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5409

Step loss detected on (x), actual (expected), (y).
x = Stepper motor name
y = Actual and expected interrupt counts

Probable cause	Corrective action
For carrier transport motors: • Carrier transport not aligned.	Calibrate the carrier transport. Perform ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102 (except for *i*1000SR). Perform ***as-needed*** maintenance procedure*1114 Carrier Transport Calibration*, page 9-104 (*i*1000SR).
• Hardware failure: – Carrier transport drive belt slipped – Carrier transport X, Z, or Theta motor – Carrier transport pulley assembly	Contact your Area Customer Support to resolve any hardware failure.
For carrier positioner motors: • Carrier positioner not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102. • *c*8000/*c*16000 - After performing 1119 Transport Calibration perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34. • *i*2000SR - After performing 1119 Transport Calibration perform ***as-needed*** maintenance procedures *1111 Sample Pipettor Calibration*, page 9-76 and *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78.
• Hardware failure: – Carrier positioner obstruction (*c* System/*i*2000SR) – Carrier positioner align sensor (*c* System/*i*2000SR) – Carrier positioner motor (*c* System/*i*2000SR) – Reagent bottle rotator motor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5410

Carrier pick attempt failed at positioner pocket (x) module (y).
x = Carrier positioner pocket
y = Processing module number

Probable cause	Corrective action
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102. (except for *c*4000/*i*1000SR/*ci*4100) See ***as-needed*** maintenance procedure *1114 Carrier Transport Calibration*, page 9-104 (*c*4000/*i*1000SR/*ci*4100).

Error code: 5411

Theta transport alignment error.

Probable cause	Corrective action
• Theta transport not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102.
• Hardware failure: – Carrier transport theta motor – Carrier transport theta home sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5412

No carrier detected in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
Hardware failure: • Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5413

Transport Z not aligned.

Probable cause	Corrective action
Hardware failure: • Carrier transport Z home sensor • Carrier transport Z motor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5414

Carrier removed from carrier transport arm.

Probable cause	Corrective action
• Carrier came off the carrier transport arm due to an obstacle in the path.	1. Remove the carrier from the RSH. 2. Clear any obstacles.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5415

No carrier in carrier transport arm.

Probable cause	Corrective action
• Carrier came off the carrier transport arm due to an obstacle in the path.	1. Remove the carrier from the RSH. 2. Clear any obstacles.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5416

No carrier detected in positioner pocket (x) module (y).
x = Pocket on carrier positioner
y = Processing module number

Probable cause	Corrective action
Hardware failure: • Carrier positioner carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5417

(x) sensor failure.
x = sensor

Probable cause	Corrective action
Hardware failure: • An RSH sensor has failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5418

Interrupt count discrepancy on (x), actual (expected), (y).
x = Stepper motor name
y = Actual and expected interrupt counts

Probable cause	Corrective action
Movement of the carrier positioner did not return the expected interrupt count.	Status message. No corrective action is required.

Error code: 5419

Carrier transport not aligned with carrier positioner.

Probable cause	Corrective action
• Carrier transport not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102. • *c* System - After performing 1119 Transport Calibration perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34. • *i*2000SR - After performing 1119 Transport Calibration perform ***as-needed*** maintenance procedures *1111 Sample Pipettor Calibration*, page 9-76 and *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78.
• Hardware failure: – Carrier positioner align sensor failure – Carrier positioner motor failure	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5420

Carrier pick required multiple attempts at bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Carrier is inserted backwards in the tray or priority position.	Reposition the carrier in the tray or priority position.

Probable cause	Corrective action
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102.

Error code: 5421

Carrier pick required multiple attempts at positioner pocket (x) module (y).
x = Carrier positioner pocket
y = Processing module number

Probable cause	Corrective action
• Carrier is damaged.	Rerun the sample in a different carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102 (except for *c*4000/*i*1000SR/*ci*4100). See ***as-needed*** maintenance procedure *1114 Carrier Transport Calibration*, page 9-104 (*c*4000/*i*1000SR/*ci*4100).

Error code: 5422

Solenoid (x) failed to extend.
x = Solenoid name

Probable cause	Corrective action
Hardware failure: • Specified solenoid or verification sensor on sample handler or processing module • DC driver I/O board • CMIA optics board • Module controller	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5423

Solenoid (x) failed to retract.
x = Solenoid name

Probable cause	Corrective action
Hardware failure: • Specified solenoid or verification sensor on sample handler or processing module • DC driver I/O board • CMIA optics board • Module controller	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5424

Solenoid (x) failed to remain in the last commanded position.

Probable cause	Corrective action
Hardware failure: • Specified solenoid or verification sensor on sample handler or processing module • DC driver I/O board • CMIA optics board • Module controller	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5426

Carrier pick attempt failed at aspiration area. Remove sample carrier when modules are Ready or Stopped.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5427

No carrier detected at aspiration area.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.
• Hardware failure: – Rail guide sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5428

No carrier detected in section (x).
x = RSH section number

Probable cause	Corrective action
Hardware failure: • Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5429

Carrier pick required multiple attempts at section (x).
x = RSH section number

Probable cause	Corrective action
• Carrier is inserted backwards in the section.	Reposition the carrier in the section.
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5430

Carrier pick required multiple attempts at aspiration area.

Probable cause	Corrective action
• Carrier is damaged.	Use a different carrier.

Probable cause	Corrective action
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5431

Carrier pick required multiple attempts at reagent carousel position (x).
x = Reagent carousel position number

Probable cause	Corrective action
• Reagent carrier is not seated correctly in the reagent carousel.	Remove the reagent carrier and perform a Startup on the RSH.
• Carrier is damaged.	Use a different carrier.
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5435

Sample carrier in aspiration area. Remove carrier when modules are Ready or Stopped.

Probable cause	Corrective action
A sample carrier is present in the aspiration area. A user selected stop while the RSH was running or a hardware failure occurred.	Remove sample carrier(s) from the carrier transport and aspiration area.

Error code: 5436

Unable to verify carrier type in section (x), remove carrier.

Probable cause	Corrective action
• A carrier is not seated in the section.	Remove and reseat the carrier.
• Hardware failure: – Load - Unload board sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5437

No carrier detected in bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Hardware failure: – Section carrier detect sensor	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5438

Carrier pick required multiple attempts at bay (x) section (y).
x = Bay number
y = Section number

Probable cause	Corrective action
• Carrier is inserted backwards in the section.	Reposition the carrier in the section.
• Carrier is damaged.	Use a different carrier.

Probable cause	Corrective action
• Carrier transport is not aligned.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5439

Carrier pick attempt failed in RSH Extension carrier exchange area. Remove carrier when modules are Ready or Stopped.

Probable cause	Corrective action
• Sample carrier is damaged.	Remove the sample carrier from the RSH Extension carrier exchange area when the module status is Stopped or Ready. See *Access RSH Extension carrier exchange area*, page 10-718. Use a different sample carrier.
• Carrier transport is not aligned.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102.

Error code: 5440

Sample carrier in RSH Extension carrier exchange area. Remove carrier when modules are Ready or Stopped.

Probable cause	Corrective action
Carrier is present in the RSH Extension carrier exchange area. User selected STOP while the RSH was running or a hardware failure occurred.	Remove the sample carrier from the RSH Extension carrier exchange area when the module status is Stopped or Ready. See *Access RSH Extension carrier exchange area*, page 10-718.

Error code: 5441

No carrier detected in RSH Extension carrier exchange area (x).
x = RSH Extension carrier exchange area number

Probable cause	Corrective action
Sample carrier was not present in the RSH Extension carrier exchange area before command was issued.	Place the sample carrier in the RSH extension carrier exchange area. See *Access RSH Extension carrier exchange area*, page 10-718.

Error code: 5442

Carrier pick required multiple attempts at RSH Extension carrier exchange area (x).
x = RSH Extension carrier exchange area number

Probable cause	Corrective action
• Sample carrier is damaged.	Remove the sample carrier from the RSH Extension carrier exchange area when the module status is Stopped or Ready.

Probable cause	Corrective action
	See *Access RSH Extension carrier exchange area*, page 10-718. Use a different sample carrier.
• Carrier transport requires calibration.	Perform carrier transport calibration. See ***as-needed*** maintenance procedure *1119 Transport Calibration*, page 9-102.
• The ACCELERATOR *p*540 sorting unit requires calibration.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5443

Carrier detected in RSH Extension exchange area (x).
x = RSH Extension carrier exchange area number

Probable cause	Corrective action
Unexpected sample carrier is present in the RSH Extension carrier exchange area when command was issued.	Remove the sample carrier from the RSH Extension carrier exchange area. See *Access RSH Extension carrier exchange area*, page 10-718.

Error code: 5501

Sample Handler Stopped, hardware failure.

Probable cause	Corrective action
Sample handler stopped because of a previous hardware failure.	1. *Review logs*, page 10-13, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5502

(x) blown.
x = Fuse name

Probable cause	Corrective action
Hardware failure: • Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5503

Step loss detected on (x), actual (expected), y.
x = Stepper motor name
y = Actual and (expected) steps

Probable cause	Corrective action
• Air is in tubing.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 (*i*2000/*i*2000SR) for the

Probable cause	Corrective action
	affected dispense pump (wash buffer, pre-trigger, or trigger). Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 (*i*1000SR) for the affected dispense pump (wash buffer, pre-trigger, or trigger). 2. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2151 Prime Wash Zones*, page 9-80 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2160 Prime Wash Zone*, page 9-93 • *2162 Prime Pre-Trigger and Trigger*, page 9-93 for the affected dispense pump.
For pipettor buffer pump or syringe motor:	
• Probe is obstructed.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Hardware failure: – Dispense pump – Tubing crimped or clogged	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5504

Invalid position for (x).
x = Hardware component

Probable cause	Corrective action
• Communication failure with SMC, CPU, or DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5505

Keypad communication failure.

Probable cause	Corrective action
• Communication failure with keypad or DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5506

Water bath level low.

Probable cause	Corrective action
• System power was off.	Perform either Daily Maintenance or Change Water Bath procedures to fill the water bath. See ***daily*** maintenance procedure *6070 Daily Maintenance*, page 9-21 or ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Hardware failure: – Module is not level – Level sensor is dirty or defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5507

Water bath drain time exceeded.

Probable cause	Corrective action
• Water bath drain tubing is crimped.	Uncrimp the drain tubing.
• External drain is obstructed.	Clear the obstruction from the external drain.
• Hardware failure: – Level sensor is dirty or defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5508

Water bath fill time exceeded.

Probable cause	Corrective action
• Water source supply was interrupted.	1. Verify the water source supply is functioning. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Water source supply is restricted.	1. Verify tubing from the water source is not crimped or blocked. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Incoming DI water pressure is too low.	Increase the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.

Probable cause	Corrective action
• Air bubbles are present in the water source supply tubing.	1. Check the tubing connections. 2. Flush water lines. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Hardware failure: – Module is not level – Supply water tubing is disconnected – Level sensor is dirty or defective – AC/DC driver board is defective – AC/DC controller board is defective	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5512

Unexpected sensor status for DI water tank.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5513

DI water tank overflow detected.

Probable cause	Corrective action
• Incoming DI water pressure is too high.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Maintenance is being performed on the DI water system.	Do not operate the system while the DI water system is undergoing cleaning or maintenance.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5514

Degasser pressure high.

Probable cause	Corrective action
• Incoming DI water has a high gas content.	Contact your Area Customer Support.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5515

Unexpected sensor status after (x) movement.
x = Hardware component

Probable cause	Corrective action
For pipettors:	
• A physical interference is blocking the movement of the pipettor.	Look for and remove any physical obstructions.
• Probe is out of alignment.	Perform probe calibration.

Probable cause	Corrective action
	See ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34, *1121 R1 Pipettor Calibration*, page 9-34 or *1122 R2 Pipettor Calibration*, page 9-35.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.
For other components:	
• A physical interference is blocking the movement of the component.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5516

(x) did not stop as expected.
x = Hardware component

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5517

Backplane +12V fuse blown.

Probable cause	Corrective action
Hardware failure: • Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5518

Backplane -12V fuse blown.

Probable cause	Corrective action
Hardware failure: • Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5519

Backplane +5V fuse blown.

Probable cause	Corrective action
Hardware failure: • Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5520

Backplane +24V fuse blown.

Probable cause	Corrective action
Hardware failure: • Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5530

Alternate wash operation failed, wash volume out of specified range.

Probable cause	Corrective action
• Trigger bottle was replaced while processing tests.	Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 (*i*1000SR) and observe for leaks or bubbles in the tubing.
• Trigger solution volume is too low.	*Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96.
• Hardware failure: – Trigger pump – Trigger valves – Trigger tubing – AWDS PM sensor – Motor driver board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5531

Call Abbott. Alternate wash pressure sensor failed.

Probable cause	Corrective action
• Communication error with hardware.	1. *Start up the processing module and/or sample handler*, page 5-15 2. *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure of the AWDS heater controller board.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5600

ICT aspiration pump timeout while moving to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5601

Unexpected sensor status (Up and Down not activated) while moving ICT aspiration pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5602

Unexpected sensor status (only Down activated) while moving ICT aspiration pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5603

Unexpected sensor status (Up and Down activated) while moving ICT aspiration pump to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5604

ICT aspiration pump timeout while moving to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5605

Unexpected sensor status (Up and Down not activated) while moving ICT aspiration pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5606

Unexpected sensor status (only Up activated) while moving ICT aspiration pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5607

Unexpected sensor status (Up and Down activated) while moving ICT aspiration pump to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5608

ICT aspiration pump timeout while homing.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5609

Unexpected sensor status (Up and Down not activated) while homing ICT aspiration pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5610

Unexpected sensor status (only Down activated) while homing ICT aspiration pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5611

Unexpected sensor status (Up and Down activated) while homing ICT aspiration pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5612

ICT reference solution pump timeout during movement.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5613

Unexpected sensor status (not activated) while moving ICT reference solution pump.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5614

ICT unit timeout during vertical movement.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure: – ICT probe is out of alignment	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5615

ICT unit vertical homing failure.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5616

ICT unit timeout during horizontal movement.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the ICT unit.	Look for and remove any physical obstructions.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5617

ICT unit horizontal homing failure.

Probable cause	Corrective action
• A physical interference is blocking the rotation of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5618

ICT measurement failure for (x).
x = Analyte

Probable cause	Corrective action
• Black electrical connector for the ICT module is loose or not connected.	Reseat the connection. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Flush ICT cup. Perform ***as-needed*** maintenance procedure *2131 Flush ICT Cup*, page 9-36.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5619

ICT offset adjustment error for (x).
x = Analyte(s)

Probable cause	Corrective action
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT check valves are not connected correctly.	Tighten the check valve connections to the 1 mL syringes in the ICT reference solution pump and ICT aspiration pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are not seated correctly.	Reseat the 1 mL syringes in the ICT aspiration pump and the ICT reference solution pump.

Probable cause	Corrective action
• 1 mL syringes in the ICT aspiration or ICT reference solution pumps are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• The ICT Reference Solution is not performing as expected.	1. Replace the ICT Reference Solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Flush ICT cup. Perform ***as-needed*** maintenance procedure *2131 Flush ICT Cup*, page 9-36.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5620

Unexpected ICT unit vertical home status at ICT reference solution cup.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5621

Unexpected ICT unit horizontal home status at ICT reference solution cup.

Probable cause	Corrective action
• A physical interference is blocking the movement of the ICT unit.	Look for and remove any physical obstructions.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5622

Unable to process test, ICT reference solution cup not filling.

Probable cause	Corrective action
• The ICT reference solution bottle is empty, but the weight platform failed to detect it.	1. Replace the ICT reference solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Contact your Area Customer Support to resolve the weight platform failure.
• ICT reference solution tubing is not connected correctly.	Tighten the tubing connections at the top and side of each check valve in the ICT reference solution pump.
• ICT reference solution tubing is crimped or damaged.	1. Inspect the tubing. 2. Contact your Area Customer Support if any damage is observed.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT reference solution pump are leaking.	Replace the 1 mL syringe. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5623

Unable to process test, ICT reference solution not aspirated.

Probable cause	Corrective action
• A single flush did not remove all air from the ICT reference solution tubing after you replaced the ICT reference bottle.	Flush the ICT reference solution tubing. Perform ***as-needed*** maintenance procedure *2131 Flush ICT Cup*, page 9-36.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT probe is damaged.	Replace the ICT probe. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.

Probable cause	Corrective action
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT reference solution tubing is crimped or damaged.	1. Inspect the tubing. 2. Contact your Area Customer Support if any damage is observed.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT reference solution pump.
• ICT check valves are not functioning.	Replace check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT reference solution pump are leaking.	Replace the 1 mL syringe. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5650

Cuvette washer timeout while moving to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5651

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143.

Probable cause	Corrective action
	See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5652

Unexpected sensor status (only Down activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5653

Unexpected sensor status (Up and Down activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5654

Unexpected sensor status (only Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5655

Unexpected sensor status (Up and Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5656

Unexpected sensor status (Down and Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5657

Unexpected sensor status (Up, Down, and Down OK activated) while moving Cuvette washer to upper limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5658

Cuvette washer timeout while moving to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5659

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5660

Unexpected sensor status (only Up activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5661

Unexpected sensor status (only Down activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5662

Unexpected sensor status (Up and Down activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5663

Unexpected sensor status (Only Down OK activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5664

Unexpected sensor status (Up and Down OK activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5665

Unexpected sensor status (Up, Down, and Down OK activated) while moving Cuvette washer to lower limit.

Probable cause	Corrective action
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5666

Unexpected sensor status (Down and Down OK not activated) while moving cuvette washer to lower limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5667

Unexpected sensor status (Down activated and Down OK not activated) during Cuvette washer step down movement.

Probable cause	Corrective action
• A physical interference is blocking the movement of the cuvette washer.	Look for and remove any physical obstructions.
• Black knob holding cuvette washer is loose.	Tighten the black knob.
• Dry tip on cuvette washer is out of alignment.	Align the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Cuvettes may be damaged or misaligned.	*Inspect the cuvette segment (c System)*, page 10-711.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5700

Mixer timeout while moving to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5701

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Mixer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5702

Unexpected sensor status (only Down activated) while moving Mixer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5703

Unexpected sensor status (Up and Down activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5704

Unexpected sensor status (only Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5705

Unexpected sensor status (Up and Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5706

Unexpected sensor status (Down and Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5707

Unexpected sensor status (Up, Down, and Down OK activated) while moving Mixer to upper limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5708

Busy status: AC/DC board.

Probable cause	Corrective action
• Communication failure with AC/DC board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5709

Mixer timeout while moving to lower limit.

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5710

Unexpected sensor status (Up, Down, and Down OK not activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5711

Unexpected sensor status (only Up activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5712

Unexpected sensor status (only Down activated) while moving Mixer to lower limit.

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5713

Unexpected sensor status (Up and Down activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5714

Unexpected sensor status (only Down OK activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5715

Unexpected sensor status (Up and Down OK activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5716

Unexpected sensor status (Up, Down, and Down OK activated) while moving Mixer to lower limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5717

Vibration error, (x).
x = Mixer name

Probable cause	Corrective action
• Damaged mixer	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5718

Vibration error, (x).
x = Mixer name

Probable cause	Corrective action
• Damaged mixer	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5719

(x) timeout during rotation.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• A physical interference is blocking the rotation of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146.

Probable cause	Corrective action
	See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5720

(x) homing failure.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5721

(x) timeout during rotation.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• A physical interference is blocking the rotation of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5722

(x) homing failure.
x = Mixer name

Probable cause	Corrective action
• Bent mixer blade.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146.

Probable cause	Corrective action
	See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5723

Unable to perform mixer arm movement, upper sensor not detected.

Probable cause	Corrective action
• A physical interference is blocking the movement of the mixer unit.	1. Look for and remove any physical obstructions. 2. Replace any bent mixers. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5900

Step loss detected on (x).
x = Motor name

Probable cause	Corrective action
For RV loader transport motor:	
An RV is jammed at the load point in the RV transport.	Clear the RV jam at the load point on the RV loader transport. For the required steps, see observed problem *RV loader jams (i2000/i2000SR)*, page 10-530.
For process path motor:	
An RV is jammed in the process path.	Clear the RV jam in the process path.
For pipettors:	
• A physical interference is blocking the up/down movement of the pipettor.	Look for and remove any physical obstructions around the specified pipettor, and if no obstruction is found, then perform the appropriate pipettors diagnostic procedure: • For *i*2000/*i*2000SR: – *1100 Pipettor Test*, page 10-647 • For *i*1000SR: – *4150 Functional Area Tests*, page 10-677
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR:

Probable cause	Corrective action
	– *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• An empty sample tube is loaded.	Remove the empty sample tube.
For wash zones:	
• Probes are not inserted into the manifold.	If weekly maintenance was recently done, press the wash zone motor assembly down so the probes are inserted into the manifold.
For all motors:	
• A physical interference is blocking the movement of the device.	Look for and remove any physical obstruction.
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Power to the module fluctuated.	Contact your Area Customer Support.
• Hardware failure: – Sensor is dirty or dusty – Sensors have a poor connection or failed – Motor and/or cables have a poor connection or failed – Motor driver board has a poor connection or failed – Indexer board has a poor connection or failed – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5901

Motor command timeout on device (x).
x = Device name or number

Motor number	Name (*i*2000 and *i*2000SR)	Name (*i*1000SR)
0	Process Path Motor	Process Path Motor
1	Outer Reagent Carousel	Reagent Carousel Motor
2	Inner Reagent Carousel	Reagent Access Door Motor
3	Dispersion Motor	RV Loader Motor
4	Sample Pipettor - Theta axis	Pipettor-Theta Axis Motor
5	Sample Pipettor - Z axis	Pipettor-Z Axis Motor
6	Sample Syringe	Pipettor Syringe Motor
7	Wash Zone 1 Switch Diverter	Buffer Pump Motor
8	R1 Pipettor - Theta axis	Carrier Transport X Motor
9	R1 Pipettor - Z axis	Carrier Transport Theta Motor
10	R1 Syringe	Carrier Transport Z Motor

Motor number	Name (*i*2000 and *i*2000SR)	Name (*i*1000SR)
11	Wash Zone 2 Aspirate Probes	Wash Zone Motor
12	Trigger Pump	Pre-Trigger Pump Motor
13	Pre-Trigger Pump	Trigger Pump Motor
14	Shutter	Reagent Bottle Rotator
15	STAT Pipettor Theta Motor (*i*2000SR)	Wash Zone Pump Motor
16	R2 Pipettor - Theta axis	
17	R2 Pipettor - Z axis	
18	R2 Syringe	
19	Wash Zone 1 Aspirate Probes	
20	RV Loader Wheel	
21	RV Transport	
22	STAT Syringe (*i*2000SR)	
23	STAT Pipettor Z Motor (*i*2000SR)	
24	R1 Wash Cup Buffer Pump	
25	R2 Wash Cup Buffer Pump	
26	Sample Probe Buffer Pump	
27	R1 Probe Buffer Pump	
28	R2 Probe Buffer Pump	
29	STAT Probe Buffer Pump (*i*2000SR)	
30	Wash Zone 1 Dispense Pump	
31	Wash Zone 2 Dispense Pump	

Probable cause	Corrective action
For RV loader transport motor:	
An RV is jammed at the load point in the RV transport.	Clear the RV jam at the load point on the RV loader transport. For the required steps, see observed problem *RV loader jams (i2000/i2000SR)*, page 10-530.
For process path motor:	
An RV is jammed in the process path.	Clear the RV jam in the process path.
For sample pipetting:	
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91

Probable cause	Corrective action
For reagent pipetting:	
• Empty reagent bottle.	Replace the reagent.
• Probe is out of alignment.	Perform the appropriate ***as-needed*** maintenance procedure: • For *i*2000/*i*2000SR: – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
For all motors:	
• A physical interference is blocking the movement of the device.	Look for and remove any physical obstruction.
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Power to the module fluctuated.	Contact your Area Customer Support.
• Hardware failure: – Sensor is dirty or dusty – Sensors have a poor connection or failed – Motor and/or cables have a poor connection or failed – Motor driver board has a poor connection or failed – Indexer board has a poor connection or failed – Fuse	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5902

Stepper motor (x) not present.
x = Motor number

Probable cause	Corrective action
Hardware failure: • Communication failure with indexer board	1. Verify the jumper placement is correct, if the indexer board was recently replaced. 2. Contact your Area Customer Support to resolve any hardware failure, if error continues.

Error code: 5903

Motor command error, device (x) failed to respond.
x = Motor number or indexer number

Probable cause	Corrective action
Hardware failure: • Motor or indexer board in the specified position has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5904

(x) homing failure.
x = Motor name

Probable cause	Corrective action
Hardware failure: • Homing sensor cable in the indicated position has a poor connection or failed • Indexer board has a poor connection or failed • Motor driver board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5905

Motor (x) is not initialized.
x = Motor name

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• The specified motor stopped due to a module stop.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Error code: 5906

Automatic Prime failed, affected mechanism disabled.

Probable cause	Corrective action
Prime failed for one of the following: • Wash zone • Pre-Trigger • Trigger dispense pumps	1. *Review logs*, page 10-13, for any 5000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 5000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 5907

Automatic Flush failed.

Probable cause	Corrective action
A flush operation failed due to a hardware failure or inventory failure.	1. *Review logs*, page 10-13, for any 0229, 0304, or 2104 error codes. 2. Perform the corrective action for the specific error code.

Error code: 5908

Command on motor (x) detected fluid or over travel.
x = Motor number

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5909

Stepper Motor Encoder (x) not present.
x = Stepper Motor Encoder number

Probable cause	Corrective action
Hardware failure: • Communication failure with indexer board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 5910

Invalid absolute encoder (x) position value.
x = Encoder name

Probable cause	Corrective action
Hardware failure: • Absolute encoder or cabling	Contact your Area Customer Support to resolve any hardware failure.

Optics error codes (6000-6999)

The Optics error code category includes error codes between 6000-6999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 6000

Zero read detected.

Probable cause	Corrective action
Hardware failure: • Optics assembly	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• CMIA optics board	

Error code: 6050

Optics check failed, Run initialization canceled.

Probable cause	Corrective action
• Optics linearity and/or normalization values are not entered correctly on the Configure modules window.	Update the configures module windows with the correct values from the optics assembly.
• Hardware failure: – CMIA reader	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6051

CMIA Optics board not responding.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6100

CMIA Optics board failed.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – CMIA optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6101

POST passed, CMIA Optics board.

Probable cause	Corrective action
Power on self tests (POST) passed on the CMIA optics board.	Status message. No corrective action is required.

Error code: 6102

Register read back failure, CMIA Optics board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – CMIA Optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Controller board in slot 14 in the upper card cage has a poor connection or failed	

Error code: 6103

Optics timer interrupt failure, Controller board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6200

POST failed, CMIA Optics board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – CMIA Optics board in slot 12 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6300

Register reset failure, CMIA Optics board.

Probable cause	Corrective action
• Communication or hardware failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – CMIA Optics board in slot 12 in the upper card cage has a poor connection or failed – Controller board in slot 14 in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6500

DAQ board failure.

Probable cause	Corrective action
• Communication failure with DAQ board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6501

Optics system error, lamp failure.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure.

Probable cause	Corrective action
	See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Water bath level is low.	Perform Change Water Bath ***as-needed*** maintenance procedure See *2134 Change Water Bath*, page 9-37.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6502

Optics system error, lamp intensity too high.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6503

Optics system error, lamp intensity too low.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6504

Optics system error, transmittance above maximum range.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6505

Photometer conversion error.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6506

Cuvette integrity check failed on cuvette (x).
x = Cuvette #

Probable cause	Corrective action
• Cuvette is dirty.	Clean cuvettes manually. Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette is damaged.	Replace the cuvette or cuvette segment. See *Replace a cuvette (c4000)*, page 9-136 or *Replace a cuvette segment (c4000)*, page 9-140. See *Replace a cuvette (c8000)*, page 9-203, *Replace a cuvette (c16000)*, page 9-274, *Replace a cuvette segment (c8000)*, page 9-207 or *Replace a cuvette segment (c16000)*, page 9-277.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp.

Probable cause	Corrective action
	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Water or wash solutions are not aspirated or dispensed correctly into the reaction cuvettes.	Clean cuvette washer nozzles. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6507

Optics type mismatch detected. Call Abbott.

Probable cause	Corrective action
The optics assembly setting does not match the module configuration setting.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6510

Optics system warning, fluctuation detected, monochromatic check.

Probable cause	Corrective action
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6511

Optics system failure, fluctuation above maximum range, monochromatic check.

Probable cause	Corrective action
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6512

Optics system warning, fluctuation detected, bichromatic check.

Probable cause	Corrective action
• Lamp in use for > 3 months.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26.

Probable cause	Corrective action
	2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (*c*8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• R2 pipettor is out of alignment.	Calibrate the pipettor. Perform ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• R2 probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure: – Reaction carousel is not aligned with the light path – Optics assembly incorrectly grounded to chassis – DC lamp power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6513

Optics system failure, fluctuation above maximum range, bichromatic check.

Probable cause	Corrective action
• Lamp in use for > 3 months.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Cuvette washer is not functioning properly.	1. Clean the cuvettes. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure to wash the cuvettes and observe the cuvette washer nozzles for hanging drops or leaks. See *6052 Wash Cuvettes*, page 9-39. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (c 8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Debris in the water bath incubator.	Change water bath. Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• R2 pipettor is out of alignment.	Calibrate the pipettor. Perform ***as-needed*** maintenance procedure *1122 R2 Pipettor Calibration*, page 9-35.
• R2 probe is damaged.	Replace reagent probe. See *Replace reagent probes (c4000)*, page 9-122.

Probable cause	Corrective action
	See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Bubbles in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles in the water bath incubator due to a high gas content of the incoming water.	Contact your Area Customer Support.
• Hardware failure: – Reaction carousel is not aligned with the light path – Optics assembly incorrectly grounded to chassis – DC lamp power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 6516

Optics system failure, ADC above maximum range at lamp check.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Temperature error codes (7000-7999)

The temperature error code category includes error codes between 7000-7999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 7000

Temperature stability failed, channel (x).
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specification.
For Pre-Trigger or Trigger	
• x = 17 (Pre-Trigger - *i*2000/*i*2000SR) • x = 16 (Trigger - *i*2000/*i*2000SR) • x = 16 (Pre-Trigger/Trigger - *i*1000SR) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Refrigerator temperature cable has a poor connection (*i*2000/*i*2000SR) – Refrigerator temperature sensor (*i*2000/*i*2000SR) – Reagent cooler cable has a poor connection (*i*1000SR) – Reagent cooler control thermistor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure	Unload reagent kits from the system.

Probable cause	Corrective action
– Reagent cover heater cable to the reagent distribution board has a poor connection	See *Unload reagents from reagent carousel (i1000SR)*, page 5-179 and *Unload reagents from RSH (i1000SR)*, page 5-180. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone 1 - *i*2000/*i*2000SR) • x = 24 (Wash Zone 2 - *i*2000/*i*2000SR) • x = 21 (Wash Zone - *i*1000SR) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone 1 temperature sensor (*i*2000/*i*2000SR): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Wash Zone 2 temperature sensor (*i*2000/*i*2000SR):** • x = 18 (probe 1) • x = 22 (probe 2) • x = 26 (probe 3) **Wash Zone temperature sensor (*i*1000SR):** • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7001

Temperature failed channel (x).
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specification.
For Pre-Trigger or Trigger:	
• x = 17 (Pre-Trigger - *i*2000/*i*2000SR) • x = 16 (Trigger - *i*2000/*i*2000SR)	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• x = 16 (Pre-Trigger/Trigger - *i*1000SR) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Refrigerator temperature cable has a poor connection (*i*2000/*i*2000SR) – Refrigerator temperature sensor (*i*2000/*i*2000SR) – Reagent cooler cable has a poor connection (*i*1000SR) – Reagent cooler control thermistor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone 1 - *i*2000/*i*2000SR) • x = 24 (Wash Zone 2 - *i*2000/*i*2000SR) • x = 21 (Wash Zone - *i*1000SR) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone 1 temperature sensor (*i*2000/*i*2000SR): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Wash Zone 2 temperature sensor (*i*2000/*i*2000SR):** • x = 18 (probe 1) • x = 22 (probe 2) • x = 26 (probe 3) **Wash Zone temperature sensor (*i*1000SR):** • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:**	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• Wash zone-specific temperature sensor failure • Wash zone tubing sensor	
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7002

Channel (x) below minimum temperature.
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specification.
For Pre-Trigger or Trigger:	
• x = 17 (Pre-Trigger - *i*2000/*i*2000SR) • x = 16 (Trigger - *i*2000/*i*2000SR) • x = 16 (Pre-Trigger/Trigger - *i*1000SR) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Refrigerator temperature cable has a poor connection (*i*2000/*i*2000SR) – Refrigerator temperature sensor (*i*2000/*i*2000SR) – Reagent cooler cable has a poor connection (*i*1000SR) – Reagent cooler control thermistor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure:	Unload reagent kits from the system.

Probable cause	Corrective action
– Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	See *Unload reagents from reagent carousel (i1000SR)*, page 5-179 and *Unload reagents from RSH (i1000SR)*, page 5-180. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone 1 - *i*2000/*i*2000SR) • x = 24 (Wash Zone 2 - *i*2000/*i*2000SR) • x = 21 (Wash Zone - *i*1000SR) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone 1 temperature sensor (*i*2000/*i*2000SR): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Wash Zone 2 temperature sensor (*i*2000/*i*2000SR):** • x = 18 (probe 1) • x = 22 (probe 2) • x = 26 (probe 3) **Wash Zone temperature sensor (*i*1000SR):** • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7003

Temperature alarm from channel (x), reading (y).
x = Channel number
y = Temperature in thousandths of degrees C

Probable cause	Corrective action
Temporary out of range condition.	No corrective action is required. If the out of range condition continues, error code 7000 occurs.

Error code: 7004

(x) operation canceled, temperature failure.
x = Mechanism name

Probable cause	Corrective action
Hardware failure: • Pre-trigger or trigger heater • Wash zone heater	1. *Review logs*, page 10-13,for any 7000 category error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 7000 category error codes. 3. Perform the corrective action for the specific error code.

Error code: 7005

Unable to process test, temperature not within range, channel (x).
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specifications.
For Pre-Trigger or Trigger:	
• x = 17 (Pre-Trigger - *i*2000/*i*2000SR) • x = 16 (Trigger - *i*2000/*i*2000SR) • x = 16 (Pre-Trigger/Trigger - *i*1000SR) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
Hardware failure: • Refrigerator temperature cable has a poor connection (*i*2000/*i*2000SR) • Refrigerator temperature sensor (*i*2000/*i*2000SR) • Reagent cooler cable has a poor connection (*i*1000SR) • Reagent cooler control thermistor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	

Probable cause	Corrective action
• x = 21 (Wash Zone 1 - *i*2000/*i*2000SR) • x = 24 (Wash Zone 2 - *i*2000/*i*2000SR) • x = 21 (Wash Zone - *i*1000SR) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone 1 temperature sensor (*i*2000/*i*2000SR): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Wash Zone 2 temperature sensor (*i*2000/*i*2000SR):** • x = 18 (probe 1) • x = 22 (probe 2) • x = 26 (probe 3) **Wash Zone temperature sensor (*i*1000SR):** • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7006

Channel (x) above maximum temperature.

x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specifications.
For Pre-Trigger or Trigger:	
• x = 17 (Pre-Trigger - *i*2000/*i*2000SR) • x = 16 (Trigger - *i*2000/*i*2000SR) • x = 16 (Pre-Trigger/Trigger - *i*1000SR) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	

Probable cause	Corrective action
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Refrigerator temperature cable has a poor connection (*i*2000/*i*2000SR) – Refrigerator temperature sensor (*i*2000/*i*2000SR) – Reagent cooler cable has a poor connection (*i*1000SR) – Reagent cooler control thermistor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	Unload reagent kits from the system. See *Unload reagents from reagent carousel (i1000SR)*, page 5-179 and *Unload reagents from RSH (i1000SR)*, page 5-180. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone 1 - *i*2000/*i*2000SR) • x = 24 (Wash Zone 2 - *i*2000/*i*2000SR) • x = 21 (Wash Zone - *i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	
For Wash Zone temperature sensor:	
Wash Zone 1 temperature sensor (*i*2000/*i*2000SR): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Wash Zone 2 temperature sensor (*i*2000/*i*2000SR):** • x = 18 (probe 1) • x = 22 (probe 2) • x = 26 (probe 3) **Wash Zone temperature sensor (*i*1000SR):** • x = 6 (probe 1) • x = 10 (probe 2)	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7007

Temperature failure channel (x), cannot reach Ready status.
x = Channel number

Probable cause	Corrective action
Specified heater is not able to maintain temperature within specifications.	
x = 28 (For Ambient):	
Room temperature is out of specification.	Modify room temperature to be within specifications.
For Pre-Trigger or Trigger:	
• x = 17 (Pre-Trigger - *i*2000/*i*2000SR) • x = 16 (Trigger - *i*2000/*i*2000SR) • x = 16 (Pre-Trigger/Trigger - *i*1000SR) • Hardware failure: – Heater-specific tubing – Heater and/or heater thermistor specific cable has a poor connection	Contact your Area Customer Support to resolve any hardware failure.
For Process path:	
• x = 4 (zone 1) • x = 5 (zone 2) • x = 8 (zone 3) • x = 9 (zone 4) • x = 12 (zone 5) • x = 13 (zone 6) • Hardware failure: – Process path thermistor for the specific heater zone has a poor connection or failed – Process path heater	Contact your Area Customer Support to resolve any hardware failure.
x = 7 (For Reagent cooler):	
• Hardware failure: – Refrigerator temperature cable has a poor connection (*i*2000/*i*2000SR) – Refrigerator temperature sensor (*i*2000/*i*2000SR) – Reagent cooler cable has a poor connection (*i*1000SR) – Reagent cooler control thermistor (*i*1000SR)	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
x = 17 (For Reagent Carousel Cover Heater):	
• Hardware failure: – Reagent cover heater failure – Reagent cover heater cable to the reagent distribution board has a poor connection	Unload reagent kits from the system. See *Unload reagents from reagent carousel (i1000SR)*, page 5-179 and *Unload reagents from RSH (i1000SR)*, page 5-180. Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone:	
• x = 21 (Wash Zone 1 - *i*2000/*i*2000SR) • x = 24 (Wash Zone 2 - *i*2000/*i*2000SR) • x = 21 (Wash Zone - *i*1000SR) • Hardware failure: – Thermistor cable for the specific wash zone buffer heater has a poor connection – Wash zone buffer heater	Contact your Area Customer Support to resolve any hardware failure.
For Wash Zone temperature sensor:	
Wash Zone 1 temperature sensor (*i*2000/*i*2000SR): • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Wash Zone 2 temperature sensor (*i*2000/*i*2000SR):** • x = 18 (probe 1) • x = 22 (probe 2) • x = 26 (probe 3) **Wash Zone temperature sensor (*i*1000SR):** • x = 6 (probe 1) • x = 10 (probe 2) • x = 14 (probe 3) **Hardware failure:** • Wash zone-specific temperature sensor failure • Wash zone tubing sensor	Contact your Area Customer Support to resolve any hardware failure.
For all channels:	
• Hardware failure: – Temperature controller board in the card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7008

Run request denied, temperature stability failure.

Probable cause	Corrective action
User selected run after a temperature stability failure occurred.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes.

Probable cause	Corrective action
	3. Perform the corrective action for the specific error code.

Error code: 7010

Alternate wash liquid temperature out of specified range.

Probable cause	Corrective action
• Alternate wash heater not functioning properly.	1. *Start up the processing module and/or sample handler*, page 5-15 2. *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7011

Call Abbott. Alternate wash heater failed.

Probable cause	Corrective action
• Communication error with hardware.	1. *Start up the processing module and/or sample handler*, page 5-15 2. *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Alternate wash heater – AWDS DCMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7013

Call Abbott. Alternate wash temperature sensor failed.

Probable cause	Corrective action
• Communication error with hardware.	1. *Start up the processing module and/or sample handler*, page 5-15 2. *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Alternate wash tempertaure sensor – AWDS DCMC board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7100

Acknowledge command not received from Temperature Controller board.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed • Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7102

Invalid response received from Temperature Controller board.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed • Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7103

Temperature controller mode not correct.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed • Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7104

Temperature Controller board not responding.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed • Controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7106

Invalid Temperature Controller board response.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7107

Unable to communicate to Temperature Controller board for channel (x).
x = Channel number

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7108

Temperature Controller board not initialized.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed • Controller board in the upper card cage has a poor connection or failed • Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7109

Temperature Controller board not communicating.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7110

Reagent cooler control error detected.

Probable cause	Corrective action
Hardware failure: • Reagent cooler • Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7200

POST failed, Temperature Controller board.

Probable cause	Corrective action
Hardware failure: • Temperature controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7201

POST passed, Temperature Controller board, version (x).
x = Firmware revision

Probable cause	Corrective action
Power on self tests (POST) passed on the temperature controller board.	Status message. No corrective action is required.

Error code: 7501

Water bath temperature below minimum range.

Probable cause	Corrective action
• Water in water bath is not circulating because the system was idle for an extended period of time.	Change water bath. Perform ***daily*** maintenance procedure *6070 Daily Maintenance*, page 9-21 or ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Water bath is filling after an extended idle time.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7502

Water bath temperature above maximum range.

Probable cause	Corrective action
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7503

Temperature detector failure, water bath temperature exceeded lower detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7504

Temperature detector failure, water bath temperature exceeded upper detectable limit.

Probable cause	Corrective action
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7505

Sample carousel temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7506

Sample carousel temperature above maximum range.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Carousel cover is open.	Close the carousel cover.
• Carousel cover is not installed.	Install the carousel cover.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7507

Temperature detector failure, sample carousel temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7508

Temperature detector failure, sample carousel temperature exceeded upper detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7509

Reagent 1 supply center temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7510

Reagent supply center temperature above maximum range.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Reagent supply center cover is open.	Close the cover.
• Reagent 1 carousel cover is not installed (*c*8000/*c*16000).	Install the cover (*c*8000/*c*16000).

Probable cause	Corrective action
• Reagent supply center maintenance cover is not installed (*c*4000).	Install the cover (*c*4000).
• Numerous reagent cartridges were just loaded into the reagent supply center.	1. Close the reagent supply center cover. 2. Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7511

Temperature detector failure, reagent supply center temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure. • Reagent 1 supply center (*c*8000/*c*16000) • Reagent supply center (*c*4000)	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7512

Temperature detector failure, reagent supply center temperature exceeded upper detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7513

Reagent 2 supply center temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7514

Reagent 2 supply center temperature above maximum range.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Carousel cover is open.	Close the carousel cover.

Probable cause	Corrective action
• Carousel cover is not installed.	Install the carousel cover.
• Numerous reagent cartridges were just loaded into the reagent supply center.	1. Cover the reagent supply center. 2. Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7515

Temperature detector failure, reagent 2 supply center temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7516

Temperature detector failure, reagent 2 supply center temperature exceeded upper detectable limit.

Probable cause	Corrective action
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7517

Internal temperature below minimum range.

Probable cause	Corrective action
• Room temperature is too low.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7518

Internal temperature above maximum range.

Probable cause	Corrective action
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7519

Temperature detector failure, internal temperature exceeded lower detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7520

Temperature detector failure, internal temperature exceeded upper detectable limit.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 7521

Run request denied, water bath temperature is out of range.

Probable cause	Corrective action
• Water in water bath is not circulating because the system was idle for an extended period of time.	Change water bath. Perform ***daily*** maintenance procedure *6070 Daily Maintenance*, page 9-21 or ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• System was just powered on.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Water bath is filling after an extended idle time.	Check the temperature status to verify the temperature returns to specifications within five minutes. Perform ***as-needed*** maintenance procedure *3525 Temperature Status*, page 9-39.
• Room temperature is too high.	Modify room temperature to be within specifications.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Computer hardware error codes (8000-8999)

The computer hardware error code category includes error codes between 8000-8999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions

- Changing the lamp
- Removing system waste

Error code: 8000

Power supply AC failed.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Power fluctuated.	Contact your Area Customer Support. Please provide information that describes the failure.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8001

Power supply over voltage.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8002

Power supply under voltage.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Power fluctuated.	Contact your Area Customer Support. Please provide information that describes the failure.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8003

Power supply over temperature.

Probable cause	Corrective action
• User cycled power to the processing module.	Restart the Processing module after the module power is restored.
• Hardware failure: – Power supply	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8004

UNICODE data could not be sent to (x).
x = Remote system

Probable cause	Corrective action
Hardware failure: • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8005

Communication error reading data from port (x).
x = Remote system

Probable cause	Corrective action
Hardware failure: • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8008

Motor driver over temperature.

Probable cause	Corrective action
• Inadequate ventilation underneath instrument.	Remove any objects from underneath the Processing module that might be blocking the free flow of air to the card cage.
• Card cage filter is dirty.	Clean the card cage air filter. (Contact your Area Customer Support.)
• Hardware failure: – Card cage fan – DC Driver I/O board with fault LED lit – Motor driver board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8009

Power board fault condition detected.

Probable cause	Corrective action
For *i*1000SR:	
• The extension tubing with the gray connector(s) was not connected as instructed while performing 2190 Internal Decontamination maintenance procedure.	1. Select **OK**. 2. Connect the gray connector(s) as instructed in the maintenance procedure. See *2190 Internal Decontamination graphics*, page 9-96.
For all systems:	
Hardware failure: • Motor driver board • DC driver I/O board • Heater cooler board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8010

RSH distribution board CPLD fault condition detected.

Probable cause	Corrective action
Hardware failure:	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
• Cable from carrier transport board to RSH distribution board has poor connection or failed • RSH distribution board	

Error code: 8011

RSH load unload board LED fault condition detected.

Probable cause	Corrective action
Hardware failure: • LEDs on RSH load/unload board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8012

RSH load unload board sensor fault condition detected.

Probable cause	Corrective action
Hardware failure: • Sensors on RSH load/unload board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8013

RSH power board fault condition detected.

Probable cause	Corrective action
Hardware failure: • Motor driver board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8050

Unable to open (x) port for (y).
x = Serial port (COM1 - COM10)
y = Remote system

Probable cause	Corrective action
For host:	
Hardware failure: • Cable from LIS to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For ARM:	
Hardware failure: • Cable from ARM to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For LAS:	
Hardware failure: • Cable from LAS to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8053

Failed opening CLI serial port.

Probable cause	Corrective action
• Serial port configuration.	See *Configure serial ports window*, page 2-63, for more information.
• Hardware failure: – LIS cables have a poor connection or failed – Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8054

CLI communication error.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8100

Unable to write (x) file to designated drive.
x = File name

Probable cause	Corrective action
• Floppy disk is not in drive.	Insert the floppy disk in the floppy drive.
• Floppy disk is write protected.	Ensure the write protect tab on the floppy disk is in the correct position.
• Floppy disk is not formatted.	Format the floppy disk or use a disk that is already formatted.
• Floppy disk is defective.	Use a new floppy disk.
• Software error	If not writing to a floppy disk when this error occurs, contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – Floppy drive – Hard drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8101

Failure in compression of log file.

Probable cause	Corrective action
• Floppy disk is not in drive.	Insert the floppy disk in the floppy drive.
• Floppy disk is not formatted.	Format the floppy disk or use a disk that is already formatted.
• Floppy disk is defective or is not blank.	Use a new floppy disk.

Error code: 8102

ASCII data could not be sent to (x).
x = Remote system

Probable cause	Corrective action
For host:	
Hardware failure: • Cable from LIS to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For ARM:	
Hardware failure: • Cable from ARM to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.
For LAS:	
Hardware failure: • Cable from LAS to SCC has a poor connection or failed • Digiboard or External multiport serial adapter	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8103

Field (x) in section (y) truncated for printing.
x = Field name
y = Report section name

Probable cause	Corrective action
The data entered in the data entry box is too long to print.	Print a screen image if a hard copy is required.

Error code: 8104

Print job for (x) canceled by the user.
x = Report name

Probable cause	Corrective action
User cancelled a print job.	Status message. No corrective action is required.

Error code: 8105

A printer error has occurred.

Probable cause	Corrective action
A printer error occurred.	Refer to the printer documentation for assistance.

Error code: 8107

Printer out of paper.

Probable cause	Corrective action
• Printer is out of paper.	Add paper to the printer.

Probable cause	Corrective action
• Printer is offline.	Change the printer status to online.
• Printer is not connected.	Connect the printer cable to the SCC printer port.

Error code: 8110

Printer status unavailable at this time.

Probable cause	Corrective action
Printer is not available.	1. Verify the printer is plugged in, on, and ready. 2. Verify the cable from the SCC to the printer is connected. 3. Refer to the printer documentation if printer is still unavailable.

Error code: 8115

(x) printer not properly installed.
x = Default printer name

Probable cause	Corrective action
Configured printer is not installed properly or does not exist.	Contact your Area Customer Support. Please provide information specifying the operation you were attempting to perform when this error occurred.

Error code: 8150

Invalid Host order, Sample ID (x) already exists.
x = Sample ID

Probable cause	Corrective action
The system received an order from the host and the order already exists. The new order from the host is ignored by the system.	If this error occurs frequently without obvious explanation, check the function of the host interface.

Error code: 8151

Invalid Host cancel, Sample ID (x) does not exist.
x = Sample ID

Probable cause	Corrective action
The system received a cancellation request from the host on a test order and the order does not exist in the database. The cancellation request from the host is ignored by the system.	If this error occurs frequently without obvious explanation, check the function of the host interface.

Error code: 8152

Orders received for Sample ID (x) did not match the Sample ID sent to the Host.
x = Sample ID

Probable cause	Corrective action
The sample ID returned from the host did not match the sample ID queried for by the system because: • The host is responding to a previous query, which has timed out on the system.	Increase the host query timeout value. See *Configure host interface settings*, page 2-6.
• The host sent an order not requested by the system.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about communications.

Error code: 8153

Invalid Host order, no quality control information for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
The system received a QC order for an assay from the host but a control is not configured for the assay. The order from the host is ignored by the system.	Use the Control configuration screen to configure a control for the requested assay, and then download the order from the host. See *Configure a single analyte control*, page 2-149 or *Configure a new multiconstituent control*, page 2-153.

Error code: 8154

Invalid Host order for Sample ID (x), specified dilution for Assay number (y) not found.
x = Sample ID
y = Assay number

Probable cause	Corrective action
The system received a test order from the host requesting an undefined dilution. The order from the host is ignored by the system.	Order a dilution available for the specified assay. Dilution Name is case sensitive, verify the host dilution name is exactly the same as the Dilution Name in the SCC.

Error code: 8155

Invalid Host order for Sample ID (x), Assay number (y) not installed.
x = Sample ID
y = Assay number

Probable cause	Corrective action
• The system received a test order from the host requesting an assay that is not installed.	Install the requested assay. See *Install or delete an assay file*, page 2-211.
• The assay number is incorrectly defined in the host.	Correct the assay number in the host system.

Error code: 8156

Error detected when parsing record (x) from (y).
x = Record string or field string
y = Remote system

Probable cause	Corrective action
An error was detected when parsing an ASTM record received. The record may not utilize the delimiters correctly. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8158

Required data (x) is missing from message received from (y).
x = Component string
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8159

Incoming frame from (x) is too long. <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Frame received exceeds ASTM length limit. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8160

Field (x) received from (y) is not repeatable.
x = Field name
y = Remote system

Probable cause	Corrective action
Data field in a record received contains an illegal repeat delimiter. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8161

(x) sent illegal record type (y). The remainder of the message will be ignored.
x = Remote system
y = Record text

Probable cause	Corrective action
Record received is an invalid record type not defined by the ASTM E1394 Standard.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8162

(x) sent record (y) which contained an incorrect sequence number.
x = Remote system
y = Record received

Probable cause	Corrective action
Message received contained a record which was out of sequence. **For host:** • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8163

Host sent record (x) for a negative query response.
x = Record received

Probable cause	Corrective action
Record received from the host contains an invalid query response.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Error code: 8165

(x) sent record (y) which contained an improper level transition.
x = Remote system
y = Record received

Probable cause	Corrective action
Message received contained a record which caused an improper message hierarchy level transition.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8166

Invalid ASTM record (x) in test order message.
x = Record name

Probable cause	Corrective action
Test order message received from the host contains an unacceptable ASTM record. Acceptable records in a test order message: Header, Patient, Test Order, Comment, and Terminator records.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Error code: 8169

Invalid message sent by (x).
x = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8170

Negative query response for Sample ID (x) received after a host query timeout.
x = Sample ID

Probable cause	Corrective action
Negative query response message contained a SID which was different than the one contained in the earlier issued query message.	
• The host is responding to a previous query, which has timed out on the system.	Increase the host query timeout value. See *Configure host interface settings*, page 2-6.
• A query message was never issued to the Host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about communications.

Error code: 8172

Host query time-out exceeded for Sample ID (x).
x = Sample ID

Probable cause	Corrective action
The host did not respond to the query message within the time period specified in the configuration.	Increase the host query timeout value. See *Configure host interface settings*, page 2-6.

Error code: 8173

Message received from (x) did not end with a terminator record.
x = Remote system

Probable cause	Corrective action
For host:	
• Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM:	
• Hardware failure: – Cable from ARM to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8174

Record (x) received from (y) did not terminate in a carriage return.
x = Record string
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message was received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
• Cabling was not properly shielded or was too long.	Use shorter or shielded cable.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8175

Length of data (x) received from (y) exceeded specified maximum length.
x = Component string
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8176

Data field (x) received from (y) must be a numeric value.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8177

Data field (x) received from (y) must be an alphanumeric value.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM:	

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8178

Data field (x) received from (y) must be an alpha value.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8179

Invalid host order for Sample ID (x), Assay number (y) status type does not exist.
x = Sample ID
y = Assay number

Probable cause	Corrective action
The system received a test order from the host for an assay that is not installed.	
• The assay is not installed.	Install the requested assay. See *Install or delete an assay file*, page 2-211.
• The assay number is incorrectly defined in the host.	Correct the assay number in the host system.

Error code: 8180

Required field (x) was not populated by (y).
x = Field name
y = Remote system

Probable cause	Corrective action
Mandatory ASTM field was blank in the message received. The remainder of the message is ignored by the system.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8181

Invalid host order, incorrect birth date (y) for Sample ID (x).
x = Sample ID
y = Birth date

Probable cause	Corrective action
The system received an order from the host containing a birth date later than the current date.	Correct the birth date in the host system, and then re-send the order.

Error code: 8182

Unsupported character received from the host in a record. Original: (x), Translated: (y).
x = Input string
y = Output string

Probable cause	Corrective action
Record received from the host containing a character not supported in the ASI Code page. This character is translated as the copyright symbol (© or code 0169).	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual. Acceptable characters are defined in the ASI Code page for ARCHITECT table.

Error code: 8183

Unsupported character sent to the host in a record. Original: (x), Translated: (y).
x = Input string
y = Output string

Probable cause	Corrective action
Record sent to the host containing a character not supported in the ASI Code page. This character is translated as the registered mark (® or code 0174).	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual. Acceptable characters are defined in the ASI Code page for ARCHITECT table.

Error code: 8184

Invalid message type sent by LAS.

Probable cause	Corrective action
• The LAS sent out an unknown message type.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8185

Invalid <ACK> or <NAK> message length sent by LAS.

Probable cause	Corrective action
The system received an invalid <ACK> or <NAK> message length by LAS. • LAS sent incorrect message length.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Probable cause	Corrective action
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8186

Invalid Sample ID length sent by LAS. Sample ID length cannot be zero.

Probable cause	Corrective action
The system received a sample ID from the LAS with a length of zero.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8187

Invalid Sample ID length sent by LAS. Sample ID length cannot be greater than 20 characters.

Probable cause	Corrective action
The system received a sample ID from the LAS with a length greater than 20 characters.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8188

Invalid Sample ID sent by LAS. The Sample ID contains an invalid character.

Probable cause	Corrective action
The system received a sample ID from the LAS containing an invalid character.	Use valid characters only. Valid characters are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Error code: 8189

Invalid message sent by LAS. Message exceeded maximum length.

Probable cause	Corrective action
The system received a message from the LAS that exceeded the maximum allowable length.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8190

Invalid SID (x) sent by LAS.
x = Sample ID

Probable cause	Corrective action
The system received an invalid sample ID from the LAS.	Contact your LAS vendor.

Error code: 8191

Invalid message sent by LAS.

Probable cause	Corrective action
• System bar code configuration does not match bar code label.	Contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8192

Invalid formatted bar code read: (x) sent by LAS for SID (y).
x = Bar code read data
y = Sample ID

Probable cause	Corrective action
The system received an invalid SID from the LAS bar code reader.	Contact your LAS vendor.

Error code: 8193

Invalid host order, incorrect draw date (x) for Sample ID (y).
x = Sample draw date
y = Sample ID

Probable cause	Corrective action
Host order received containing a draw date later than the current date.	Correct the draw date in the host, then resend the order from the host.

Error code: 8194

Invalid Sample ID sent by the LIS. The Sample ID contains an invalid character.

Probable cause	Corrective action
An invalid character was encoded in a host download or query response.	Use valid characters only. Valid characters are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Error code: 8196

Unable to process test, sample not presented for aspiration at pipettor.

Probable cause	Corrective action
• The LAS sent message Sample_In_STAT_Position (message type 0x03) and the sample bypassed the STAT pipettor, however the SCC determined a STAT test was ordered.	Incorrect message type (0x03) was sent to bypass the STAT pipettor. Contact your Area Customer Support.
• The LAS sent message Sample_In_Position (message type 0x03, message ID 0xC004) and the sample bypassed the sample pipettor, however the SCC determined a routine test was ordered.	Incorrect message type (0x03) was sent to bypass the sample pipettor. Contact your Area Customer Support.

Error code: 8197

Unable to process test, Pipettor bypass message sent from LAS to SCC and Pipettor Bypass option is configured Off.

Probable cause	Corrective action
The LAS sent message Sample_In_STAT_Position (message type 0x03) or Sample_In_Position (message type 0x03, message ID 0xC004) and the Pipettor bypass option is configured Off.	Contact your Area Customer Support to change the Pipettor bypass option to On.

Error code: 8200

Invalid host order, assay (x) number (y) does not support manual dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
• User attempted a manual dilution patient order using an assay that does not support manual dilution (HL7).	Deselect the manual dilution.
• One or more of the selected assays does not support manual dilution (HL7).	Deselect the assay that does not support manual dilution or select **Sample manual dilution factor** before selecting the assay(s).
• The user attempted to enter a manual dilution factor outside of the acceptable range of 2-9999 (HL7).	Enter a valid dilution factor (acceptable range is 2-9999).

Error code: 8201

Invalid host order, invalid manual dilution factor (x) for Sample ID (y).
x = Dilution factor
y = Sample ID

Probable cause	Corrective action
The user attempted to enter an invalid manual dilution factor (HL7).	Enter a valid dilution factor (acceptable range is 2-9999).

Error code: 8250

Invalid frame number received from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Record received did not contain the frame in sequence.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8251

Received <NAK> for outgoing frame from (x).
x = Remote destination name

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8252

No terminating <CR> in received frame from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Frame received did not terminate in a carriage return.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8253

Invalid checksum received in incoming frame from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8254

Restricted character in message text from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM:	

Probable cause	Corrective action
• Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8255

No terminating <LF> in received frame from (x). <NAK> has been sent.
x = Remote system

Probable cause	Corrective action
Frame received did not contain a terminating line feed.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8256

Data field (x) received from (y) must be a printable string.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8257

Data field (x) received from (y) must be a valid date.
x = Data field
y = Remote system

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8258

Record (x) was received in message from (y) prior to a required header record.
x = Record string which was received as the first record of the message
y = Remote system

Probable cause	Corrective action
Message received without the Header record as the first record of the message.	
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8259

Record received from (x) contained an invalid field (y).
x = Remote system
y = Field name

Probable cause	Corrective action
For host: • Incorrectly formatted record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8260

(x) sent an unsupported record type (y). The record will be ignored.
x = Remote system
y = Record received

Probable cause	Corrective action
Record received was a valid ASTM format but is not supported by the system.	
For host: • Unsupported record or message received from the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8261

Negative query received for Sample ID (x), in Carrier/Position (y).

x = Sample ID
y = Carrier, CRSL, or LAS and Position number

Probable cause	Corrective action
• The sample ID has not been entered into the host computer.	Enter the sample ID and test order(s) for the sample ID into the host computer.
• There are no ARCHITECT System test orders for the specified sample ID.	Enter the test order(s) for the sample ID into the host computer.
• Host computer is not functioning properly.	*Create a patient order (single order)*, page 5-192.
• SID (sample identification) is truncated.	See *Sample ID is truncated*, page 10-596.

Error code: 8262

Invalid Message ID sent by LAS.

Probable cause	Corrective action
The system received an invalid message ID from the LAS.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8263

Invalid Recovery Type sent by LAS.

Probable cause	Corrective action
The SCC is unable to re-initialize communication due to LAS message containing Invalid Recovery Type.	1. Re-initialize communication with the LAS. See *Verify LAS communications*, page 10-725. 2. Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor, if error continues.

Error code: 8264

Invalid Cyclical Redundancy Check sent by LAS.

Probable cause	Corrective action
The system received an invalid Cyclical Redundancy Check.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8265

Invalid message sent by LAS. LAS message length mismatch.

Probable cause	Corrective action
The LAS sent a message to the system that did not match what the system expected. The message is ignored.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8266

The <ACK> message sequence number sent by LAS does not match outgoing message sequence number.

Probable cause	Corrective action
The <ACK> message sequence number sent by the LAS does not match the outgoing sequence number. The message is ignored. Previous message is resent by the system.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8267

The <NAK> message sequence number sent by LAS does not match outgoing message sequence number.

Probable cause	Corrective action
The system received a <NAK> sequence number that did not match the sequence number sent to the LAS. The message is ignored. Previous message is resent by the system.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8268

Received <NAK> from LAS for outgoing message.

Probable cause	Corrective action
Not able to interpret message sent from the SCC. The message is ignored. Previous message is resent by the system.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8269

Message sequence number sent by LAS is out of order.

Probable cause	Corrective action
The system received a sequence number from the LAS that does not match the expected sequence number.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8270

Unexpected <ACK> or <NAK> message sent by LAS.

Probable cause	Corrective action
Unexpected <ACK> or <NAK> message sent by LAS. The message is ignored.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.

Error code: 8271

Invalid checksum sent by LAS.

Probable cause	Corrective action
The system received an invalid checksum.	Contact your LAS vendor.

Error code: 8272

A message was received from the LAS before the previous message was complete.

Probable cause	Corrective action
A message was received from the LAS that was out of order.	Contact your LAS vendor.

Error code: 8273

The LAS detected an internal error.

Probable cause	Corrective action
The LAS detected an internal error.	Contact your LAS vendor.

Error code: 8274

Result for Sample ID (x), Assay Number (y) could not be transmitted to the Host.
x = Sample ID
y = Assay number

Probable cause	Corrective action
• Communication failure.	Retransmit the result.
• Host is not configured for the expected result format.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Error code: 8275

Sample presentation error. LAS sent SID (x) when SID (y) in sampling position.
x = SID being positioned
y = SID in place

Probable cause	Corrective action
• Error in reading the tube carrier. • Sample aspirated from incorrect tube.	Tests are sent to exceptions. Refer to your LAS documentation for troubleshooting sample presentation errors.

Error code: 8276

Unable to process test, sample presented out of order at the LAS.

Probable cause	Corrective action
Sample aspirated from incorrect tube.	1. *Review logs*, page 10-13 for any 8275 error codes that occurred at the same time as this message. 2. Perform the corrective action for the 8275 error code.

Error code: 8277

(x) error detected when transmitting data to host.
x = Communication error

Probable cause	Corrective action
System attempted to transmit data but a communication error occurred.	

Probable cause	Corrective action
• Host is not responding or host communication is disabled.	1. Verify host communications is enabled in the LIS communication window. See *Enable or disable the host or secondary HL7 connections*, page 5-417. 2. *Cycle power to the SCC*, page 5-5. 3. Verify the host system is functional. See *Verify HL7-TCP/IP communications*, page 10-727.
• Message buffer full error.	*Cycle power to the SCC*, page 5-5.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System HL7 Interface Manual for information about HL7 messaging.

Error code: 8350

Maximum number of query timeouts exceeded. Host query mode disabled.

Probable cause	Corrective action
Three consecutive timeouts received while requesting orders from the host. The host port is disabled after this error.	
• Host did not respond within the time period configured.	Increase host query timeout value. See *Configure host interface settings*, page 2-6.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-63, for more information.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8351

(x) connection cannot be established because of contention.
x = Remote system

Probable cause	Corrective action
For host: • Both systems request a connection at the same time by sending an <ENQ> and this creates contention.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8353

Maximum retries exceeded for outgoing frame sent to (x).
x = Remote system

Probable cause	Corrective action
Unable to send frame to the remote system, because the remote system sends a negative acknowledgment <NAK> for the frame received.	
For host: • Incorrectly formatted record or message received from the host. – Checksum is invalid. – Frame is not received in sequence.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8354

(x) connection cannot be established, no response was received.
x = Remote system

Probable cause	Corrective action
For host: • Host is busy or not responding.	1. Verify the host system is functional. See *Verify ASTM/serial communications*, page 10-726. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-63, for more information.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8355

Time out on frame sent to (x).
x = Remote system

Probable cause	Corrective action
System timed out waiting for confirmation that the remote system received a frame. The connection is terminated by the system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. See *Verify ASTM/serial communications*, page 10-726. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8356

Query for sample ID (x) has been deleted.
x = Sample ID

Probable cause	Corrective action
• Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Host query option was turned off due to a previous communication failure or was turned off by the user.	Re-enable the Bidirectional host option in system settings. See *Configure host interface settings*, page 2-6.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-63, for more information.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8357

Unable to transmit results to Host, Host access turned off.

Probable cause	Corrective action
System attempted to transmit approved results but the host is turned off	
• Host is not responding or is turned off.	Turn on the host interface and re-transmit the data.
• Bidirectional host option is turned off.	Re-enable the Bidirectional host option in system settings. See *Configure host interface settings*, page 2-6.

Error code: 8358

Time out on incoming frame from (x).
x = Remote system

Probable cause	Corrective action
System timed out waiting to receive a frame. The connection is terminated by the system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, error code 3901 occurs. Follow the corrective action for this specific code.

Error code: 8359

Time out exceeded on message sent to LAS.

Probable cause	Corrective action
The LAS did not respond within the designated time period. The connection is terminated by the system.	
• LAS response time is too slow.	Optimize the LAS response timeout value.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8360

Maximum number of consecutive LAS message timeouts and/or LAS <NAK> messages exceeded.

Probable cause	Corrective action
• The LAS did not respond to the outgoing message.	Re-initialize communication with the LAS. See *Verify LAS communications*, page 10-725.
• Communication failed.	*Cycle power to the SCC*, page 5-5.
• The system received an invalid checksum.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual and/or contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8361

LAS message communication error.

Probable cause	Corrective action
System is unable to send a message to the LAS.	
• The LAS did not respond to the outgoing message.	Re-initialize communication with the LAS. See *Verify LAS communications*, page 10-725.
• The SCC is not configured correctly for the LAS settings.	Reconfigure the serial port parameter settings. See *Configure serial ports window*, page 2-63, for more information.
• LAS response time is too slow.	Optimize the LAS response timeout value.
• The system received an invalid checksum.	Refer to the ARCHITECT System Laboratory Automation System Interface Manual.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8362

Time out on message sent from LAS.

Probable cause	Corrective action
The connection between the SCC and the LAS was terminated.	
• LAS not responding.	Contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8363

(x) connection cannot be established, remote system is busy.
x = Remote system

Probable cause	Corrective action
System attempted to connect with the remote system, but the remote system was busy and responded with a <NAK>.	
For host:	

Probable cause	Corrective action
• Host is busy.	Wait for host system to become available.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, a error code 3901 occurs. Follow the corrective action for this specific error code.

Error code: 8364

The maximum number of connection attempts has been reached for (x).
x = Remote system

Probable cause	Corrective action
Multiple failures while attempting to establish communication with the remote system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. See *Verify ASTM/serial communications*, page 10-726. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.
• Incorrect baud rate on host port.	Reconfigure the host baud rate. See *Configure serial ports window*, page 2-63, for more information.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC (COM5, Connector P3) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • Communication failure.	Condition may be temporary, if so, no corrective action is required. If condition is not temporary, a error code 3901 occurs. Follow the corrective action for this specific error code.

Error code: 8365

Unable to transmit data to host, Host communication disabled.

Probable cause	Corrective action
System attempted to transmit data but the: • Host is not responding or host communication is disabled. • Error occurred during transmission so host communication was disabled.	1. Verify host communications is enabled in the LIS communication window. See *Enable or disable the host or secondary HL7 connections*, page 5-417. 2. Verify the host system is functional. See *Verify HL7-TCP/IP communications*, page 10-727.

Error code: 8366

Unable to establish connection with host, no response was received.

Probable cause	Corrective action
• Host is busy or not responding.	1. Verify host communications is enabled in the LIS communication window. See *Enable or disable the host or secondary HL7 connections*, page 5-417. 2. *Cycle power to the SCC*, page 5-5. 3. Verify the host system is functional. See *Verify HL7-TCP/IP communications*, page 10-727.
• Incorrect TCP/IP port settings.	1. Verify TCP/IP ports settings. See *Configure TCP/IP ports window*, page 2-64. 2. Verify Host – Release Mode settings. 3. Enable host communication. See *Enable or disable the host or secondary HL7 connections*, page 5-417.
• Hardware failure: – Cable from LIS to SCC has poor connection or failed.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8367

Unable to establish connection with communication service, no response was received.

Probable cause	Corrective action
System is unable to establish communication with the informatics communication service (ICS).	1. *Cycle power to the SCC*, page 5-5. 2. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 8457

(x) port disabled.
x = Remote system

Probable cause	Corrective action
The communication port is disabled due to multiple failures while attempting to establish communication with the remote system.	
For host: • Host is busy or not responding.	1. Verify the host system is functional. See *Verify ASTM/serial communications*, page 10-726. 2. Re-enable host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.

Probable cause	Corrective action
• Incorrect baud rate on host port.	1. Reconfigure the host baud rate. See *Change the LIS serial port settings*, page 2-31. 2. Re-enable the Bidirectional host option, after correcting the baud rate. See *Configure host interface settings*, page 2-6.
• Message response is incorrectly defined for the host.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about the ASTM protocol.
• Hardware failure: – Cable from LIS to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.
For ARM: • ARM is busy or not responding	Re-enable the Wash buffer transfer option for automatic buffer transfer, after the ARM is functional. See *Configuration screen - System settings view*, page 2-4.
• Hardware failure: – Cable from ARM to SCC has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8458

Unable to accept test orders from Host.

Probable cause	Corrective action
System has reached unreleased result capacity, regardless if you are connected to a host or not. This includes unreleased patient and QC results, test orders, and exceptions.	1. If configured for host, release patient and QC results. 2. Delete or release exceptions or pending orders below 10% of maximum capacity. (Currently, maximum capacity is 6,500, therefore 90% = 5,850). Once unreleased patient results, QC results, and exceptions are released or deleted, the system accepts test orders from the host. **NOTE:** If not configured for a host, this message should be ignored.

Error code: 8459

Test orders may be downloaded from the Host.

Probable cause	Corrective action
The number of unreleased patient and QC results, pending orders, and exceptions was reduced to a level that is 10 percent below the maximum capacity.	No corrective action is required. Test orders from the host are accepted if the feature is enabled in the system configuration.

Error code: 8460

Unable to process backup or restore request, host transfer in process.

Probable cause	Corrective action
Backup or restore selected when data is transferring to the host.	Wait until all host transfers are complete, or *Cancel pending transmission*, page 5-417, before performing the backup or restore procedure.

Error code: 8462

Negative query response for Sample ID (x), did not match the Sample ID sent to the host.
x = Sample ID

Probable cause	Corrective action
The sample ID returned from the host did not match the sample ID queried for by the system.	
• The host is responding to a previous query, which has timed out on the system.	Increase the host query timeout value. See *Configure host interface settings*, page 2-6.
• The host sent an order not requested by the system.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual for information about communications.

Error code: 8463

Unable to change configuration, host transmission is in process.

Probable cause	Corrective action
Host transmission was in process while attempting to configure a new processing module.	Wait until all host transfers are complete, or *Cancel pending transmission*, page 5-417, before configuring the new processing module.

Error code: 8464

LAS initialization communication failed.

Probable cause	Corrective action
• Communication failure between the SCC and the LAS.	Re-initialize communication with the LAS. See *Verify LAS communications*, page 10-725.
• Serial port settings configured on SCC do not match LAS configured settings.	1. Verify/reconfigure the serial port settings. 2. *Cycle power to the SCC*, page 5-5.
• LAS is inoperable.	Contact your LAS vendor.
• Hardware failure: – Cable from LAS to SCC (COM6, Connector P4) has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8465

Host transmission canceled by the user.

Probable cause	Corrective action
User cancelled result transmission to the host.	Status message. No corrective action is required.

Error code: 8466

Incoming connection from (x) has been rejected, unreleased result capacity has been reached on the system.
x = Remote system

Probable cause	Corrective action
The number of unreleased results is at the maximum.	Release or delete unreleased patient results, quality control results, and exceptions currently on the system.

Error code: 8550

Unable to process test; power supply + 5 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8551

Unable to process test; power supply - 15 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8552

Unable to process test; power supply + 15 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8553

Unable to process test; power supply + 12 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8554

Unable to process test; power supply + 11.5 V failure.

Probable cause	Corrective action
• Lamp was not seated correctly when replaced.	Repeat lamp replacement procedure. See ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Replace the lamp. Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 8555

Unable to process test; power supply + 24 V failure.

Probable cause	Corrective action
Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Software error codes (9000-9999)

The software error code category includes error codes between 9000-9999.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

NOTE: For corrective actions that involve hazardous activity refer to *Hazards*, page 8-1, for precautions you should take to minimize exposure and prevent personal injury or system damage. Hazard activities include but are not limited to:

- Replacing system probes
- Handling reagents, calibrators, controls, and specimens
- Removing physical obstructions
- Changing the lamp
- Removing system waste

Error code: 9000

Call Abbott. Invalid command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9001

Call Abbott. Parameter (x) out of range.
x = CLI parameter number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9002

Missing Failure response detected in work hierarchy, child work type (x), Test ID (y).
x = Work order child type
y = Test ID

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	

Probable cause	Corrective action
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9003

Missing Failure response detected in work hierarchy, child work type (x), not a test or a work order.
x = Work order child type

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9004

Call Abbott. CLI parser error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9005

Call Abbott. Destination module not found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9006

Call Abbott. Software error, CLI Parser error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9007

Call Abbott. CLI Parser, unknown error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9008

Call Abbott. CLI Parser, stack overflow.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9009

Concurrency of (x) exceeded.
x = Mechanism name

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code.

Probable cause	Corrective action
	3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 9010

(y) preventing (x) from operating.
x = Mechanism experiencing failure
y = Mechanism causing failure

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any 0304 error codes. 3. Perform the corrective action for the specific error code.

Error code: 9011

Previous lockstep operations were not complete when new lockstep operation was scheduled.

Probable cause	Corrective action
An operation could not be performed on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.

Error code: 9012

Call Abbott. Unknown / pSOS+ error number (x) received by IT domain.
x = Error message

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9013

Call Abbott. Invalid bit number (x).
x = Bit number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9014

Call Abbott. Invalid module type requested.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9015

Call Abbott. Required command argument was not specified.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9016

Call Abbott. Request denied, experiment not found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9017

Call Abbott. TCB Command, memory allocation error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9018

Call Abbott. CLI command, incorrect increment/resolution parameter (x).
x = Parameter number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9019

Call Abbott. TCB command, invalid parameter (x).
x = Count variable

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9020

Call Abbott. An Invalid OMS command sent to motor indexer device (x).
x = Motor or indexer board number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9021

Call Abbott. Invalid command for module.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9022

Call Abbott. Invalid liquid level sense command on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9023

Call Abbott. Invalid liquid level sense board status bit on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9024

(x) is not found. Assay insert (y) will not be downloaded.

x = Assay name, lot number
y = Commodity number

Probable cause	Corrective action
AbbottLink sent an assay insert for a reagent master lot that does not exist.	Status message. No corrective action is required.

Error code: 9025

Call Abbott. Unable to run assay (x). Required hardware not present.
x = Assay name

Probable cause	Corrective action
The hardware required to run the assay is not present.	1. Delete the assay. See *Install or delete an assay file*, page 2-211. 2. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9026

Call Abbott. Digital I/O bit (x) interrupt in use.
x = Bit number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9027

Microparticle Dispersion Mechanism is active, unable to execute request.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9028

Call Abbott. Digital I/O bit (x) interrupt not in use.
x = Bit number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9029

Call Abbott. A CLI command initiated while the instrument was in a status not permitting such commands.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9030

Call Abbott. Unknown error category number (x) received by IT domain.
x = Error number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9031

Call Abbott. Invalid liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9032

Call Abbott. Invalid pressure monitor command operand on liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9033

Call Abbott. Invalid command sent to liquid level sense board (x).
x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9034

Call Abbott. Sample Handler status does not allow execution of command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9035

Call Abbott. Invalid pressure monitor command on liquid level sense board (x).

x = Board number for Pipettor, 0 = S (slot 10), 1 = R1 (slot 8), 2 = R2 (slot 6), 3 = STAT (slot 4)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9037

Invalid Temperature Controller command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9038

Call Abbott. Invalid flow/clog detection channel (x).
x = Channel number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9039

Call Abbott. Invalid temperature channel (x).
x = Temperature channel number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9040

Call Abbott. Mechanism command sent to invalid destination.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9041

Missing failure response detected in work hierarchy, child work type (x), parent work type (y).
x = Child work type
y = Parent work type

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	

Probable cause	Corrective action
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9042

The lockstep operation detected a timing error.

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
For STAT assays:	
• Software error.	Repeat the test, see *Rerun a patient test*, page 5-305.

Error code: 9043

Call Abbott. Command error, not yet implemented.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9044

Call Abbott. Set_module CLI command failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9045

The lockstep operation detected a timing failure.

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code. 3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9046

Call Abbott. Motor command error on motor indexer device (x), parameter error.
x = Motor number or indexer board number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9047

Call Abbott. Motor command sent to motor (x) and it was still processing a previous command.
x = Motor number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9048

Call Abbott. Motor mailbox error on motor indexer device (x).
x = Motor number or indexer number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9049

Call Abbott. Invalid context used to load the motor data table.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9050

Call Abbott. Solenoid task not created, call back cannot be executed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9051

Call Abbott. O/S Error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9052

Call Abbott. O/S ISR Error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9053

Call Abbott. Software error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9054

File (x) not found.

x = File name

Probable cause	Corrective action
• Incorrect information entered when installing an assay file or maintenance or diagnostic procedure.	Enter the correct information.
• Software error, when the error occurs at the beginning of the procedure.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9055

Call Abbott. Invalid OMS command sent to motor indexer device (x).
x = Motor number or indexer board number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9056

Call Abbott. Invalid DEBUG command parameter.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9057

Call Abbott. Run request denied, at least one module must be Running.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9058

The lockstep operation detected a timing error.

Probable cause	Corrective action
Could not perform an operation on the indicated device due to a conflict with another device.	
• User selected stop while a module was in Running status.	This message may occur several times. *Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Previous hardware failure.	1. *Review logs*, page 10-13, for any 0304 error codes that occurred at the same time as this message. 2. Look for any error codes that occurred at the same time as the 0304 error code.

Probable cause	Corrective action
	3. *View low level error messages*, page 10-15, if you do not find any error codes that occurred at the same time as the 0304 error code. 4. Perform the corrective action for the specific error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9059

Call Abbott. Load list (x) line (y), Carrier ID or Position are invalid.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9061

Discrepancy during report generation for parameter (x) in report (y).
x = Parameter number
y = Report name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9062

Read interval of 0 msec. sent to data reduction.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9063

Reporting database access error, table (x).
x = Database table write error

Probable cause	Corrective action
For x = generic framework error: • Software error.	*Cycle power to the SCC*, page 5-5.
For x = any other error: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9064

Call Abbott. Unable to print report.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information specifying the report you were attempting to print when the error occurred.

Error code: 9065

Unable to print report, field (x) data in (y) not present.
x = Field name
y = Report section name

Probable cause	Corrective action
Requested report is missing information required to generate the report.	Perform the procedure before attempting to print a report.

Error code: 9066

Unable to generate report, error accessing data.

Probable cause	Corrective action
Software reporting error.	Contact your Area Customer Support. Please provide information specifying the report you were attempting to print when the error occurred.

Error code: 9068

Call Abbott. Unable to print (x), print job failed.
x = Report name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information specifying the report you were attempting to print when the error occurred.

Error code: 9069

Call Abbott. Unknown error (x) detected in Instrument Control.
x = Error number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9070

Call Abbott. Error occurred while attempting Automatic Prime.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9071

Run-time error encountered while running (x) procedure.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9073

Call Abbott. Software error, unable to open database. (No backup database exists)

Probable cause	Corrective action
The database is corrupted.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9074

Call Abbott. Software error, unable to open database. (Backup database exists)

Probable cause	Corrective action
The database is corrupted.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9075

System backup or restore canceled, unknown file access failure for (x).
x = Description of file

Probable cause	Corrective action
• Software error: – Hard drive is full – File system on hard drive is corrupt	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – Hard drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9076

Call Abbott. System backup canceled, system file (x) missing.
x = Description of file

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9077

Unable to communicate to Sample Handler or Processing Module, error (x), (y).
x = Architecture error number
y = String associated with architecture error

Probable cause	Corrective action
For x = 31:	
Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module, the sample handler, and the SCC. See *Cycle power to the processing module and/or sample handler*, page 5-14. See *Cycle power to the SCC*, page 5-5
For x = 37:	
• Processing module is powering on.	Wait until the power on is complete and the module status is Stopped.
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable. See *Reseat cables to the SCC*, page 10-721.
• Network hub is turned off.	1. Turn on the power switch to the network hub. 2. Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-14.
• Network hub power cord is disconnected.	1. Connect the power cord to the network hub and plug into a UPS or wall outlet. 2. Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-14.
• Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-14.
• Network hub failure.	Contact your Area Customer Support to resolve any hardware failure.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.
For x = 82:	
• Processing module is powering on.	Wait until the power on is complete and the module status is Stopped.
• Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure: – Module controller board in the upper card cage has a poor connection or failed – Sample handler controller board in the upper card cage has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
For x = any other number:	
• Processing module is powering on.	Wait until the power on is complete and the module status is Stopped.
• Communication failure between the SCC and a processing module or sample handler.	Cycle power to the processing module and to the sample handler. See *Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure. Please provide the error information displayed in the error message.

Error code: 9078

Run request denied, Sample Handler must be Ready.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9079

Unable to perform procedure, module (x) incorrect module type.
x = Module number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9080

Process Path Index response not received when expected. Attempting to initiate response.

Probable cause	Corrective action
Software status message.	No corrective action is required.

Error code: 9081

Data archive failed, error (x).
x = Error message

Probable cause	Corrective action
• CD disk is dirty	Clean disk. Refer to the CD cover for cleaning and handling procedures.
• CD disk is defective	Use a new disk.
• Hardware failure: – CD drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9082

Call Abbott. Data archive failed, error writing data to hard drive.

Probable cause	Corrective action
• The C drive is out of disk space. • Hardware failure: – Hard drive	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9083

Call Abbott. Unknown c System Error (x).
x = Error code number/status

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – CPU board – DAQ board	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9084

Processing module received an invalid sample order from the SCC.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9085

c System module CPU software error.

Probable cause	Corrective action
Hardware failure: • CPU board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9086

Connection error between SCC and processing module.

Probable cause	Corrective action
• Power is turned off to the module.	*Power on the processing module and/or sample handler*, page 5-7.
• Processing module is powering on.	Wait until power on is complete and processing module status is Stopped.
• Communication failure.	*Cycle power to the processing module and/or sample handler*, page 5-14, if the module stopped running as a result of the error.
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable. See *Reseat cables to the SCC*, page 10-721.
• Network hub is turned off.	Turn on the power switch to the network hub.
• Network hub power cord is disconnected.	Connect the power cord to the network hub and plug into a UPS or wall outlet.

Probable cause	Corrective action
• Hardware failure: – CPU board has a poor connection or failed	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9087

Communication error between SCC and processing module.

Probable cause	Corrective action
• Power is turned off to the module.	*Power on the processing module and/or sample handler*, page 5-7.
• Processing module is powering on.	Wait until power on is complete and processing module status is Stopped.
• Communication failure.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable. See *Reseat cables to the SCC*, page 10-721.
• Network hub is turned off.	Turn on the power switch to the network hub.
• Network hub power cord is disconnected.	Connect the power cord to the network hub and plug into a UPS or wall outlet.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9088

Call Abbott. Invalid solenoid number (x).
x = Solenoid number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9089

Call Abbott. Invalid DC motor number (x).
x = DC motor number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9090

Call Abbott. Invalid DC motor speed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9091

Call Abbott. Invalid solenoid duty cycle value.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9092

Call Abbott. Software error, unsolicited sample complete received by module (x).
x = ID of the processing module with the software defect

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9093

Call Abbott. Unknown error exporting assay file (x). Error code (y).
x = Assay number
y = Error code

Probable cause	Corrective action
• Error while formatting or writing to the floppy disk.	Use a new floppy disk.
• Hardware failure: – Floppy drive	Contact your Area Customer Support to resolve any hardware failure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9094

Call Abbott. Unknown assay file.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Required hardware not present or active.	Contact your Area Customer Support to resolve any hardware failure. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9095

Call Abbott. Reagent bottle timeout, response not received within 30 seconds of run initialize.

Probable cause	Corrective action
A new reagent supply center segment was loaded with fewer positions than the previous segment and a manual reagent scan was not performed prior to initiating the run.	Scan the reagent carousel prior to initiating the run. See *Scan the reagent carousel(s) (except for i1000SR)*, page 5-132.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9096

Error message received from *c* System (x).
x = Error code number and statuses

Probable cause	Corrective action
Low level informational message displaying the error number received from the *c* System processing module.	*Review logs*, page 10-13, for an error code that occurred at the same time as this message.

Error code: 9097

Call Abbott. Invalid optical read data received from *c* System module.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9098

Call Abbott. Unable to calculate result, optical read data not received from *c* System module.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9099

Call Abbott. Excessive scheduling locksteps detected.

Probable cause	Corrective action
Too many tests ordered for the carrier.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9100

Call Abbott. Assay (x) number (y) Calibration failure, too many calibrators.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9101

Call Abbott. Assay (x) number (y) Calibration failure, unknown math model.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9102

Call Abbott. Calibrator response for lot (x) has a value that is equal to or less than zero.
x = Reagent lot number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9103

Call Abbott. Calculation error, divide by zero.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9104

Call Abbott. Unable to calculate cutoff/index for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9105

Call Abbott. Invalid variable in index formula for Assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9107

Assay (x) Number (y) Calibration failure, memory allocation error.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9108

Call Abbott. Unable to perform scan, experiment reagent kit(s) exist.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9109

Call Abbott. Reference Cal Curve for Assay number (x) with cal version (y) deleted, no assay exists.
x = Assay number
y = Calibration version

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9110

Call Abbott. (x) does not exist.
x = Mechanism name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9112

Call Abbott. Module specified for the experiment reagent kit in position (x) does not exist.
x = Reagent carousel position

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9113

Call Abbott. Unable to process calibration, Reference Cal Curve missing.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9200

Call Abbott. Duplicate reagent kit size code found in the system file for size code (x).

x = Size code

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9201

Call Abbott. Error parsing ALD system file for reagent kit size maps.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9202

Call Abbott. Parser error, value specified in the parser formula does not exist.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9203

Call Abbott. Unable to create reagent bottles, one of the lists has a zero length.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9204

Call Abbott. Invalid bar code in position (x) on (y) carousel.
x = Position in which the invalid bar code was detected.
(1-25 for *i* System; A1 - D20 for *c*8000/*c*16000; A1 - O6 for *c*4000)
y = Location in which the invalid bar code was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9205

Call Abbott. No pack size exists for a scanned reagent kit with size code (x).
x = Size code on the reagent kit

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9206

Unrecognized bar code version or format in position (x) on (y) carousel.
x = Position in which the unrecognized bar code version was detected.
(1-25 for *i* System; A1 - D20 for *c*8000/*c*16000; A1 - O6 for *c*4000)
y = Location in which the unrecognized bar code version was detected.
(Inner, Middle, or Outer ring for *i* System; R1 or R2 for *c* System)

Probable cause	Corrective action
For *c* System only: • A reagent cartridge with an invalid bar code ID was loaded.	1. Remove the label from the reagent. 2. Configure a reagent and reagent kit. See *Configure a user-defined reagent (photometric - c System)*, page 2-92, and *Configure a user-defined reagent kit (photometric - c System)*, page 2-93. 3. Manually assign a position for the reagent. See *Load non-bar coded reagents (c8000/c16000)*, page 5-155.
• A user printed reagent bar code has invalid information for one of the parameters encoded into the bar code.	Recreate the bar code verifying all parameter specifications See *1D reagent bar code requirements (c System)*, page 4-32.
For all systems: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9207

Call Abbott. No reagent kits found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9208

Call Abbott. A no assay, load error, mismatch or bad master lot experiment reagent pack loaded.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9210

Position not defined for detergent B solution in the sample carousel or sample wash solution area.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9211

Position not defined for ICT cleaning fluid in the sample carousel or sample wash solution area.

Probable cause	Corrective action
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-277. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9212

Position not defined for 0.5 percent acid wash solution in the sample carousel or sample wash solution area.

Probable cause	Corrective action
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-277. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the sample wash solution area and update inventory (c4000)*, page 5-65. See *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9213

Position not defined for 10% detergent B solution for R1 pipettor.

Probable cause	Corrective action
• The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position. See *Change the onboard solution options (c4000)*, page 2-33. See *Change the onboard solution options (c8000)*, page 2-34 or *Change the onboard solution options (c16000)*, page 2-35.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 9214

Position not defined for 0.5 percent acid wash solution for R1 pipettor.

Probable cause	Corrective action
• The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position. See *Change the onboard solution options (c4000)*, page 2-33. See *Change the onboard solution options (c8000)*, page 2-34 or *Change the onboard solution options (c16000)*, page 2-35.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 9215

Position not defined for detergent A solution for R1 pipettor.

Probable cause	Corrective action
• The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position. See *Change the onboard solution options (c4000)*, page 2-33.

Probable cause	Corrective action
	See *Change the onboard solution options (c8000)*, page 2-34 or *Change the onboard solution options (c16000)*, page 2-35.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 9216

Position not defined for 10% detergent B solution for R2 pipettor.

Probable cause	Corrective action
• The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position. See *Change the onboard solution options (c4000)*, page 2-33. See *Change the onboard solution options (c8000)*, page 2-34 or *Change the onboard solution options (c16000)*, page 2-35.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 9217

Position not defined for 0.5 percent acid wash solution for R2 pipettor.

Probable cause	Corrective action
• The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position. See *Change the onboard solution options (c4000)*, page 2-33. See *Change the onboard solution options (c8000)*, page 2-34 or *Change the onboard solution options (c16000)*, page 2-35.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 9218

Position not defined for detergent A solution for R2 pipettor.

Probable cause	Corrective action
• The solution was not configured in an onboard solution position for the reagent supply center.	Configure the solution into a position. See *Change the onboard solution options (c4000)*, page 2-33. See *Change the onboard solution options (c8000)*, page 2-34 or *Change the onboard solution options (c16000)*, page 2-35.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62. See *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.

Error code: 9219

Position not defined for water bath additive.

Probable cause	Corrective action
• Unable to read segment ID bar code on reagent carousel.	1. Review message logs for error code 4006. 2. Perform the corrective action for this error code.
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-277. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**. 4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9220

Position not defined for detergent A solution in the sample carousel or sample wash solution area.

Probable cause	Corrective action
• Position information was not sent from the SCC to the module after cycling power to the module.	1. Initiate a run (it is not necessary to have any orders). See *Initiating or resuming sample processing*, page 5-277. 2. Wait for the processing module status to change to Running. 3. Select the **processing module graphic**, and then select **F6 - Stop**.

Probable cause	Corrective action
	4. Wait for the processing module status to change to Stopped, and then select **F5 - Start-up**. 5. Restart the desired procedure.
• The solution is expired and was not available for a SmartWash during assay processing.	Replace the expired solution. See *Replace onboard solutions in the sample wash solution area and update inventory (c4000)*, page 5-65. See *Replace onboard solutions in the sample carousel and update inventory (c8000/c16000)*, page 5-72.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9221

Unrecognized bar code version or format in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the unrecognized bar code version was detected.
y = RSH section number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9222

Call Abbott. Invalid bar code in the (x) reagent carrier position in section (y).
x = Reagent carrier position in which the unrecognized bar code version was detected.
y = RSH section number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9223

Reagent kit is unavailable.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9300

Call Abbott. Value required for Assay (x) parameter (y) is not specified.
x = Assay name
y = Assay parameter

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9301

Call Abbott. Unable to delete assay (x), the assay is part of a loaded experiment.
x = Assay name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9302

Call Abbott. Parameter out of range Assay number (x) status (y).
x = Assay number
y = Assay status

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9303

Call Abbott. Invalid value in unit formula for assay (x) number (y).
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9304

Assay (x) installation error, system software version not compatible.
x = Assay name

Probable cause	Corrective action
The assay can only be used with a later version of System software. The software must be upgraded before the assay can be run.	Install required system software. Contact your Area Customer Support.
The assay being imported can only be used with a later version of System software.	For Abbott assays install the assay from the ARCHITECT System Assay CD-ROM. For more information see *Install or delete an assay file*, page 2-211. For user-defined assays see *Configuring user-defined assays*, page 2-83.

Error code: 9305

Call Abbott. Unable to delete assay, assay number (x) does not exist.

x= Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9306

Call Abbott. No assays found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9307

Call Abbott. Calibration Curve specified in experiment already exists for lot number (x).
x = Lot number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9308

Call Abbott. Load request denied, load list (x) line (y), dilution protocol not defined for the assay.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9309

Call Abbott. Load request denied, load list (x) line (y), specified assay is not installed.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9310

Call Abbott. Assay (x) number (y) installation error. A required reagent does not exist for bottle type.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9311

Call Abbott. Syntax error detected in system file (x), section (y).
x = File name
y = Section where error occurred

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9312

Call Abbott. (x) procedure contains invalid inventory usage specification.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9313

Call Abbott. Procedure (x) contains a range error.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9314

Call Abbott. No procedures found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9315

Call Abbott. Value required for calculated assay (x) number (y) is not specified.
x = Name of the calculated assay
y = Number of the calculated assay

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9320

Processing module received invalid assay parameters from the SCC, sample volume out of range.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9321

Processing module received invalid assay parameters from the SCC, reagent volume out of range.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9322

Processing module received invalid assay parameters from the SCC, total sample volume out of range.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9323

Processing module received invalid assay parameters from the SCC, total R1 volume out of range.

Probable cause	Corrective action
• Previous level sense or hardware error.	1. *Review logs*, page 10-13, for any 3000 or 5000 category error codes that occurred just prior to this message. 2. Perform the corrective action for the error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9324

Processing module received invalid assay parameters from the SCC, total R2 volume out of range.

Probable cause	Corrective action
• Previous level sense or hardware error.	1. *Review logs*, page 10-13, for any 3000 or 5000 category error codes that occurred just prior to this message. 2. Perform the corrective action for the error code.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9325

Call Abbott. Unable to create retest rule (x), dilution(s) do not exist in DAT file.

x = Dilution name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9326

Call Abbott. Unable to create (x), number of characters can not exceed (y).
x = Name of the panel or assay
y = Maximum number of characters

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9327

Call Abbott. Unable to create assay (x), number (y). Assay number must be in the range 3000 to 3999.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9328

Call Abbott. Parameter specified for (x) was out of range.
x = Name of component which contains the range parameter

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9329

Unable to install procedure (x), the language files are incorrect or not found.
x = Procedure name

Probable cause	Corrective action
The procedure has one or more language files missing.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9400

Call Abbott, Sample Handler Run request denied, experiment exists. Use the run_exp CLI command.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9401

Unable to delete, specified reagent kit does not exist.

Probable cause	Corrective action
FSR only. (Incorrect data typed when deleting the Buffer Run assay. Must enter SN and lot number from the Microparticle bottle.)	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9402

Unable to execute CLI commands, insufficient access level.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9403

Call Abbott. Wash Aspirate integrity is compromised when initiating a wash aspirate from a non-park position.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9404

Call Abbott. Toggle ARM transfer failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9405

Unable to execute CLI command, carrier detected in aspiration area.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9406

Call Abbott. Invalid context used to load the DC motor solenoid data table.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9410

Unable to execute CLI command, carrier detected on carrier positioner pocket (y) module (x).
x = Processing module number
y = Carrier positioner pocket

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9413

Unable to execute CLI command, carrier pick attempt failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9414

Unable to execute CLI command, unexpected carrier detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9418

Unable to execute CLI command, no carrier detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9420

Module (x) is offline.
x = Module number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9421

Module (x) has been reserved for execution.
x = Module that has been reserved

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9422

Module (x) is executing a command and is unavailable.
x = Module that is busy executing another command

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9424

Unable to execute CLI command, carrier verification failure detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9451

Unable to execute CLI command, invalid device referenced.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9452

Unable to execute CLI command, invalid command received.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9453

Unable to execute CLI command, invalid parameter length.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Probable cause	Corrective action
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9454

Unable to execute CLI command, invalid parameter 1 received.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9455

Unable to execute CLI command, invalid device position.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9456

Unable to execute CLI command, device not recognized.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9457

Unable to execute CLI command, unspecified command.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9458

Unable to execute CLI command, module not in correct status.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9459

Unable to execute CLI command, multiple commands.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9460

Unable to execute CLI command, device busy.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9461

Unable to execute CLI command, file error.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9462

Unable to execute CLI command, no sample handler order.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9463

Unable to execute CLI command, sample present on sample handler.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9464

Unable to execute CLI command, incomplete sample order.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9465

(x) error occurred while executing CLI command.
x = Error code number/status

Probable cause	Corrective action
• User selected stop.	*Start up the processing module and/or sample handler*, page 5-15, when the reason for the stop no longer exists.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9466

Unable to execute CLI command, carousel not homed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9467

Unable to execute CLI command, PM board communication error.

Probable cause	Corrective action
• Communication failure with PM board.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9468

Unable to execute CLI command, sample pipettor movement restricted.

Probable cause	Corrective action
• A physical interference is blocking the movement of the sample pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9469

Unable to execute CLI command, (x) pipettor movement restricted.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 1 pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9470

Unable to execute CLI command, (x) pipettor movement restricted.
x = Pipettor name

Probable cause	Corrective action
• A physical interference is blocking the movement of the reagent 2 pipettor.	Look for and remove any physical obstruction.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Error code: 9500

Call Abbott. Error parsing ALD system file for assay modules.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9501

Call Abbott. Error parsing ALD system file for assay module configurations.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9502

Call Abbott. Error parsing ALD system file for assay module wedge maps.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9505

Call Abbott. Error parsing ALD system file for LLS Error default.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9506

Call Abbott. Invalid parameter received by (x).
x = Mechanism name

Probable cause	Corrective action
For carrier transport (x) motor (*i*1000SR):	
• During a maintenance or diagnostic procedure the sample or reagent carrier was not inserted correctly.	Reinsert sample or reagent carrier and repeat the procedure.
For all systems:	
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9507

Call Abbott. Motor system file corrupt.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9508

Call Abbott. Motor system file not found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9509

Call Abbott. System file error, NA found in section (x).
x = Keyword section header name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9510

Call Abbott. Error parsing system file (x).
x = File name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9511

Call Abbott. Module (x) specified in this procedure does not exist in current system configuration.
x = Module number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9512

System backup failed, see Message History Log.

Probable cause	Corrective action
Backup failed while attempting to backup one or more individual files.	1. *Review logs*, page 10-13, for any 0162, 0237, 9075, 9076, 9524, or 9916 error codes that occurred at the same time as this message. 2. Perform the corrective action for the specific error code.

Error code: 9513

Call Abbott. Reporting database error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9514

Call Abbott. Duplicate configuration file entry in keyword section (x).
x = Keyword section

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9515

Call Abbott. The SystemParameters.ini file not found or corrupt.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9516

Call Abbott. Solenoid system file corrupt.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9517

File error, required token (x) is missing or misspelled in (y).
x = Field name
y = File name

Probable cause	Corrective action
File error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9518

The expected file x (required) is missing.
x = File name

Probable cause	Corrective action
File error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9519

System file error. The value (x) in token (y) does not match file name (z).
x = Token value
y = Token
z = File name

Probable cause	Corrective action
File error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9520

The value (x) for token (y) is invalid in (z).
x = Token value
y = Token name
z = File name

Probable cause	Corrective action
File error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9521

Call Abbott. TSB (x) installation failed.
x = TSB number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9522

Call Abbott. Reagent cartridge in (x), position (y) cannot be used until physical dimensions are defined.
x = Reagent supply center
y = Reagent carousel segment and position

Probable cause	Corrective action
A reagent cartridge type was scanned that does not have the physical height and volume specifications defined.	Contact your Area Customer Support.

Error code: 9523

Unable to open (x) file from (y).
x = Name of import file
y = Drive where file is located

Probable cause	Corrective action
File was corrupted in the download process.	1. Replace media and repeat download. 2. If not resolved manually configure the data.
Hardware failure: • CD drive • USB port	1. Use an alternative drive if possible or manually configure the data. 2. Contact your Area Customer Support.

Error code: 9524

Call Abbott, corruption detected in database, repair failed.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support to resolve database error.

Error code: 9600

Call Abbott. Load request denied, module in load list (x) line (y) not configured for system.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9601

Call Abbott. Load request denied, experiment (x) already loaded.
x = Experiment file name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9602

Call Abbott. Experiment file error, no load list files found.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9603

Call Abbott. Load list (x) line (y), reagent kit not defined in experiment file.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9604

Call Abbott. Load list (x) line (y), calibrator order type is inconsistent with other calibrators.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9605

Call Abbott. Load list (x) line (y), first calibrator order missing for calibration.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9606

Call Abbott. Load list (x) line (y), module assignment required when reagent kit specified.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9607

Call Abbott. Load list (x) line (y), selected carrier and position in use by another sample.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9608

Call Abbott. Load list (x) line (y), location not specified for first calibrator.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9609

Call Abbott. Load list (x) line (y), specified reagent kit is not valid for assay.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9610

Call Abbott. Load list (x) line (y), missing a required calibrator order.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9611

Call Abbott. Load list (x) line (y), calibrator order type invalid for the assay.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9612

Call Abbott. Load list (x) line (y), module or kit specified inconsistent with other calibrator orders
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9614

Call Abbott. Invalid Control order, assay not configured. Load list (x), line number (y).
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9615

Call Abbott. Load request denied, load list (x) line (y), illegal kit location.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9616

Call Abbott. Load request denied, illegal kit location (x) in experiment file.
x = Illegal reagent position

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9617

Call Abbott. Load request denied, load list (x) line (y), specified assay is invalid for module.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9618

Call Abbott. Load request denied, load list (x) line (y), number of replicates greater than 5.
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9619

Call Abbott. Invalid assay ordered on processing module in load list (x) line (y).
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9620

Call Abbott. Specified reagent pack is invalid for the module specified in load list (x) line (y).
x = Load list name
y = Load list line number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9621

Call Abbott. Load request denied, load list (x) line (y), number of replicates is 0.
x = Load list name
y = Load list line number.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9700

Call Abbott. Syntax error in file (x).
x = File name

Probable cause	Corrective action
For *c* System: • Attempted to export an assay with a negative value defined for a normal or extreme range.	Edit the normal or extreme range before exporting.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
For *i* System: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9701

Call Abbott. Syntax error detected in assay file with assay number (x) and status (y).
x = Assay number
y = Assay status

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9702

Call Abbott. (x) procedure contains a syntax error. Refer to scripting log.
x = Procedure name

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9703

Syntax error in formula.

Probable cause	Corrective action
Calculated assay formula is incorrect.	Correct the formula for the Calculated assay. Ensure all selected assays are included in the assay formula.

Error code: 9800

Call Abbott. Assay (x) number (y) installation error, not a quantitative assay.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9801

Call Abbott. Assay (x) number (y) installation error. Invalid calibration method specified.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9802

Call Abbott. Assay (x) number (y) installation error. Invalid calibration validity error specification.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9803

Call Abbott. Assay (x) number (y) installation error. Quantitative adjuster level already exists.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9805

Call Abbott. Assay (x) number (y) installation error. Duplicate parameter weighting term.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9808

Call Abbott. Assay (x) number (y) installation error. Invalid interpretation category.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9810

Call Abbott. Assay (x) number (y) installation error. Duplicate interpretation specification.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9811

Call Abbott. Assay (x) number (y) installation error. Calibrator adjusters have equal concentration.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9813

Call Abbott. Assay (x) number (y) installation error. Invalid default dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9814

Call Abbott. Assay (x) number (y) installation error. Invalid calibration dilution.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9815

Call Abbott. Assay (x) number (y) installation error. Incorrect number of calibrator replicates.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9816

Call Abbott. Assay (x) number (y) installation error. Units do not match specifications.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9817

Call Abbott. Assay (x) number (y) installation error. Adjuster conc. does not match calibrator conc.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9818

Call Abbott. File (x) installation error, checksum failure.
x = File name

Probable cause	Corrective action
For *c* System: • Attempted to import an assay that was modified or corrupted on the floppy disk.	Re-export the assay from the original system and use the new file to repeat the import procedure.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
For *i* System: • Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9819

Call Abbott. File (x) installation error, parameter specified in the file was out of range.
x = File name

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Probable cause	Corrective action
• Linearity parameter (*c* System) in an imported file is out of range.	Edit the linearity parameters to be within -999,999.0000 to 999,999.000 prior to exporting the assay file.

Error code: 9821

Call Abbott. Lot number with a different reagent configuration exists. Cannot install lot (x).
x = Lot number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9822

Call Abbott. Assay (x) number (y) installation error. Assay with different result type already installed.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9823

Call Abbott. Assay (x) number (y) installation error. No adjusters present for calibration type ADJUST.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9824

Call Abbott. Assay (x) number (y) installation error. No calibrators present.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9825

Call Abbott. Assay (x) number (y) installation error. Not enough bottles in reagent kit.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9826

Call Abbott. Assay (x) number (y) installation error. Invalid interpretation cutoff type.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9828

Call Abbott. Assay (x) number (y) installation error. Reagent kit size does not exist.
x = Assay name
y = Assay number

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9830

CPU firmware update failure (TFTP).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9831

DAQ firmware update failure (TFTP).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9832

DAQ firmware update failure (handling main CPU).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9833

DAQ firmware update failure (Data file format).

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9834

Call Abbott. Update of *c* System module CPU firmware did not complete successfully.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9835

Call Abbott. Unable to perform automatic update of *c* System module CPU, missing file list.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9836

Call Abbott. Update of *c* System module DAQ firmware did not complete successfully.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9837

Call Abbott. Unable to perform automatic update of *c* System module DAQ, missing file list.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9838

Call Abbott. CPU firmware configuration does not match application firmware.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9839

Call Abbott. Software installation error. Perform a Shutdown and restart.

Probable cause	Corrective action
Software error.	*Cycle power to the SCC*, page 5-5.

Probable cause	Corrective action
	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9840

Call Abbott. Firmware configuration does not match the SCC sample handler configuration.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9900

Call Abbott. Exception number (x). System shutting down. Error data (y).
x = Software architecture exception number
y = Supplemental exception data provided with some software architecture exceptions

Probable cause	Corrective action
• SCC shutdown due to an error or corrupted file.	1. Press **ALT + PRINT SCREEN** on the keyboard to obtain a printout of the specific information on the screen. 2. *Power off the SCC*, page 5-4. 3. Wait five minutes. 4. *Power on the SCC*, page 5-3. 5. *Start up the processing module and/or sample handler*, page 5-15, when the processing module status is Stopped.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9901

Call Abbott. User access level error, unable to locate system file. General user and Admin access only.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9902

Call Abbott. The server process is currently not running. Perform a shutdown and restart.

Probable cause	Corrective action
• SCC shutdown due to an error.	*Cycle power to the SCC*, page 5-5.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9903

Call Abbott. Server process is currently running. Perform a shutdown and restart.

Probable cause	Corrective action
• SCC shutdown due to an error.	*Cycle power to the SCC*, page 5-5.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9904

Call Abbott. O/S LLS/PM ISR Error.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9905

Call Abbott. Invalid sample data received during data processing.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9906

Call Abbott. Fatal Architecture Exception on SCC. The error has been logged. The application will now shutdown.

Probable cause	Corrective action
• SCC shutdown due to an error or corrupted file.	1. Press **ALT + PRINT SCREEN** on the keyboard to obtain a printout of the specific information on the screen. 2. *Power off the SCC*, page 5-4. 3. Wait five minutes. 4. *Power on the SCC*, page 5-3. 5. *Start up the processing module and/or sample handler*, page 5-15, when the processing module status is Stopped.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9907

Call Abbott. Invalid solenoid ramp time value.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9908

Call Abbott. Invalid solenoid ramp duty cycle value.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9909

Call Abbott. Invalid scheduler input detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9910

Call Abbott. Unable to process test, invalid carrier ID.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9911

Call Abbott. Reagent carousel access conflict detected.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9912

Memory pool limit exceeded for object (x) by (y) instances.
x = Object name
y = Number of instances

Probable cause	Corrective action
Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 9913

Data import failed, error parsing file for Calibrator/Control (x) Lot (y).
x = Name of control or calibrator
y = Lot number of control or calibrator

Probable cause	Corrective action
Selected file for import is corrupted.	1. Obtain an alternate copy of the file and repeat the data import procedure. 2. If unresolved manually configure the data.

Error code: 9914

Attempted to download file (x). File already exists on system.
x = Download package name

Probable cause	Corrective action
A downloaded file of the same or higher revision is on the system.	Status message. No corrective action required.

Error code: 9915

Assay insert for (x) conflicts with current assay insert (y). Inserts will be removed.
x = Assay name and lot number
y = Commodity number for the current assay insert

Probable cause	Corrective action
AbbottLink sent multiple assay inserts (with the same or different commodity numbers) for the same reagent master lot.	Refer to the insert shipped with the reagent kit or obtain the desired insert file from abbottdiagnostics.com.

Error code: 9916

Database check unsuccessful, unknown file access failure.

Probable cause	Corrective action
Software error.	Contact your Area Customer Support to resolve database check error.

Observed problems

Observed problems provides information on problems that may occur with an ARCHITECT System, ARCHITECT *c* System, ARCHITECT *i* System, and ARCHITECT ARM (Automatic Reconstitution Module), and the corrective action steps you can follow to help resolve the problem.

If performing the corrective actions do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

Observed problems topics include:

Processing module observed problems (*c* System)

Observed problems for the *c* System processing module include:

1 mL wash solution syringe leaks (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Syringe is not tightened at the check valve connection.	Tighten the connection.
• Syringe plunger is damaged.	Replace the 1 mL syringe. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• Check valve is defective.	Replace the check valve. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• Tubing is crimped or damaged.	Contact your Area Customer Support to resolve any hardware failure.

Assay using the Factor calibration mode is disabled after importing the assay (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
The Blank calibrator level is undefined after importing the assay.	1. *Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68. 2. Select the assay from the **Assays** list, and then select **F6 - Configure**. The Configure assay parameters window - General view displays.

Probable cause	Corrective action
	3. Select the **Calibration** option. The Configure assay parameters window - Calibration - Calibrators view displays. 4. Select the **Blank** Calibrator level list button, and then select the desired option. 5. Enter the concentration for the Blank calibrator level. 6. Select the **Volumes** option. The Configure assay parameters window - Calibration - Volumes view displays. 7. Enter the volumes for the Blank calibrator level. 8. Select the **General** option. The Configure assay parameters window - General view displays. 9. Select the **Assay availability** list button, and then select the **Enabled** option. 10. Select **Done** to save your changes.

Bar coded reagents do not appear on the Reagent status screen after a reagent scan was performed (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Reagent bottle bar code label is dirty.	Clean the label.
• Reagent bottle bar code label is damaged.	Load a new reagent kit. See *Load bar coded reagents (c4000)*, page 5-135. See *Load bar coded reagents (c8000/c16000)*, page 5-150.
• Bar code reader window is dirty.	*Clean the bar code reader window*, page 10-701.
• A reagent cartridge with an invalid 1D (one dimensional) reagent bar code was loaded.	1. Remove the label from the reagent. 2. Configure a reagent and reagent kit. See *Configure a user-defined reagent (photometric - c System)*, page 2-92 and *Configure a user-defined reagent kit (photometric - c System)*, page 2-93. 3. Assign a position for the reagent. See *Load non-bar coded reagents (c4000)*, page 5-139. See *Load non-bar coded reagents (c8000/c16000)*, page 5-155. For information about valid 1D reagent bar codes, see *1D reagent bar code requirements (c System)*, page 4-32.

Probable cause	Corrective action
• Bar code label on a 20 mL (bottle) cartridge is not facing the bar code reader.	Reposition the 20 mL bottle in the adapter so it faces the outside of the reagent supply center.
• A communication failure occurred with the reagent bar code reader.	*Cycle power to the processing module and/or sample handler*, page 5-14.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Bubbles in ICT module tubing (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• The ICT reference solution bottle is empty, but the weight platform failed to detect it.	1. Replace the ICT reference solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56. 2. Contact your Area Customer Support to resolve the weight platform failure.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT probe is damaged.	Replace the ICT probe. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT aspiration pump.
• ICT check valves are not functioning.	Replace the check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration pump or in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration pump or in the ICT reference solution pump are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.

Probable cause	Corrective action
• Hardware failure: – Solenoid	Contact your Area Customer Support to resolve any hardware failure.

Bubbles in sample/reagent probe tubing (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Tubing connection to the syringe is loose.	1. Tighten the side and top tubing connections to the syringe body. 2. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Probe tubing is damaged.	Replace the tubing between the probe and the connector on top of the pipettor. For *c*4000 see *Replace the sample probe tubing (c4000)*, page 9-125 or *Replace the reagent probe tubing (c4000)*, page 9-128. For *c*8000/*c*16000 see *Replace the sample probe tubing (c8000)*, page 9-192, *Replace the sample probe tubing (c16000)*, page 9-263, *Replace the reagent probe tubing (c8000)*, page 9-195, or *Replace the reagent probe tubing (c16000)*, page 9-266.
• Syringe seal(s) and/or o-ring have failed.	Replace the syringe o-ring and seal tips. For *c*4000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174. For *c*8000/*c*16000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245 or *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315.
• Hardware failure: – Degasser – Solenoid	Contact your Area Customer Support to resolve any hardware failure.

Bubbles in the sample/reagent syringes (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Tubing connection to the syringe is loose.	1. Tighten side and top tubing connections to the syringe body. 2. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Syringe seal(s) and/or o-ring have failed.	Replace the syringe o-ring and seal tips. For *c*4000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174. For *c*8000/*c*16000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245

Probable cause	Corrective action
	or *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315.
• Hardware failure: – Degasser – Solenoid	Contact your Area Customer Support to resolve any hardware failure.

Debris on the reaction carousel (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Debris accumulating on the reaction carousel around the cuvettes.	Perform ***as-needed*** maintenance procedure *6064 Clean Reaction Carousel*, page 9-42.

High-concentration waste not aspirated from cuvettes (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Obstruction is present in the high-concentration waste nozzle.	Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26.
• High-concentration waste pump poppet valve was installed incorrectly (*c*8000).	Ensure the valve orientation is correct. Repeat *Replace the pump poppet valve set (c8000)*, page 9-252.
• High-concentration waste pump poppet valve has failed (*c*8000).	Replace the pump poppet valve set. See *Replace the pump poppet valve set (c8000)*, page 9-252.
• High-concentration waste pump tubing is obstructed.	Contact your Area Customer Support.

ICT aspiration or ICT reference solution pump syringes leak (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• ICT aspiration or ICT reference solution pump syringes are damaged.	Replace the ICT aspiration or ICT reference solution pump syringes that are damaged. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT aspiration or ICT reference solution pump syringe connections to the check valve or tubing are loose.	Tighten the connections to the 1 mL syringes in the ICT aspiration or ICT reference solution pump.

ICT Module status information does not update properly in Plan my day

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
ICT module is replaced before its expiration date and the Plan my day displays the expiration and status of the older ICT module for the newer ICT module.	Contact your Area Customer Support. Please provide information about the old and new ICT modules expiration statuses.

ICT probe leaks (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the ICT probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT probe is damaged.	Replace ICT probe. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.

Lamp is not on (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Cable terminals were not securely connected to the terminal block when the lamp was replaced.	Repeat ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27, and ensure the lamp cables are secured by the screws in the terminal block.
• Lamp is out.	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.

Liquid around the top of the cuvettes after washing (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39, and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-

Probable cause	Corrective action
	concentration waste (bellows) pump poppet valve (*c*8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Reagent probe is damaged.	Replace the reagent probes. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Reagent probe is out of alignment.	Perform ***as-needed*** maintenance procedure *1121 R1 Pipettor Calibration*, page 9-34 or *1122 R2 Pipettor Calibration*, page 9-35.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Mixer is bent or is making an unexpected noise

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
Mixer is installed incorrectly or is out of alignment and hitting the side of the cuvette.	Replace the mixer. See *Replace the mixer (c4000)*, page 9-146. See *Replace the mixer (c8000)*, page 9-214 or *Replace the mixer (c16000)*, page 9-283.

No alarm when high-concentration waste is full (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Float switch cable has a poor connection.	Reconnect the float switch cable to the module and the high-concentration waste bottle. See *Replace the float switch cable (c System)*, page 9-393.

Probable cause	Corrective action
• Float switch is dirty.	Perform ***quarterly*** maintenance procedure *6307 Check/ Clean HC Waste Sensor*, page 9-32.
• Float switch cable has failed.	*Replace the float switch cable (c System)*, page 9-393.
• Float switch has failed.	*Replace the high-concentration waste bottle (c System)*, page 9-391.

Non-bar coded reagents not recognized (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
A position was not assigned for the non-bar coded reagent.	Assign a position for the reagent. See *Load non-bar coded reagents (c4000)*, page 5-139. See *Load non-bar coded reagents (c8000/c16000)*, page 5-155.

No water in reagent supply center 1 (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• System DI water source is not functioning.	1. Check the DI water system. 2. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37. 3. Check for water delivery to the reagent supply center.
• Cuvette wash pump poppet valve has failed.	Replace the pump poppet valve set. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322.
• Hardware failure: – DI water cuvette wash – Cuvette wash pump bellows	Contact your Area Customer Support to resolve any hardware failure.

Reagent probe tubing is discolored or contains precipitate (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
Reagent probe tubing is discolored or contains precipitate.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195 or *Replace the reagent probe tubing (c16000)*, page 9-266.

Sample/reagent probe is damaged/clogged (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Particulate matter in the sample is causing obstruction in the probe.	Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample or reagent probe is damaged.	Replace the damaged probe. For *c*4000 see *Replace the sample probe (c4000)*, page 9-118 or *Replace reagent probes (c4000)*, page 9-122. For *c*8000/*c*16000 see *Replace the sample probe (c8000)*, page 9-185, *Replace reagent probes (c8000)*, page 9-188, *Replace the sample probe (c16000)*, page 9-256, or *Replace reagent probes (c16000)*, page 9-259.

Sample/reagent probe tubing leaks (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Sample or reagent pipettor tubing is damaged or stretched.	Replace the tubing. For *c*4000 see *Replace the sample probe tubing (c4000)*, page 9-125 or *Replace the reagent probe tubing (c4000)*, page 9-128. For *c*8000/*c*16000 see *Replace the sample probe tubing (c8000)*, page 9-192, *Replace the sample probe tubing (c16000)*, page 9-263, *Replace the reagent probe tubing (c8000)*, page 9-195, or *Replace the reagent probe tubing (c16000)*, page 9-266.
• Probe is obstructed.	Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.

Sample/reagent probe leaks or drips (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Syringe seal(s) and/or o-ring have failed.	Replace the syringe o-ring and seal tips. For *c*4000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174. For *c*8000/*c*16000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245 or *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315.
• Probe tubing is damaged.	Replace the tubing between the probe and the connector on top of the pipettor. For *c*4000 see *Replace the sample probe tubing (c4000)*, page 9-125 or *Replace the reagent probe tubing (c4000)*, page 9-128.

Probable cause	Corrective action
	For *c*8000/*c*16000 see *Replace the sample probe tubing (c8000)*, page 9-192, *Replace the sample probe tubing (c16000)*, page 9-263, *Replace the reagent probe tubing (c8000)*, page 9-195, or *Replace the reagent probe tubing (c16000)*, page 9-266.
• Tubing connection to the syringe is loose.	1. Tighten the side and top tubing connections to the syringe body. 2. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Probe wash poppet valve has failed.	Replace the pump poppet valve set. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322.

Sample/reagent solenoid valve leaks (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Tubing connection to the solenoid valve is loose.	Tighten the tubing connection at the solenoid valve.
• Hardware failure: – Tubing is damaged – Solenoid valve	Contact your Area Customer Support to resolve any hardware failure.

Sample/reagent syringe leaks (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Tubing connection to the syringe is loose.	1. Tighten side and top tubing connections to the syringe body. 2. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Syringe seal(s) and/or o-ring have failed.	Replace the syringe o-ring and seal tips. For *c*4000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174. For *c*8000/*c*16000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245 or *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315.
• O-ring is not seated correctly or is missing in the incoming water line connection at the side of the syringe.	Reseat or replace the o-ring. For *c*4000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174. For *c*8000/*c*16000 see *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245

Probable cause	Corrective action
	or *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315.
• Tubing connector is defective.	Contact your Area Customer Support to resolve any hardware failure.

Samples are loaded in the sample carousel, but are not processed (*c*8000/*c*16000)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Samples were loaded and scanned before orders were created for the samples.	1. Verify the status of the sample carousel access indicator button. If the button is not illuminated, select the button to pause the sample carousel. 2. Open and close the sample carousel cover to rescan the carousel.
• Sample carousel cover sensor did not detect that the cover was closed.	1. Verify the status of the sample carousel access indicator button. If the button is not illuminated, select the button to pause the sample carousel. 2. Open and then firmly close the sample carousel cover.
• No bar code label on the sample tube.	Place a bar code label on the sample tube.
• Tube is not correctly positioned in the carrier.	Place the tube in the carrier so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• System bar code configuration does not match bar code label.	Edit the bar code configuration as required for the bar code label symbology.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-35, for guidelines.

Solution/dried solution under bulk solution bottles (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Solution was spilled by the operator.	Clean the spill.
• Bulk solution bottle is damaged.	Clean the spill, and then replace the bulk solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56.
• Wash valve failure occurred allowing solution and water to flow back into the bottle.	Contact your Area Customer Support to resolve any hardware failure.

Wash solution is not being used (level not falling over time) (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Wash solution filter is obstructed.	Replace the wash solution filter.

Probable cause	Corrective action
	See *Replace the wash solution filter (c4000)*, page 9-164. See *Replace the wash solution filter (c8000)*, page 9-235 or *Replace the wash solution filter (c16000)*, page 9-305.
• Cuvette washer nozzle is obstructed.	Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26.
• Hardware failure: Wash solution valve failure	Contact your Area Customer Support to resolve any hardware failure.

Processing module observed problems (*i* System)

Observed problems for the *i* System processing modules include:

- *2050 WZ Aspiration Test failure (i2000/i2000SR)*, page 10-528
- *2052 WZ Aspiration Test failure (i1000SR)*, page 10-529
- *Bar code read failure occurs after instrument has been powered off (i2000/i2000SR)*, page 10-529
- *Black powder observed in reagent carousel area (i System)*, page 10-529
- *Condensation in the external reagent carousel area (i1000SR)*, page 10-530
- *RV loader jams (i2000/i2000SR)*, page 10-530
- *RVs added to processing module but Update supplies window cannot be updated*, page 10-530
- *Salt build up in or around the Induction Heating wash station (i2000SR)*, page 10-530
- *Wash buffer volume did not update (i System)*, page 10-531

2050 WZ Aspiration Test failure (*i*2000/*i*2000SR)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Poor tubing connections to the wash zone.	Reconnect tubing to the affected probe(s) for the indicated wash zone.
• Incorrect tubing/sensor cable connections.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Wash zone probe obstructed.	See *Replace the wash zone probe (i2000/i2000SR)*, page 9-333.
• Wash zone temperature sensor obstructed.	See *Replace the wash zone temperature tubing and sensor (i2000/i2000SR)*, page 9-340.
• Poor tubing connections to the vacuum vessels.	Reseat the tubing connection at the vacuum valve of the vacuum vessel.

Probable cause	Corrective action
• Hardware failure: – DC driver I/O board in slot 7 in the lower card cage has a poor connection or failed – Wash zone manifold valve failures – Wash zone dispense pump motor failure	Contact your Area Customer Support to resolve any hardware failure.

2052 WZ Aspiration Test failure (*i*1000SR)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Temperature sensor connected to wrong probe tubing.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Poor tubing connections to the wash zone.	Reconnect tubing to the affected probe(s) for the wash zone.
• Incorrect tubing/sensor cable connections.	Reconnect the wash zone tubing/sensor cable to the correct probe.
• Wash zone probe obstructed.	See *Replace the wash zone probe (i1000SR)*, page 9-367.
• Wash zone temperature sensor obstructed.	See *Replace the wash zone temperature tubing and sensor (i1000SR)*, page 9-370.
• Poor tubing connections to the upper waste manifold.	Reseat the tubing connection at the upper waste manifold.
• Hardware failure: – DC driver I/O board has a poor connection or failed – Wash zone manifold valve failures – Wash zone dispense pump motor failure	Contact your Area Customer Support to resolve any hardware failure.

Bar code read failure occurs after instrument has been powered off (*i*2000/*i*2000SR)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
Condensation is present on the inside lens of the reagent bar code reader due to temperature fluctuations in the reagent cooler.	Allow the reagent bar code reader to equilibrate to proper temperature when the processing module is powered on. **NOTE:** Allow 2 hours for the reagent bar code reader to return to normal and the condensation to clear before trying to run. Do not try to disassemble the bar code reader and clean the lens.

Black powder observed in reagent carousel area (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
Wearing of the brass wheel on the outer carousel is occurring.	Replace the septum if black powder is visible on the reagent septum.

Probable cause	Corrective action
	If you only observe black powder in the reagent carousel area no corrective action is required. Wearing is expected and does not impact hardware or assay performance.

Condensation in the external reagent carousel area (*i*1000SR)

This problem may be observed on an ARCHITECT *i*1000SR.

Probable cause	Corrective action
Condensation is present on the lower left front portion of the reagent carousel cover due to high humidity.	Remove condensate using absorbent tissues.

RV loader jams (*i*2000/*i*2000SR)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• RVs (reaction vessels) have jammed in the RV loader and process path at the RV insertion point.	1. Remove the RV from the transport. **NOTE:** Use only a cotton swab(s) or plastic forceps. DO NOT use metal tools, which can damage the RV loader. 2. Use canned air or vacuum to remove any debris from the transport. 3. Perform a start up on the processing module. **NOTE:** If the RV cannot be removed with the processing module powered on, then power off the processing module. Manually rotate the RV wheel away from the jammed RV, and then follow steps 1, 2, and 3 above.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

RVs added to processing module but Update supplies window cannot be updated

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
RVs added field is unavailable (gray) due to a software issue.	*Cycle power to the SCC*, page 5-5.

Salt build up in or around the Induction Heating wash station (*i*2000SR)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
Dried buffer salts have built up in or around the Induction Heating wash station.	Perform *as-needed* maintenance procedure *6099 Probe/Wash Station Cleaning*, page 9-83

Wash buffer volume did not update (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
The wash buffer reservoir was not filled to the top sensor when using the ARCHITECT ARM (Automatic Reconstitution Module) accessory.	Load wash buffer until the wash buffer reservoir is full.

Sample results observed problems (*c* System)

Sample results observed problems for the *c* System include:

A#1 Result flag

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent

Probable cause	Corrective action
	manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace the reagent probes. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Reagent is not performing as expected.	Open new reagent(s).
• Cuvettes are dirty.	Perform *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39, and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (*c*8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

A#2 Result flag

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Sample concentration is too high.	Dilute the sample and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Sample is lipemic.	Ultra-centrifuge the sample and rerun the infranatant. For details on sample integrity, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).
• Bubbles or foam are on the surface of the reagent.	Remove bubbles or foam from the surface of the reagent using a clean applicator stick for each bottle.
• Reagent probe is damaged.	Replace the reagent probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Reagent is not performing as expected.	Open new reagent(s).
• Cuvettes are dirty.	Perform *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette washer is not functioning properly.	1. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39, and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (*c*8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If

Probable cause	Corrective action
	blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

All ICT results have similar values, Na = 140 / K = 4.0 / Cl = 100 mmol/L (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT probe is not connected correctly.	Finger tighten the probe to the ICT Module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT probe is damaged.	Replace the ICT probe. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT aspiration pump.
• ICT check valves are not functioning.	Replace the check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• 1 mL syringes in the ICT aspiration pump or in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration pump or in the ICT reference solution pump are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.

Controls out of range (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Controls are expired or have exceeded open vial stability.	Open new controls. For information on multiconstituent control open vial stability, see the multiconstituent control package insert.
• Controls were stored improperly.	Open new controls.
• Controls were improperly reconstituted.	If controls require reconstitution verify condition of diluent, water, or pipettors. For information on multiconstituent control reconstitution, see the multiconstituent control package insert.
• A change to the system has occurred: – New bulk solutions were loaded – Component was replaced – Instrument was calibrated	1. Verify bulk solutions were loaded correctly if new bulk solutions were recently loaded. 2. Verify components were replaced correctly if components were recently replaced. 3. Recalibrate the assay.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Wrong control lot was used.	1. Use the correct control lot for the established control ranges. 2. Establish new control ranges, as required, if a new lot of control was used.
• Scheduled maintenance is due.	Perform all required maintenance.
• Calibration curve is not optimal.	Recalibrate the assay.
• Assay parameter file has changed.	1. Update settings if they are incorrect. 2. If assay file is updated, recalibrate the assay.
• Cuvette washer is malfunctioning.	Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26.

For more information on troubleshooting to resolve this problem, see:

- *Depressed concentration - ICT results single assay (c System)*, page 10-536
- *Depressed concentration - photometric results single assay (c System)*, page 10-537
- *Elevated concentration - ICT results single assay (c System)*, page 10-538
- *Elevated concentration - photometric results single assay (c System)*, page 10-539
- *Erratic results, poor precision - ICT results (c System)*, page 10-540
- *Erratic results, poor precision - photometric results (c System)*, page 10-542

Depressed concentration - ICT results entire run (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Dispense system is not performing correctly.	Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.

Depressed concentration - ICT results single assay (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or > 20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.

Depressed concentration - K+ results single assay (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Cuvettes are dirty.	Perform ***weekly*** maintenance procedure *6056 Clean Cuvettes with Detergent*, page 9-24.
• ICT module is contaminated	See *Bleach the ICT module (c System)*, page 10-704.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.

Depressed concentration - photometric results entire run (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Dispense system is not performing correctly.	Perform ***monthly*** maintenance procedure *6016 Check Dispense Components*, page 9-25.
• Lamp was not seated correctly when replaced.	Repeat ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.
• Sample probe is damaged.	Replace the sample probe. See *Replace the sample probe (c4000)*, page 9-118 or *Replace reagent probes (c4000)*, page 9-122. See *Replace the sample probe (c8000)*, page 9-185 or *Replace the sample probe (c16000)*, page 9-256.
• Sample probe is out of alignment.	Perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Hardware failure: DAQ board	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - photometric results single assay (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Calibration curve is not optimal.	Recalibrate the assay.
• Reagent is not performing as expected.	1. Open new reagent(s). 2. Recalibrate the reagent(s), if required.
• Water bath temperature is too low.	1. Perform ***as-needed*** maintenance procedure *3526 Check Water Bath Temperature*, page 9-39. 2. Contact your Area Customer Support to resolve any hardware failure if temperature is out of range.
• Protein buildup inside reagent probe.	1. Perform ***as-needed*** maintenance procedure *6058 Clean R2 Probe*, page 9-41. 2. Perform ***as-needed*** maintenance procedure *6055 Detergent B Probe Wash*, page 9-40. 3. Replace the reagent probe(s). See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Due to system-specific conditions, reagent carryover may occur with Abbott assays.	1. Verify required SmartWash parameters are configured.

Probable cause	Corrective action
	2. Perform ***as-needed*** maintenance procedure *6058 Clean R2 Probe*, page 9-41. 3. Perform ***as-needed*** maintenance procedure *6055 Detergent B Probe Wash*, page 9-40. 4. Replace the reagent probe(s). See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259. 5. Perform ***as-needed*** maintenance procedure *2183 Clean Wash Cups*, page 9-38. 6. Perform the *Reagent carryover corrective action procedures*, page 10-729, for Abbott assays to identify and configure an acceptable SmartWash to address the carryover.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - ICT results entire run (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or >20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.

Elevated concentration - ICT results single assay (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or >20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module.

Probable cause	Corrective action
	See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - photometric results single assay (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Calibration curve is not optimal.	Recalibrate the assay.
• Reagent is not performing as expected.	1. Open new reagent(s). 2. Recalibrate the reagent(s), if required.
• Water bath temperature is too high.	1. Perform ***as-needed*** maintenance procedure *3526 Check Water Bath Temperature*, page 9-39. 2. Contact your Area Customer Support to resolve any hardware failure if temperature is out of range.
• Reagent carryover from a user-defined assay occurred.	1. Perform reagent carryover studies for any user-defined assay and create appropriate SmartWash definitions. See Reagent carryover evaluation in the ARCHITECT *c* System Assay Application Guide. 2. Confirm that the reagent wash solution cartridges do not contain bubbles and are not overfilled. The maximum fluid level should be at least 1/2 inch (12.7 mm) from top of the cartridge.
• Sample carryover occurred.	Perform sample carryover studies and create the appropriate SmartWash definitions.
• Protein buildup inside reagent probe	1. Perform ***as-needed*** maintenance procedure *6058 Clean R2 Probe*, page 9-41. 2. Perform ***as-needed*** maintenance procedure *6055 Detergent B Probe Wash*, page 9-40. 3. Replace the probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Build-up/contaminate inside probe or mixer wash cup(s).	1. Inspect all inner surfaces to include drain openings of the sample/reagent probe wash cups and mixer wash cups for a buildup of biomass or other contaminants. 2. Perform ***as-needed*** maintenance procedure *2183 Clean Wash Cups*, page 9-38.

Probable cause	Corrective action
• Due to system-specific conditions, reagent carryover may occur with Abbott assays.	1. Verify required SmartWash parameters are configured. 2. Perform ***as-needed*** maintenance procedure *6058 Clean R2 Probe*, page 9-41. 3. Perform ***as-needed*** maintenance procedure *6055 Detergent B Probe Wash*, page 9-40. 4. Replace the reagent probe(s). See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259. 5. Perform ***as-needed*** maintenance procedure *2183 Clean Wash Cups*, page 9-38. 6. Perform the *Reagent carryover corrective action procedures*, page 10-729, for Abbott assays to identify and configure an acceptable SmartWash to address the carryover.
• Hardware failure	Contact your Area Customer Support to resolve any hardware failure.

Erratic results, poor precision - ICT results (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Scheduled maintenance is due.	Perform the scheduled maintenance.
• Sample contains fibrin clots or particulate matter.	1. Examine samples for fibrin or other large particles. 2. Remove fibrin clots with a clean applicator stick or centrifuge samples.
• Sample was not collected and/or prepared correctly.	1. Follow the specimen collection and handling instructions in the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet). 2. Rerun the sample. 3. Source another sample if not resolved.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• ICT module o-rings are missing, not seated correctly, or an extra o-ring is present.	Replace the ICT module or reseat the o-rings. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is contaminated	See *Bleach the ICT module (c System)*, page 10-704.

Probable cause	Corrective action
• 1 mL syringes in the ICT aspiration pump or in the ICT reference solution pump are not seated correctly.	Reseat the 1 mL syringes.
• 1 mL syringes in the ICT aspiration pump or in the ICT reference solution pump are leaking.	Replace the 1 mL syringes. See *Replace the 1 mL syringes (c4000)*, page 9-154. See *Replace the 1 mL syringes (c8000)*, page 9-224 or *Replace the 1 mL syringes (c16000)*, page 9-295.
• ICT module is expired or has exceeded time or sample warranty (> three months after installation or >20,000 samples).	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT module is not performing as expected.	Change ICT module. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• ICT check valves are not connected correctly.	Tighten the connections to the 1 mL syringes in the ICT aspiration pump.
• ICT check valves are not functioning.	Replace the check valves. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299.
• ICT probe is not connected correctly.	Finger tighten the ICT probe to the ICT module.
• ICT aspiration tubing is not connected correctly.	Tighten the tubing connections at the top of the ICT module and at the top of the 1 mL syringes in the ICT aspiration pump.
• ICT probe is damaged.	Replace the ICT probe. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Black electrical connector for the ICT module is loose.	Reseat the connection. See *Replace the ICT module or probe (c4000)*, page 9-148. See *Replace the ICT module or probe (c8000)*, page 9-215 or *Replace the ICT module or probe (c16000)*, page 9-285.
• Sample or reagent probe is partially obstructed.	1. Perform the appropriate ***as-needed*** maintenance procedure. See *6053 Probe Water Wash*, page 9-40, *6054 Probe Acid Wash*, page 9-40, and/or *6055 Detergent B Probe Wash*, page 9-40.

Probable cause	Corrective action
	2. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Sample probe is out of alignment.	Perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample or reagent probe is damaged.	Replace the damaged probe. For *c*4000 see *Replace the sample probe (c4000)*, page 9-118 or *Replace reagent probes (c4000)*, page 9-122. For *c*8000/*c*16000 see *Replace the sample probe (c8000)*, page 9-185, *Replace the sample probe (c16000)*, page 9-256, *Replace reagent probes (c8000)*, page 9-188, or *Replace reagent probes (c16000)*, page 9-259.
• ICT Reference Solution is not performing as expected.	Replace the ICT reference solution bottle. See *Replace bulk solutions and update inventory (c System)*, page 5-56.
• ICT sample diluent is not performing as expected.	1. Open new cartridge of ICT sample diluent. 2. Recalibrate the ICT assays.
• Water quality is poor.	Ensure the water is purified.
• Hardware failure: – ICT aspiration tubing – ICT aspiration pump – Cuvette washer – DAQ board – AC/DC driver board	Contact your Area Customer Support to resolve any hardware failure.

Erratic results, poor precision - photometric results (*c* System)

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
• Scheduled maintenance is due.	Perform the scheduled maintenance.
• Sample contains fibrin clots or particulate matter.	1. Examine samples for fibrin or other large particles. 2. Remove fibrin clots with a clean applicator stick or centrifuge samples.
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample with a clean disposable pipette or applicator stick.
• Sample was not collected and/or prepared correctly.	1. Follow the specimen collection and handling instructions in the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet). 2. Rerun the sample. 3. Source another sample if not resolved.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Syringe seal(s) and/or o-ring have failed.	Replace the syringe o-ring and seal tips.

Probable cause	Corrective action
	See *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c4000)*, page 9-174. See *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c8000)*, page 9-245 or *Replace sample or reagent syringe o-ring and seal tips 1 and 2 (c16000)*, page 9-315.
• Probe tubing connections are loose or leaking.	Tighten the tubing connections or replace the tubing. For *c*4000 see *Replace the sample probe tubing (c4000)*, page 9-125 or *Replace the reagent probe tubing (c4000)*, page 9-128. For *c*8000/*c*16000 see *Replace the sample probe tubing (c8000)*, page 9-192, *Replace the sample probe tubing (c16000)*, page 9-263, *Replace the reagent probe tubing (c8000)*, page 9-195, or *Replace the reagent probe tubing (c16000)*, page 9-266.
• Reagent probe tubing is discolored or contains precipitate.	Replace the reagent probe tubing. See *Replace the reagent probe tubing (c4000)*, page 9-128. See *Replace the reagent probe tubing (c8000)*, page 9-195 or *Replace the reagent probe tubing (c16000)*, page 9-266.
• Probe tubing is damaged.	Replace the tubing between the probe and the connector on top of the pipettor. For *c*4000 see *Replace the sample probe tubing (c4000)*, page 9-125 or *Replace the reagent probe tubing (c4000)*, page 9-128. For *c*8000/*c*16000 see *Replace the sample probe tubing (c8000)*, page 9-192, *Replace the sample probe tubing (c16000)*, page 9-263, *Replace the reagent probe tubing (c8000)*, page 9-195, or *Replace the reagent probe tubing (c16000)*, page 9-266.
• Tubing connection to the syringe is loose.	1. Tighten the side and top tubing connections to the syringe body. 2. Perform ***as-needed*** maintenance procedure *2132 Flush Water Lines*, page 9-37.
• Sample or reagent probe is partially obstructed.	1. Perform the appropriate ***as-needed*** maintenance procedure. See *6053 Probe Water Wash*, page 9-40, *6054 Probe Acid Wash*, page 9-40, and/or *6055 Detergent B Probe Wash*, page 9-40. 2. Perform ***weekly*** maintenance procedure *6023 Clean Sample/Reagent Probes*, page 9-24.
• Protein buildup inside reagent probe	1. Perform ***as-needed*** maintenance procedure *6058 Clean R2 Probe*, page 9-41. 2. Perform ***as-needed*** maintenance procedure *6055 Detergent B Probe Wash*, page 9-40.

Probable cause	Corrective action
	3. Replace the probe. See *Replace reagent probes (c4000)*, page 9-122. See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259.
• Buildup/contaminate inside probe or mixer wash cup(s).	1. Inspect all inner surfaces to include drain openings of the sample/reagent probe wash cups and mixer wash cups for a buildup of biomass or other contaminants. 2. Perform ***as-needed*** maintenance procedure *2183 Clean Wash Cups*, page 9-38.
• Buildup is in the mixer wash cup(s).	Perform ***as-needed*** maintenance procedure *2183 Clean Wash Cups*, page 9-38.
• Probe wash pump poppet valve has failed.	Replace the pump poppet valve set. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322.
• Water quality is poor.	Ensure the water is purified.
• Debris is in the water bath incubator.	Perform ***as-needed*** maintenance procedure *2134 Change Water Bath*, page 9-37.
• Debris accumulating on the reaction carousel around the cuvettes.	Perform ***as-needed*** maintenance procedure *6064 Clean Reaction Carousel*, page 9-42.
• Bubbles are in the water bath incubator due to the pressure of the incoming water.	Decrease the incoming DI water pressure to within specifications. See *c System processing module water and liquid waste specifications and requirements*, page 4-26.
• Bubbles are in the water bath incubator due to a high gas content.	Contact your Area Customer Support.
• Sample probe is out of alignment.	Perform ***as-needed*** maintenance procedure *1120 Sample Pipettor Calibration*, page 9-34.
• Sample or reagent probe is damaged.	Replace the damaged probe. For *c*4000 see *Replace the sample probe (c4000)*, page 9-118 or *Replace reagent probes (c4000)*, page 9-122. For *c*8000/*c*16000 see *Replace the sample probe (c8000)*, page 9-185, *Replace the sample probe (c16000)*, page 9-256, *Replace reagent probes (c8000)*, page 9-188, or *Replace reagent probes (c16000)*, page 9-259.
• Lamp was not seated correctly when replaced.	Repeat ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27. • Ensure the lamp is seated correctly against the lamp plate and in the housing. • Ensure the lamp cables are secured by the screws in terminal block.
• Lamp is not performing as expected.	Perform ***quarterly*** maintenance procedure *1003 Change Lamp*, page 9-27.

Probable cause	Corrective action
• Cuvette washer is not functioning properly.	1. Perform ***monthly*** maintenance procedure *6018 Clean Cuvette Washer Nozzles*, page 9-26. 2. Perform ***as-needed*** maintenance procedure *6052 Wash Cuvettes*, page 9-39, and observe the cuvette washer nozzles for hanging drops or leaks. – If drops or leaks are observed for the high-concentration waste nozzle, replace the high-concentration waste (bellows) pump poppet valve (*c*8000). – If drops or leaks are observed for any of the other nozzles, replace the cuvette wash pump poppet valve. See *Replace the pump poppet valve set (c4000)*, page 9-181. See *Replace the pump poppet valve set (c8000)*, page 9-252 or *Replace the pump poppet valve set (c16000)*, page 9-322. 3. Check for blockage in tubing. Perform ***weekly*** maintenance procedure *6308 Check HC Waste Pump Tubing*, page 9-25. If blockage is observed, contact your Area Customer Support.
• Cuvette dry tip is damaged.	Replace the cuvette dry tip. See *Replace the cuvette dry tip (c4000)*, page 9-143. See *Replace the cuvette dry tip (c8000)*, page 9-210 or *Replace the cuvette dry tips (c16000)*, page 9-279.
• Bubbles or foam are on the surface of the reagent.	Remove all bubbles and foam from the surface of the reagent using a clean applicator stick.
• Reagent is not performing as expected.	1. Open new reagent(s). 2. Recalibrate the reagent(s), if required.
• Cuvettes are dirty.	Perform ***as-needed*** maintenance procedure *6310 Clean cuvettes - manually*, page 9-42.
• Cuvette segment screws are loose.	Tighten the cuvette segment screws with a screwdriver.
• Cuvette is damaged.	Replace the cuvette. See *Replace a cuvette (c4000)*, page 9-136. See *Replace a cuvette (c8000)*, page 9-203 or *Replace a cuvette (c16000)*, page 9-274.
• Due to system-specific conditions, reagent carryover may occur with Abbott assays.	1. Verify required SmartWash parameters are configured. 2. Perform ***as-needed*** maintenance procedure *6058 Clean R2 Probe*, page 9-41. 3. Perform ***as-needed*** maintenance procedure *6055 Detergent B Probe Wash*, page 9-40. 4. Replace the reagent probe(s). See *Replace reagent probes (c4000)*, page 9-122.

Probable cause	Corrective action
	See *Replace reagent probes (c8000)*, page 9-188 or *Replace reagent probes (c16000)*, page 9-259. 5. Perform ***as-needed*** maintenance procedure *2183 Clean Wash Cups*, page 9-38. 6. Perform the *Reagent carryover corrective action procedures*, page 10-729, for Abbott assays to identify and configure an acceptable SmartWash to address the carryover.
• Hardware failure: – Mixer malfunction – Cuvette Washer malfunction – Optics – DAQ board – AC/DC driver board	Contact your Area Customer Support to resolve any hardware failure.

FLEX Result flag

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
Sample concentration is high.	Evaluate the result before reporting. The sample can be diluted and rerun. For the dilution protocol, see the reagent manufacturer's assay-specific documentation (such as a package insert or reagent application sheet).

PSHH Result flag

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
The ICT sample run immediately before this sample had a concentration outside the dynamic or linear range or outside the defined extreme range.	Rerun the sample to verify there was no effect from the previous sample.

Sample results observed problems (*i* System)

Sample results observed problems for the *i* System include:

- *Calibration curves stable for less than 30 days - control drift (i System)*, page 10-547
- *Controls out of range (i System)*, page 10-547
- *Depressed concentration - entire run, direct assay, with decreased RLUs (i System)*, page 10-549
- *Depressed concentration - entire run, indirect assay, with increased RLUs (i System)*, page 10-551

- *Depressed concentration - single point, direct assay, with decreased RLUs (i System)*, page 10-553
- *Depressed concentration - single point, indirect assay, with increased RLUs (i System)*, page 10-558
- *Elevated concentration - entire run, direct assay, with increased RLUs (i System)*, page 10-561
- *Elevated concentration - entire run, indirect assay, with decreased RLUs (i System)*, page 10-563
- *Elevated concentration - single point, direct assay, with increased RLUs (i System)*, page 10-566
- *Elevated concentration - single point, indirect assay, with decreased RLUs (i System)*, page 10-570
- *Erratic assay results (i System)*, page 10-574

Calibration curves stable for less than 30 days - control drift (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
Control values for some assays are drifting out of the QC range. Under a combination of the following operating conditions microparticles may adhere to the sides of the reagent bottle: • A microparticle bottle with low testing frequency is used. **Or** • Reagents are stored onboard. **Or** • The instrument is in continuous run mode.	To minimize the frequency of calibration adopt one of the following options: • Remove, on a daily basis, the assay specific microparticle bottle from the processing module and hand swirl to resuspend the adhered microparticles. Reposition the bottle. **NOTE:** You must be careful when moving and swirling the bottle so microparticles do not come in contact with the septum. • Remove the assay specific reagent pack from the processing module at the completion of testing.
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure Internal Decontamination. See *2180 Internal Decontamination (CSC logon)*, page 9-80. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.

Controls out of range (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Controls are expired or have exceeded open vial stability.	Open new controls. For information on multiconstituent control open vial stability, see the multiconstituent control package insert.
• Controls were stored improperly.	Open new controls
• Controls were improperly reconstituted.	If controls require reconstitution verify condition of diluent, water, or pipettors. For information on multiconstituent control reconstitution, see the multiconstituent control package insert.
• A change to the system has occurred: – New bulk solutions were loaded – Component was replaced – Instrument was calibrated	1. Verify bulk solutions were loaded correctly if new bulk solutions were recently loaded. 2. Verify components were replaced correctly if components were recently replaced. 3. Recalibrate the assay.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Wrong control lot was used.	1. Use the correct control lot for the established control ranges. 2. Establish new control ranges, as required, if a new lot of control was used.
• Scheduled maintenance is due.	Perform all required maintenance.
• Calibration curve is not optimal.	Recalibrate the assay.
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure 2180 Internal Decontamination. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.

For more information on troubleshooting to resolve this problem, see:

- *Depressed concentration - entire run, direct assay, with decreased RLUs (i System)*, page 10-549
- *Depressed concentration - single point, direct assay, with decreased RLUs (i System)*, page 10-553
- *Depressed concentration - entire run, indirect assay, with increased RLUs (i System)*, page 10-551
- *Depressed concentration - single point, indirect assay, with increased RLUs (i System)*, page 10-558
- *Elevated concentration - entire run, direct assay, with increased RLUs (i System)*, page 10-561
- *Elevated concentration - single point, direct assay, with increased RLUs (i System)*, page 10-566

- *Elevated concentration - entire run, indirect assay, with decreased RLUs (i System)*, page 10-563
- *Elevated concentration - single point, indirect assay, with decreased RLUs (i System)*, page 10-570
- *Erratic assay results (i System)*, page 10-574

Depressed concentration - entire run, direct assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure: – For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/ i2000SR)*, page 5-93. – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir.

Probable cause	Corrective action
	3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Wash zone manifold is leaking.	1. Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. 2. Contact your Area Customer Support if crystals or liquid are observed.
• Pipettor or wash zone manifold tubing connections are loose.	Tighten the pipettor and/or wash zone manifold tubing connections.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353. • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333. • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR:

Probable cause	Corrective action
	– *Replace the wash zone probe (i2000/i2000SR)*, page 9-333. • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	1. Perform the following ***precision*** diagnostic procedures: – For *i*2000/*i*2000SR: • *2006 Wash Zone 1 Check*, page 10-665 • *2007 Wash Zone 2 Check*, page 10-665 – For *i*1000SR: • *2075 Wash Zone Check*, page 10-684 2. Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is obstructed.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Verify *6041 Daily Maintenance*, page 9-74 has been performed and the correct concentration of sodium hypochlorite was used. For more information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12. 3. Replace the appropriate probe as required. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327. – For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - entire run, indirect assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Trigger Solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2.

Probable cause	Corrective action
	2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Wash zone manifold is leaking.	1. Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. 2. Contact your Area Customer Support if crystals or liquid are observed.
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR

Probable cause	Corrective action
	– *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333. • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	1. Perform the following ***precision*** diagnostic procedures: – For *i*2000/*i*2000SR: • *2006 Wash Zone 1 Check*, page 10-665 • *2007 Wash Zone 2 Check*, page 10-665 – For *i*1000SR: • *2075 Wash Zone Check*, page 10-684 2. Contact your Area Customer Support if insufficient volume is dispensed.
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure 2180 Internal Decontamination. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - single point, direct assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert.
• Bubbles or foam are on surface of reagent.	Remove all foam and bubbles from the surface of the reagent using a clean applicator stick.
• Reagent was not properly mixed before loading.	Mix the reagent thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure:

Probable cause	Corrective action
	– For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93 – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92

Probable cause	Corrective action
	• *2160 Prime Wash Zone*, page 9-93
• Pre-trigger or trigger sensor is cracked.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the pre-trigger or trigger level sensor (i2000/i2000SR)*, page 9-351 • For *i*1000SR: – *Replace the pre-trigger or trigger level sensor (i1000SR)*, page 9-378
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2004 Pre-Trigger Check*, page 10-664 – *2005 Trigger Check*, page 10-665 • For *i*1000SR: – *2072 Pre-Trigger Check*, page 10-683 – *2073 Trigger Check*, page 10-683 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79

Probable cause	Corrective action
	– *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Verify *6041 Daily Maintenance*, page 9-74 has been performed and the correct concentration of sodium hypochlorite was used. For more information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12. 3. Replace the appropriate probe. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327

Probable cause	Corrective action
	– For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is damaged.	Replace the appropriate probe as required. Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample using a clean disposable pipette or applicator stick.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Pipettor probes are not straight.	1. Perform ***pipettor*** diagnostic procedure *1155 Probe Straightness Test*, page 10-648 for *i*2000/*i*2000SR. Perform ***pipettor*** diagnostic procedure *1152 Probe Straightness/Align Test*, page 10-672 for *i*1000SR. 2. Replace the probe if the probe is not straight. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 – For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Syringe assembly or valve is leaking.	Check for salt crystals and/or liquid around all syringes and/or valve. Contact your Area Customer Support if crystals or liquid are observed.
• Pipettor aspiration or dispense is insufficient.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2001 Sample Pipettor Check*, page 10-663 – *2009 STAT Pipettor Check (i2000SR)*, page 10-665 – *2002 R1 Pipettor Check*, page 10-664 – *2003 R2 Pipettor Check*, page 10-664 • For *i*1000SR:

Probable cause	Corrective action
	– *2070 Pipettor Check*, page 10-683 Contact your Area Customer Support if insufficient volume is dispensed.
• R1 or R2 probe is obstructed.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe. See *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327.
• R1 or R2 pipettor probe is not positioned correctly.	Perform ***as-needed*** maintenance procedure *1112 R1 Pipettor Calibration*, page 9-77 or *1113 R2 Pipettor Calibration*, page 9-78.
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Hardware failure: – CMIA Optics reader – Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Depressed concentration - single point, indirect assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample using a clean disposable pipette or applicator stick.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample cup or tube was not properly placed in the sample carrier or LAS carousel.	Reseat the sample cup or tube.
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• R2 pipettor tubing connections are loose.	Tighten all R2 pipettor tubing connections.
• R2 pipettor tubing connections are broken.	*Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327, if tubing connections are broken.
• R2 pipettor is not positioned correctly.	Perform ***as-needed*** maintenance procedure *1113 R2 Pipettor Calibration*, page 9-78.
• R2 syringe assembly or valve is leaking.	Check for salt crystals and/or liquid on or around the R2 syringe assembly or valve.

Probable cause	Corrective action
	Contact your Area Customer Support if crystals or liquid are observed.
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure: – For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/ i2000SR)*, page 5-93 – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer.

Probable cause	Corrective action
	7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Pre-trigger or trigger sensor is cracked.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the pre-trigger or trigger level sensor (i2000/i2000SR)*, page 9-351 • For *i*1000SR: – *Replace the pre-trigger or trigger level sensor (i1000SR)*, page 9-378
• Bubbles are in pre-trigger or trigger tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2004 Pre-Trigger Check*, page 10-664 – *2005 Trigger Check*, page 10-665 • For *i*1000SR: – *2072 Pre-Trigger Check*, page 10-683 – *2073 Trigger Check*, page 10-683 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/ i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380

Probable cause	Corrective action
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer Support if insufficient volume is dispensed.
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure 2180 Internal Decontamination. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.
• Static electricity	Contact your Area Customer Support for further assistance.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - entire run, direct assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Trigger Solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Wash buffer dispense is inadequate.	Tighten the pipettor and wash zone manifold tubing connections.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/ i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333

Probable cause	Corrective action
	• For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer Support if insufficient volume is dispensed.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - entire run, indirect assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure: – For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93 – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93

Probable cause	Corrective action
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Pipettor or wash zone manifold tubing connections are loose.	Tighten the pipettor and/or wash zone manifold tubing connections.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/ i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Bubbles are in wash buffer tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79

Probable cause	Corrective action
	– *2151 Prime Wash Zones*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is obstructed.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Verify *6041 Daily Maintenance*, page 9-74 has been performed and the correct concentration of sodium hypochlorite was used. For more information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12. 3. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 – For *i*1000SR:

Probable cause	Corrective action
	• *Replace pipettor probe (i1000SR)*, page 9-361
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure 2180 Internal Decontamination. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - single point, direct assay, with increased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert.
• Bubbles or foam are on surface of reagent.	Remove all foam and bubbles from the surface of the reagent using a clean applicator stick.
• Reagent was not properly mixed before loading.	Mix the reagent thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Septums were not installed on the reagent bottles.	1. Discard the open reagent kit. 2. Load new reagents. 3. Ensure septums are properly installed.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure: – For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/ i2000SR)*, page 5-93. – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79

Probable cause	Corrective action
	• *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Pre-trigger or trigger sensor is cracked.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the pre-trigger or trigger level sensor (i2000/i2000SR)*, page 9-351 • For *i*1000SR: – *Replace the pre-trigger or trigger level sensor (i1000SR)*, page 9-378
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79

Probable cause	Corrective action
	– *2151 Prime Wash Zones*, page 9-80 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2004 Pre-Trigger Check*, page 10-664 – *2005 Trigger Check*, page 10-665 • For *i*1000SR: – *2072 Pre-Trigger Check*, page 10-683 – *2073 Trigger Check*, page 10-683 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Wash zone probes are not properly seated in wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367

Probable cause	Corrective action
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer Support if insufficient volume is dispensed.
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Verify the appropriate maintenance procedure has been performed and the correct concentration of sodium hypochlorite was used. For more information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12. – For the *i*2000/*i*2000SR: • *6041 Daily Maintenance*, page 9-74 – For the *i*1000SR • *6445 Pipettor/WZ Probe Cleaning*, page 9-90 3. Replace the appropriate probe. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 – For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is damaged.	Replace the appropriate probe as required. Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76

Probable cause	Corrective action
	– *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• R2 pipettor tubing connections are loose.	Tighten all R2 pipettor tubing connections.
• R2 pipettor tubing connections are broken.	*Replace sample, reagent, or STAT probe tubing (i2000/i2000SR)*, page 9-330, if tubing connections are broken.
• R2 pipettor is out of alignment.	Perform ***as-needed*** maintenance procedure *1113 R2 Pipettor Calibration*, page 9-78.
• R2 syringe assembly or valve is leaking.	Check for salt crystals and/or liquid on or around the R2 syringe assembly or valve. Contact your Area Customer Support if crystals or liquid are observed.
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Static electricity	Contact your Area Customer Support for further assistance.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Elevated concentration - single point, indirect assay, with decreased RLUs (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert.
• Bubbles or foam are on surface of reagent.	Remove all foam and bubbles from the surface of the reagent using a clean applicator stick.
• Reagent was not properly mixed before loading.	Mix the reagents thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure: – For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/i2000SR)*, page 5-93 – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96

Probable cause	Corrective action
	3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for the *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for the *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload*, page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Pre-trigger or trigger sensors are cracked.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the pre-trigger or trigger level sensor (i2000/i2000SR)*, page 9-351 • For *i*1000SR: – *Replace the pre-trigger or trigger level sensor (i1000SR)*, page 9-378

Probable cause	Corrective action
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-Trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2004 Pre-Trigger Check*, page 10-664 – *2005 Trigger Check*, page 10-665 • For *i*1000SR – *2072 Pre-Trigger Check*, page 10-683 – *2073 Trigger Check*, page 10-683 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380
• Wash zone probes are not properly seated in wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333

Probable cause	Corrective action
	• For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer if insufficient volume is dispensed.
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Verify *6041 Daily Maintenance*, page 9-74 has been performed and the correct concentration of sodium hypochlorite was used. For more information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12. 3. Replace the appropriate probe. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 – For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is damaged.	Replace the appropriate probe as required. Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78

Probable cause	Corrective action
	• For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Syringe assembly or valve is leaking.	Check for salt crystals and/or liquid on or around the R1 and R2 syringe assembly or valve. Contact your Area Customer Support if crystals or liquid are observed.
• R1 or R2 probe has an obstruction.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Replace the appropriate probe. See *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327.
• Wash zone manifold is not properly seated on process path.	Contact your Area Customer Support.
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure 2180 Internal Decontamination. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.
• Hardware failure: – CMIA reader – Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Erratic assay results (*i* System)

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
• Reagent was stored incorrectly.	Use a reagent kit that was stored under the correct conditions. See the ARCHITECT assay-specific package insert for reagent kit storage conditions.
• Bubbles or foam are on surface of reagent.	Remove all bubbles and foam from the surface of the reagent using a clean applicator stick.
• Reagent was not properly mixed before loading.	Mix the reagent thoroughly before placing septums on the reagent bottle. **NOTE:** If brown microparticle build-up is observed on the septum, discard reagent.
• Reagent is contaminated.	Load a new reagent kit.
• Septums were not installed on the reagent bottles.	1. Discard the open reagent kit. 2. Load a new reagent. 3. Ensure septums are properly installed.

Probable cause	Corrective action
• Pre-Trigger and Trigger Solutions were loaded in the wrong positions or the tubing assemblies were switched.	1. Rinse the floats with DI water, and then dry. 2. Load new bottles of pre-trigger and trigger. Perform the appropriate procedure: – For *i*2000/*i*2000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i2000/ i2000SR)*, page 5-93 – For *i*1000SR: • *Replace pre-trigger and/or trigger solution and update inventory (i1000SR)*, page 5-96 3. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR: • *2130 Flush Fluids*, page 9-79 • *2152 Prime Pre-Trigger and Trigger*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Level sensor is not installed correctly.	1. Adjust the level sensor in the pre-trigger or trigger bottle so the arrow faces toward the front. When the level sensor is correctly installed, the electrical connector is on the right and the tubing is on the left. 2. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR.
• Trigger solution was used instead of Concentrated Wash Buffer.	1. Measure the pH of the prepared wash buffer. If it is not within the 7.0 to 7.6 range, go to Step 2. 2. Perform ***as-needed*** maintenance procedure *2185 Wash Buffer Unload,* page 9-81 (*i*2000/*i*2000SR) to unload any wash buffer remaining in the buffer reservoir. 3. Remove the buffer reservoir from the system. 4. Rinse buffer reservoir with deionized water. 5. Rinse the float with deionized water and then dry. 6. Replace buffer reservoir, and then load prepared wash buffer. 7. Perform the following ***as-needed*** maintenance procedures: – For *i*2000/*i*2000SR:

Probable cause	Corrective action
	• *2130 Flush Fluids*, page 9-79 • *2151 Prime Wash Zones*, page 9-80 – For *i*1000SR: • *2137 Flush Fluids*, page 9-92 • *2160 Prime Wash Zone*, page 9-93
• Pre-trigger or trigger sensor is cracked.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the pre-trigger or trigger level sensor (i2000/i2000SR)*, page 9-351 • For *i*1000SR: – *Replace the pre-trigger or trigger level sensor (i1000SR)*, page 9-378
• Bubbles are in tubing.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *2130 Flush Fluids*, page 9-79 – *2151 Prime Wash Zones*, page 9-80 – *2152 Prime Pre-Trigger and Trigger*, page 9-80 • For *i*1000SR: – *2137 Flush Fluids*, page 9-92 – *2160 Prime Wash Zone*, page 9-93 – *2162 Prime Pre-Trigger and Trigger*, page 9-93
• Tubing connections are loose.	Tighten the tubing connections.
• Tubing is kinked.	Contact your Area Customer Support if tubing needs to be replaced.
• Pre-trigger or trigger dispense is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2004 Pre-Trigger Check*, page 10-664 – *2005 Trigger Check*, page 10-665 • For *i*1000SR – *2072 Pre-Trigger Check*, page 10-683 – *2073 Trigger Check*, page 10-683 Contact your Area Customer Support if insufficient volume is dispensed.
• Wash zone manifold is leaking.	Check for salt crystals and/or liquid on or around wash manifold valves and/or fittings. Contact your Area Customer Support if crystals or liquid are observed.
• Buffer level sensor assembly is cracked or leaking.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the buffer level sensor (i2000/i2000SR)*, page 9-353 • For *i*1000SR: – *Replace the buffer level sensor (i1000SR)*, page 9-380

Probable cause	Corrective action
• Wash zone probes are not properly seated in the wash zone motor assembly.	Reseat the wash zone probes. Refer to the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash zone probes are bent or damaged.	Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace the wash zone probe (i2000/i2000SR)*, page 9-333 • For *i*1000SR: – *Replace the wash zone probe (i1000SR)*, page 9-367
• Wash buffer dispense at the wash zones is inadequate.	Perform the following ***precision*** diagnostic procedures: • For *i*2000/*i*2000SR: – *2006 Wash Zone 1 Check*, page 10-665 – *2007 Wash Zone 2 Check*, page 10-665 • For *i*1000SR: – *2075 Wash Zone Check*, page 10-684 Contact your Area Customer Support if insufficient volume is dispensed.
• Sample was not collected and/or prepared correctly.	1. Follow the specimen collection and handling instructions in the ARCHITECT assay-specific package insert. 2. Rerun the sample. 3. Source another sample if not resolved.
• Sample volume in the sample cup or tube was inadequate.	Place adequate sample in the cup or tube. See *Sample volume requirements*, page 5-242.
• Sample contains fibrin clots or particulate matter.	1. Examine samples for fibrin or other large particles. 2. Remove fibrin clots with a clean applicator stick or centrifuge samples.
• Bubbles or foam are on the surface of the sample.	Remove all bubbles or foam from the sample with a clean disposable pipette or applicator stick.
• Probe tip is bent or damaged.	Replace the appropriate probe as required. Perform the appropriate replacement procedure: • For *i*2000/*i*2000SR: – *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 • For *i*1000SR: – *Replace pipettor probe (i1000SR)*, page 9-361
• Pipettor probes are not straight.	1. Perform ***pipettor*** diagnostics procedure *1155 Probe Straightness Test*, page 10-648 for *i*2000/*i*2000SR.

Probable cause	Corrective action
	Perform ***pipettor*** diagnostics procedure or *1152 Probe Straightness/Align Test*, page 10-672 for *i*1000SR. 2. Replace the probe if the probe is not straight. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 – For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Probe is not positioned correctly.	Perform the following ***as-needed*** maintenance procedures: • For *i*2000/*i*2000SR: – *1111 Sample Pipettor Calibration*, page 9-76 – *1117 STAT Pipettor Calibration (i2000SR processing module)*, page 9-78 – *1112 R1 Pipettor Calibration*, page 9-77 – *1113 R2 Pipettor Calibration*, page 9-78 • For *i*1000SR: – *1110 Pipettor Calibration*, page 9-91
• Probe is dirty or partially clogged.	1. Perform ***as-needed*** maintenance procedure *2130 Flush Fluids*, page 9-79 for *i*2000/*i*2000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. Perform ***as-needed*** maintenance procedure *2137 Flush Fluids*, page 9-92 for *i*1000SR and observe that pipettors dispense liquid and no leaks or bubbles are observed in tubing. 2. Verify *6041 Daily Maintenance*, page 9-74 has been performed and the correct concentration of sodium hypochlorite was used. For more information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12. 3. Replace the appropriate probe. Perform the appropriate replacement procedure: – For *i*2000/*i*2000SR: • *Replace sample, reagent, or STAT pipettor probes (i2000/i2000SR)*, page 9-327 – For *i*1000SR: • *Replace pipettor probe (i1000SR)*, page 9-361
• Water quality is poor.	Ensure the water quality is purified water.

Probable cause	Corrective action
• Syringe assemblies or valves are leaking.	Check for salt crystals and/or liquid around all syringes or valves. Contact your Area Customer Support if crystals or liquid are observed.
• Wash buffer dispense of pipettors is inadequate.	Perform ***precision*** diagnostic procedure *2001 Sample Pipettor Check*, page 10-663, *2002 R1 Pipettor Check*, page 10-664, *2003 R2 Pipettor Check*, page 10-664, or *2009 STAT Pipettor Check (i2000SR)*, page 10-665. Perform ***precision*** diagnostic procedure *2070 Pipettor Check*, page 10-683 (*i*1000SR). Contact your Area Customer Support if insufficient volume is dispensed.
• Module contaminated	• For *i*2000/*i*2000SR: – Contact your Area Customer Support to perform ***as-needed*** maintenance procedure 2180 Internal Decontamination. • For *i*1000SR: – Perform ***as-needed*** maintenance procedure *2190 Internal Decontamination*, page 9-93.
• Static electricity	Contact your Area Customer Support for further assistance.
• Hardware failure: Vortexer	Contact your Area Customer Support to resolve any hardware failure.

Sample handler observed problems

Observed problems for the sample handlers include:

- *Power to the processing module(s) and sample handler is interrupted*, page 10-579
- *RSHx empty carrier storage area has fewer than 10 sample carriers*, page 10-580
- *RSHx status button displays a caution symbol although the ACCELERATOR p540 status is Initializing or Running*, page 10-580
- *Sample handler will not go to Running status*, page 10-581
- *Sample is not automatically re-aspirated after adding or rerunning a test (RSH)*, page 10-581
- *Sample tubes in a carrier are scanned, but are not processed*, page 10-582

Power to the processing module(s) and sample handler is interrupted

This problem may be observed for any sample handler on an ARCHITECT System.

Probable cause	Corrective action
• Main power source to the processing module(s) and sample handler is interrupted.	For systems with an RSH (robotic sample handler): 1. Perform one of the following procedures: – For *i*2000/*i*2000SR: • *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715 – For *i*1000SR: • *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716 2. Determine the cause of the power interruption and resolve. 3. Perform *Power on the processing module and/or sample handler*, page 5-7. For systems with a SSH (standard sample handler) or LAS (laboratory automation system) carousel sample handler. 1. Determine the cause of the power interruption and resolve. 2. Perform *Power on the processing module and/or sample handler*, page 5-7.

RSHx empty carrier storage area has fewer than 10 sample carriers

This problem may be observed for any sample handler on an ARCHITECT System integrated with the ACCELERATOR *p*540.

Probable cause	Corrective action
A previously resolved error condition resulted in the removal of sample carriers from the RSHx priority or routine bays. The empty carrier storage area is no longer full.	If sample carriers are currently located in the RSHx priority or RSHx routine bays, perform *Initiate or resume sample processing (RSH and SSH)*, page 5-277. If no sample carriers are currently located in the RSHx priority or RSHx routine bays, perform *Replenish RSHx empty carrier storage area*, page 10-719

RSHx status button displays a caution symbol although the ACCELERATOR *p*540 status is Initializing or Running

This problem may be observed on an ARCHITECT System integrated with the ACCELERATOR *p*540.

Probable cause	Corrective action
The ACCELERATOR *p*540 was powered on before the ARCHITECT SCC. The SCC did not detect the communication connection with the *p*540.	Ensure that the ARCHITECT SCC is powered on, then cycle power to the ACCELERATOR *p*540.

Sample handler will not go to Running status

This problem may be observed for any sample handler on an ARCHITECT System.

Probable cause	Corrective action
Run was selected for the sample handler, but a hardware failure was not corrected from the last run.	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code.

Sample is not automatically re-aspirated after adding or rerunning a test (RSH)

This problem may be observed for the RSH (robotic sample handler) on an ARCHITECT System.

Probable cause	Corrective action
• The sample was removed from the RSH.	Reinsert the carrier or tray.
• The RSH status changed to Ready or Stopped before adding or rerunning a test.	1. *Initiate or resume sample processing (RSH and SSH)*, page 5-277. 2. Reinsert the carrier or tray.
• The RSH is not configured to automatically reposition samples for retest.	Change the automatic repositioning setting. See *Change automatic repositioning for retest setting (RSH)*, page 2-28.
• Different patient demographic information was entered when creating the order for additional tests.	1. Delete and reorder the test, if the patient demographics were entered in error. **NOTE:** Do not enter patient demographic information when adding tests to a sample. See *Add a test to a patient order*, page 5-201. 2. Assign another sample ID to the order, if the sample is from a different patient.
• A different Sample manual dilution factor was entered when creating the order for additional tests.	1. Delete and reorder the test using the same manual dilution. 2. Assign another sample ID to the new dilution, if a different manual dilution is required.
• The option to not automatically re-aspirate from the sample was selected when the confirmation message displayed after adding new tests for the sample.	Reinsert the carrier or tray.
• The same sample ID was found in one or more carrier/carousel positions and the carrier/carousel position was not specified for the test order.	Specify the carrier/carousel ID and position for each aliquot loaded when using multiple aliquots of the same sample ID.

Probable cause	Corrective action
• The host computer sent an action code with the order that indicated to the SCC to create a new order instead of adding to an existing order.	Refer to the ARCHITECT System Abbott Standard Interface RS-232 Manual.

Sample tubes in a carrier are scanned, but are not processed

This problem may be observed for the robotic or standard sample handler on an ARCHITECT System.

Probable cause	Corrective action
• No bar code label on the sample tube.	Place a bar code label on the sample tube.
• Tube is not correctly positioned in the carrier.	Place the tube in the carrier so the bar code is visible through the slot.
• Sample tube bar code label is dirty or damaged.	Clean the sample bar code label or replace if damaged.
• System bar code configuration does not match bar code label.	Edit the bar code configuration as required for the bar code label symbology.
• Bar code label does not meet specifications.	See *Sample bar code label requirements*, page 4-35, for guidelines.

SCC observed problems

Observed problems for the SCC (system control center) include:

"&" character appears as an underline when defining a single analyte control name

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	Do not use the "&" character when defining control names.

Abbott mail button displays a caution icon

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
AbbottLink is disconnected.	1. Perform SCC module diagnostic procedure *6007 SCC Utilities*, page 10-697, option AbbottLink connector utility, to stop and start the connector service. 2. Contact your Area Customer Support to resolve the connector issue.

All reagent kits display after performing a search by selecting the R1 or R2 checkbox on the Find options window

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
The **R1** or **R2** checkbox was selected on the Reagent status Find options window without entering a position in the **Position** data entry box. The R1 and R2 checkboxes are only functional if a position is entered, and they determine if the system searches in one or both carousels when searching for a specified position.	Enter a **position** in the Position data entry box before selecting the **R1** or **R2** checkboxes on the Reagent status Find options window.

All reagent kits display after performing a search for only kits with the Extra Bottle status

This problem may be observed on an ARCHITECT *i* System.

Probable cause	Corrective action
The option to find reagent kits with the Extra Bottle status using Reagent status Find options window is not working correctly.	Select one other Reagent status checkbox along with Extra Bottle, and the system correctly finds reagent kits with either status.

Assay insert retrieved from Abbott mail is in a different language than expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• The assay insert file is not available for the configured language. **NOTE:** When the configured language assay insert is not available, the English insert displays.	Refer to the insert shipped with the reagent kit.
• The **Download language** configured at the time the assay insert was retrieved by the ARCHITECT System is different than the configured language at the time the file was viewed.	Refer to the insert shipped with the reagent kit or obtain the desired insert file from abbottdiagnostics.com.

Bay number and sample carousel position display on the Details for results windows

This problem may be observed on an ARCHITECT *c*8000 or *c*16000 System.

Probable cause	Corrective action
The original test order was run on the RSH and the retest order was run on the sample carousel.	No corrective action is required.

Bi-directional host communication is not working

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Failure occurred with either the host or the SCC (system control center).	1. Refer to the probable cause and corrective action for the error code observed. 2. Re-enable bi-directional host communications. See *Configure host interface settings*, page 2-6. 3. *Cycle power to the SCC*, page 5-5.

Blue error screen displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• SCC shut down due to an error or corrupted file.	1. *Power off the SCC*, page 5-4. 2. Wait five minutes. 3. *Power on the SCC*, page 5-3. 4. *Start up the processing module and/or sample handler*, page 5-15 when the processing module is Stopped.
• Software error.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.
• Hardware failure: – AbbottLink Netgear FA120 USB/Ethernet adapter – SCC motherboard	Contact your Area Customer Support to resolve any hardware failure.

c System processing module status on Snapshot screen does not go to Stopped

This problem may be observed on an ARCHITECT *ci* System or *c* System.

Probable cause	Corrective action
• Ethernet cable is not connected or has a poor connection.	1. Verify the Ethernet cable is connected at the module and at the hub. See *Reseat cables to the SCC*, page 10-721. 2. *Cycle power to the SCC*, page 5-5. **NOTE:** If this occurs on an integrated system, wait until all *i*2000SR tests are complete before cycling the power.
• Ethernet hub is turned off.	1. Verify the Ethernet hub is turned on.

Probable cause	Corrective action
	2. *Cycle power to the SCC*, page 5-5. **NOTE:** If this occurs on an integrated system, wait until all *i*2000SR tests are complete before cycling the power.
• Software error.	*Cycle power to the SCC*, page 5-5. **NOTE:** If this occurs on an integrated system, wait until all *i*2000SR tests are complete before cycling the power.

c System processing module status on Snapshot screen does not go to Ready

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
With no tests processing, it may take up to one minute after pause is selected for the *c* System processing module to change from Running to Ready status.	No corrective action is required.

c System processing module status on Snapshot screen is Running, but tests are not processing

This problem may be observed on an ARCHITECT *ci* System or *c* System.

Probable cause	Corrective action
Software error.	*Cycle power to the SCC*, page 5-5. **NOTE:** If this occurs on an integrated system, wait until all *i*2000SR tests are complete before cycling the power.

C/P information is not printed on the Rerun list report

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The C/P information does not print on the Rerun list report if you are using the robotic sample handler with the automatically reposition samples for retest option selected.	View the C/P information on the Rerun status, Order status, or Sample status screen.

Dr Watson error, on tapisrv.exe (file name in middle of message window)

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Modem is not connected.	1. *Reseat cables to the SCC*, page 10-721. 2. *Cycle power to the SCC*, page 5-5. 3. Contact your Area Customer Support, if the modem will not be used, for instructions to change pcANYWHERE startup from automatic to manual.
• Modem is not turned on.	1. Turn on the modem.

Probable cause	Corrective action
	2. *Cycle power to the SCC*, page 5-5.

English text appears in place of the configured language in the maintenance or diagnostic procedure perform window

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A language file for the maintenance or diagnostic procedure is corrupt.	Delete and reinstall the procedure. See *Install or delete a maintenance or diagnostic procedure file*, page 2-215.

Error code column on the Exception status screen does not sort as expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The Error code column sorts by an internal software error code number rather than by the visible error code number.	Sort using a different column or use the Find options window to search for a specific error code. See *Find a specific exception*, page 5-367.

Gray screen displays during an archive

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Screen timeout is activated while an archive is in process.	No corrective action is required. Allow the archive to complete.

Hot key to toggle languages does not work as expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• The system language is either Greek or Russian and the hot key is being used while creating or editing a user-defined maintenance procedure.	When the system language is either Greek or Russian, only the U.S. English keyboard can be used when creating a new user-defined maintenance procedure (***utilities*** diagnostic procedure *6220 User-Defined Maintenance*, page 10-699). The option to toggle between the U.S. English keyboard and the Greek or Russian keyboard is not available for the data entry field.
• The system language is Greek and the hot key is being used in the online operations manual.	When using the Greek online ARCHITECT System Operations Manual, only the Greek keyboard can be used. The option to toggle between the U.S. English keyboard and the Greek keyboard is not available in the data entry fields in the online manual.
• The system language is Russian and the hot key is being used in the online operations manual.	When using the English online ARCHITECT System Operations Manual provided with Russian translated software, only the U.S. English keyboard can be used. The option to toggle between the U.S. English keyboard

Probable cause	Corrective action
	and the Russian keyboard is not available in the data entry fields in the online manual.

icwserver.exe error Message "Address space is full"

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	1. *Cycle power to the SCC*, page 5-5. 2. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Intel Active Monitor System Alert! message is displayed

This problem may be observed on an ARCHITECT System when using the SCC Intel Active Monitor software to monitor voltage, fan speeds, and temperature status of the SCC.

Probable cause	Corrective action
Voltage (x) has gone outside of its recommended range x = specific voltage	
• Vents in the SCC have become blocked, restricting airflow to the fans.	1. Remove any obstacles preventing adequate airflow around the SCC. 2. Remove dust or foreign objects from vents.
• Hardware failure	1. Document the message displayed. 2. Select Close or select View Details and then Exit. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. If this message reoccurs, contact your Area Customer Support to resolve any hardware failure.
Fan (x) has stopped or slowed x = fan 1 or fan 2	
• An obstacle is preventing the SCC fan from spinning.	Remove any objects obstructing the fan that prevent it from spinning.
• Hardware failure	1. Document the message displayed. 2. Select Close or select View Details and then Exit. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696.

Probable cause	Corrective action
	5. Contact your Area Customer Support to resolve any hardware failure.
Your system has exceeded its recommended maximum temperature	
• The SCC fan(s) have slowed or stopped.	Remove any objects obstructing the fan that prevent it from spinning.
• The SCC is in a location that is not allowing optimal airflow.	Ensure there is proper airflow in and around your SCC. Ensure your SCC is not located near walls or in corners. If vents in the SCC become blocked, airflow to the fans may be restricted.
• Room temperature is out of specifications.	Modify room temperature to be within specifications. See *Environmental specifications and requirements*, page 4-29.
• Hardware failure	1. Document the message displayed. 2. Select Close or select View Details and then Exit. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.

Intel Desktop Utilities System Alert! message is displayed

This problem may be observed on an ARCHITECT System when using the SCC Intel Desktop Utilities software to monitor voltage, fan speeds, and temperature status of the SCC.

Probable cause	Corrective action
Voltage (x) has gone outside of its recommended range x = specific voltage	
• Vents in the SCC have become blocked, restricting airflow to the fans.	1. Remove any obstacles preventing adequate airflow around the SCC. 2. Remove dust or foreign objects from vents.
• Hardware failure	1. Document the message displayed. 2. Select Close. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. If this message reoccurs, contact your Area Customer Support to resolve any hardware failure.
Fan (x) has stopped or slowed	

Probable cause	Corrective action
x = fan 1 or fan 2	
• An obstacle is preventing the SCC fan from spinning.	Remove any objects obstructing the fan that prevent it from spinning.
• Hardware failure	1. Document the message displayed. 2. Select Close. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.
Your system has exceeded its recommended maximum temperature	
• The SCC fan(s) have slowed or stopped.	Remove any objects obstructing the fan that prevent it from spinning.
• The SCC is in a location that is not allowing optimal airflow.	Ensure there is proper airflow in and around your SCC. Ensure your SCC is not located near walls or in corners. If vents in the SCC become blocked, airflow to the fans may be restricted.
• Room temperature is out of specifications.	Modify room temperature to be within specifications. See *Environmental specifications and requirements*, page 4-29.
• Hardware failure	1. Document the message displayed. 2. Select Close. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.

Internet Explorer Script Error displayed when using the online documentation

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The Print button on the Help window was selected, and then the Close button was selected before the Print window displayed.	Select **No** on the Internet Explorer Script Error message. Allow the print dialog window to display and complete the steps for printing prior to closing the Help window.

Keyboard fails to respond

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Keyboard cable is loose or disconnected.	1. Reseat or reconnect the keyboard cable if it is accessible. See *Reseat cables to the SCC*, page 10-721. 2. *Cycle power to the SCC*, page 5-5. 3. Verify keyboard operation.
• Keyboard has failed.	Contact your Area Customer Support to resolve any hardware failure.

LAS (laboratory automation system) communication - Unable to communicate

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Cable from the LAS to the SCC (COM6, connector P4 has a poor connection).	Reseat the P4 cable. See *Reseat cables to the SCC*, page 10-721.
• LAS is temporarily down.	Re-initialize communication. See *Verify LAS communications*, page 10-725.

Maintenance history report prints with 00:00:00 in the Time column

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A Maintenance History report was printed for a procedure that had not been performed.	No corrective action is required. When the procedure has been performed, print the report. The time the procedure was performed appears on the report.

Maintenance log contains blank spaces for Daily Maintenance items

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A maintenance procedure was initiated on one day and completed the following day.	Avoid performing a maintenance procedure if it will not complete on the same day.

Maintenance log does not contain an expected shaded square for a Maintenance item

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A maintenance procedure was initiated on one day and completed the following day.	Avoid performing a maintenance procedure if it will not complete on the same day.

Many error messages are displayed

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Some error conditions can generate a large number of error messages.	1. Press and hold the **Enter** key on the keyboard until all messages close. 2. Review recent messages in the Message history log. See *Review logs*, page 10-13. **NOTE:** You must review messages to ensure you do not overlook a different error condition.

Non-system disk or disk error message displays or NTLDR is missing message displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A floppy disk is in the floppy drive during the powering on of the SCC.	Remove the floppy disk and follow the instructions on the screen.

Order Status report does not print all the codes

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
More than three codes are associated with the order. The Order Status report prints up to three codes for each order.	Review the appropriate window for a listing of all codes: • *Details for order (Order status/Rerun status) window - single order view*, page 5-230. • *Details for order (Order status) window - batch (bar coded) view*, page 5-231. • *Details for order (Order status) window - batch (non-bar coded) view*, page 5-232.

Procedure number desired for user-defined maintenance is not available

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A user-defined maintenance procedure previously created with the desired number has been deleted. **NOTE:** Deleted user-defined maintenance procedures are saved to the hard drive. Once a procedure is created the number can not be reused.	Create the procedure with a different number.

Program Error - EKernel.exe has generated errors and will be closed by Windows

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Unexpected shutdown of AbbottLink software.	1. Select **OK** to close the Program Error window. A caution symbol displays on the Abbott mail button on the Snapshot screen.

Probable cause	Corrective action
IMPORTANT: Do not shut down the ARCHITECT System. This error does not affect the ARCHITECT System software.	AbbottLink attempts to restore the connection. This takes approximately 5 minutes. 2. If the connection is not restored, perform SCC module diagnostic procedure *6007 SCC Utilities*, page 10-697 and select the Initiate AbbottLink connector utility option. 3. If the connection is not restored, contact your Area Customer Support to resolve the issue.

Progress indicator is blank and the software is not responding

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Results/exceptions were released or deleted and the software did not remove them from the screen.	No corrective action is required. A progress indicator displays until the process is complete. It may take up to 15 minutes. After the process is complete, results or exceptions no longer display on the screen.
• Previously released or deleted results/exceptions were selected for release or deletion.	No corrective action is required. A progress indicator displays until the process is complete. It may take up to 15 minutes. After the process is complete results or exceptions no longer display on the screen. For additional information see Observed problem: *Results or exceptions are deleted or released and the result or exception is not removed from the screen*, page 10-596.

QC configuration is incomplete for multiconstituent control after importing data

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
A required control file was not imported. If separate *i* System and *c* System data files exist for a single control product, both data files must be imported on integrated systems (*ci*4100, *ci*8200, and *ci*16200).	Import the missing control file. See • *Import control data (c System)*, page 2-176 • *Import control data (i System)*, page 2-178

QC data does not appear on the Levey-Jennings graph or QC summary review screen and does not print on the QC reports

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Assay result units were changed. **Or** • Module serial number was changed.	No corrective action is required. To capture all QC data print the QC report(s) prior to: • Editing or configuring assay result units

Probable cause	Corrective action
	• Editing or configuring the module serial number
• The expected mean and SD data is not configured.	• To capture QC data in a QC report define the expected mean and SD.

QC results were not re-evaluated when control settings changed

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Selected **Cancel** when the message displayed the option to perform Westgard re-evaluation.	**OK** must be selected to perform the Westgard re-evaluation on all affected results.
More than 5,000 data points are affected by the control setting change.	Recalculate the Westgard analysis on the points to be re-evaluated.

Reagent and calibration curve stability expires when daylight savings time arrives

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
Reagent and calibration stabilities are not tracked with daylight savings time transitions.	1. Load a new reagent kit. See *Load bar coded reagents (c4000)*, page 5-135 or *Load non-bar coded reagents (c4000)*, page 5-139. See *Load bar coded reagents (c8000/c16000)*, page 5-150 or *Replace non-bar coded reagents (c8000/c16000)*, page 5-159. 2. *Create a calibration order*, page 6-12 for the assay.

Result column does not sort as expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The result column sorts by interpretation. If a result does not have an interpretation, the data in the result column is not consistently sorted.	No corrective action is required. Do not sort by results if the results do not contain interpretations.

Results did not display or print

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• When creating an order or adding a test(s) to an order, a calculated assay was selected without selecting the constituent assays.	Create the order or add the test(s) by selecting both the constituent assays and the calculated assay.
• Constituent assay results that were processing for a calculated assay order met the criteria for a retest rule configured to run another assay.	Create a new patient order or add the test(s) by selecting all tests desired for display or print.

Results or exceptions are deleted or released and the result or exception is not removed from the screen

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The time needed to update the information on the screen is longer than the time needed to delete or release the results from the database.	No corrective action is required. Select the Refresh button to update the information on the screen.

Retest rule is not working as expected

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The retest rule is not configured correctly.	To automatically retest samples less than or greater than a specific value, enter a value in only one data entry box. See *Configure a retest rule*, page 2-74.

Sample ID is truncated

This problem may be observed on an ARCHITECT System when using codabar bar code labels that do not contain checksums.

IMPORTANT: When using codabar bar code labels with checksums disabled, a SID (sample identification) may be truncated. For example, an actual SID of 123456 is shortened to 1234.

When using variable SID lengths and a SID is truncated, a result(s) may be attached to an incorrect SID for which an order exists. To eliminate this:

- Enable checksums

  Or

- Use fixed lengths SIDs

Probable cause	Corrective action
Bar code reader misinterprets bar code label.	• Place tube in carrier so the bar code fills the width of the window. • Use labels that meet guidelines. See *Sample bar code label guidelines*, page 4-35. • Enable checksums. See *Change the sample bar code settings for codabar*, page 2-29.

SCC does not boot to the Snapshot screen

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Software error.	Contact your Area Customer Support. Please provide information specifying errors that were received.

Probable cause	Corrective action
• The database is corrupt.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

SCC Hard Drive Monitor Alert! message is displayed

This problem may be observed on an ARCHITECT System when using the SCC Hardware monitor software to monitor hard drive status of the SCC.

Probable cause	Corrective action
The hard drive reported a performance anomaly. Confirm that a backup has been performed in the last 24 hours. • Hardware failure	1. Document the displayed message. 2. Select **OK** or **View Details** and then **OK**. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.

SCC Sensor Monitor Alert! message is displayed

This problem may be observed on an ARCHITECT System when using the SCC Sensor monitor software to monitor voltage, fan speed, temperature, and hard drive status of the SCC.

Probable cause	Corrective action
The (x) voltage has gone outside of its recommended limits (y): (z) x = specific voltage y = voltage range z = actual voltage	
• Vents in the SCC have become blocked, restricting airflow to the fans.	1. Remove any obstacles preventing adequate airflow around the SCC. 2. Remove dust or foreign objects from the vents.
• Hardware failure	1. Document the displayed message. 2. Select **OK** or **View Details** and then **OK**. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. If this message reoccurs, contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
The (x) fan has slowed or stopped (y): (z) x = processor fan or system fan y = minimum speed z = actual speed	
• An obstacle is preventing the SCC fan from spinning.	Remove any objects obstructing the fan that prevent it from spinning.
• Hardware failure	1. Document the displayed message. 2. Select **OK** or **View Details** and then **OK**. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.
The (x) has exceeded its recommended maximum temperature (y): (z) x = processor temperature or system temperature y = maximum temperature z = actual temperature	
• The SCC fan(s) have slowed or stopped.	Remove any objects obstructing the fan that prevent it from spinning.
• The SCC is in a location that is not allowing optimal airflow.	Ensure there is proper airflow in and around your SCC. Ensure your SCC is not located near walls or in corners. If vents in the SCC become blocked, airflow to the fans may be restricted.
• Room temperature is out of specifications.	Modify room temperature to be within specifications. See *Environmental specifications and requirements*, page 4-29.
• Hardware failure	1. Document the displayed message. 2. Select **OK** or **View Details** and then **OK**. You may continue to operate the system. 3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.
The hard drive reported a performance anomaly. Confirm that a backup has been performed in the last 24 hours.	
• Hardware failure	1. Document the displayed message. 2. Select **OK** or **View Details** and then **OK**. You may continue to operate the system.

Probable cause	Corrective action
	3. *Create a system software backup*, page 2-200. 4. Perform ***utilities*** diagnostic procedure *6004 Copy backup software*, page 10-696. 5. Contact your Area Customer Support to resolve any hardware failure.

Shutdown screen displays during concurrent maintenance

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	1. *Cycle power to the SCC*, page 5-5. 2. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Shutdown screen displays unexpectedly

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error.	1. *Cycle power to the SCC*, page 5-5. 2. Perform ***utilities*** diagnostic procedure *6009 Log Utilities*, page 10-697 to collect system logs. 3. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Slow screen response

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Database is close to capacity.	Archive results or delete stored results.

Software Architecture Exception 38 displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Ethernet cable has a poor connection.	Reconnect the Ethernet cable (except for *i*1000SR). See *Reseat cables to the SCC*, page 10-721. Contact your Area Customer Support to resolve any hardware failure (*i*1000SR).
• Network hub is turned off.	1. Turn on the power switch to the network hub. 2. *Cycle power to the SCC*, page 5-5.

Probable cause	Corrective action
• Network hub power cord is disconnected.	1. Connect the power cord to the network hub and plug into a UPS or wall outlet. 2. *Cycle power to the SCC*, page 5-5.
• Hardware failure.	Contact your Area Customer Support to resolve any hardware failure.

Software Architecture Exception 50, 99 (ARCH 99), or 100 displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error	1. Obtain a screen image of the software error, see *Print a screen image*, page 5-414. 2. *Cycle power to the SCC*, page 5-5. 3. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Tests remain in Pending Transmission status

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Software error	1. Reconfigure the host communication to off. See *Cancel pending transmission*, page 5-417. 2. *Cycle power to the SCC*, page 5-5. 3. Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Tests remain in Running status and the module will not go to Stopped status

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Communication is lost between the SCC and the processing module.	*Cycle power to the SCC*, page 5-5.

Tests remain in Scheduled status

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Software error.	*Cycle power to the SCC*, page 5-5. **NOTE:** Wait until all tests processing are complete before cycling the power.

Probable cause	Corrective action
***c* Systems processing module specific**: • LLS (liquid level sense) error occurred with an onboard solution.	Replace onboard solutions in the reagent supply centers and update inventory. See *Replace onboard solutions in the reagent supply center and update inventory (c4000)*, page 5-62, *Replace onboard solutions in the reagent supply centers and update inventory (c8000)*, page 5-67 or *Replace onboard solutions in the reagent supply centers and update inventory (c16000)*, page 5-70.
***i*2000SR processing module specific:** After the sample bar code was read and before all tests were aspirated, one of the following occurred: • Processing module was paused • LAS became inoperable	Change the processing module status to Stopped to change the test status to Exception. 1. Stop the processing module by performing one of the following: – Press the **stop** key on the processing module keypad. – Select the **processing module** graphic on the Snapshot screen, and then select **F6 - Stop**. 2. Delete the exceptions, see *Delete an exception*, page 5-370. 3. Start up the processing module, see*Start up the processing module and/or sample handler*, page 5-15.

The message "The location (x) has a bar coded kit. Do you still want to assign this location?" displays when assigning a location for a non-bar coded reagent.

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• A bar coded reagent is in the position entered for the non-bar coded reagent.	1. Locate an empty position. 2. Enter this position for the non-bar coded reagent
• A bar coded reagent was removed but the reagent carousel was not rescanned to update the availability of the position entered.	1. Select OK to allow the system to assign this location for the non-bar coded reagent. 2. Verify the position is empty.

Touchscreen monitor display is blank

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Power was turned off to the monitor.	Power on the monitor.
• Monitor power cable is unplugged.	Plug in the monitor power cable if it is accessible.
• Monitor data cable is unplugged.	Plug in the monitor data cable if it is accessible. See *Reseat cables to the SCC*, page 10-721.

Probable cause	Corrective action
• Hardware failure: – Monitor port failure on CPU – Monitor has failed	Contact your Area Customer Support to resolve any hardware failure.

Touchscreen monitor fails to respond

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Touch-screen connector is loose or disconnected.	1. Reseat or reconnect the touch-screen connector if it is accessible. See *Reseat cables to the SCC*, page 10-721. 2. *Cycle power to the SCC*, page 5-5. 3. Verify the touch-screen operation.
• Hardware failure: – Monitor not calibrated – Monitor has failed	Contact your Area Customer Support to resolve any hardware failure.

Unable to delete results

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Results are being transmitted to the host. Result status is "Pending Transmission".	No corrective action is required. Wait until transmission is complete, and then delete the results.
• Transmission was requested when the system is configured for host communication but a host computer is not connected. Result status is "Pending Transmission".	1. Reconfigure the host communication to off. A message displays. 2. Select **OK** to clear results waiting to be sent to the host, and then delete results.
• The host mode is set to collate and not all of the results have been released. Result status is "Pending Collation".	No corrective action is required. Release or delete the associated SIDs, and then delete the result.

Unable to find specific patient or QC results

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The find was performed using time only and the time range spanned two days.	Do not enter multiple dates when searching for a specific time interval.

Undefined fields for assay parameters display and print differently

This problem may be observed on an ARCHITECT *c* System.

Probable cause	Corrective action
Undefined fields for assay parameters may display as zero or are blank.	No corrective action is required.

UPS (uninterruptible power supply) is activated

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Main power source to the processing module(s) and sample handler is interrupted.	For system with an RSH (robotic sample handler): 1. Stop the sample handler by performing one of the following: – Press the **stop** key on the sample handler keypad. – Select the **sample handler** graphic on the Snapshot screen, and then select **F6 - Stop**. **NOTE:** You have a maximum of ten minutes to stop the RSH before losing backup power from the UPS. 2. Perform one of the following procedures: – For *i*2000/*i*2000SR: • *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715 – For *i*1000SR: • *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716 3. Determine the cause of the power interruption and resolve. 4. Perform *Power on the processing module and/or sample handler*, page 5-7. For systems with a SSH (standard sample handler) or LAS (laboratory automation system) carousel sample handler: 1. Determine the cause of the power interruption and resolve. 2. Perform *Power on the processing module and/or sample handler*, page 5-7.

User-defined maintenance procedure is due but cannot be performed

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The premium features are deactivated.	Perform one of the following: • Activate the premium features. • Perform *6115 Install/Delete Procedures*, page 10-698 to delete the procedure.

Peripheral devices observed problems

Observed problems for ARCHITECT System peripheral devices are grouped by:

ARCHITECT ARM observed problems

Observed problems for the ARCHITECT ARM include:

A to D timeout (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A temporary failure to receive data from the A to D converter occurred.	1. *Power off the ARM (i2000/i2000SR)*, page 5-21. 2. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 3. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

ARM accessory is not functioning

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
A failure occurred on the ARM and cannot be corrected without a service call.	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

ARM accessory is stopped

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• The replace buffer key was not pressed after replacing a buffer container.	1. Press **replace buffer** on the ARM keypad to bring the ARM to Ready status. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• The stop key on the ARM keypad was pressed.	Press the **stop** key, and then the **start** key on the ARM keypad.
• Hardware failure: Keypad	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

ARM decontamination mode aborted

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
Decontamination procedure was stopped in mid-cycle.	1. *Power off the ARM (i2000/i2000SR)*, page 5-21. 2. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 3. *Flush the ARM*, page 10-723. 4. *Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92. 5. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.

ARM message not sent

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• SCC cannot connect to the ARM.	1. *Reseat cables to the SCC*, page 10-721, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i2000/i2000SR)*, page 5-21.

Probable cause	Corrective action
	4. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 5. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Buffer quality error indicator - up arrow (high conductivity) illuminated (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Concentrated wash buffer is contaminated.	*Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92.
• Concentrated wash buffer was received frozen and not properly mixed before use.	Perform the following steps to mix the buffer: 1. Clean and dry a 3 inch (8 cm) magnetic stirrer. 2. Open the concentrated wash buffer container. 3. Place the magnetic stirrer into the concentrated wash buffer container. 4. Position the container onto the center of a magnetic stirrer with a top plate dimension of at least 7 inches by 7 inches (17.7 cm by 17.7 cm). 5. Adjust the mixing speed to the highest possible setting, and then mix for a minimum of 20 minutes. 6. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Probable cause	Corrective action
• Hardware failure: – Pump – Conductivity sensor – Sensor board – Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Buffer quality error indicator - down arrow (low conductivity) illuminated (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• AxSYM buffer was placed on ARM instead of Concentrated Wash Buffer. **Or** • Concentrated wash buffer is contaminated.	1. Remove the buffer container. 2. Rinse the float with deionized water and then dry. 3. *Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92.
Concentrated wash buffer was frozen and not properly mixed before use.	Perform the following steps to mix the buffer: 1. Clean and dry a 3 inch (8 cm) magnetic stirrer. 2. Open the concentrated wash buffer container. 3. Place the magnetic stirrer into the concentrated wash buffer container. 4. Position the container onto the center of a magnetic stirrer with a top plate dimension of at least 7 inches by 7 inches (17.7 cm by 17.7 cm). 5. Adjust the mixing speed to the highest possible setting, and then mix for a minimum of 20 minutes. 6. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.
• Hardware failure: – Pump – Conductivity sensor – Sensor board – Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance.

Probable cause	Corrective action
	3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Calibration check failure (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Checksum failure (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Handshaking sequence failed between two circuit boards.	1. *Power off the ARM (i2000/i2000SR)*, page 5-21. 2. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 3. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85.

Probable cause	Corrective action
	Replenish wash buffer manually and update inventory (i1000SR), page 5-88.

Communication timeout (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• ARM accessory is turned off.	1. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• SCC did not receive a response from the ARM.	1. *Reseat cables to the SCC*, page 10-721, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i2000/i2000SR)*, page 5-21. 4. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 5. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Concentrated wash buffer empty (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Concentrated wash buffer container has less than 100 mL remaining.	1. *Replace concentrated wash buffer on the ARM (i2000/i2000SR)*, page 5-92. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: – Wash buffer tubing assembly – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Decontamination is in process (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
ARM decontamination procedure is in process.	1. Wait until ARM decontamination is complete. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.

Flood condition (ARM)

This problem may be observed on an ARCHITECT ARM accessory.

Probable cause	Corrective action
• Fluid leaked from the concentrated wash buffer container and the gravity drain tube is crimped or not properly positioned.	1. Adjust the gravity drain waste tubing to ensure it is not crimped and allows the waste to drain freely.
• Shutdown was selected from the SCC (system control center) while the ARM was in the process of filling the wash buffer reservoir.	Perform the following prior to shutting down the SCC: 1. Select the **supply status** button on the Snapshot screen. 2. Verify FILL IN PROGRESS does not display next to the wash buffer icon. If FILL IN PROGRESS displays wait until the process is complete and an update of the supplies has occurred.
• ARM fluidics system has an internal leak. **Or** • Hardware failure: – Flood detector	1. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Main board	2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

High outlet pressure indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• SCC (system control center) or processing module has closed the inlet valve causing the outgoing wash buffer pressure to exceed 15 psi (103 Kpa).	1. *Review logs*, page 10-13, for any error codes that occurred at the same time as this message. 2. *View low level error messages*, page 10-15, if you do not find any error codes. 3. Perform the corrective action for the specific error code.
• Hardware failure: – Pressure sensor – Sensor board – Processing module	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Invalid ARM error code

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A communication problem has occurred.	1. *Reseat cables to the SCC*, page 10-721, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i2000/i2000SR)*, page 5-21.

Probable cause	Corrective action
	4. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 5. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Invalid ARM status code

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A communication problem has occurred.	1. *Reseat cables to the SCC*, page 10-721, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i2000/i2000SR)*, page 5-21. 4. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 5. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
	2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Invalid format of ARM message "message string"

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• A communication problem has occurred.	1. *Reseat cables to the SCC*, page 10-721, and to the ARM. 2. Press the **stop** key, and then the **start** key on the ARM keypad. 3. *Power off the ARM (i2000/i2000SR)*, page 5-21. 4. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 5. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98. 6. *Cycle power to the SCC*, page 5-5, if error continues.
• EMF (electromagnetic fields) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Main board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Low inlet pressure indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• External water supply pressure dropped below 8 psi (55 Kpa) and 2.2 LPM flow rate.	Increase external water supply pressure.
• Tubing from the external water supply to the ARM is pinched.	1. Correct pinch in tubing or replace tubing from external water supply to the ARM. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Meter handshaking failure (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Handshaking sequence failed between two circuit boards.	1. *Power off the ARM (i2000/i2000SR)*, page 5-21. 2. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 3. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Motor stall (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• External water supply was turned off.	1. Turn on the external water supply. 2. *Power off the ARM (i2000/i2000SR)*, page 5-21. 3. Disconnect the water inlet tubing. See *ARM connectors (i2000/i2000SR)*, page 1-161, for location of the tubing connection. 4. Hold the end of the tubing over a sink or container, and then press the connector at the end of the tubing until water flows out. 5. Flush the tubing for 2-3 minutes to ensure all air is cleared from the water system. 6. Release the connector at the end of the tubing, and then reconnect the tubing to the ARM. 7. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21. 8. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• External water supply is restricted.	1. Correct pinch in tubing or replace tubing from external water supply to the ARM. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• External water supply pressure dropped below 8 psi (55Kpa) and 2.2 LPM flow rate.	Increase external water supply pressure.
• Hardware failure: – Internal tubing from valve block to pump – Pump – Stepper motor board – Power supply – valve block	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

SCI (serial communication interface) process timeout (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Temporary communication error in the ARM.	1. *Power off the ARM (i2000/i2000SR)*, page 5-21. 2. *Power on and initialize the ARM (i2000/i2000SR)*, page 5-21.

Probable cause	Corrective action
	3. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: – Main board – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Sensor cable disconnected (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Sensor cable on the concentrated wash buffer tubing assembly is not properly connected.	1. Reconnect the sensor cable from the concentrated wash buffer tubing assembly to the ARM. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Tubing assembly is not calibrated.	1. *Calibrate the ARM level sense*, page 10-723. 2. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.
• Hardware failure: – Wash buffer tubing assembly – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

System flush is in process (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
ARM flush procedure is in process.	1. Wait until the flush procedure is complete. 2. Press the **start** key on the ARM keypad to bring the ARM to Ready status. 3. *Initiate wash buffer transfer from the ARM (i2000/i2000SR)*, page 5-98.

Temperature indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Temperature of the external water supply is not within the range 15-37°C.	1. Adjust the temperature of the external water supply to be within the range 15-37°C. 2. Contact your Area Customer Support if the temperature of the external water supply is within the range 15-37°C.
• Hardware failure: – Temperature sensor – Sensor board	1. Contact your Area Customer Support to resolve any hardware failure. 2. *Change the wash buffer transfer option*, page 10-722, to manual while waiting for service assistance. 3. *Prepare wash buffer (i System)*, page 5-84, as required. 4. *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85. *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Water quality error indicator illuminates (ARM)

This problem may be observed on an ARCHITECT ARM (Automatic Reconstitution Module) accessory.

Probable cause	Corrective action
• Water supply does not meet purified water specification. **Or** • Tubing from water supply is contaminated. **Or** • External water supply is contaminated.	1. Correct the water quality or contamination problem with the external water supply. 2. *Flush the ARM*, page 10-723.
• Hardware failure: – Inlet cell – Valve 1 – Valve block	Contact your Area Customer Support to resolve any hardware failure.

Printer observed problems

Observed printer problems include:

Incomplete comment printed on the Maintenance History Report

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The comment was more than 255 characters in length. The Details for maintenance log window allows you to enter 275 characters, but the Maintenance History Report only prints 255 characters.	Limit the comment length to 255 characters or view the comment on the Details for maintenance log window.

Print window displays behind the Help window

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The option Print the selected heading and all subtopics was selected on the Print Topics window.	No corrective action is required. To print: 1. Minimize the Help window. 2. Select **Print** on the Print Window. 3. Select the ARCHITECT System Operations Manual icon to restore the Help window.

Print is cut off at the bottom of the page when printing from the online documentation

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
HTML functionality does not support page breaks.	No corrective action is required. Compare the information on the printout to the information on the screen.

Print on reports is too light to read

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Printer cartridge is empty.	Replace printer cartridge.
• Printer head is damaged.	Contact your Area Customer Support to resolve any hardware failure.

Report will not print

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
• Report was initiated while a print screen request was printing.	No corrective action is required. Wait until the print screen has printed to avoid having problems with printed reports.
• Printer is out of paper.	Add paper to the printer.
• Paper tray is open.	Close the paper tray.
• Printer is disconnected or not powered on.	Verify the printer is plugged in, on, and ready.
• Paper is jammed.	Clear the paper jam.
• Failed print job is in the printer queue.	Select the Printer status icon on the Snapshot screen, and then delete the failed print job in the printer queue.
• Printer cartridge is damaged or heat stressed.	Replace the printer cartridge.

Sample report does not print

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
The system is configured to print reports automatically and all tests associated with the sample are not complete or not released.	No corrective action is required. Access the Sample status screen to verify the status of all tests ordered for the sample. Wait until all tests are complete or released and the report will print.

Windows printer error displays

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Error occurred with the printer.	1. Select **Cancel** on the Printers Folder message to respond to the printer error. **NOTE:** Do not select the **Retry** button. 2. Resolve the printer problem. 3. Reprint the report.

External waste pump observed problems

Observed external waste pump problems include:

• *External waste pump audible alarm is on*, page 10-621

External waste pump audible alarm is on

This problem may be observed on an ARCHITECT System.

Probable cause	Corrective action
Clog, kink, or other restriction in the waste outlet tubing.	1. Check the outlet tubing for clogs, kinks, or restrictions. 2. Remove any restriction, if possible.
Drain is blocked.	1. Disconnect the waste outlet tubing and raise the tubing to see if liquid will flow down the drain. If liquid does not flow the drain is blocked. 2. Clear the blockage from the drain.
Obstruction inside the pump.	1. Power off the external waste pump. 2. Wait 30 seconds and then power on the external waste pump.
• Hardware failure: – External waste pump	Contact your Area Customer Support to resolve any hardware failure.

System diagnostics

Diagnostic procedures allow you to check the status of assemblies and mechanisms in reaction to certain hardware malfunctions on your ARCHITECT System.

The ARCHITECT System software provides a user-friendly interface for performing diagnostic activities. The Diagnostic screen displays the available diagnostic procedures. Once you initiate a procedure, step-by-step instructions walk you through its completion.

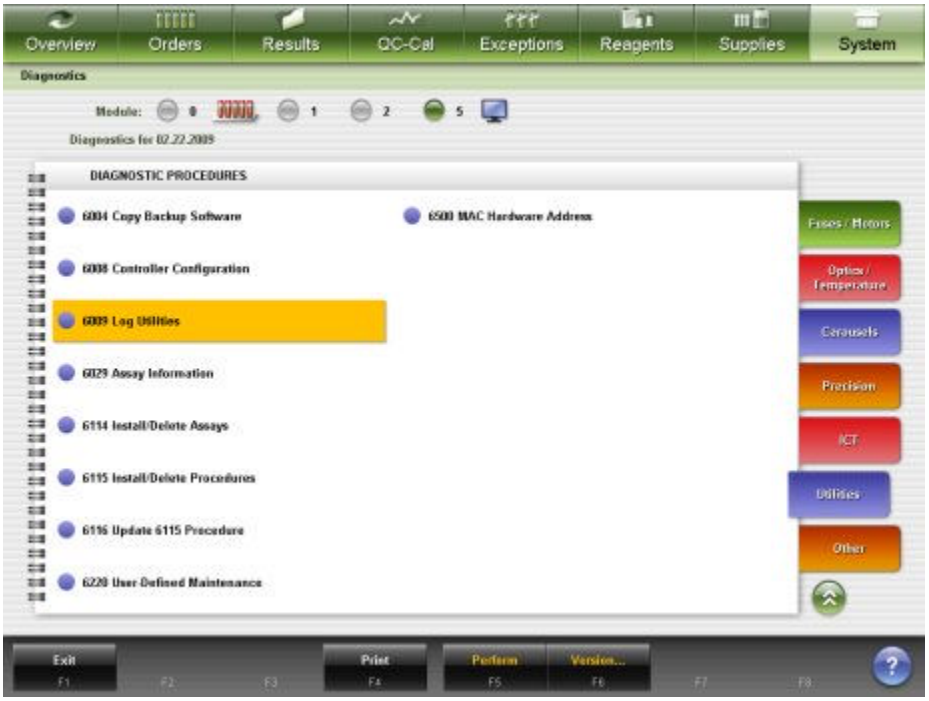
System diagnostics topics include:

Diagnostics screen

From the Diagnostics screen you can initiate a diagnostic procedure. You can also access windows to view information for a procedure prior to performing it and print the Procedure report.

The procedures display by module and by category (tab). Each tab on the screen displays the procedures available for the selected module.

Figure 10.8: Diagnostics screen



For descriptions of these fields, see *Diagnostics screen field descriptions*, page E-147.

To display this screen, see *Access the Diagnostics screen*, page 10-623.

Related procedures…

- *View diagnostic procedure information*, page 10-623
- *Perform a diagnostic procedure*, page 10-624
- *Print a Procedure report*, page 5-409

Access the Diagnostics screen

Perform this procedure to display the Diagnostics screen.

Prerequisite	NA
Module status	Any
User access level	General operator
Supplies	NA

To access the Diagnostics screen:

Select **System** from the menu bar, and then select **Diagnostics**.

The Diagnostics screen displays with the Reaction Mechanisms tab selected.

Related information…

- *Diagnostics screen*, page 10-622
- *Diagnostic categories and procedure descriptions*, page 10-628

Procedures - Diagnostics screen

Procedures you can perform from the Diagnostics screen and its related windows are listed below.

Procedures not in this sub-section include:

- *Print a Procedure report*, page 5-409

Procedures in this sub-section include:

- *View diagnostic procedure information*, page 10-623
- *Perform a diagnostic procedure*, page 10-624

View diagnostic procedure information

Perform this procedure to display the Version details for procedure (Diagnostics) window. From this window you can view information for a diagnostic procedure prior to performing it. This information includes the version number, required module status, and required user access level.

Prerequisite	*Access the Diagnostics screen*, page 10-623

Module status	Any
User access level	General operator
Supplies	NA

To view diagnostic procedure information:

1. Select the desired **Module** option on the Diagnostics screen.

   The diagnostic procedures for the selected module display on the Reaction Mechanisms tab.

2. Select a different tab to display the diagnostic procedures for that category. ***(optional)***

   The diagnostic procedures for the selected category display.

3. Select the desired procedure from the **DIAGNOSTICS PROCEDURES** box, and then select **F6 - Version**.

   The Version details for procedure window displays.

Related information…

- *Diagnostics screen*, page 10-622
- *Version details for procedure (diagnostics) window*, page 10-627
- *Diagnostic categories and procedure descriptions*, page 10-628

Perform a diagnostic procedure

Perform this procedure to:

- Install assays
- Install procedures
- Create a user-defined maintenance procedure
- Verify component replacement procedures
- Diagnose hardware malfunctions

NOTE: Before you perform a specific procedure, be sure you are familiar with the purpose of the procedure and are aware of the required materials and module statuses.

CAUTION: Moving Parts. Diagnostic procedures may expose operators to moving parts that can potentially cause personal injury. Untrained operators should not perform these procedures.

Prerequisite	*Access the Diagnostics screen*, page 10-623
Module status	Procedure dependent
User access level	Procedure dependent
Supplies	Procedure dependent

To perform a diagnostic procedure:

1. Select the desired **Module** option on the Diagnostics screen.

   The diagnostic procedures for the selected module display on the Reaction Mechanisms tab.

2. Select a different tab to display the diagnostic procedures for that category. ***(optional)***

3. Select the desired procedure from the **DIAGNOSTICS PROCEDURES** list, and then select **F5 - Perform**.

   A confirmation message displays.

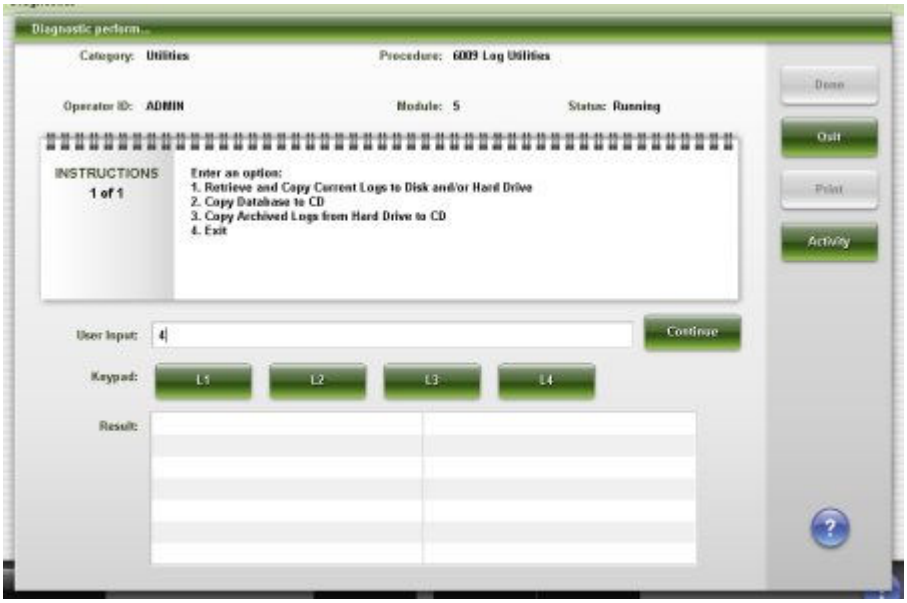
4. Select **OK** to perform the procedure.

   The Diagnostic perform window displays. A description of the procedure displays in the **INSTRUCTIONS** box.

5. Select **Proceed**, and then follow the instructions in the **INSTRUCTIONS** box.

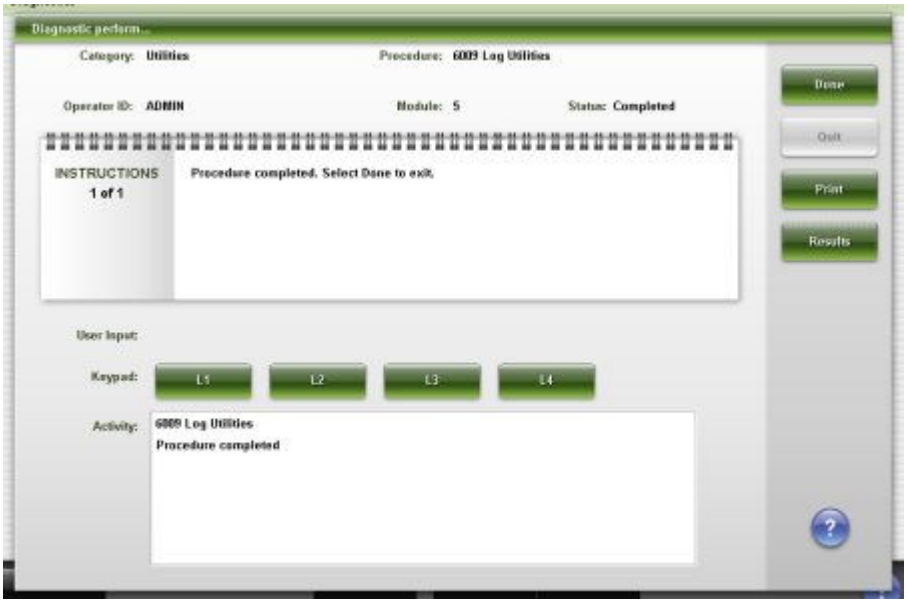
   You are prompted to enter information if the procedure requires additional data.

6. Enter the required information in the **User input** data entry box, and then select **Continue**.



7. Select **Activity** to view the progress of the procedure. ***(optional)***

   The activity of the module displays in the **Activity** list. To return to the Result list, select **Results**.



8. Select **Print** to print the Procedure report. ***(optional)***
9. Select **Done** to return to the Diagnostics screen.

Related information...

- *Diagnostics screen*, page 10-622
- *Diagnostic perform window*, page 10-627

- *Diagnostic categories and procedure descriptions*, page 10-628

Windows - Diagnostic screen

Windows you can access from the Diagnostic screen include:

- *Diagnostic perform window*, page 10-627
- *Version details for procedure (diagnostics) window*, page 10-627

Diagnostic perform window

From the Diagnostic perform window you can initiate a procedure.

NOTE: The display of the Diagnostic perform window is dependent on the selected module, category, and procedure.

Figure 10.9: Diagnostic perform window

For descriptions of these fields, see *Diagnostic perform window field descriptions*, page E-148.

Related procedures...

- *Perform a diagnostic procedure*, page 10-624

Version details for procedure (diagnostics) window

From the Version details for procedure window you can view information for diagnostic procedures such as:

- Procedure category and name
- Current version
- Required module status

- Required user access level

Figure 10.10: Version details for procedure window

For descriptions of these fields, see *Version details for procedure (diagnostics) window field descriptions*, page E-149.

Related procedures...

- *View diagnostic procedure information*, page 10-623

Diagnostic categories and procedure descriptions

Diagnostic procedures are grouped by module type, and then by category. Each category is represented by a tab on the Diagnostics screen.

The type of processing module and sample handler in your system determine the categories and procedures that are available. Associated graphics are also provided for many of the maintenance procedures.

c System processing module diagnostic categories

Diagnostic procedures for the *c* System processing module are grouped by category (tab) on the Diagnostics screen. Procedures are available in the following categories:

Reaction mechanism diagnostics description (*c* System processing module)

One reaction mechanisms diagnostic procedure, 3126 Mixer Vibration Test, is available. You may need to perform this procedure when replacing a reaction mechanism component or diagnosing error messages or observed problems associated with reaction mechanisms.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

3126 Mixer Vibration Test

Perform this ***reaction mechanisms*** diagnostic procedure to test the vibration function of Mixer 1 and 2 at low and high frequencies.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

Pipettor diagnostics description (*c* System processing module)

You may need to perform the following diagnostic procedures when replacing pipettor components or diagnosing error messages or observed problems associated with pipettors:

- *1127 Crash Sensor Alignment (FSE logon)*, page 10-630
- *1151 Probe Alignment Test*, page 10-630
- *1161 Probe Move*, page 10-631
- *5405 Crash Sensor Test*, page 10-631

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1127 Crash Sensor Alignment (FSE logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***pipettors*** diagnostic procedure to adjust and align the crash sensor for the sample and reagent pipettors.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1151 Probe Alignment Test

Perform this ***pipettors*** diagnostic procedure to move the probe to individual locations, allowing visual observation of the probe position in the wash cup and carousel positions.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Sample cups • Reagent cartridges Additional materials vary depending on sample handler configuration. • Sample carrier (RSH)	Stopped or Ready

Estimated time	Materials needed	Required module status
	• Sample tube (LAS)	

1161 Probe Move

Perform this ***pipettors*** diagnostic procedure to move the sample pipettor to the sample carousel and the reagent pipettors to the onboard solution areas in preparation for component replacement.

Estimated time	Materials needed	Required module status
Time variable	None	Stopped or Ready

5405 Crash Sensor Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***pipettors*** diagnostic procedure to test the pipettor probe crash sensor for all pipettors.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

Fluidic/wash diagnostics description (*c* System processing module)

You may need to perform the following diagnostic procedures when replacing liquid level sense or wash components or diagnosing error messages or observed problems associated with liquid level sense or wash components:

- *1123 Mixer Alignment (FSE logon)*, page 10-631
- *1124 Wash Cup Alignment (FSE logon)*, page 10-632
- *1175 Wash Cup Test (FSE logon)*, page 10-632
- *1260 Cuvette Washer Test (FSE logon)*, page 10-632
- *3610 Sample Handler LLS Test*, page 10-633
- *3625 Pipettors LLS Test*, page 10-633
- *3805 Pressure Monitor Test (FSE logon)*, page 10-633

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1123 Mixer Alignment (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to visually check and align Mixer 1 and 2 over the wash cups and reaction carousel cuvettes.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1124 Wash Cup Alignment (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to visually inspect and align the sample probe and reagent probes (R1 and R2) over the wash cups.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1175 Wash Cup Test (FSE logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***fluidics/wash*** diagnostic procedure to visually inspect the water flow to the sample, reagent, and mixer wash cups. The water flow should be straight and should reach the opposite side of the wash cups.

Estimated time	Materials needed	Required module status
20-60 minutes	• Waste container • 90 mm tubing (*c*8000) • 50 mL graduated cylinder (*c*4000, *c*8000) • 100 mL graduated cylinder (*c*16000)	Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1260 Cuvette Washer Test (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to troubleshoot the cuvette washer.

Estimated time	Materials needed	Required module status
10 minutes	• Container capable of holding 1000 mL • Water (deionized or tap)	Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3610 Sample Handler LLS Test

Perform this ***fluidics/wash*** diagnostic procedure to test the ability of the sample probe to detect liquid in the sample carrier.

Estimated time	Materials needed	Required module status
3 minutes	• Tap water or saline • Sample cups Additional materials vary depending on sample configuration. • Sample carrier (RSH) • Sample tube (LAS) • SH bar code tool (LAS)	Ready

3625 Pipettors LLS Test

Perform this ***fluidics/wash*** diagnostic procedure to test the ability of the sample probe and reagent probes (R1 and R2) to detect liquid in the wash cups and carousel positions.

Estimated time	Materials needed	Required module status
5 minutes	• DI water • 20 mL sample • 2-90 mL reagent cartridges	Stopped or Ready

3805 Pressure Monitor Test (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to test the operation of the pressure monitoring boards and transducers.

Estimated time	Materials needed	Required module status
15 minutes	None	Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Syringe/pump diagnostics description (*c* System processing module - FSE logon)

One syringes/pumps diagnostic procedure, 5140 Pumps/Valves Test, is available. You may need to perform this procedure when replacing a syringe or pump component or diagnosing error messages or observed problems associated with syringes or pumps.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

5140 Pumps/Valves Test (FSE logon)

Perform this ***syringes/pumps*** diagnostic procedure to test the operation of all pumps, valves, and their sensors.

Estimated time	Materials needed	Required module status
15 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Bar code reader diagnostics description (*c* System processing module)

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

You may need to perform the following diagnostic procedures when replacing a bar code reader or diagnosing error messages or observed problems associated with bar code readers:

- *3206 Reagent Bar Code Test*, page 10-634
- *3251 Sample Carousel Bar Code Test (c8000/c16000)*, page 10-634

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3206 Reagent Bar Code Test

Perform this ***bar code readers*** diagnostic procedure to test the ability of the R1 and R2 reagent supply centers to read reagent cartridge bar code labels at any position on the R1 and R2 reagent supply centers.

Estimated time	Materials needed	Required module status
5 minutes	Bar coded reagent cartridges	Stopped or Ready

3251 Sample Carousel Bar Code Test (*c*8000/*c*16000)

Perform this ***bar code readers*** diagnostic procedure to test the ability of the sample carousel bar code reader to read the sample carousel ID and bar coded sample tubes at any position on the sample carousel.

Estimated time	Materials needed	Required module status
5 minutes	Bar coded sample tubes	Stopped or Ready

Module diagnostics description (*c* System processing module)

You may need to perform the following diagnostic procedures when diagnosing error messages or observed problems associated with processing module components or the keypad:

- *1101 Robotics Test Tool (FSE logon)*, page 10-635
- *3720 Keypad Test*, page 10-635
- *4080 Module Initialization*, page 10-635
- *6001 Save/Restore DAQ Data (FSE logon)*, page 10-636

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1101 Robotics Test Tool (FSE logon)

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***modules*** diagnostic procedure to test or align robotic components.

Estimated time	Materials needed	Required module status
15 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3720 Keypad Test

Perform this ***modules*** diagnostic procedure to test the processing module keypad function.

NOTE: You cannot test the run, carousel advance, and stop keys on the keypad during this procedure.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

4080 Module Initialization

Perform this ***modules*** diagnostic procedure to perform a processing module initialization.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

6001 Save/Restore DAQ Data (FSE logon)

Perform this ***modules*** diagnostic procedure to:

- Save robotics data from the DAQ board to the CPU board
- Load robotics data from the CPU board to the DAQ board
- Clear DAQ board memory and load robotics data from the CPU board

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Solenoid/sensor diagnostics description (*c* System processing modules)

One solenoids/sensors diagnostic procedure, 3400 Interlock Sensors Test, is available. You may need to perform this procedure when replacing solenoids, or diagnosing error messages or observed problems associated with solenoids and sensors.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

3400 Interlock Sensors Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***solenoids/sensors*** diagnostic procedure to test all the interlock sensors: R1 reagent supply center cover, R2 reagent supply center cover, sample carousel cover, and RSH (robotic sample handler) covers.

Estimated time	Materials needed	Required module status
10 minutes	None	Stopped or Ready

Fuse/motor diagnostics description (*c* System processing module)

Perform the *5142 Wash Station Up/Down*, page 10-637 diagnostic procedure when replacing the cuvette dry tip or diagnosing error messages or observed problems associated with the wash station motor.

Additionally, there is one diagnostic procedure available to Abbott personnel:

- *5712 Voltage Test (FSE logon)*, page 10-637

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

5142 Wash Station Up/Down

Perform this ***fuses/motors*** diagnostic procedure to check the up and down function of the cuvette wash assembly and to visually check the cuvette wash nozzles and dry tip for alignment.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

5712 Voltage Test (FSE logon)

Perform this ***fuses/motors*** diagnostic procedure to test the voltages on the processing module.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Optic/temperature diagnostics description (*c* System processing module)

You may need to perform the following diagnostic procedures when replacing optics or temperature components or diagnosing error messages or observed problems associated with optics or temperature:

- *1000 Absorbance Reads*, page 10-637
- *1001 Optics Trigger Sensor Check (FSE logon)*, page 10-638
- *1002 Photometer/ICT DAQ Data (CSC logon)*, page 10-638
- *1008 Optics Total Test*, page 10-638
- *1009 Beam Height Alignment (FSE logon)*, page 10-638
- *1010 Cuvette Integrity Test*, page 10-639
- *1011 Light Path Alignment (FSE logon)*, page 10-639

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1000 Absorbance Reads

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***optics/temperature*** diagnostic procedure to take wavelength reads for a user-defined sample. You can select the number of read cycles, delay in seconds between read cycles, and the primary and/or secondary wavelengths.

Estimated time	Materials needed	Required module status
5 minutes	• DI water • Sample • Calibrated pipette	Stopped or Ready

1001 Optics Trigger Sensor Check (FSE logon)

Perform this ***optics/temperature*** diagnostic procedure to test the function of the optics trigger sensor.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1002 Photometer/ICT DAQ Data (CSC logon)

Perform this ***optics/temperature*** diagnostic procedure to provide data for the DAQ function on 16 different wave lengths for the photometer and 16 channels for the ICT unit.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1008 Optics Total Test

Perform this ***optics/temperature*** diagnostic procedure to test the variability in the optics reads throughout a 30 or 33 read test. You can perform one or all of the following optics tests:

- Quick test
- Dark current test
- Shutter test

Estimated time	Materials needed	Required module status
10-30 minutes depending on option chosen	• DI water • Calibrated pipette	Stopped or Ready

1009 Beam Height Alignment (FSE logon)

Perform this ***optics/temperature*** diagnostic procedure to generate optics reads to assist with alignment of the light beam height in the cuvette.

Estimated time	Materials needed	Required module status
Variable	*c*8000 Cuvette segment alignment tool (LN 2J93-01) OR *c*16000 Cuvette segment alignment tool (LN 08L73-01) OR *c*4000 Cuvette height alignment tool (7-205777-01)	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1010 Cuvette Integrity Test

Perform this ***optics/temperature*** diagnostic procedure to verify cuvettes meet acceptance criteria for sample testing.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

1011 Light Path Alignment (FSE logon)

Perform this ***optics/temperature*** diagnostic procedure to align the light path in the reaction carousel home position (*c*8000 only).

Estimated time	Materials needed	Required module status
10 minutes	*c*8000 Cuvette segment alignment tool (LN 2J93-01)	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Carousel diagnostics description (*c* System processing module)

You may need to perform the following diagnostic procedures when replacing sample, reagent, or reaction carousel components, or diagnosing error messages or observed problems associated with carousels:

- *3010 Reaction Carousel Home / Move*, page 10-640
- *3011 Reagent / Sample Carousel Home*, page 10-640

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3010 Reaction Carousel Home / Move

Perform this ***carousels*** diagnostic procedure to test the reaction carousel movement, home the carousel, and check for step loss.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

3011 Reagent / Sample Carousel Home

Perform this ***carousels*** diagnostic procedure to test R1 and R2 reagent supply centers and sample carousel movement, home R1 and R2 reagent supply centers and sample carousel, and check for step loss.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped or Ready

Precision diagnostics description (*c* System processing module)

You may need to perform the following diagnostic procedures when replacing fluidics components or diagnosing error messages or observed problems associated with precision and accuracy:

- *2040 Sample Pipettor Gravimetric (CSC logon)*, page 10-640
- *2041 R1 Pipettor Gravimetric (CSC logon)*, page 10-641
- *2042 R2 Pipettor Gravimetric (CSC logon)*, page 10-641
- *2043 Sample Pipettor Check*, page 10-642
- *2044 R1 Pipettor Check*, page 10-642
- *2045 R2 Pipettor Check*, page 10-642

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

2040 Sample Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the sample pipettor by gravimetric measurement. You weigh ten empty sample cups, weigh them again after saline is dispensed, and then calculate the difference. The final result must be between 14.25 µL (mg) and 15.75 µL (mg) and the CV (coefficient variation) must be equal to or less than 3%.

Estimated time	Materials needed	Required module status
15 minutes	• Saline • Sample cups • Gravimetric balance	Stopped or Ready

Estimated time	Materials needed	Required module status
	Additional materials vary depending on sample handler configuration. • Sample carrier (RSH) • Sample tube	

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2041 R1 Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the R1 pipettor by gravimetric measurement. You weigh ten empty sample cups, weigh them again after saline is dispensed, and then calculate the difference. The final result must be between 97.5 µL (mg) and 102.5 µL (mg) and the CV (coefficient variation) must be equal to or less than 0.5%.

Estimated time	Materials needed	Required module status
15 minutes	• Saline • 10 sample cups • 1 large (90 mL) reagent cartridge • 10 small (55 mL) or large (90 mL) reagent cartridges as appropriate • Gravimetric balance	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2042 R2 Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the R2 pipettor by gravimetric measurement. You weigh ten empty sample cups, weigh them again after saline is dispensed, and then calculate the difference. The final result must be between 97.5 µL (mg) and 102.5 µL (mg) and the CV (coefficient variation) must be equal to or less than 0.5%.

Estimated time	Materials needed	Required module status
15 minutes	• Saline • 10 sample cups • 1 large (90 mL) reagent cartridge • 10 small (55 mL) or large (90 mL)	Stopped or Ready

Estimated time	Materials needed	Required module status
	reagent cartridges as appropriate • Gravimetric balance	

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2043 Sample Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing accuracy of the sample pipettor using a calibrated manual pipette.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Sample cups • Calibrated pipette capable of dispensing 20 µL Additional materials vary depending on sample handler configuration. • Sample carrier (RSH) • Sample tube (LAS)	Stopped or Ready

2044 R1 Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing accuracy of the R1 pipettor using a calibrated manual pipette.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • 10 sample cups • 1 large (90 mL) reagent cartridge • 10 small (55 mL) or large (90 mL) reagent cartridges, as appropriate • Calibrated pipette capable of dispensing 100 µL	Stopped or Ready

2045 R2 Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing accuracy of the R2 pipettor using a calibrated manual pipette.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • 10 sample cups • 1 large (90 mL) reagent cartridge • 10 small (55 mL) or large (90 mL) reagent cartridges, as appropriate • Calibrated pipette capable of dispensing 100 µL	Stopped or Ready

ICT diagnostics description (*c* System processing module - FSE logon)

One ICT diagnostic procedure, 1125 ICT Alignment, is available. You may need to perform this procedure when troubleshooting an ICT unit or diagnosing error messages or observed problems associated with the ICT unit.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

1125 ICT Alignment (FSE logon)

Perform this ***ICT*** diagnostic procedure to align the ICT probe to the cuvette and ICT reference solution cup positions.

Estimated time	Materials needed	Required module status
10 minutes	Metric ruler	Stopped or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Utilities diagnostic description (*c* System processing module)

The Utilities category contains system level diagnostic procedures, which include:

- *6117 Remove Trig Cuvette SmartWash*, page 10-643
- *6118 Edit Clean R2 Probe Frequency*, page 10-644
- *6119 Absorbance Data*, page 10-644

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

6117 Remove Trig Cuvette SmartWash

Perform this ***utilities*** diagnostic procedure to remove all Trig cuvette SmartWash settings from all clinical chemistry assays except Lipase.

Estimated time	Materials needed	Required module status
< 2 minutes	None	Stopped or Ready

6118 Edit Clean R2 Probe Frequency

Perform this ***utilities*** diagnostic procedure to assign the maintenance interval for maintenance procedure *6058 Clean R2 Probe*, page 9-41.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped or Ready

6119 Absorbance Data

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to collect photometric assay absorbance data in a .csv file for assay troubleshooting or refinement of user-defined assay parameters.

Estimated time	Materials needed	Required module status
1 minute	Materials vary depending on the option selected. Required materials may include: • Blank or appendable CD-R or CD-RW • USB flash drive	Stopped or Ready

*i*2000/*i*2000SR System processing module diagnostic categories

Diagnostic procedures for an *i*2000/*i*2000SR processing module(s) are grouped by category (tab) on the Diagnostics screen. Procedures are available for the following categories:

- *Reaction mechanism diagnostics description (i2000/i2000SR processing modules)*, page 10-645
- *Pipettor diagnostics description (i2000/i2000SR processing modules)*, page 10-647
- *Fluidic/wash diagnostics description (i2000/i2000SR processing modules)*, page 10-649
- *Syringe/pump diagnostics description (i2000/i2000SR processing modules)*, page 10-655
- *Bar code reader diagnostics description (i2000/i2000SR processing modules)*, page 10-655
- *Module diagnostics description (i2000/i2000SR processing modules)*, page 10-656
- *Solenoid/sensor diagnostics description (i2000/i2000SR processing modules)*, page 10-658
- *Fuse/motor diagnostics description (i2000/i2000SR processing modules)*, page 10-660

- *Optic/temperature diagnostics description (i2000/i2000SR processing modules)*, page 10-661
- *Carousel diagnostics description (i2000/i2000SR processing modules)*, page 10-662
- *Precision diagnostics description (i2000/i2000SR processing modules)*, page 10-663

Reaction mechanism diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing components associated with RVs (reaction vessels) or diagnosing error messages or observed problems associated with RV mechanisms:

- *3115 Vortexer Test*, page 10-645
- *3118 Vortexer Splash (CSC logon)*, page 10-645
- *3125 Hopper Level Sensor Test*, page 10-646
- *3140 RV Load/Unload Test (CSC logon)*, page 10-646
- *3150 Diverter Test*, page 10-646
- *5220 RV Sensors Test*, page 10-646
- *8000 Unload RVs*, page 10-646
- *8010 Reverse RV Loader Wheel*, page 10-647

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3115 Vortexer Test

Perform this ***reaction mechanisms*** diagnostic procedure to test vortexer function.

Estimated time	Materials needed	Required module status
10 minutes	None	Stopped, Warming, or Ready

3118 Vortexer Splash (CSC logon)

Perform this ***reaction mechanisms*** diagnostic procedure to test splashing of vortexers 1, 2, 3, and STAT (*i*2000SR).

Estimated time	Materials needed	Required module status
10 minutes	Dye diluted with buffer	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3125 Hopper Level Sensor Test

Perform this ***reaction mechanisms*** diagnostic procedure to test RV hopper level sensors.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

3140 RV Load/Unload Test (CSC logon)

Perform this ***reaction mechanisms*** diagnostic procedure to move all (112) RVs (reaction vessels) from the inner track to the outer track and unload them. The operator has the option to have the system load 112 new RVs into the inner track or leave the process path empty.

Estimated time	Materials needed	Required module status
20 minutes	None	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3150 Diverter Test

Perform this ***reaction mechanisms*** diagnostic procedure to test the wash zone, RV unloader, RV load, RV load shutter, and STAT (*i*2000SR) diverter sensors.

Estimated time	Materials needed	Required module status
1 minute	None	Warming or Ready

5220 RV Sensors Test

Perform this ***reaction mechanisms*** diagnostic procedure to test each RV loader sensor function. You load one RV (reaction vessel) and it passes through each of the RV loader sensors. The system tests each sensor with and without an RV in its path. The system tests the following RV loader sensors: RV load diverter, RV drop point sensor, RV load point sensor, process path insertion point sensor, RV hopper level sensor, RV load diverter shutter sensor, and STAT diverter sensor (*i*2000SR).

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

8000 Unload RVs

Perform this ***reaction mechanisms*** diagnostic procedure to remove fluid from the RVs (reaction vessels) in the outer process path track and unload them.

Estimated time	Materials needed	Required module status
20 minutes	None	Stopped, Warming, or Ready

8010 Reverse RV Loader Wheel

Perform this ***reaction mechanisms*** diagnostic procedure to reverse the RV loader wheel to allow removal of a jammed RV.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Pipettor diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing pipettor components or diagnosing error messages or observed problems associated with pipettors:

- *1100 Pipettor Test*, page 10-647
- *1150 Probe Alignment Test (CSC logon)*, page 10-647
- *1155 Probe Straightness Test*, page 10-648
- *1160 Pipettor Move*, page 10-648
- *3650 Set LAS Gain (FSE logon)*, page 10-648
- *5400 Crash Sensor Test*, page 10-648
- *9938 Induction Heating Install Check (CSC logon)*, page 10-649

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

1100 Pipettor Test

Perform this ***pipettors*** diagnostic procedure to test pipettor movement and check for motor step loss.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

1150 Probe Alignment Test (CSC logon)

Perform this ***pipettors*** diagnostic procedure to move the probe to individual locations, allowing you to observe the probe position in the wash station and processing path.

Estimated time	Materials needed	Required module status
10 minutes	None	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1155 Probe Straightness Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***pipettors*** diagnostic procedure to check probe straightness of the R1, R2, sample, and STAT (*i*2000SR) pipettors.

Estimated time	Materials needed	Required module status
2-5 minutes	• Cotton swab • Deionized water	Stopped, Warming, or Ready

1160 Pipettor Move

Perform this ***pipettors*** diagnostic procedure to move the sample or STAT (*i*2000SR) pipettor to the wash station in preparation for component replacement.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

3650 Set LAS Gain (FSE logon)

Perform this ***pipettors*** diagnostic procedure to set the LAS gain at the LAS aspiration point.

Estimated time	Materials needed	Required module status
7 minutes	Sample tube	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

5400 Crash Sensor Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***pipettors*** diagnostic procedure to test the pipettor probe crash sensor for the sample, R1, R2, or STAT (*i*2000SR) pipettors.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

9938 Induction Heating Install Check (CSC logon)

Perform this ***pipettors*** diagnostic procedure to check for proper installation of the induction heating hardware.

Estimated time	Materials needed	Required module status
2 minutes	None	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Fluidic/wash diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing liquid level sense or wash zone components, or diagnosing error messages or observed problems associated with liquid level sense or wash zones:

- *1170 Wash Station Test*, page 10-649
- *1240 Particle Capture All WZ (CSC logon)*, page 10-650
- *1242 Particle Capture WZ 1 (CSC logon)*, page 10-650
- *1243 Particle Capture WZ 2 (CSC logon)*, page 10-651
- *1245 Visual Particle Capture Check (CSC logon)*, page 10-651
- *1251 Residual Volume WZ 1 (FSE logon)*, page 10-652
- *1252 Residual Volume WZ 2 (FSE logon)*, page 10-652
- *2050 WZ Aspiration Test*, page 10-653
- *2055 WZ Valve Pressure Check (FSE logon)*, page 10-653
- *3600 LLS Test*, page 10-653
- *3610 Sample Handler LLS Test*, page 10-653
- *3800 Pressure Monitoring Test*, page 10-654
- *6037 WZ Probe Straightness*, page 10-654

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1170 Wash Station Test

Perform this ***fluidics/wash*** diagnostic procedure to test the R1 and R2 wash station function.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

1240 Particle Capture All WZ (CSC logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***fluidics/wash*** diagnostic procedure to verify particle capture of all wash zones. The R1 probe dispenses microparticles into 30 RVs (reaction vessels). The specific wash zone washes fifteen of these RVs, and the other 15 are not washed.

Visual inspection:

The washed RVs should have a visible brown microparticle pellet on the side of the RV wall and no fluid. The RVs that are not washed should have visible microparticles and 50 µL of fluid.

Estimated time	Materials needed	Required module status
30 minutes	Microparticle bottle from a reagent kit. **NOTE:** Once you use the microparticle bottle for this procedure, you can no longer use the kit.	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1242 Particle Capture WZ 1 (CSC logon)

Perform this ***fluidics/wash*** diagnostic procedure to verify particle capture of wash zone 1. The R1 probe dispenses microparticles into 30 RVs (reaction vessels). Wash zone 1 washes fifteen of these RVs and does not wash the other 15.

Visual inspection:

The washed RVs should have a visible brown microparticle pellet on the side of the RV wall and no fluid. The RVs that are not washed should have visible microparticles and 50 µL of fluid.

Estimated time	Materials needed	Required module status
25 minutes	Microparticle bottle from a reagent kit. **NOTE:** Once you use the microparticle bottle for	Warming or Ready

Estimated time	Materials needed	Required module status
	this procedure, you can no longer use the kit.	

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1243 Particle Capture WZ 2 (CSC logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***fluidics/wash*** diagnostic procedure to verify particle capture of wash zone 2. The R1 probe dispenses microparticles into 30 RVs (reaction vessels). Wash zone 2 washes fifteen of these RVs and does not wash the other 15.

Visual inspection:

The washed RVs should have a visible brown microparticle pellet on the side of the RV wall and no fluid. The RVs that are not washed should have visible microparticles and 50 µL of fluid.

Estimated time	Materials needed	Required module status
25 minutes	Microparticle bottle from a reagent kit. **NOTE:** Once you use the microparticle bottle for this procedure, you can no longer use the kit.	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1245 Visual Particle Capture Check (CSC logon)

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***fluidics/wash*** diagnostic procedure to visually verify particle capture. Microparticles are dispensed into 15 RVs during this procedure. The microparticles are washed so that 5 RVs are washed with probe 1, 5 RVs are

washed with probe 2, and 5 RVs are washed with probe 3. RVs are moved to the RV access door for removal and visual inspection.

Estimated time	Materials needed	Required module status
17 minutes	Microparticle bottle from a reagent kit. **NOTE:** Once you use the microparticle bottle for this procedure, you can no longer use the kit.	Warming or Ready

1251 Residual Volume WZ 1 (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to verify residual volume of fluid in wash zone 1 after a wash. You load fifteen numbered and weighed RVs (reaction vessels). The wash zone 1 components dispense wash buffer into, and then aspirate it out of the RVs. After aspiration, you remove and re-weigh the RVs to determine residual volume. You then calculate the difference between the weights of each RV. The average difference should be < 9 µL (mg) with an SD (standard deviation) < 2 µL (mg).

Visual inspection:

You may use the fluid remaining in the RVs as a qualitative visual indication of wash zone function. The final RV should have approximately 2 drops in the bottom and no evidence of splashing.

Estimated time	Materials needed	Required module status
13 minutes	Gravimetric Balance	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1252 Residual Volume WZ 2 (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to verify residual volume of fluid in wash zone 2 after a wash. You load fifteen numbered and weighed RVs (reaction vessels). Wash zone 2 components dispense wash buffer into, and then aspirate it out of the RVs. After aspiration, you remove and re-weigh the RVs to determine residual volume. You then calculate the difference between the weights of each RV. The average difference should be < 9 µL (mg) with an SD (standard deviation) < 2 µL (mg).

Visual inspection:

You may use the fluid remaining in the RVs as a qualitative visual indication of wash zone function. The final RV should have approximately 2 drops in the bottom and no evidence of splashing.

Estimated time	Materials needed	Required module status
13 minutes	Gravimetric Balance	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2050 WZ Aspiration Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***fluidics/wash*** diagnostic procedure to test wash zone aspiration. The wash zone dispenses and aspirates buffer 10 times. WAM (wash aspirate monitoring) is used to verify the function of the wash zone(s).

Estimated time	Materials needed	Required module status
10 minutes	None	Warming or Ready

2055 WZ Valve Pressure Check (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to measure pressure in the wash zone manifold tubing to test for highly resistive valves.

Estimated time	Materials needed	Required module status
12 minutes	• Pressure monitor sensor • Pressure monitor-to-syringe tubing	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support documentation for assistance in interpreting the results.

3600 LLS Test

Perform this ***fluidics/wash*** diagnostic procedure to test the ability of the probe to detect liquid for the following locations: RV2, RV24, RV48 (*i*2000SR), and the reagent carousel outer, middle, or inner ring.

If logged on as FSE and the Reagent carousel option is selected, the procedure will allow the FSE to specify the reagent bottle location to test. For additional information, see the ARCHITECT System Service and Support Manual.

Estimated time	Materials needed	Required module status
6 minutes	• WZ Probe maintenance water bottle • Tap water	Warming or Ready

3610 Sample Handler LLS Test

Perform this ***fluidics/wash*** diagnostic procedure to test the ability of the sample or STAT (*i*2000SR) probe to detect liquid in the sample carrier, LAS sample carousel, or from a sample cup on the LAS track.

Estimated time	Materials needed	Required module status
3 minutes	• Sample cup • Sample tube • Tap water or saline Additional materials vary depending on sample handler configuration. • Sample carrier (RSH/SSH) • LAS sample carousel (*i*2000)	Warming or Ready

3800 Pressure Monitoring Test

Perform this ***fluidics/wash*** diagnostic procedure to test the operation of the pressure monitoring boards and transducers for the sample, R1, R2, or STAT (*i*2000SR) pipettors.

Estimated time	Materials needed	Required module status
30 minutes per pipettor	Required materials depend on the pipettor tested and may include: • WZ probe maintenance water bottle • Sample carrier • Sample tube • Tap water	Warming or Ready

6037 WZ Probe Straightness

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***fluidics/wash*** diagnostic procedure to visually check the straightness of the wash zone probes.

NOTE: You should run diagnostic procedure 2050 WZ Aspiration Test after completing this test.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

Syringe/pump diagnostics description (*i*2000/*i*2000SR processing modules)

One syringe/pump diagnostic procedure, 2110 Syringes and Pumps Test, is available. You may need to perform this procedure when replacing a syringe or pump component or diagnosing error messages or observed problems associated with syringes or pumps.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

2110 Syringes and Pumps Test

Perform this ***syringes/pumps*** diagnostic procedure to test operation of all pumps, syringes, and their sensors.

Estimated time	Materials needed	Required module status
1 minute	None	Warming or Ready

Bar code reader diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing the reagent bar code reader or diagnosing error messages or observed problems associated with the bar code reader:

- *3200 Reagent Bar Code Reader Test*, page 10-655
- *3210 Reagent Bar Code Calibration*, page 10-655
- *3212 Reagent BCR Alignment (FSE logon)*, page 10-656

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3200 Reagent Bar Code Reader Test

Perform this ***bar code readers*** diagnostic procedure to test the reagent bar code reader.

NOTE: Only the first 20 characters of each bar code display.

Estimated time	Materials needed	Required module status
5 minutes	Bar code calibration tool	Stopped, Warming, or Ready

3210 Reagent Bar Code Calibration

Perform this ***bar code readers*** diagnostic procedure to calibrate positions for reagent bottles.

Estimated time	Materials needed	Required module status
5 minutes	Bar code calibration tool (2)	Stopped, Warming, or Ready

3212 Reagent BCR Alignment (FSE logon)

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

Perform this ***bar code readers*** diagnostic procedure to manually align the reagent bar code reader so that the bar code reader beam is vertically aligned on the reagent bottles.

NOTE: This procedure is only required for bar code readers with an adjustable bracket.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Module diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when preparing for a long-term shutdown or diagnosing error messages or observed problems associated with the vacuum or keypad:

- *1102 Robotics Test Tool (FSE logon)*, page 10-656
- *2135 Long Term Shutdown*, page 10-657
- *3175 Vacuum System Test*, page 10-657
- *3177 Vacuum Diagnostics (FSE logon)*, page 10-657
- *3700 Keypad Test*, page 10-658
- *4080 Module Initialization*, page 10-658
- *4200 Functional Area Tests*, page 10-658
- *5715 Turn 36V Power On and Off (FSE logon)*, page 10-658

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1102 Robotics Test Tool (FSE logon)

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***modules*** diagnostic procedure to test or align robotic components.

Estimated time	Materials needed	Required module status
Time variable	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2135 Long Term Shutdown

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***modules*** diagnostic procedure in preparation for long term shutdown of the ARCHITECT System. This procedure flushers all pumps and fluidic lines with buffer, air, deionized water, and then air, and removes all RVs (reaction vessels).

Estimated time	Materials needed	Required module status
19 minutes	• 5 L (minimum) container • 1 L (minimum) container • 12 L (minimum) container • Wash buffer reservoir • Wash buffer transfer tubing (2) • Deionized water • Absorbent tissue	Warming or Ready

3175 Vacuum System Test

Perform this ***modules*** diagnostic procedure to test the operation of the vacuum system, vacuum vessels, and drain valves.

Estimated time	Materials needed	Required module status
5 - 13 minutes depending on option chosen	None	Warming or Ready

3177 Vacuum Diagnostics (FSE logon)

Perform this ***modules*** diagnostic procedure to troubleshoot the vacuum system. The checks available are:

- Vacuum leak detection
- Vacuum pump integrity
- Vacuum stress test

In addition you are able to toggle valves and vacuum pump on and off and drain the accumulator.

Estimated time	Materials needed	Required module status
Time variable	None	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3700 Keypad Test

Perform this ***modules*** diagnostic procedure to test the processing module keypad function.

NOTE: You cannot test the run, carousel advance, and stop keys on the keypad during this procedure.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4080 Module Initialization

Perform this ***modules*** diagnostic procedure to perform a processing module initialization.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

4200 Functional Area Tests

Perform this ***modules*** diagnostic procedure to test the functionality of the RV loader, process path, reagent carousel, and pipettor.

Estimated time	Materials needed	Required module status
Variable	None	Stopped, Warming, or Ready

5715 Turn 36V Power On and Off (FSE logon)

Perform this ***modules*** diagnostic procedure to turn 36 volt power off and on to all motors, valves, and solenoids.

Estimated time	Materials needed	Required module status
Time variable	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Solenoid/sensor diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing solenoids and sensors or diagnosing error messages or observed problems associated with solenoids or sensors:

- *3400 Interlock Sensors Test*, page 10-659
- *3410 Level Sensors Test*, page 10-659
- *5131 WZ, Wash Station, Valve Test*, page 10-659

- *5132 Syringe/Vacuum/PT/T Valve Test*, page 10-659
- *5133 Other Valves & Diverter Test*, page 10-660
- *6035 PC Board Test (FSE logon)*, page 10-660

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3400 Interlock Sensors Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***solenoids/sensors*** diagnostic procedure to test all interlock sensors: front and rear processing center covers, right and left processing queue access doors (SSH), LAS carousel cover (LAS), RSH covers (RSH), reagent carousel cover, and waste chute sensor.

Estimated time	Materials needed	Required module status
10 minutes	None	Stopped, Warming, or Ready

3410 Level Sensors Test

Perform this ***solenoids/sensors*** diagnostic procedure to test wash buffer, pre-trigger, and trigger level sensors.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5131 WZ, Wash Station, Valve Test

Perform this ***solenoids/sensors*** diagnostic procedure to test wash zone 1 and 2 valves, and R1 and R2 wash station valves.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5132 Syringe/Vacuum/PT/T Valve Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the syringe valves, wash zone vacuum/drain valves, and pre-trigger/trigger valves.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5133 Other Valves & Diverter Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the following solenoids and valves:

- Wash station vacuum/drain valve
- Wash zone diverter
- RV unload solenoid
- RV load diverter
- Air sensor
- STAT diverter (*i*2000SR)

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

6035 PC Board Test (FSE logon)

Perform this ***solenoids/sensors*** diagnostic procedure to test the power supply heater, motor driver boards, and DC driver I/O boards for power interrupt error conditions. The system checks the power supply heater by reading DIO bits 0-3, the motor driver by reading DIO bit 95, and the DC driver I/O boards by reading DIO bit 17.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Fuse/motor diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing fuses or motors or diagnosing error messages or observed problems associated with fuses or motors:

- *5100 PP & Carousel Motor Tests*, page 10-661
- *5110 Pipettor & Syringe Motor Tests*, page 10-661
- *5120 Pump Motor Tests*, page 10-661
- *5700 Fuse Status*, page 10-661

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

5100 PP & Carousel Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the process path, outer carousel, inner carousel, middle carousel, wash zone 1, wash zone 2, shutter, RV loader wheel, and RV loader transport motors.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5110 Pipettor & Syringe Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the sample pipettor theta and Z, R1 pipettor theta and Z, R2 pipettor theta and Z, STAT pipettor theta and Z (*i*2000SR), sample syringe, R1 syringe, R2 syringe, and STAT syringe (*i*2000SR) motors.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5120 Pump Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the pre-trigger, trigger, R1 wash station, R2 wash station, wash zone 1, wash zone 2, sample pipettor, R1 pipettor, R2 pipettor, and STAT pipettor pump (*i*2000SR) motors.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5700 Fuse Status

Perform this ***fuses/motors*** diagnostic procedure to display the status of +5, +12, and -12 volt fuses.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Optic/temperature diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing optics or temperature components or diagnosing error messages or observed problems associated with optics or temperature:

- *1005 Optics Test (CSC logon)*, page 10-662
- *1020 Optics Background*, page 10-662
- *1030 Shutter*, page 10-662
- *1045 Optics Verification (FSE logon)*, page 10-662

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1005 Optics Test (CSC logon)

Perform this ***optics/temperature*** diagnostic procedure to test the optics.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

1020 Optics Background

Perform this ***optics/temperature*** diagnostic procedure to determine the optics background reading. The system takes three readings; first with no RV (reaction vessel), second with an empty RV, and third with Pre-Trigger Solution in the RV.

NOTE: The system does not use normalization and linearity parameters during this procedure. Raw counts must be between 3 RLU - 500 RLU.

Estimated time	Materials needed	Required module status
10 minutes	None	Warming or Ready

1030 Shutter

Perform this ***optics/temperature*** diagnostic procedure to verify correct shutter operation.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

1045 Optics Verification (FSE logon)

Perform this ***optics/temperature*** diagnostic procedure to verify the optics CMIA reader is working as expected. The system verifies normalization and linearity factors by taking five reads from the three levels of optics normalization solution and comparing the reads to the gold standard. The three reads taken are 376, 1,504, and 94,000 attomoles. The system also verifies background levels.

Estimated time	Materials needed	Required module status
30 minutes	Optics normalization solution (CN 92513)	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Carousel diagnostics description (*i*2000/*i*2000SR processing modules)

One carousels diagnostic procedure, 3000 Reagent Carousel Test, is available. You may need to perform this procedure when replacing the reagent carousel or

diagnosing error messages or observed problems associated with the reagent carousel.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

3000 Reagent Carousel Test

Perform this ***carousels*** diagnostic procedure to test the reagent inner and outer carousel movement and check for step loss.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

Precision diagnostics description (*i*2000/*i*2000SR processing modules)

You may need to perform the following diagnostic procedures when replacing fluidics components or diagnosing error messages or observed problems associated with precision and accuracy:

- *2001 Sample Pipettor Check*, page 10-663
- *2002 R1 Pipettor Check*, page 10-664
- *2003 R2 Pipettor Check*, page 10-664
- *2004 Pre-Trigger Check*, page 10-664
- *2005 Trigger Check*, page 10-665
- *2006 Wash Zone 1 Check*, page 10-665
- *2007 Wash Zone 2 Check*, page 10-665
- *2009 STAT Pipettor Check (i2000SR)*, page 10-665
- *2010 Wash Station Check (CSC logon)*, page 10-666
- *2021 Sample Pipettor Gravimetric (CSC logon)*, page 10-666
- *2022 R1 Pipettor Gravimetric (CSC logon)*, page 10-667
- *2023 R2 Pipettor Gravimetric (CSC logon)*, page 10-667
- *2024 Pre-Trigger Gravimetric (CSC logon)*, page 10-668
- *2025 Trigger Gravimetric (CSC logon)*, page 10-668
- *2026 Wash Zone 1 Gravimetric (CSC logon)*, page 10-669
- *2027 Wash Zone 2 Gravimetric (CSC logon)*, page 10-669
- *2029 STAT Pipettor Gravimetric (i2000SR - CSC logon)*, page 10-669

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

2001 Sample Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the sample pipettor.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Calibrated manual pipettor (capable of pipetting 50 or 250 and 900 µL) Additional materials vary depending on sample handler configuration. • Sample cup (RSH/SSH) • Sample carrier (RSH/SSH) • LAS sample carousel (*i*2000) • Sample tube (*i*2000SR LAS)	Warming or Ready

2002 R1 Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the R1 pipettor.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Calibrated manual pipettor (capable of pipetting 50 or 250 and 900 µL)	Warming or Ready

2003 R2 Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the R2 pipettor.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Calibrated manual pipettor (capable of pipetting 50 or 250 and 900 µL)	Warming or Ready

2004 Pre-Trigger Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of Pre-Trigger Solution.

Estimated time	Materials needed	Required module status
10 minutes	• Saline	Warming or Ready

Estimated time	Materials needed	Required module status
	• Calibrated manual pipettor (capable of pipetting 100 or 300 µL)	

2005 Trigger Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of Trigger Solution.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Calibrated manual pipettor (capable of pipetting 300 or 900 µL)	Warming or Ready

2006 Wash Zone 1 Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the wash zone 1 manifold.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Calibrated manual pipettor (capable of pipetting 400 or 1200 µL)	Warming or Ready

2007 Wash Zone 2 Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the wash zone 2 manifold.

Estimated time	Materials needed	Required module status
10 minutes	• Saline • Calibrated manual pipettor (capable of pipetting 400 or 1200 µL)	Warming or Ready

2009 STAT Pipettor Check (*i*2000SR)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the STAT pipettor.

Estimated time	Materials needed	Required module status
10 minutes	• Saline	Warming or Ready

Estimated time	Materials needed	Required module status
	• Calibrated manual pipettor (capable of pipetting 50 or 250 and 900 µL) Additional materials vary depending on sample handler configuration. • Sample cup (RSH) • Sample carrier (RSH) • Sample tube (*i*2000SR LAS)	

2010 Wash Station Check (CSC logon)

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the R1 and R2 wash stations.

Estimated time	Materials needed	Required module status
3 minutes	10 mL graduated cylinder	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2021 Sample Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the sample pipettor by gravimetric measurement. Liquid is aspirated and dispensed into twenty pre-weighed RVs (reaction vessels). 50 µL of tap water or saline is aspirated and dispensed into the first 15 RVs. 1000 µL of buffer is dispensed into the last 5 RVs.

Specification:

For the first 15 RVs, each result must be between 46.0 and 51.0 µL (mg). The CV (coefficient variation) must also be less than or equal to 1.0%.

For the last 5 RVs, each result must be greater than or equal to 900 µL (mg)

Estimated time	Materials needed	Required module status
5 minutes	• Tap water or saline • Gravimetric balance Additional materials vary depending on sample handler configuration. • Sample cup (RSH/SSH) • Sample carrier (RSH/SSH)	Warming or Ready

Estimated time	Materials needed	Required module status
	• LAS sample carousel (*i*2000) • Sample tube (*i*2000SR LAS)	

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2022 R1 Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the R1 pipettor by gravimetric measurement. Liquid is aspirated and dispensed into twenty pre-weighed RVs (reaction vessels). 50 µL of tap water or saline is aspirated and dispensed into the first 15 RVs. 1000 µL of buffer is dispensed into the last 5 RVs.

Specification:

For the first 15 RVs, each result must be between 46.0 and 51.0 µL (mg). The CV (coefficient variation) must also be less than or equal to 1.0%.

For the last 5 RVs, each result must be greater than or equal to 900 µL (mg)

Estimated time	Materials needed	Required module status
5 minutes	• Tap water or saline • Gravimetric balance • WZ probe maintenance water bottle	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2023 R2 Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the R2 pipettor by gravimetric measurement. Liquid is aspirated and dispensed into twenty pre-weighed RVs (reaction vessels). 50 µL of tap water or saline is aspirated and dispensed into the first 15 RVs. 1000 µL of buffer is dispensed into the last 5 RVs.

Specification:

For the first 15 RVs, each result must be between 46.0 and 51.0 µL (mg). The CV (coefficient variation) must also be less than or equal to 1.0%.

For the last 5 RVs, each result must be greater than or equal to 900 µL (mg)

Estimated time	Materials needed	Required module status
5 minutes	• Tap water or saline • Gravimetric balance	Warming or Ready

Estimated time	Materials needed	Required module status
	• WZ probe maintenance water bottle	

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2024 Pre-Trigger Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to gravimetrically measure the dispensing precision and accuracy of the hardware that dispenses Pre-Trigger Solution. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the probe dispenses 100 µL of pre-trigger solution. You then calculate the difference. The final result must be between 95 µL (mg) and 105 µL (mg) and the CV (coefficient variation) must be equal to or less than 1.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of pre-trigger function. The final volume should be approximately 100 µL.

Estimated time	Materials needed	Required module status
3 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2025 Trigger Gravimetric (CSC logon)

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***precision*** diagnostic procedure to gravimetrically measure the dispensing precision and accuracy of the hardware that dispenses Trigger Solution. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the probe dispenses 300 µL of trigger solution. You then calculate the difference. The final result must be between 285 µL (mg) and 315 µL (mg) and the CV (coefficient variation) must be equal to or less than 1.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of trigger function. The final volume should be approximately 300 µL.

Estimated time	Materials needed	Required module status
3 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2026 Wash Zone 1 Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of wash zone 1 by gravimetric measurement. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the wash zone 1 probe dispenses 400 µL of buffer. You then calculate the difference. The final result must be between 360 µL (mg) and 440 µL (mg) and the CV (coefficient variation) must be equal to or less than 2.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of wash zone 1 function. The final volume should be approximately 400 µL.

Estimated time	Materials needed	Required module status
3 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2027 Wash Zone 2 Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of wash zone 2 by gravimetric measurement. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the wash zone 2 probe dispenses 400 µL of buffer. You then calculate the difference. The final result must be between 360 µL (mg) and 440 µL (mg) and the CV (coefficient variation) must be equal to or less than 2.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of wash zone 2 function. The final volume should be approximately 400 µL.

Estimated time	Materials needed	Required module status
3 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

2029 STAT Pipettor Gravimetric (*i*2000SR - CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the STAT pipettor by gravimetric measurement. Liquid is aspirated and dispensed into twenty pre-weighed RVs (reaction vessels). 50 µL of tap water or saline is aspirated and dispensed into the first 15 RVs. 1000 µL of buffer is dispensed into the last 5 RVs.

Specification:

For the first 15 RVs, each result must be between 46.0 and 51.0 µL (mg). The CV (coefficient variation) must also be less than or equal to 1.0%.

For the last 5 RVs, each result must be greater than or equal to 900 µL (mg)

Estimated time	Materials needed	Required module status
5 minutes	• Tap water or saline • Gravimetric balance Additional materials vary depending on sample handler configuration. • Sample cup (RSH) • Sample carrier (RSH) • Sample tube (*i*2000SR LAS)	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

*i*1000SR System processing module diagnostic categories

Diagnostic procedures for an *i*1000SR processing module are grouped by category (tab) on the Diagnostics screen.

Procedures are available for the following categories:

- *Reaction mechanism diagnostics description (i1000SR processing module)*, page 10-670
- *Pipettor diagnostics description (i1000SR processing module)*, page 10-671
- *Fluidic/wash diagnostics description (i1000SR processing module)*, page 10-672
- *Module diagnostics description (i1000SR processing module)*, page 10-675
- *Solenoid/sensor diagnostics description (i1000SR processing module)*, page 10-677
- *Fuse/motor diagnostics description (i1000SR processing module)*, page 10-678
- *Optic/temperature diagnostics description (i1000SR processing module)*, page 10-679
- *Carousel diagnostics description (i1000SR processing module)*, page 10-680
- *Precision diagnostics description (i1000SR processing module)*, page 10-681

Reaction mechanism diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing components associated with RVs (reaction vessels) or diagnosing error messages or observed problems associated with RV mechanisms:

- *3120 Vortexer Test*, page 10-671
- *3122 Vortexer Splash (CSC logon)*, page 10-671
- *3145 RV Load/Unload Test (CSC logon)*, page 10-671

- *3155 Diverter Test*, page 10-671

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3120 Vortexer Test

Perform this ***reaction mechanisms*** diagnostic procedure to test vortexer function.

Estimated time	Materials needed	Required module status
2 minutes per vortexer	None	Stopped, Warming, or Ready

3122 Vortexer Splash (CSC logon)

Perform this ***reaction mechanisms*** diagnostic procedure to test splashing of vortexers 1 and 2.

Estimated time	Materials needed	Required module status
5 minutes per vortexer	Dye diluted with buffer	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

3145 RV Load/Unload Test (CSC logon)

Perform this ***reaction mechanisms*** diagnostic procedure to unload all (23) RVs (reaction vessels). The operator has the option to have the system load 23 new RVs or leave the process path empty.

Estimated time	Materials needed	Required module status
3 minutes	None	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3155 Diverter Test

Perform this ***reaction mechanisms*** diagnostic procedure to test the wash zone inlet, wash zone outlet, and RV unload diverter functionality.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

Pipettor diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing pipettor components or diagnosing error messages or observed problems associated with pipettors:

- *1152 Probe Straightness/Align Test*, page 10-672

- *1165 Pipettor Move*, page 10-672
- *5420 Crash Sensor Test*, page 10-672

1152 Probe Straightness/Align Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***pipettors*** diagnostic procedure to check the pipettor probe straightness and/or alignment.

Estimated time	Materials needed	Required module status
3 minutes	None	Warming or Ready

1165 Pipettor Move

Perform this ***pipettors*** diagnostic procedure to move the pipettor to the wash cup to remove the pipettor probe or toward the rear of the process path for accessing processing center components.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

5420 Crash Sensor Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***pipettor*** diagnostic procedure to test the pipettor probe crash sensor.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Fluidic/wash diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing liquid level sense or wash zone components, or diagnosing error messages or observed problems associated with liquid level sense or the wash zone:

- *1246 Visual Particle Capture Check (CSC logon)*, page 10-673

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1246 Visual Particle Capture Check (CSC logon)

Perform this ***fluidics/wash*** diagnostic procedure to visually verify particle capture. Microparticles are dispensed into 15 RVs during this procedure. The microparticles are washed so that 5 RVs are washed with probe 1, 5 RVs are washed with probe 2, and 5 RVs are washed with probe 3. RVs are moved to the RV access door for removal and visual inspection.

Estimated time	Materials needed	Required module status
20 minutes	Microparticle bottle from a reagent kit. **NOTE:** Once you use the microparticle bottle for this procedure, you can no longer use the kit.	Warming or Ready

NOTE: See the ARCHITECT Service and Support Manual for additional information.

1254 Residual Volume (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to verify residual volume of fluid in the wash zone after a wash. You load fifteen numbered and weighed RVs (reaction vessels). The wash zone components dispense wash buffer into, and then aspirate it out of, the RVs. After aspiration, you remove and re-weigh the RVs to determine residual volume. You then calculate the difference between the weights of each RV. The average difference should be < 9 µL (mg) with an SD (standard deviation) < 2 µL (mg).

Visual inspection:

You may use the fluid remaining in the RVs as a qualitative visual indication of wash zone function. The final RV should have approximately 2 drops in the bottom and no evidence of splashing.

Estimated time	Materials needed	Required module status
15 minutes	Gravimetric Balance	Warming or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

2052 WZ Aspiration Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***fluidics/wash*** diagnostic procedure to test wash zone aspiration. The wash zone dispenses and aspirates buffer from 14 RVs (reaction vessels).

Estimated time	Materials needed	Required module status
10 minutes	None	Warming or Ready

2057 WZ Valve Pressure Check (FSE logon)

Perform this ***fluidics/wash*** diagnostic procedure to measure pressure in the wash zone manifold tubing to test for highly resistive valves.

Estimated time	Materials needed	Required module status
6 minutes	• Pressure monitor sensor • Pressure monitor-to-syringe tubing	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support documentation for assistance in interpreting the results.

3630 LLS Test

Perform this ***fluidics/wash*** diagnostic procedure to test the ability of the pipettor probe to detect liquid at the RV2, sample, and reagent carousel inner, middle, and outer locations.

If logged on as FSE and the Reagent carousel option is selected, the procedure will allow the FSE to specify the reagent bottle location to test. For additional information, see the ARCHITECT System Service and Support Manual.

Estimated time	Materials needed	Required module status
8 minutes	• Sample cups • Sample tubes • One - Three Reagent Bottles	Warming or Ready

3645 AWDS Diagnostic (*i*1000SR) (CSC logon)

Perform this ***fluidics/wash*** diagnostic procedure to test individual components of the AWDS (Alternate Wash Delivery System).

Estimated time	Materials needed	Required module status
10 minutes	None	Warming or Ready

NOTE: See the ARCHITECT Service and Support Manual for additional information.

3810 Pressure Monitoring Test

Perform this ***fluidics/wash*** diagnostic procedure to test the operation of the pipettor board and pressure monitor for the pipettor.

Estimated time	Materials needed	Required module status
2 minutes	None	Warming or Ready

6410 WZ Probe Straightness

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

Perform this ***fluidics/wash*** diagnostic procedure to visually check the straightness of the wash zone probes.

NOTE: You should run diagnostic procedure 2052 WZ Aspiration Test after completing this test.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

Module diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when preparing for a long-term shutdown or diagnosing error messages or observed problems associated with the vacuum:

- *2138 Long Term Shutdown*, page 10-676
- *3180 Vacuum System Test*, page 10-676
- *3181 Vacuum Diagnostics (FSE Logon)*, page 10-676
- *4110 Module Initialization*, page 10-677
- *4150 Functional Area Tests*, page 10-677
- *5716 Turn 36V Power Off and On (FSE Logon)*, page 10-677

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

2138 Long Term Shutdown

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***modules*** diagnostic procedure to flush all pumps with water, then air, and remove all RVs (reaction vessels) in preparation for long term shutdown of the ARCHITECT System.

Estimated time	Materials needed	Required module status
30 minutes	• 4 Liter (minimum) container of deionized water • Empty 4 Liter container • Wash buffer reservoir • Wash buffer transfer tubing • Deionized water	Warming or Ready

3180 Vacuum System Test

Perform this ***modules*** diagnostic procedure to test the operation of the vacuum system, vacuum accumulator, and drain valves.

Estimated time	Materials needed	Required module status
5 - 10 minutes depending on option chosen	None	Warming or Ready

3181 Vacuum Diagnostics (FSE Logon)

Perform this ***modules*** diagnostic procedure to troubleshoot the vacuum system.

The checks available are:

- Vacuum system health test.
- Vacuum system leak check.
- Waste pump test.

Estimated time	Materials needed	Required module status
Variable	None	Stopped, Warming, or Ready

4110 Module Initialization

Perform this ***modules*** diagnostic procedure to perform a processing module initialization.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4150 Functional Area Tests

Perform this ***modules*** diagnostic procedure to test the functionality of the following areas: RV loading, process path, reagent carousel, and pipettor.

Estimated time	Materials needed	Required module status
Variable	None	Stopped, Warming, or Ready

5716 Turn 36V Power Off and On (FSE Logon)

Perform this ***modules*** diagnostic procedure to turn off and on the 36 volt power to all motors, valves, and solenoids.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

NOTE: See the ARCHITECT Service and Support Manual for additional information.

Solenoid/sensor diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing solenoids and sensors or diagnosing error messages or observed problems associated with solenoids or sensors:

- *3190 Waste Sensors Test*, page 10-677
- *3405 Interlock/Carousel Sensor Test*, page 10-678
- *3420 Level Sensors Test*, page 10-678
- *3850 PC Board Test (FSE logon)*, page 10-678
- *5165 Valve Tests*, page 10-678

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3190 Waste Sensors Test

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

Perform this ***solenoids/sensors*** diagnostic procedure to test the waste pump pressure switch, the liquid waste container full sensor, and the solid waste container present sensor.

Estimated time	Materials needed	Required module status
Variable	Tap water	Stopped, Warming, or Ready

3405 Interlock/Carousel Sensor Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the sensors for the processing center cover and reagent carousel cover.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

3420 Level Sensors Test

Perform this ***solenoids/sensors*** diagnostic procedure to test wash buffer, pre-trigger, and trigger level sensors.

Estimated time	Materials needed	Required module status
1 - 2 minutes, depending upon the option chosen	None	Stopped, Warming, or Ready

3850 PC Board Test (FSE logon)

Perform this ***solenoids/sensors*** diagnostic procedure to test the power supply, motor driver boards, and DC driver I/O boards for power interrupt error conditions.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

NOTE: See the ARCHITECT Service and Support Manual for additional information.

5165 Valve Tests

Perform this ***solenoids/sensors*** diagnostic procedure to test wash zone, pre-trigger, trigger, vacuum, pipettor syringe, AWDS inlet valve (if present), and liquid waste valves.

Estimated time	Materials needed	Required module status
1 - 2 minutes depending on option chosen	None	Stopped, Warming, or Ready

Fuse/motor diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing motors or diagnosing error messages or observed problems associated with motors:

- *5150 Motor Tests*, page 10-679
- *5160 Pump Motor Tests*, page 10-679
- *5720 Fuse Status*, page 10-679

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

5150 Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the pipettor, syringe, process path, and reagent carousel motors.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

5160 Pump Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the pre-trigger, trigger, wash buffer, and wash zone pump motors.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

5720 Fuse Status

Perform this ***fuses/motors*** diagnostic procedure to display the status of +5, +12, -12, and +24 volt fuses.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Optic/temperature diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing optics or diagnosing error messages or observed problems associated with optics:

- *1005 Optics Test (CSC logon)*, page 10-679
- *1022 Optics Background*, page 10-680
- *1032 Shutter Test*, page 10-680
- *1047 Optics Verification (FSE logon)*, page 10-680

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1005 Optics Test (CSC logon)

Perform this ***optics/temperature*** diagnostic procedure to test the optics.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

1022 Optics Background

Perform this ***optics/temperature*** diagnostic procedure to determine the optics background reading. The system takes three readings; first with no RV (reaction vessel), second with an empty RV, and third with Pre-Trigger Solution in the RV.

NOTE: The system does not use normalization and linearity parameters during this procedure. Raw counts must be between 3 RLU - 500 RLU.

Estimated time	Materials needed	Required module status
2 minutes	None	Warming or Ready

1032 Shutter Test

Perform this ***optics/temperature*** diagnostic procedure to verify correct shutter operation.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

1047 Optics Verification (FSE logon)

Perform this ***optics/temperature*** diagnostic procedure to verify the optics CMIA reader is working as expected. The system verifies normalization and linearity factors by taking five reads from the three levels of optics normalization solution and comparing the reads to the gold standard. The three reads taken are 376, 1,504, and 94,000 attomoles. The system also verifies background levels.

Estimated time	Materials needed	Required module status
15 minutes	Optics verifier solution (LN 06F75-60)	Warming or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

Carousel diagnostics description (*i*1000SR processing module)

One carousels diagnostic procedure, 3002 Reagent Carousel Test, is available. You may need to perform this procedure when replacing the reagent carousel or diagnosing error messages or observed problems associated with the reagent carousel.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

3002 Reagent Carousel Test

Perform this ***carousels*** diagnostic procedure to test the reagent carousel movement and check for step loss.

Estimated time	Materials needed	Required module status
10 minutes	Reagent carriers	Stopped, Warming, or Ready

Precision diagnostics description (*i*1000SR processing module)

You may need to perform the following diagnostic procedures when replacing fluidics components or diagnosing error messages or observed problems associated with precision and accuracy:

- *2060 Pipettor Gravimetric (CSC logon)*, page 10-681
- *2062 Pre-Trigger Gravimetric (CSC logon)*, page 10-682
- *2063 Trigger Gravimetric (CSC logon)*, page 10-682
- *2065 Wash Zone Gravimetric (CSC logon)*, page 10-682
- *2070 Pipettor Check*, page 10-683
- *2072 Pre-Trigger Check*, page 10-683
- *2073 Trigger Check*, page 10-683
- *2075 Wash Zone Check*, page 10-684

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

2060 Pipettor Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of the pipettor by gravimetric measurement. Liquid is aspirated and dispensed into twenty pre-weighed RVs (reaction vessels). 50 µL of tap water or saline is aspirated and dispensed into the first 15 RVs. 1000 µL of buffer is dispensed into the last 5 RVs.

Specification:

For the first 15 RVs, each result must be between 46.0 and 51.0 µL (mg). The CV (coefficient variation) must also be less than or equal to 1.0%.

For the last 5 RVs, each result must be greater than or equal to 900 µL (mg)

Estimated time	Materials needed	Required module status
15 minutes	• Tap water or saline • Sample cup • Gravimetric balance • Sample carrier	Warming or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

2062 Pre-Trigger Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to gravimetrically measure the dispensing precision and accuracy of the hardware that dispenses Pre-Trigger Solution. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the probe dispenses 100 µL of pre-trigger solution. You then calculate the difference. The final result must be between 95 µL (mg) and 105 µL (mg) and the CV (coefficient variation) must be equal to or less than 1.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of pre-trigger function. The final volume should be approximately 100 µL.

Estimated time	Materials needed	Required module status
15 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

2063 Trigger Gravimetric (CSC logon)

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***precision*** diagnostic procedure to gravimetrically measure the dispensing precision and accuracy of the hardware that dispenses Trigger Solution. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the probe dispenses 300 µL of trigger solution. You then calculate the difference. The final result must be between 285 µL (mg) and 315 µL (mg) and the CV (coefficient variation) must be equal to or less than 1.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of trigger function. The final volume should be approximately 300 µL.

Estimated time	Materials needed	Required module status
15 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

2065 Wash Zone Gravimetric (CSC logon)

Perform this ***precision*** diagnostic procedure to measure the dispensing precision and accuracy of wash zone by gravimetric measurement. You weigh fifteen empty RVs (reaction vessels), and then weigh them again after the wash zone 1 probe dispenses 400 µL of buffer. You then calculate the difference. The final result must be between 360 µL (mg) and 440 µL (mg) and the CV (coefficient variation) must be equal to or less than 2.0%.

Visual inspection:

The fluid in the RVs may be used as a qualitative visual indication of wash zone function. The final volume should be approximately 400 µL.

Estimated time	Materials needed	Required module status
15 minutes	Gravimetric balance	Warming or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

2070 Pipettor Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the pipettor.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Sample carriers/ cups • Calibrated manual pipettor (capable of pipetting 50 or 250 and 900 µL)	Warming or Ready

2072 Pre-Trigger Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of Pre-Trigger Solution.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Calibrated manual pipettor (capable of pipetting 100 or 300 µL)	Warming or Ready

2073 Trigger Check

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the Trigger Solution.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Calibrated manual pipettor (capable of pipetting 300 or 900 µL)	Warming or Ready

2075 Wash Zone Check

Perform this ***precision*** diagnostic procedure to visually check the dispensing precision and accuracy of the wash zone manifold.

Estimated time	Materials needed	Required module status
10 minutes	• Saline or tap water • Calibrated manual pipettor (capable of pipetting 400 or 1200 µL)	Warming or Ready

RSH diagnostic categories (except for *c*4000/*i*1000SR /*ci*4100)

Diagnostic procedures for the RSH (robotic sample handler) are grouped by category (tab) on the Diagnostics screen. Procedures are available in the following categories:

- *Bar code reader diagnostics description (RSH - except for c4000/i1000SR / ci4100)*, page 10-684
- *Module diagnostics description (RSH - except for c4000/i1000SR /ci4100)*, page 10-685
- *Solenoid/sensor diagnostics description (RSH - except for c4000/i1000SR / ci4100)*, page 10-686
- *Fuse/motor diagnostics description (RSH - except for c4000/i1000SR /ci4100)*, page 10-687

Bar code reader diagnostics description (RSH - except for *c*4000/*i*1000SR /*ci*4100)

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

You may need to perform the following diagnostic procedures when replacing RSH (robotic sample handler) bar code readers or diagnosing error messages or observed problems associated with bar code readers:

- *3222 RSH Bar Code Calibration*, page 10-684
- *3252 RSH Bar Code Reader Test*, page 10-685

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3222 RSH Bar Code Calibration

Perform this ***bar code readers*** diagnostic procedure to calibrate positions for sample ID bar codes.

Estimated time	Materials needed	Required module status
5 minutes	• Sample carrier • SH bar code tool	Warming or Ready

3252 RSH Bar Code Reader Test

Perform this ***bar code readers*** diagnostic procedure to test the sample bar code reader.

Estimated time	Materials needed	Required module status
5 minutes	• Sample carrier • SH bar code tool or bar coded tube	Warming or Ready

Module diagnostics description (RSH - except for *c*4000/*i*1000SR / *ci*4100)

You may need to perform the following diagnostic procedures when replacing RSH (robotic sample handler) components or diagnosing error messages or observed problems associated with the sample handler:

- *1162 Carrier Transport Move (FSE logon)*, page 10-685
- *3317 RSH Test*, page 10-685
- *3319 Carrier Probe Alignment Test (CSC logon)*, page 10-686
- *3710 Keypad Test*, page 10-686
- *4090 Sample Handler Initialization*, page 10-686
- *5507 RSH Indicator Lights Test*, page 10-686

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

1162 Carrier Transport Move (FSE logon)

Perform this ***modules*** diagnostic procedure to move the carrier transport to the maintenance location.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3317 RSH Test

Perform this ***modules*** diagnostic procedure to test the operation of the RSH (robotic sample handler) and bar code reader.

Estimated time	Materials needed	Required module status
5 minutes	• Sample carrier (up to 67) • Bar coded sample tube (optional) • Saline (*c* System)	Warming or Ready

3319 Carrier Probe Alignment Test (CSC logon)

Perform this ***modules*** diagnostic procedure to allow visual observation of the probe position in a sample tube at each aspiration point.

Estimated time	Materials needed	Required module status
5 minutes	• Sample carrier • Sample tube • Saline (*c* System)	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3710 Keypad Test

Perform this ***modules*** diagnostic procedure to test RSH (robotic sample handler) keypad function.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4090 Sample Handler Initialization

Perform this ***modules*** diagnostic procedure to perform a sample handler initialization.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

5507 RSH Indicator Lights Test

Perform this ***modules*** diagnostic procedure to test the RSH (robotic sample handler) indicator lights.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Solenoid/sensor diagnostics description (RSH - except for *c*4000/ *i*1000SR /*ci*4100)

You may need to perform the following procedures when replacing RSH (robotic sample handler) sensors or diagnosing error messages or observed problems associated with sensors.

- *3323 RSH Section Test*, page 10-687
- *3401 Section/Bay Sensors Test*, page 10-687
- *5506 RSH Sensor Test*, page 10-687

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3323 RSH Section Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the ability of the RSH (robotic sample handler) carrier transport to pick up a carrier from a specific location and return it to that location.

Estimated time	Materials needed	Required module status
5 minutes	Sample carrier	Stopped, Warming, or Ready

3401 Section/Bay Sensors Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the carrier/tray sensors for priority and routine bays.

Estimated time	Materials needed	Required module status
5 minutes	• Sample carriers • Sample trays	Stopped, Warming, or Ready

5506 RSH Sensor Test

Perform this ***solenoids/sensors*** diagnostic procedure to test the carrier transport and carrier positioner sensors.

Estimated time	Materials needed	Required module status
10 minutes	None	Stopped, Warming, or Ready

Fuse/motor diagnostics description (RSH - except for *c*4000/*i*1000SR / *ci*4100)

One fuses/motors diagnostic procedure, 5501 RSH Motor Tests, is available. You may need to perform this procedure when replacing sample handler motors or diagnosing error messages or observed problems associated with sample handler motors.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

5501 RSH Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the following motors: carrier transport X, carrier transport theta, carrier transport Z, and carrier positioner.

Estimated time	Materials needed	Required module status
5 minutes	None	Stopped, Warming, or Ready

RSH diagnostic categories (*c*4000/*i*1000SR/*ci*4100)

Diagnostic procedures for the RSH (robotic sample handler) are grouped by category (tab) on the Diagnostics screen. Procedures are available in the following categories:

- *Bar code reader diagnostics description (RSH - c4000/i1000SR /ci4100)*, page 10-688
- *Module diagnostics description (RSH - c4000/i1000SR /ci4100)*, page 10-689
- *Solenoid/sensor diagnostics description (RSH - c4000/i1000SR /ci4100)*, page 10-690
- *Fuse/motor diagnostics description (RSH - c4000/i1000SR /ci4100)*, page 10-690

Bar code reader diagnostics description (RSH - *c*4000/*i*1000SR /*ci*4100)

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

You may need to perform the following diagnostic procedures when replacing the bar code reader or diagnosing error messages or observed problems associated with the bar code reader:

- *3230 Bar Code Reader Test*, page 10-688
- *3240 Bar Code Calibration*, page 10-689

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3230 Bar Code Reader Test

Perform this ***bar code readers*** diagnostic procedure to test the bar code reader.

NOTE: Only the first 20 characters of each bar code display.

Estimated time	Materials needed	Required module status
1 - 4 minutes, depending on the number of carriers tested.	• Sample carriers • SH bar code tool or bar coded tubes • Reagent carriers (*i*1000SR) • Reagent kit bottles (100 test kits only) (*i*1000SR)	Stopped, Warming, or Ready

3240 Bar Code Calibration

Perform this ***bar code readers*** diagnostic procedure to calibrate positions for bar coded sample tubes and reagent bottles.

Estimated time	Materials needed	Required module status
2 minutes	• Sample carrier • SH bar code tool	Stopped, Warming, or Ready

Module diagnostics description (RSH - *c*4000/*i*1000SR /*ci*4100)

You may need to perform the following diagnostic procedures when replacing RSH (robotic sample handler) components or diagnosing error messages or observed problems associated with the sample handler:

- *3310 RSH Test*, page 10-689
- *3312 Carrier Transport Move (FSE logon)*, page 10-689
- *3330 RSH Alignment Test (FSE logon)*, page 10-690
- *4120 RSH Initialization*, page 10-690

3310 RSH Test

Perform this ***modules*** diagnostic procedure to test the operation of the RSH (robotic sample handler) and bar code reader.

Estimated time	Materials needed	Required module status
5 - 10 minutes depending on option chosen	• Sample carriers • 5 bar coded sample tubes • Reagent carriers (*i*1000SR) • Reagent kit bottles (100 test kits only) (*i*1000SR)	Stopped, Warming, or Ready

3312 Carrier Transport Move (FSE logon)

Perform this ***modules*** diagnostic procedure to move the carrier transport to the maintenance location.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

NOTE: See the ARCHITECT Service and Support Manual for additional information.

3330 RSH Alignment Test (FSE logon)

Perform this ***modules*** diagnostic procedure to verify the alignment of the components of the (RSH) robotic sample handler.

Estimated time	Materials needed	Required module status
5 - 15 minutes depending on option chosen	• Sample carriers • Reagent carriers (*i*1000SR) • Sample cups/tubes	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT Service and Support Manual for additional information.

4120 RSH Initialization

Perform this ***modules*** diagnostic procedure to perform a sample handler initialization.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

Solenoid/sensor diagnostics description (RSH - *c*4000/*i*1000SR /*ci*4100)

You may need to perform the following procedures when replacing RSH (robotic sample handler) sensors or diagnosing error messages or observed problems associated with sensors.

- *5555 RSH Sensor Tests*, page 10-690

5555 RSH Sensor Tests

Perform this ***solenoids/sensors*** diagnostic procedure to test the sensors associated with the carrier transport, load/unload area, and reagent access door.

Estimated time	Materials needed	Required module status
5 minutes	• Reagent carrier with at least one reagent bottle (*i*1000SR) • Sample carrier	Stopped, Warming, or Ready

Fuse/motor diagnostics description (RSH - *c*4000/*i*1000SR /*ci*4100)

One fuses/motors diagnostic procedure, 5550 RSH Motor Tests, is available. You may need to perform this procedure when replacing sample handler motors or diagnosing error messages or observed problems associated with sample handler motors.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

- *5550 RSH Motor Test*, page 10-691

5550 RSH Motor Test

Perform this ***fuses/motors*** diagnostic procedure to test the motors associated with the carrier transport, reagent bottle rotator, and the reagent access door.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

SSH diagnostic categories

Diagnostic procedures for the SSH (standard sample handler) are grouped by category (tab) on the Diagnostics screen. Procedures are available in the following categories:

- *Bar code reader diagnostics description (SSH)*, page 10-691
- *Module diagnostics description (SSH)*, page 10-692
- *Solenoid/sensor diagnostics description (SSH - FSE logon)*, page 10-693
- *Fuse/motor diagnostics description (SSH)*, page 10-693

Bar code reader diagnostics description (SSH)

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

You may need to perform the following diagnostic procedures when replacing SSH (standard sample handler) bar code readers or diagnosing error messages or observed problems associated with bar code readers:

- *3220 SH Bar Code Calibration*, page 10-691
- *3250 SH Bar Code Reader Test*, page 10-691

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3220 SH Bar Code Calibration

Perform this ***bar code readers*** diagnostic procedure to calibrate positions for sample ID bar codes.

Estimated time	Materials needed	Required module status
2 minutes	Sample carrier	Warming or Ready

3250 SH Bar Code Reader Test

Perform this ***bar code readers*** diagnostic procedure to test load queue and processing queue bar code readers. The bar code reader checks the bar code width and compares the beginning of the bar code label against the calibration point.

Estimated time	Materials needed	Required module status
5 minutes	• Sample carrier • SH bar code tool or bar coded tube (optional)	Warming or Ready

Module diagnostics description (SSH)

You may need to perform the following diagnostic procedures when replacing SSH (standard sample handler) components or diagnosing error messages or observed problems associated with the sample handler:

- *3315 Sample Handler Test*, page 10-692
- *3316 Carrier Probe Alignment Test (CSC logon)*, page 10-692
- *3710 Keypad Test*, page 10-693
- *4090 Sample Handler Initialization*, page 10-693

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3315 Sample Handler Test

Perform this ***modules*** diagnostic procedure to test the operation of the SSH (standard sample handler) and bar code readers. Two options are available:

- Verify Calibration and Cycle Carriers - tests the load queue and processing queue bar code readers, verifies the calibration of the load queue bar code reader, and cycles carriers to test the operation of the SSH.
- Cycle Carriers - cycles carriers to test the operation of the SSH.

Estimated time	Materials needed	Required module status
Verify Calibration and Cycle Carriers: 5 minutes	• Sample carrier • SH bar code tool or bar coded sample tubes	Stopped, Warming, or Ready
Cycle Carriers: 2 minutes	Sample carrier	Stopped, Warming or Ready

3316 Carrier Probe Alignment Test (CSC logon)

Perform this ***modules*** diagnostic procedure to allow visual observation of the probe positions in a sample cup in each carrier position. Additionally, this procedure verifies the carrier is present at the following sensors:

- Carrier present at lane 1
- Processing module
- Carrier at gate for unload
- Carrier at unload queue

Estimated time	Materials needed	Required module status
4 minutes	• Sample carrier • Sample cups	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

3710 Keypad Test

Perform this ***modules*** diagnostic procedure to test SSH (standard sample handler) keypad function.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

4090 Sample Handler Initialization

Perform this ***modules*** diagnostic procedure to perform a sample handler initialization.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

Solenoid/sensor diagnostics description (SSH - FSE logon)

One solenoids/sensors diagnostic procedure, 5505 SH Switches/Solenoids, is available. You may need to perform this procedure when replacing SSH (standard sample handler) switches and solenoids or diagnosing error messages or observed problems associated with switches and solenoids.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

5505 SH Switches/Solenoids

Perform this ***solenoids/sensors*** diagnostic procedure to test the solenoids and switches of the SSH (standard sample handler).

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

Fuse/motor diagnostics description (SSH)

One fuses/motors diagnostic procedure, 5500 SH Motor Tests, is available for the SSH (standard sample handler). You may need to perform this procedure when replacing sample handler motors or diagnosing error messages or observed problems associated with sample handler motors.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

5500 SH Motor Tests

Perform this ***fuses/motors*** diagnostic procedure to home the following motors: load queue, load transfer, unload transfer, unload queue, processing queue, and star wheel.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

LAS carousel sample handler diagnostic categories (*i*2000)

Diagnostic procedures for the LAS (laboratory automated system) carousel sample handler are grouped by category (tab) on the Diagnostics screen. Procedures are available in the following categories:

- *Bar code reader diagnostics description (LAS carousel sample handler - i2000)*, page 10-694
- *Module diagnostics description (LAS carousel sample handler - i2000)*, page 10-695

Bar code reader diagnostics description (LAS carousel sample handler - *i*2000)

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam.

You may need to perform the following diagnostic procedures when replacing the LAS carousel sample handler bar code reader or diagnosing error messages or observed problems associated with the bar code reader:

- *3225 LAS Crsl Bar Code Calibration*, page 10-694
- *3255 LAS Crsl Bar Code Test*, page 10-694

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3225 LAS Crsl Bar Code Calibration

Perform this ***bar code readers*** diagnostic procedure to calibrate the *i*2000 processing queue bar code reader to the LAS carousel.

Estimated time	Materials needed	Required module status
5 minutes	• LAS sample carousel • SH bar code tool	Warming or Ready

3255 LAS Crsl Bar Code Test

Perform this ***bar code readers*** procedure to test the processing queue bar code reader's ability to read the *i*2000 LAS sample carousel ID and bar code tubes.

Estimated time	Materials needed	Required module status
5 minutes	• LAS sample carousel • SH bar code tool or bar coded tube	Warming or Ready

Module diagnostics description (LAS carousel sample handler - *i*2000)

One modules diagnostic procedure, 4090 Sample Handler Initialization, is available. You may need to perform this procedure when diagnosing error messages or observed problems associated with the sample handler.

To perform this procedure, see *Perform a diagnostic procedure*, page 10-624.

Additionally, one module diagnostic procedure, 3318 LAS Crsl Probe Alignment, is available to Abbott personnel.

3318 LAS Crsl Probe Alignment Test (CSC logon)

Perform this ***modules*** diagnostic procedure to move the sample probe to each sample tube location on the *i*2000 LAS sample carousel, allowing you to observe the probe position.

Estimated time	Materials needed	Required module status
10 minutes	• LAS sample carousel • Bar coded sample tubes (20)	Warming or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

4090 Sample Handler Initialization

Perform this ***modules*** diagnostic procedure to perform a sample handler initialization.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

SCC diagnostic categories

Diagnostic procedures for the SCC (system control center) display on the Utilities tab on the Diagnostics screen.

You may need to perform the following diagnostic procedures when installing assays and procedures or diagnosing error messages or observed problems:

- *3253 Bar Code Configuration (FSE logon)*, page 10-696
- *6000 Retrieve Test Counts (FSE logon)*, page 10-696
- *6004 Copy backup software*, page 10-696

To perform a procedure, see *Perform a diagnostic procedure*, page 10-624.

3253 Bar Code Configuration (FSE logon)

Perform this ***utilities*** diagnostic procedure to configure additional bar code parameters. You may configure Code 39 large intercharacter gap, Codabar start stop character match, Codabar large intercharacter gap, and Transition value.

Estimated time	Materials needed	Required module status
3 minutes	None	Stopped, Warming, or Ready

6000 Retrieve Test Counts (FSE logon)

Perform this ***utilities*** diagnostic procedure to determine the total number of tests initiated and tests completed for the selected *i* System processing module. You may clear test counts during this procedure.

NOTE: Do not perform this procedure on a *c* System module. When a *c* System module number is entered, an inaccurate test count is returned.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

6004 Copy backup software

Perform this ***utilities*** diagnostic procedure to copy a system software backup to a CD or to replace a backup on your SCC (system control center) with one on a CD.

NOTE: Performing this procedure does not backup the system software. To backup system information, see *Create a system software backup*, page 2-200.

Estimated time	Materials needed	Required module status
Time variable	Blank or appendable CDR/CDRW or a CD containing a backup	Stopped, Warming, or Ready

6007 SCC Utilities

Perform this ***utilities*** diagnostic procedure to:

- Calibrate the touch screen monitor
- View the USB drive(s)
- Eject the USB drive(s)
- Check and repair the ARCHITECT database
- Clear the CLI port (*i*2000SR LAS only)
- Initiate AbbottLink connector utilities (AbbottLink consolidated configuration only)

If logged on as FSE, in addition to the above operations you will be able to view backup drives and look for missing backup files. For additional information, see the ARCHITECT System Service and Support Manual.

Estimated time	Materials needed	Required module status
Time variable	None	Any status

6008 Controller Configuration

Perform this ***utilities*** diagnostic procedure to configure the processing module and sample handler controller board after you replace the board or upgrade your software.

Estimated time	Materials needed	Required module status
1 minute	None	Stopped, Warming, or Ready

6009 Log Utilities

Perform this ***utilities*** diagnostic procedure to retrieve current logs and memory dump file, copy the database to CD, or copy archived logs to CD.

If logged on as FSE a copy of the memory dump can be retrieved without the current logs. For additional information, see the ARCHITECT System Service and Support Manual.

Estimated time	Materials needed	Required module status
Time variable	Materials vary depending on the option selected. Required materials may include:	Stopped, Warming, or Ready

Estimated time	Materials needed	Required module status
	• CD-R (compact disk recordable) or Unformatted CD-RW (compact disk read/write) • USB flash drive	

6029 Assay Information

Perform this ***utilities*** diagnostic procedure to print:

- A complete list of all assays installed on the ARCHITECT System to verify the most current assay version is in use. The list contains the assay number, assay name, and version.
- Calibrator bar code labels
- A range of numeric SID bar code labels

Estimated time	Materials needed	Required module status
2 minutes	Bar code labels may be required depending on option selected.	Any status

6114 Install/Delete Assays

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to install all or selected assays. You also use this procedure to delete selected assays.

NOTE: Prior to installing a new or updated assay file, refer to the assay CD-ROM or e-assay customer information for any special instructions. When installing an e-assay file from Abbott mail, the customer information may be viewed during the installation procedure or through Abbott mail. See *View Abbott mail*, page 2-206.

Estimated time	Materials needed	Required module status
2 minutes	ARCHITECT *c* System CD-ROM, ARCHITECT *i* System CD-ROM, or e-assay file	Stopped, Warming, or Ready

6115 Install/Delete Procedures

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to install all or selected maintenance and diagnostic procedures. You also use this procedure to delete selected maintenance and diagnostic procedures.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

6116 Update 6115 Procedure

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to install an updated version of diagnostic procedure 6115 Install/Delete Procedures, when required.

Estimated time	Materials needed	Required module status
2 minutes	None	Stopped, Warming, or Ready

6200 CLI Terminal Simulator (FSE logon)

Perform this ***utilities*** diagnostic procedure to allow service personnel to issue CLI commands through the maintenance and diagnostic interface.

Estimated time	Materials needed	Required module status
Time variable	None	Stopped, Warming, or Ready

NOTE: Refer to the ARCHITECT System Service and Support Manual for additional information.

6220 User-Defined Maintenance

NOTE: Requires system administrator logon.

Perform this ***utilities*** diagnostic procedure to create, edit, import, export, print, and view user-defined, text-based maintenance procedures.

Estimated time	Materials needed	Required module status
Time variable	Materials vary depending on the option selected, required materials may include: • CD-R (compact disk recordable) or unformatted CD-RW (compact disk read/write) • Floppy disk(s) • USB flash drive	Stopped, Warming, or Ready

6500 MAC Hardware Address

Perform this ***utilities*** diagnostic procedure to determine the MAC (media access control) address of the secondary network interface card installed in an SCC (system control center).

Estimated time	Materials needed	Required module status
< 1 minute	None	Any status

Miscellaneous corrective action procedures

Corrective action procedures are:

- A series of steps recommended to resolve a probable cause(s) associated with an error message or observed problem
- Common to more than one error code or observed problem

Miscellaneous corrective action procedures topics include:

Processing module corrective action procedures

Procedures that are often recommended as corrective actions for resolving error messages and/or observed problems associated with the processing module(s) include:

Clean the bar code reader window

Perform this procedure to clean the bar code reader window when suggested by the corrective action of an error code. This procedure includes the steps to clean the bar code reader window in the:

- RSH (robotic sample handler)
- Sample carousel (*c*8000/*c*16000)
- Reagent supply center(s) (*c* System)

- Reagent carousel (*i*2000/*i*2000SR)

Prerequisite	NA
Module status	Warming or Ready
User access level	General operator
Supplies	• Soft, lint-free tissue or lens paper • Deionized water

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Class 2 Laser radiation when open. Avoid eye exposure to light. Do not stare into the beam. Class 2 Laser radiation for all processing modules except the *c*4000 and *c*16000 modules and the c 8000 reagent supply centers (depending on the age of the module). Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure. See *Laser light*, page 8-18

To clean the bar code reader window:

1. Access the bar code reader window.

For the…	Perform the following…
RSH (except for *c*4000/*i*1000SR)	Open the first cover on the left side of the RSH.
RSH (*c*4000/i 1000SR)	Open the processing center cover.
Sample carousel (*c*8000/*c*16000)	*Remove the sample carousel (c8000/c16000)*, page 10-712.
Reagent supply center (*c*4000)	a. Open the reagent supply center cover. b. Remove a segment from the outer carousel. c. Select the reagent supply center advance button to move the empty position to the bar code reader window (lower left area of the reagent supply center).
Reagent supply center(s) (*c*8000/ *c*16000)	a. Remove the reagent carousel cover. b. Remove the outer segment located at the front of the reagent supply center. c. Select the R1 or R2 carousel advance button to move the empty position to the back of the reagent supply center where the bar code reader window is located.
Reagent carousel (*i*2000/ *i*2000SR)	a. Use the #2 screwdriver to remove the three non-captive screws that hold the reagent carousel cover in place.

For the…	Perform the following…
	NOTE: Use caution when removing screws; they are not secured to the carousel cover. b. Remove the reagent carousel cover by using the handle and lifting the cover up and out of the module. **NOTE:** Be careful not to damage the other parts when removing the cover. c. Remove reagent kits located on the left side of the reagent carousel to allow access to the bar code reader window.

2. Locate the bar code reader window and gently wipe with a moistened lint-free tissue.
3. Dry the bar code reader(s) window with a lint-free tissue.
4. Prepare for operation.

For the…	Perform the following…
RSH (except for *c*4000/*i*1000SR)	Close the RSH cover.
RSH (*c*4000/*i*1000SR)	Close the processing center cover.
Sample carousel (*c*8000/*c*16000)	*Reinstall the sample carousel (c8000/c16000)*, page 10-713
Reagent supply center (*c*4000)	a. Select the reagent supply center advance button to move the empty position to the front of the reagent supply center. b. Replace the segment. c. Replace the reagent supply center cover.
Reagent supply center(s) (*c*8000/*c*16000)	a. Select the R1 or R2 carousel advance button to move the empty position to the front of the reagent supply center. b. Replace the outer segment. c. Replace the carousel cover.
Reagent carousel (*i*2000/ *i*2000SR)	a. Reload any reagent kits that were removed. b. Install the reagent carousel cover, and then tighten the three non-captive screws.

To verify the bar code reader is functioning properly, perform one of the following ***bar code readers*** diagnostic procedures:

- *3252 RSH Bar Code Reader Test*, page 10-685
- *3251 Sample Carousel Bar Code Test (c8000/c16000)*, page 10-634
- *3206 Reagent Bar Code Test*, page 10-634 (*c* System)
- *3200 Reagent Bar Code Reader Test*, page 10-655 (*i*2000/*i*2000SR)

- *3230 Bar Code Reader Test*, page 10-688 (*i*1000SR)

Related information...

- *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166
- *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171
- *Sample carousel (c8000)*, page 1-59
- *Sample carousel (c16000)*, page 1-79
- *Reagent hardware components (c4000)*, page 1-43
- *Reagent hardware components (c8000)*, page 1-61
- *Reagent hardware components (c16000)*, page 1-81
- *Reagent hardware components (i2000/i2000SR)*, page 1-110

Enable or disable the ICT module (*c* System)

Perform this procedure to enable or disable the ICT module. You disable the module to prevent the system from processing potentiometric assays when a performance issue occurs. After you resolve the issue you enable the module to allow the system to process the assays.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To enable or disable the ICT module:

1. Select **Modules** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure modules window displays.
3. Select the desired **ICT Module Installed** option.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure modules window (c4000)*, page 2-52
- *Configure modules window (c8000/c16000)*, page 2-53

Bleach the ICT module (*c* System)

Perform this procedure to bleach an ICT module which has not expired and is still within the warranty period. You bleach the module to resolve performance issues such as depressed potassium (K^+) slopes and results, erratic ICT results, and poor precision.

NOTE: During this procedure o-rings at the top and bottom of the ICT module may become displaced when the module is being flushed. Displaced o-rings should be retrieved from the container, rinsed well with several mL of deionized water, and dried before installing on the module prior to installing the module on the system.

Prerequisite	Access the appropriate component replacement procedure: • *Replace the ICT module or probe (c4000)*, page 9-148 • *Replace the ICT module or probe (c8000)*, page 9-215 • *Replace the ICT module or probe (c16000)*, page 9-285
Module status	Stopped or Ready
User access level	General operator
Supplies	• Absorbent towel • Deionized water • 15 mL of ICT Reference solution • Container, large enough to hold ≥ 250 mL fluid • 10 mL of 0.5% sodium hypochlorite, for information on diluting sodium hypochlorite see *Decontamination procedure requirements*, page 8-12 • 5 mL, 10 mL, or 20 mL syringe (with or without Luer Lock) and no needle attached • Timer

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Probe Stick Hazard. Probe Sharps Hazard. This is an activity or area where you may be exposed to probes. See *Probes and other sharps*, page 8-18.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To bleach the ICT module:

1. Remove the ICT module by following the instructions contained in the appropriate component replacement procedure.
2. Fill the syringe with a minimum of 5 mL of 0.5% sodium hypochlorite and attach it to either end of the ICT module. Using the container to catch any extra fluid, slowly flush most of the solution through the module. Place a finger on the opposite end of the module and fill the module with the remaining fluid. The module must be completely filled with solution.
3. Allow the ICT module to sit horizontally for 15 - 30 minutes. Do not allow the sodium hypochlorite solution to remain in the module for more than 30 minutes.
4. Rinse the syringe at least 3 times with deionized water to completely remove the sodium hypochlorite solution.

5. Fill the syringe with ICT reference solution. Attach the syringe to the ICT module and slowly flush most of the solution through the module over the container. Depending on the syringe size you may need to repeat this in order to flush most of the 15 mL of reference solution. Place a finger on the opposite end of the module and fill the module with the remaining fluid. The module must be completely filled with solution.
6. Allow the ICT module to sit horizontally for 5 - 10 minutes.
7. Moisten an absorbent towel with deionized water and clean the outside of the ICT module and side connector pins to remove any residual sodium hypochlorite or ICT reference solution. Use a dry absorbent towel to then dry the module. The module and the connector pins must be dry before installation.
8. Follow the installation instructions contained in the appropriate component replacement procedure.
9. Perform ***as-needed*** maintenance procedure *6063 Flush ICT Module*, page 9-41 three times to flush the module with ICT reference solution.
10. Calibrate the ICT assays and run quality control samples to verify the calibration.

This procedure can be repeated once to further improve performance. If continued performance issues are observed perform additional troubleshooting steps and/or replace the ICT module.

Related information...

- *Depressed concentration - K+ results single assay (c System)*, page 10-536
- *Erratic results, poor precision - ICT results (c System)*, page 10-540

Evaluate the check valve (*c* System)

Evaluating the check valve consists of the following procedures:

- Removal
  - *Locate the check valve to be evaluated (c4000)*, page 10-707
  - *Locate the check valve to be evaluated (c8000)*, page 10-707
  - *Locate the check valve to be evaluated (c16000)*, page 10-708
  - *Remove the plunger shield and the 1 mL syringe*, page 10-708
  - *Remove the check valve tubing*, page 10-709
- Replacement
  - *Evaluate the check valve*, page 10-709
  - *Reinstall the check valve tubing*, page 10-710
  - *Reinstall the 1 mL syringe and plunger shield*, page 10-710

  - *Prepare for operation*, page 10-711

- Verification
  - Verification occurs during preparation for operation. No further verification is required.

Prerequisite	The processing module must be in the Offline, Stopped, or Ready status.
Time required	15 minutes
Tools required	• Container large enough to accommodate the syringes with check valves installed • Purified water • Absorbent towel
Replacement parts	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

Removal

Locate the check valve to be evaluated (c4000)

Steps	Graphic / Reference
Locate the check valve to be evaluated: • ICT reference pump • Wash solution pump • ICT aspiration pump **NOTE:** See *ARCHITECT c4000 supply and pump center components*, page 9-153.	

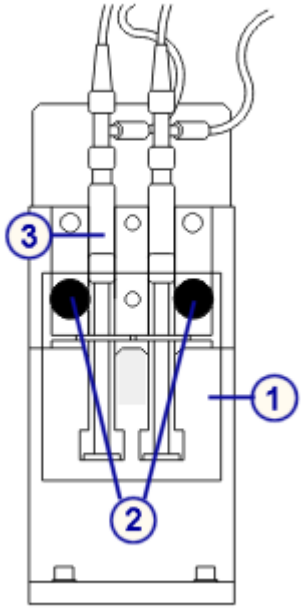
Locate the check valve to be evaluated (c8000)

Steps	Graphic / Reference
Locate the check valve to be evaluated: • ICT reference pump • Wash solution pump • ICT aspiration pump **NOTE:** See *ARCHITECT c8000 supply and pump center components*, page 9-224.	

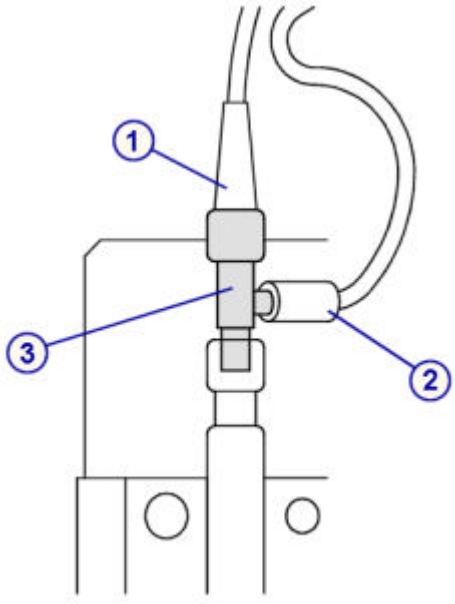
Locate the check valve to be evaluated (c16000)

Steps	Graphic / Reference
1. Locate the check valve to be replaced by performing one of the following: – Wash solution check valve - Open the pump center right door on the front of the processing module. **NOTE:** See the front view illustration of the supply and pump center components for wash solution pump check valve location, *ARCHITECT c16000 supply and pump center components*, page 9-294. – ICT aspiration or reference pump check valve - Open the ICT pump center access door on the rear of the processing module. **NOTE:** See the rear view illustration of the supply and pump center components for ICT aspiration or reference solution pump check valve location, *ARCHITECT c16000 supply and pump center components*, page 9-294.	

Remove the plunger shield and the 1 mL syringe

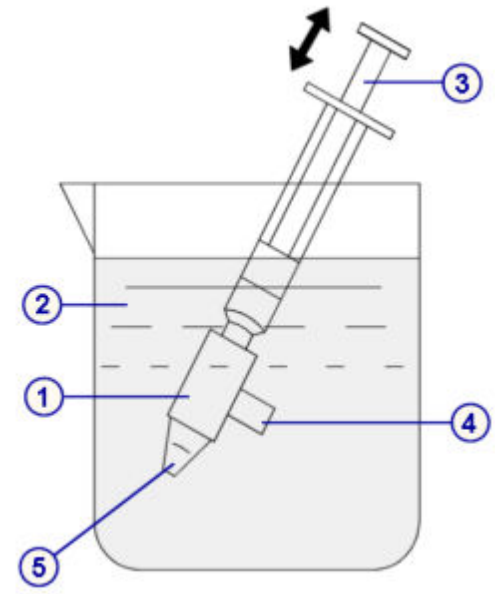
Steps	Graphic / Reference
1. Remove the clear plunger shield [1] by removing the two black knobs [2]. 2. Pull the 1 mL syringe [3] forward to remove it from the syringe holder.	

Remove the check valve tubing

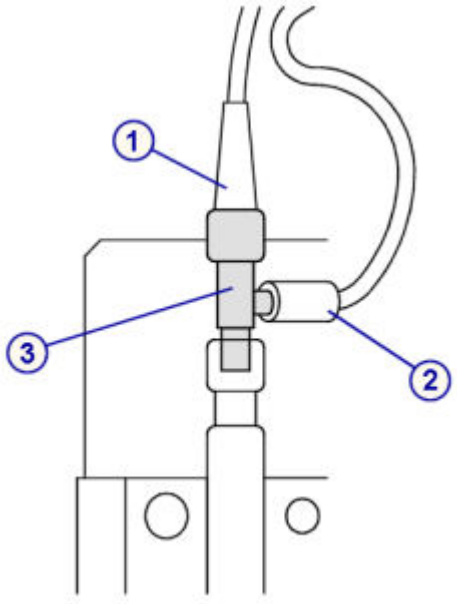
Steps	Graphic / Reference
1. Place absorbent towels under the pump area to absorb any liquid. 2. Disconnect the top [1] and side [2] tubing from the check valve [3].	

Replacement

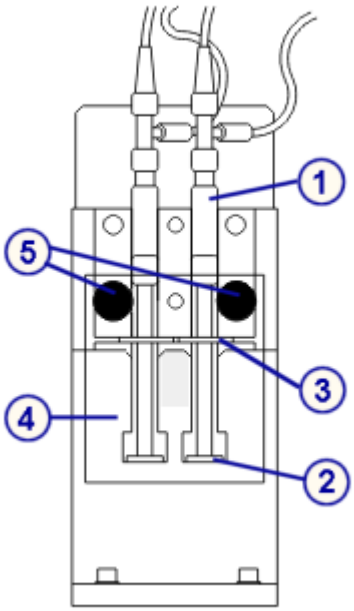
Evaluate the check valve

Steps	Graphic / Reference
1. Place the check valve end [1] into a container of purified water [2]. 2. Pull and push the plunger [3] several times to cycle water through the valve. 3. Place a finger over the side port [4] while you pull the plunger. If you can draw water into the syringe, the check valve must be replaced. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299. 4. Place a finger over the top port [5] while you push the plunger. If you can push water out of the syringe, the check valve must be replaced. See *Replace check valves (c4000)*, page 9-158. See *Replace check valves (c8000)*, page 9-228 or *Replace check valves (c16000)*, page 9-299. 5. *Reinstall the check valve tubing*, page 10-710, if the check valve does not need to be replaced.	

Reinstall the check valve tubing

Steps	Graphic / Reference
1. Reattach the top [1] and side [2] tubing to the check valve [3].	

Reinstall the 1 mL syringe and plunger shield

Steps	Graphic / Reference
1. Reinstall the 1 mL syringe [1]. 2. Verify that the syringe plunger flange [2] is below the U-shaped holder and the bottom of the syringe barrel is in the groove at the bottom of the syringe holder [3]. 3. Reinstall the clear plunger shield [4] and tighten the black knobs [5] finger-tight. 4. Remove the absorbent towel from the pump area.	

Prepare for operation

Steps	Graphic / Reference
1. Perform the following **as-needed** maintenance procedures to remove any air that may be present: – *6063 Flush ICT Module*, page 9-41, for the ICT reference and ICT aspiration pumps – *2155 Flush Bulk Solutions*, page 9-37, for the wash solution pump. 2. Check for leaks while performing the flush. If drips or leaks are observed, see *Processing module observed problems (c System)*, page 10-516.	

Verification

Steps	Graphic / Reference
Verification occurs during preparation for operation. No further verification is required.	

Inspect the cuvette segment (*c* System)

Perform this procedure to inspect the cuvette segment.

Prerequisite	NA
Module status	Stopped or Ready
User access level	General operator
Supplies	• Line-free absorbent towel • Slotted screwdriver • Gloves

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

IMPORTANT: Wear gloves when performing the following steps. Residual oil from an ungloved hand may cause imprecise optical reads.

Remove the cuvette segment to inspect

Refer to:

- For the *c*4000:
  - *Remove cuvette segment*, page 9-141
- For the *c*8000:

- *Remove cuvette segment*, page 9-208

- For the *c*16000:
  - *Remove cuvette segment*, page 9-278

Inspect the cuvette

1. Inspect each cuvette segment for damage by gently pulling downwards on the segment base at several points along the segment. If damage is discovered, replace the cuvette segment.
2. Inspect the individual glass cuvettes within the segment for damage. If damage is discovered, replace the damaged cuvette.

Reinstall the cuvette segment

Refer to:

- For the *c*4000:
  - *Install the cuvette segment*, page 9-143
- For the *c*8000:
  - *Install the cuvette segment*, page 9-210
- For the *c*16000:
  - *Install the cuvette segment*, page 9-279

Verification

Perform ***carousels*** diagnostic procedure *3010 Reaction Carousel Home / Move*, page 10-640, to verify the cuvette segment is installed properly.

Remove the sample carousel (*c*8000/*c*16000)

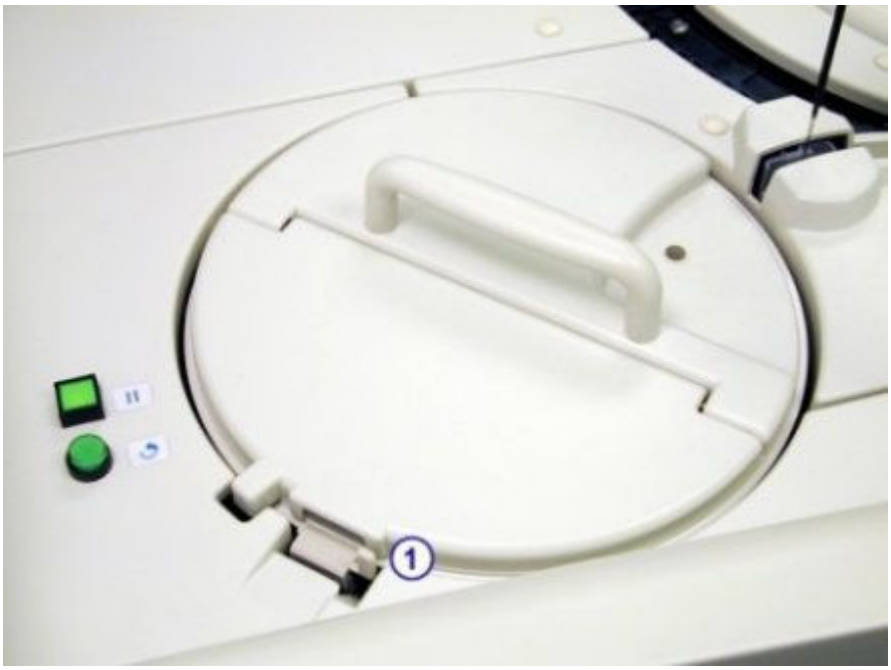
Perform this procedure to remove the sample carousel to perform a maintenance procedure or troubleshoot a problem with the processing module.

Prerequisite	NA
Module status	Ready
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To remove the sample carousel:

1. Verify that the sample carousel access indicator light (square) is illuminated.
2. Remove the sample carousel cover by pulling the lever and lifting the cover. [1]



3. Carefully lift the sample carousel straight up from the sample carousel platform.

IMPORTANT: When transporting the sample carousel, avoid splashing sample outside of the sample cups and/or tubes.

To reinstall the carousel, see *Reinstall the sample carousel (c8000/c16000)*, page 10-713.

Related information...

- *Sample carousel (c8000)*, page 1-59
- *Sample carousel (c16000)*, page 1-79

Reinstall the sample carousel (*c*8000/*c*16000)

Perform this procedure to reinstall the sample carousel.

Prerequisite	NA
Module status	Ready
User access level	General operator
Supplies	NA

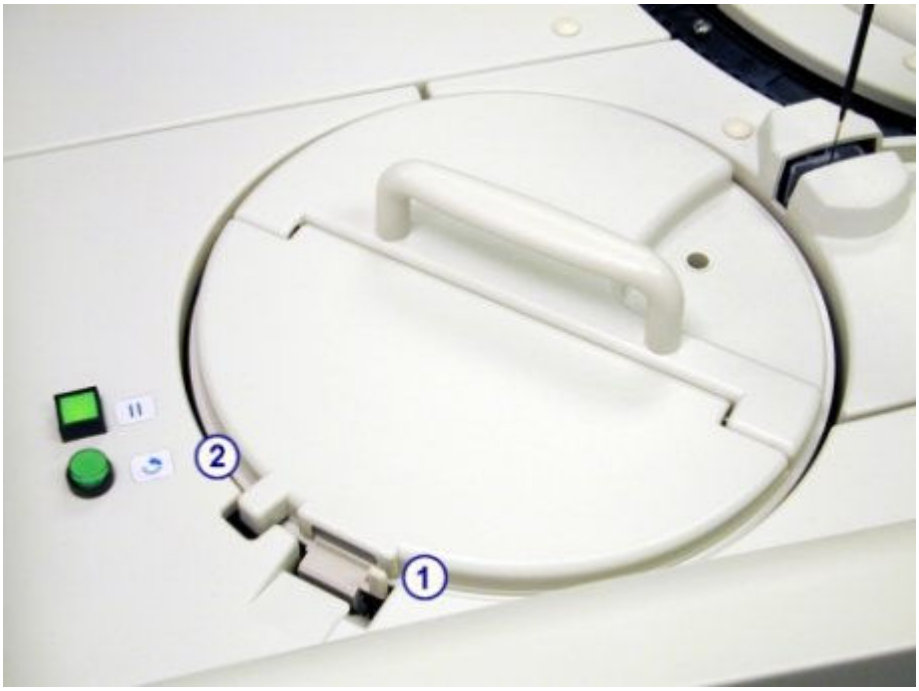
CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To reinstall the sample carousel:

IMPORTANT: When transporting the sample carousel, avoid splashing sample outside of the sample cups and/or tubes.

1. Place the sample carousel on the carousel platform.
2. Align the carousel by rotating it until it is seated on the alignment pins.

   NOTE: When the sample carousel is correctly aligned on the carousel platform you cannot manually turn the carousel.
3. Replace the sample carousel cover by pulling the lever [1], aligning the tab [2], and then releasing the lever.



Related information...

- *Sample carousel (c8000)*, page 1-59
- *Sample carousel (c16000)*, page 1-79

Manually unloading reagent carrier(s) from the reagent carousel (*i*1000SR)

Prerequisite	NA
Module status	Stopped
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to product-specific information described in *Chemical hazards*, page 8-7.

To unload a reagent carrier:

1. Open the processing center cover to access the reagent carousel door.
2. Turn the reagent carousel cover knob counterclockwise 180 degrees to open the carousel cover.
3. Push in and pull up on the reagent carrier to remove the carrier.

Sample handler corrective action procedures

The following procedures may be recommended as corrective action for resolving error messages and observed problems associated with the RSH (robotic sample handler):

- *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715
- *Remove sample carrier(s) from the carrier transport and aspiration area (RSH - c4000/i1000SR/ci4100)*, page 10-716
- *Access RSH Extension carrier exchange area*, page 10-718
- *Replenish RSHx empty carrier storage area*, page 10-719

Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for *c*4000/*i*1000SR/*ci*4100)

Perform this procedure to remove sample carrier(s) from the RSH (robotic sample handler) carrier transport and carrier positioner(s) after power is interrupted to the processing module(s).

Prerequisite	NA
Module status	Offline
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To remove sample carrier(s) from the RSH (robotic sample handler) carrier transport and carrier positioner(s):

1. Lift the RSH bay covers and observe the carrier transport and carrier positioner(s) for the presence of a sample carrier(s).

   NOTE: If there are no carrier(s) on the carrier transport or positioner(s), no further action is required.

2. Remove the carrier(s) carefully by lifting them up and out of their location.

   IMPORTANT: When removing or transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

3. Close the RSH bay covers.

To resume processing:

- If a UPS (uninterruptible power supply) was powering the system and the RSH was stopped prior to the loss of power, no further action is required.
- If power was lost prior to stopping the RSH the samples in the sample carrier on the carrier transport and the surrounding area may have been contaminated by sample splashing as the RSH carrier transport motor loses power. Discard all sample cups and/or tubes in this carrier. Perform ***as-needed*** maintenance procedures *6311 RSH Cleaning*, page 9-102, to decontaminate the carrier transport and *6038 External Decontamination*, page 9-108, to clean the sample carrier.

Related information…

- *RSH - robotic sample handler (c8000/c16000/i2000SR)*, page 1-166

Remove sample carrier(s) from the carrier transport and aspiration area (RSH - *c*4000/*i*1000SR/*ci*4100)

Perform this procedure to remove sample carrier(s) from the RSH (robotic sample handler) carrier transport and aspiration area after power is interrupted to the processing module(s).

Prerequisite	NA
Module status	Offline
User access level	General operator
Supplies	NA

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

To remove sample carrier(s) from the RSH (robotic sample handler) carrier transport and aspiration area:

1. Open the processing module cover and observe the carrier transport and aspiration area for the presence of a sample carrier(s).

   NOTE: If there are no carrier(s) on the carrier transport or aspiration area, no further action is required.

2. Remove the carrier(s) carefully by lifting them up and out of their location.

   IMPORTANT: When removing or transporting sample carriers, avoid splashing sample outside of the sample cups and/or tubes.

3. Close the processing module cover.

To resume processing:

- If a UPS (uninterruptible power supply) was powering the system and the RSH was stopped prior to the loss of power, no further action is required.
- If power was lost prior to stopping the RSH the samples in the sample carrier on the carrier transport and the surrounding area may have been contaminated by sample splashing as the RSH carrier transport motor loses power. Discard all sample cups and/or tubes in this carrier.

Perform ***as-needed*** maintenance procedures *6400 RSH Cleaning*, page 9-104 (*i*1000SR) to decontaminate the carrier transport and *6038 External Decontamination*, page 9-108 to clean the sample carrier.

Related information...

- *RSH - robotic sample handler (c4000/i1000SR/ci4100)*, page 1-171

Access RSH Extension carrier exchange area

Perform this procedure to access the RSH Extension (RSHx) carrier exchange area. Sample carriers can be removed or loaded when suggested by the corrective action of an error code.

Prerequisite	ACCELERATOR *p*540 is Paused or Ready
Module status	Stopped or Ready
User access level	General operator
Supplies	Phillips screwdriver

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. For more information, see *Mechanical hazards*, page 8-16.

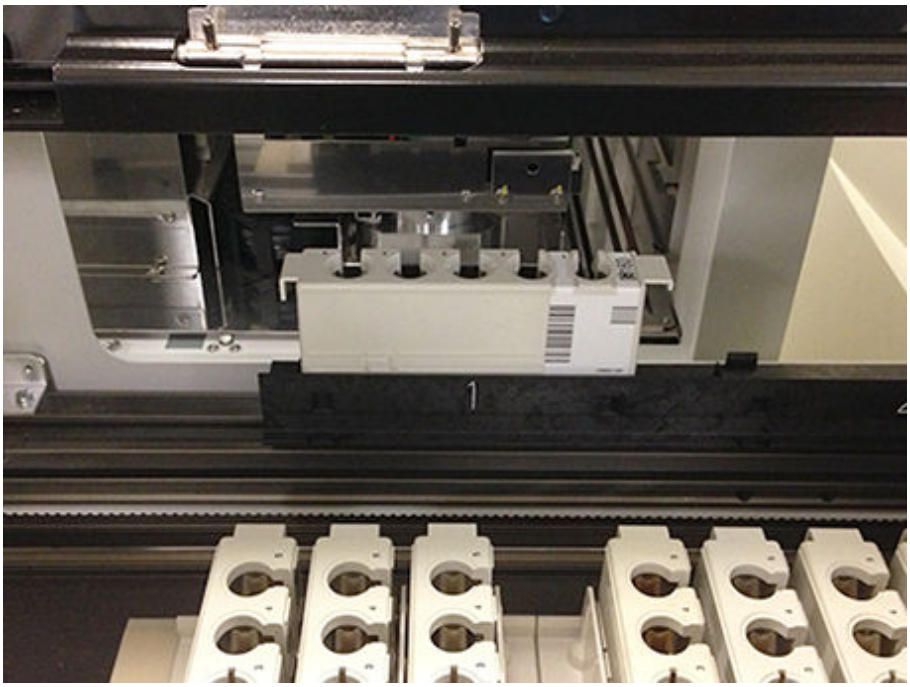
To access the RSHx carrier exchange area:

1. Remove the two Phillips screws [1].

2. Lift the RSHx cover and locate the RSHx carrier exchange area [2].

3. Remove or load sample carrier(s) in the area by carefully lifting them up and out of their location or placing them into their location. When loading a sample carrier, place it into position with the sample bar code label window facing the back of the instrument.

   IMPORTANT: When removing or loading sample carriers, avoid splashing sample outside of the sample tubes.



4. Close the RSHx cover and replace the two Phillips screws.

Replenish RSHx empty carrier storage area

Perform this procedure to replenish the sample carriers in the RSHx empty carrier storage area.

Prerequisite	Sample carriers must not be present on the RSH carrier transport or carrier positioner(s). If present, perform *Remove sample carrier(s) from the carrier transport and carrier positioner(s) (RSH - except for c4000/i1000SR/ci4100)*, page 10-715. The ACCELERATOR *p*540 status must be Running.
RSH status	Ready
User access level	General operator
Supplies	Sample carriers

CAUTION: Biological RISKS. This is an activity or area where you may be exposed to potentially infectious material. See *Biological hazards*, page 8-5.

CAUTION: Moving Parts. Identifies an activity or area where you may be exposed to moving parts. For more information, see *Mechanical hazards*, page 8-16.

To replenish the RSHx empty carrier storage area:

1. Observe the RSHx empty carrier storage area [1] and identify how many sample carrier slots are empty. This is the number of carriers that will be replaced in Step 3.

   NOTE: The number of empty slots is visible through the RSHx cover.

2. Lift the RSH bay cover on an RSHx routine bay.
3. Place empty sample carriers equal to the number identified in Step 1 into the RSHx tray(s) [2]. Ensure the bar code label window faces to the right in the tray.

4. Close the RSH bay cover.
5. Initialize the RSH by performing one of the following:
   - Press the **run** key on the sample handler keypad if available.
   - Select the sample handler graphic on the Snapshot screen, and then select **F8 - Run**.
6. The carrier transport scans the empty sample carriers and moves them to the RSHx empty carrier storage area.

SCC corrective action procedure

Procedures in this sub-section include:

Reseat cables to the SCC

Perform this procedure to reseat the cables to the SCC (system control center) when communication timeout errors occur and/or when suggested by the corrective action of an error code.

NOTE: The procedure cannot be performed on systems with the SCC located behind the access door.

Prerequisite	*Power off the SCC*, page 5-4
Module status	NA
User access level	General operator
Supplies	NA

To reseat cables to the SCC:

1. Locate the desired cable(s) on the *Network hub and CPU back panel*, page 1-13.
2. Disconnect, and then reconnect the cable(s).
3. *Power on the SCC*, page 5-3.

   NOTE: Do not proceed to the next step until the system control center displays the Snapshot screen.
4. *Power on the processing module and/or sample handler*, page 5-7.

Related information…

- *Network hub and CPU back panel*, page 1-13

ARM corrective action procedures

Procedures that are often recommended as corrective actions for resolving error messages and observed problems associated with the ARCHITECT ARM (Automatic Reconstitution Module) accessory include:

- *Change the wash buffer transfer option*, page 10-722
- *Flush the ARM*, page 10-723
- *Calibrate the ARM level sense*, page 10-723

Change the wash buffer transfer option

Perform this procedure to change the wash buffer transfer option from automatic to manual when troubleshooting an ARCHITECT ARM (Automatic Reconstitution Module) accessory failure or as instructed by the corrective action of an error code or observed problem. After you resolve the problem, change the wash buffer transfer option back to automatic.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, Ready, or Running
User access level	System administrator
Supplies	NA

To change the wash buffer transfer option:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Select the desired **Wash buffer transfer** option.
4. Select **Done** to save your changes.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure reagents - supplies window (c8000/c16000/i2000/i2000SR)*, page 2-46

Flush the ARM

Perform this procedure to flush the ARCHITECT ARM (Automatic Reconstitution Module) accessory when poor inlet water quality is indicated on the ARM keypad.

Prerequisite	*Access the Supply status screen - i2000/i2000SR view*, page 5-46 *Access the Supply status screen - i1000SR view*, page 5-47
Module status	All except Offline and Stopped
User access level	General operator
Supplies	NA

To flush the ARM:

1. Verify the ARM is in Ready status. If not, press the **stop** key on the ARM keypad followed by the **start** key.
2. Select **F2 - Update Supplies** on the Supply status screen.

   The Update supplies window displays.
3. Select the **Add Buffer** check box.
4. Select **Done** to initiate buffer transfer.

   The Update supplies window displays.

   NOTE: The ARM automatically flushes once you initiate buffer transfer.
5. Repeat steps 1 through 4 until buffer is successfully transferred to the processing module.

Related information...

- *ARM keypad (i2000/i2000SR)*, page 1-160
- *Supply status screens*, page 5-40
- *Update supplies window - i2000/i2000SR view*, page 5-50

Calibrate the ARM level sense

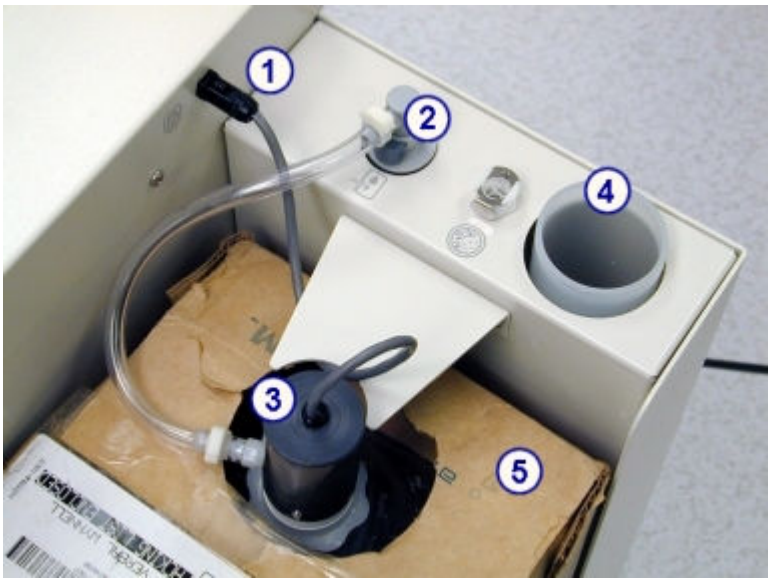
Perform this procedure to calibrate the level sense of the ARCHITECT ARM (Automatic Reconstitution Module) accessory when you install a new tubing assembly or there is too much buffer in the cubitainer when empty is indicated on the ARM keypad.

Prerequisite	NA

Module status	Any
User access level	General operator
Supplies	NA

To calibrate the ARM level sense:

1. Press the **stop** key on the ARM keypad.
2. Disconnect the sensor cable. [1]
3. Disconnect the tubing. [2]



4. Remove the tubing assembly [3] from the concentrated wash buffer cubitainer and place it in the tubing assembly holder. [4]
5. Remove the wash buffer cubitainer [5] from the ARM.
6. Remove the tubing assembly from the tubing assembly holder.
7. Reconnect the sensor cable.
8. Hold the tubing assembly in a vertical position, and then press the **replace buffer** key.

   The amber replace buffer indicator beneath the replace buffer key flashes.

   NOTE: If the tubing assembly is not held vertically the ARM level sense calibration will not be accurate.
9. Disconnect the sensor cable while the indicator continues to flash.
10. Replace the wash buffer cubitainer.
11. Place the wash buffer tubing assembly in the concentrated wash buffer, and then twist the fitting to tighten.
12. Reconnect the sensor cable [1] and supply tubing quick disconnect fitting [2] to the ARM.

To transfer concentrated wash buffer to the processing module, see:

- *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85
- *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88

Related information…

- *ARM keypad (i2000/i2000SR)*, page 1-160

LAS corrective action procedure

Procedures in this sub-section include:

- *Verify LAS communications*, page 10-725

Verify LAS communications

Perform this procedure to change the standard LAS (laboratory automation system) timeout settings and re-initialize communications when you are setting up the LAS or when one of the following error codes occurs:

- 8263 - Invalid recovery type sent by the LAS
- 8359 - Time out exceeded on message sent to LAS
- 8360 - Maximum number of consecutive LAS message timeouts and/or LAS <NAK> messages exceeded
- 8361 - LAS message communication error
- 8464 - LAS initialization communication failed

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Warming, or Ready
User access level	General operator
Supplies	NA

To verify LAS communications:

1. Select **Sample handler** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure sample handler window displays.
3. Select the **Send communications message to LAS** check box to send a re-initialize communications message to the LAS.
4. Select **Done** to send a communications message to the LAS.

   A confirmation message displays.

5. Select **OK** to save your changes and send a communications message to the LAS.

Related information…

- *Configuration screen - System settings view*, page 2-4
- *Configure sample handler window (LAS - standard)*, page 2-59

LIS corrective action procedures

Procedures that are often recommended as a corrective action for resolving error messages and observed problems associated with the LIS (laboratory information system) are:

- *Verify ASTM/serial communications*, page 10-726
- *Verify HL7-TCP/IP communications*, page 10-727

Verify ASTM/serial communications

Perform this procedure to test the ASTM/serial communications when you are setting up the host connections or when one of the following error codes occurs:

- 8354 - (x) connection cannot be established, no response was received.
- 8355 - Time out on frame sent to (x).
- 8364 - The maximum number of connection attempts has been reached for (x).
- 8457 - (x) port disabled.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Ready, or Warming
User access level	General operator
Supplies	NA

To verify ASTM/serial communications:

1. Select **Serial ports** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure serial ports window displays.
3. Select the **Test** button.

   NOTE: The test button is available only when the host connection is enabled. To enable the host connection, see *Enable or disable the host or secondary HL7 connections*, page 5-417.

   The Test connection window displays.

4. Select the channel to be tested.
5. Select the **Test** button.

   The connection test results are displayed.
6. Select **Done** to return to the Configure serial ports window.

   NOTE: If the connection tests pass, no further action is required. If the connection tests fail, verify the serial cable from the SCC to the LIS is connected.
7. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure serial ports window*, page 2-63
- *Test connection window*, page 2-64

Verify HL7-TCP/IP communications

Perform this procedure to test the HL7-TCP/IP communications when you are setting up the host or secondary HL7 connections or when one of the following error codes occurs:

- 8277 - (x) error detected when transmitting data to host.
- 8365 - Unable to transmit data to host, Host communication disabled.
- 8366 - Unable to establish connection with host, no response was received.
- 8367 - Unable to establish connection with communication service, no response was received.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Ready, or Warming
User access level	General operator
Supplies	NA

To verify HL7-TCP/IP communications:

1. Select **TCP/IP ports** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure TCP/IP ports window displays.
3. Select the **Save** / **Test** button.

   NOTE: The test button is available only when the host connection is enabled. To enable the host connection, see *Enable or disable the host or secondary HL7 connections*, page 5-417.

The Test connection window displays.

4. Select the channel(s) to be tested.
5. Select the **Test** button.

   The connection test results display.
6. Select **Done** to return to the Configure TCP/IP ports window.

   NOTE: If the connection tests pass, no further action is required. If the connection tests fail, verify that the correct port numbers and IP addresses for the channels are entered.
7. Select **Done** to return to the Configuration screen.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure TCP/IP ports window*, page 2-64
- *Test connection window*, page 2-64

AAT corrective action procedure

Corrective action procedures for the AAT (ARCHITECT Advisor alert tower) include:

- *Verify ARCHITECT Advisor alert tower light function*, page 10-728

Verify ARCHITECT Advisor alert tower light function

Perform this procedure to verify the ARCHITECT Advisor alert tower light turns on and off.

Prerequisite	*Access the Configuration screen - System settings view*, page 2-5
Module status	Stopped, Ready, or Warming
User access level	General operator
Supplies	NA

To verify the ARCHITECT Advisor alert tower light function:

1. Select **Serial ports** from the **System categories** list on the Configuration screen.
2. Select **F6 - Configure**.

   The Configure serial ports window displays.
3. Select the **Port type** list button, and then select **AAT**.
4. Select the **Test** button.

NOTE: The test button is available only when the ARCHITECT Advisor alert option is configured On, see *Change the ARCHITECT Advisor alert options*, page 2-40.

The ARCHITECT Advisor alert tower lights turn off (if already on) and then blink red 3 times, yellow 3 times, and green 3 times. After completion of the test, the software checks the module status and reactivates the lights as described below:

Yellow

- A caution message is displayed.
- The Reagent icon is blinking.
- The Supply icon is blinking.
- The Exception icon is blinking (Exceptions notification configured On).

Red

The module status has unexpectedly transitioned from Running to Stopped.

NOTE: The light will not blink if the operator transitions the module from Running to Stopped from the SCC.

Green

- Module is Running (steady green).
- The module is in transition from Ready to Running or Running to Ready (blinking green).

NOTE: The green light may not blink if the module transitions from Running to Ready within 5 seconds.

5. Select **Done**.

Related information...

- *Configuration screen - System settings view*, page 2-4
- *Configure serial ports window*, page 2-63

Reagent carryover corrective action procedures

The following procedures may be recommended as a corrective action for resolving error messages and/or sample results observed problems (*c* System).

The procedures are recommended to determine the reagent carryover for Abbott assays. Abbott reagents are configured with SmartWash settings determined by reagent carryover studies that identify assay pairs that fail to meet reagent carryover criteria. Assay pairs meeting the reagent carryover criteria are not configured with SmartWash settings. In some instances, due to system-specific conditions, customers may choose to configure SmartWashes for Abbott assay pairs.

Reagent carryover evaluation for Abbott assays topics include:

Perform the reagent carryover evaluation for Abbott assays

Perform this procedure to determine if reagent carryover exists between specific Abbott reagents.

Use the following definition of assay types:

- Recipient assay - an assay whose results could be affected by reagent carryover from another assay.
- Donor assay - an assay that may contribute reagent carryover into subsequent assays.

NOTE: Reagent carryover cannot occur on the *c*16000 System between reagents on different lines (A-Line or B-Line). To perform testing on the *c*16000 System, ensure that the donor and recipient assays are configured on the same line.

Prerequisite	Verify that the calibrations and control values for the donor and recipient assays are acceptable.
Module status	Ready, Running, or Scheduled pause
User access level	General operator
Supplies	Control material

To perform the reagent carryover evaluation for Abbott assays:

NOTE: The procedure uses Urine Creatinine (CreaCU) as an example donor assay and Microalbumin (µAlb) as an example recipient assay. Substitute your specific donor and recipient assays to evaluate the specific carryover issue experienced in your laboratory.

1. Print the recipient assay (for example, µAlb) SmartWash settings to retain customized configuration detail.
2. Ensure that reagents for both assays are loaded on the system, the assays are calibrated, and the associated control results are acceptable.
3. Load five (5) sample cups of control material with a laboratory-established control range for µAlb (recipient assay) in one (1) sample carrier. The control material used should generate results within the reference range of the assay.
4. Create and run the following patient order.

   NOTE: The Carrier/Position and SIDs are provided as an example. Alternates maybe used. However, the order of the donor and recipient assays and replicates indicated in the test run is critical.

C/P	SID	Assay	Replicates	Description
1/1	99001	Microalbumin	3	Baseline µAlb replicates
1/2	99002	Urine Creatinine	1	Creatinine challenge 1
1/3	99003	Microalbumin	1	µAlb result after challenge 1
1/4	99004	Urine Creatinine	1	Creatinine challenge 2
1/5	99005	Microalbumin	1	µAlb result after challenge 2

5. After all samples are complete, access either the Results review or Stored results screen.
6. Select **F3-Find** and enter 99* (or the first two digits of the SID used) in the SID field and the current date in the date fields.
7. Select the **SID** column header to sort the results by SID.
8. Review control results for the three µAlb (recipient assay) replicates with SID 99001 (or the alternate first SID). These results are the baseline for the recipient assay and should be within the laboratory established control range. If results are out of range, troubleshoot to resolve the issue and repeat the run until results are in the established control range.
9. Review the remaining µAlb (recipient assay) control results with SID 99003 (third SID) and 99005 (fifth SID). These results should be within the laboratory established control range. When compared to the control results (99001), elevated or decreased results indicate that carryover has occurred.

   Example data are shown in the tables below.

Table 10.1: No Carryover Observed

SID	Assay	Result (µg/mL)
99001	µAlb	31
	µAlb	31
	µAlb	31
99002	CreaCU	68.2
99003	µAlb	30
99004	CreaCU	67.4
99005	µAlb	31

Table 10.2: Carryover Observed

SID	Assay	Result (µg/mL)
99001	µAlb	31
	µAlb	31
	µAlb	31
99002	CreaCU	65.8

SID	Assay	Result (µg/mL)
99003	µAlb	165
99004	CreaCU	65.5
99005	µAlb	165

10. Interpret the results.
    - If reagent carryover is present, the recipient assay result following the donor assay will not match the baseline results of the recipient assay.
    - If reagent carryover is not present, the recipient assay result after the donor assay will closely agree with the recipient assay's baseline results.

      NOTE: There is no specific value given to determine the acceptance criteria for the replicate difference or percent difference from target. Acceptance criteria may be determined based on precision information or the clinical significance of the assay.

Configure and verify the SmartWash settings

Perform this procedure to configure SmartWash settings to reduce potential carryover between Abbott reagents. Once configured, the settings should be verified to evaluate the effectiveness in reducing the carryover.

The following guidelines, based on testing performed with Abbott reagents, can be used to select a wash solution to use for SmartWash settings:

- Water should be adequate for removing soluble salts.
- Alkaline washes (Detergent A and 10% Detergent B) are more effective than water or 0.5% Acid Wash for removing proteins, latex particles, and viscosity-enhancing contaminants.
- 0.5% Acid Wash is more effective than alkaline or water washes for removing contaminating metals or their salts.

Prerequisite	*Access the Configuration screen - Assay settings - Assay parameters view*, page 2-68
Module status	Stopped or Ready
User access level	System administrator
Supplies	NA

To configure and verify the SmartWash settings:

1. Select the desired assay(s) from the Assay list, and then select **F6 - Configure**.

   The Configure assay parameters window - General view displays.

2. Select the **SmartWash** option.

   The Configure assay parameters window - SmartWash view displays.

3. Select **Add**.

   The Add / edit SmartWash - Rgt 1 probe view displays.

4. Select the desired reagent(s) from the **Reagents** list.
5. Select the **Wash** list button, and then select the desired wash solution.
6. Enter the volume (20 - 345 µL) of the wash solution in the **Volume** data entry box.
7. Enter the number of replicates in the **Replicates** data entry box.
8. Select **Done**.
9. Repeat steps 3 through 8, selecting the **Rgt 2 probe** option for assays with an R2 reagent.
10. Use the **Previous/Next** buttons to display each assay if you selected more than one, and then repeat steps 3 through 9 for each. ***(optional)***
11. Select **Done** to return to the Configuration screen - Assay settings view.
12. *Perform the reagent carryover evaluation for Abbott assays*, page 10-730, to ensure the SmartWash is adequate.
    - If this wash is successful in reducing carryover, use this configuration for the SmartWash settings.
    - If this wash is unsuccessful, repeat this procedure using a different wash solution, volume, and/or replicate settings.

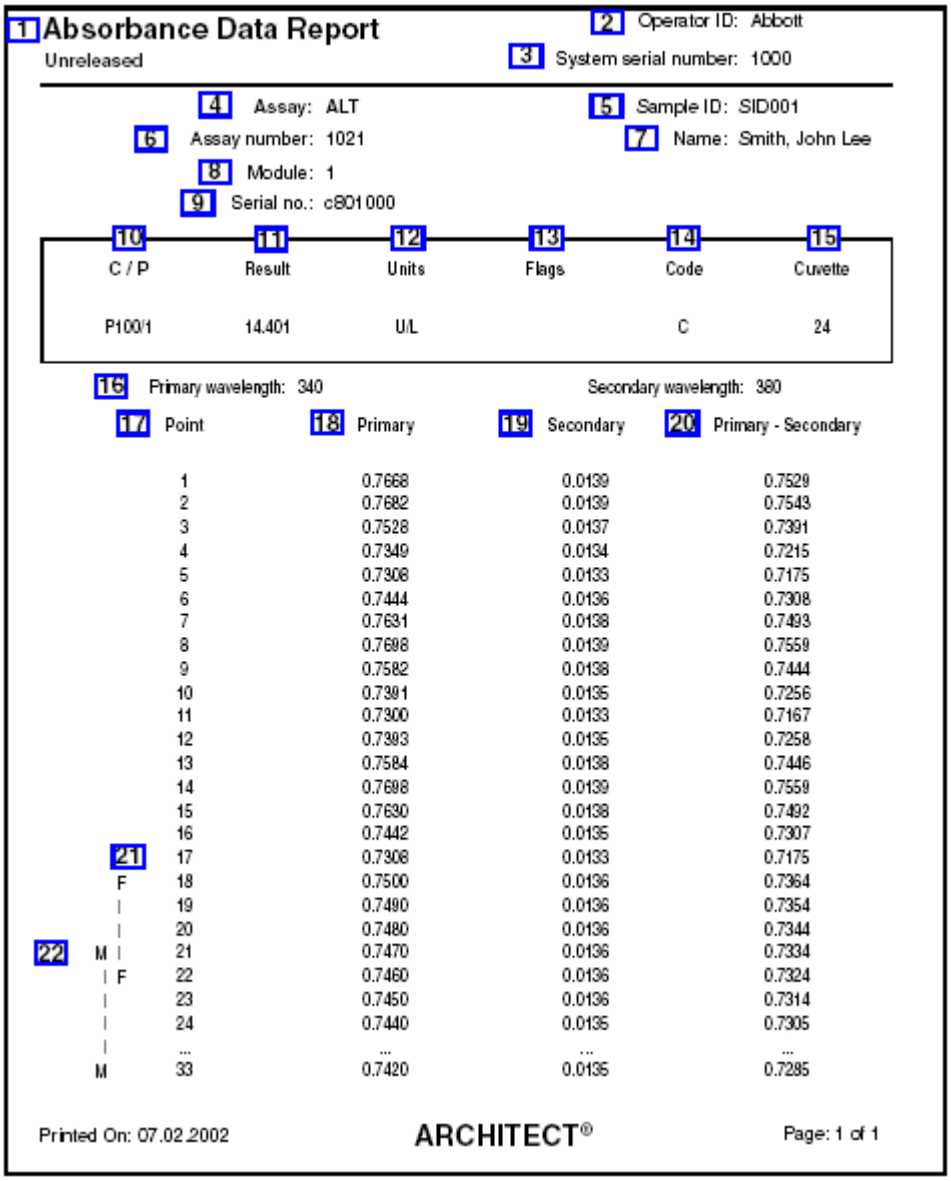
NOTES

Introduction

The following printed reports are generated by the ARCHITECT System:

Absorbance Data Report (*c* System)

Use this report to troubleshoot assay results.



1 Absorbance Data Report
Unreleased
2 Operator ID: Abbott
3 System serial number: 1000
4 Assay: ALT
5 Sample ID: SID001
6 Assay number: 1021
7 Name: Smith, John Lee
8 Module: 1
9 Serial no.: c801000

10 C / P	11 Result	12 Units	13 Flags	14 Code	15 Cuvette
P100/1	14.401	U/L		C	24

16 Primary wavelength: 340 Secondary wavelength: 380

17 Point	18 Primary	19 Secondary	20 Primary - Secondary
1	0.7668	0.0139	0.7529
2	0.7682	0.0139	0.7543
3	0.7528	0.0137	0.7391
4	0.7349	0.0134	0.7215
5	0.7308	0.0133	0.7175
6	0.7444	0.0136	0.7308
7	0.7631	0.0138	0.7493
8	0.7698	0.0139	0.7559
9	0.7582	0.0138	0.7444
10	0.7391	0.0135	0.7256
11	0.7300	0.0133	0.7167
12	0.7393	0.0135	0.7258
13	0.7584	0.0138	0.7446
14	0.7698	0.0139	0.7559
15	0.7630	0.0138	0.7492
16	0.7442	0.0135	0.7307
17	0.7308	0.0133	0.7175
18	0.7500	0.0136	0.7364
19	0.7490	0.0136	0.7354
20	0.7480	0.0136	0.7344
21	0.7470	0.0136	0.7334
22	0.7460	0.0136	0.7324
23	0.7450	0.0136	0.7314
24	0.7440	0.0135	0.7305
...	...	...	...
33	0.7420	0.0135	0.7285

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Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Assay:

   Shows the name of the assay.
5. Sample ID:

   Shows the bar code number or ID assigned to the sample.
6. Assay number:

   Shows the number defined for the assay.
7. Name:

   Shows the name of the patient or control.
8. Module:

   Shows the module number on which the assay was run.
9. Serial no.:

   Shows the serial number of the module on which the assay was run.
10. C / P:

    Shows the carrier or carousel (CRSL) ID and position for the sample.
11. Result:

    Shows the value and (where applicable) interpretation of the result.
12. Units:

    Shows the units for the result.
13. Flags:

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
14. Code:

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
15. Cuvette:

    Shows the number of the cuvette used to process the result.
16. Primary wavelength and Secondary wavelength:

    Shows the primary and secondary wavelengths used to measure the assay concentration.
17. Point (column):

    Shows the read points 1 through 33.
18. Primary (column):

    Shows the absorbance readings for each read point at the primary wavelength.
19. Secondary (column):

    Shows the absorbance readings for each read point at the secondary wavelength.
20. Primary - Secondary (column):

    Shows the difference in absorbance of the primary wavelength minus the secondary wavelength.
21. F---F:

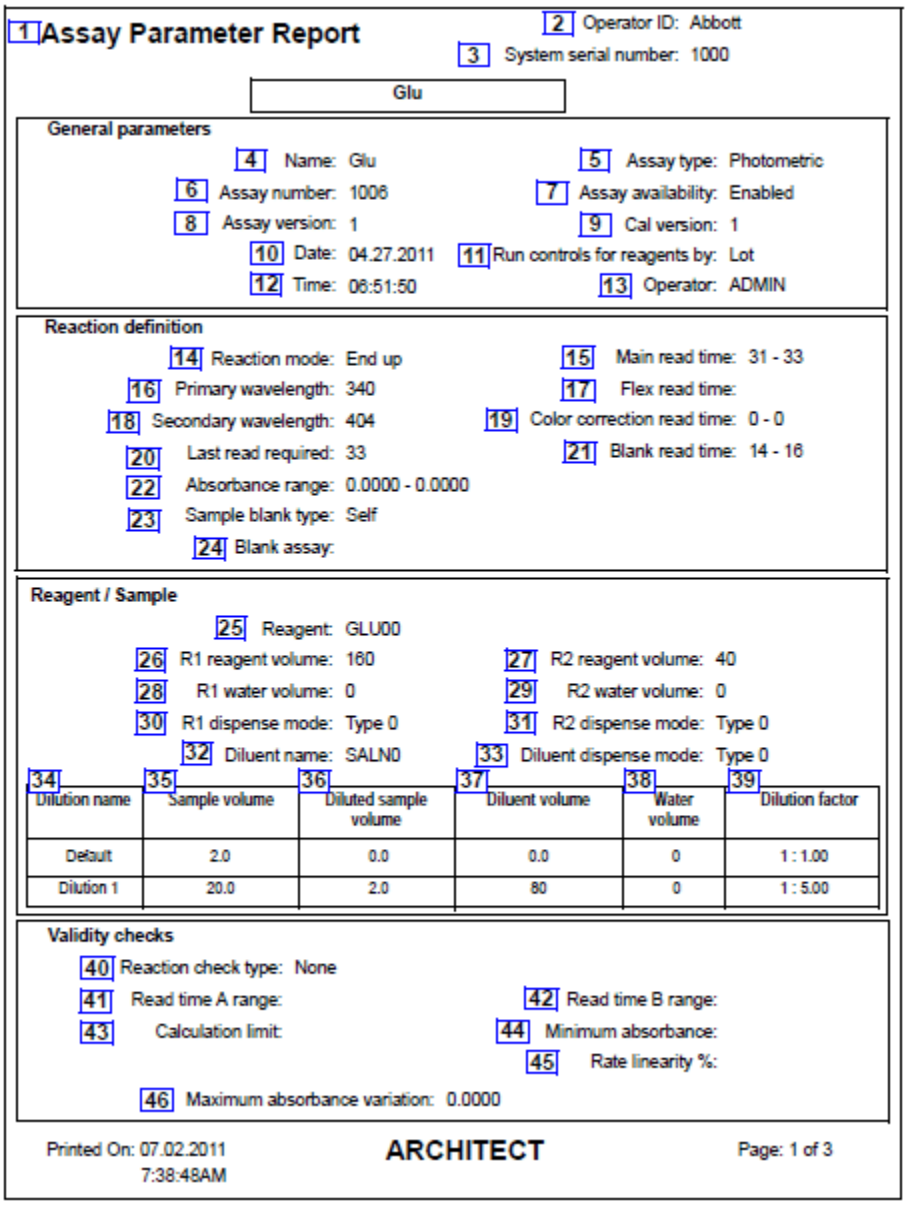
    Indicates the photometric points included in the flex read time window for the assay.

22. M-----M:

    Indicates the photometric points included in the main read time window for the assay.

Assay Parameter Report (*c* System)

Use this report as a hardcopy record of your configured assay parameters.



1 Assay Parameter Report

2 Operator ID: Abbott
3 System serial number: 1000

Glu

General parameters

4 Name: Glu
5 Assay type: Photometric
6 Assay number: 1006
7 Assay availability: Enabled
8 Assay version: 1
9 Cal version: 1
10 Date: 04.27.2011
11 Run controls for reagents by: Lot
12 Time: 06:51:50
13 Operator: ADMIN

Reaction definition

14 Reaction mode: End up
15 Main read time: 31 - 33
16 Primary wavelength: 340
17 Flex read time:
18 Secondary wavelength: 404
19 Color correction read time: 0 - 0
20 Last read required: 33
21 Blank read time: 14 - 16
22 Absorbance range: 0.0000 - 0.0000
23 Sample blank type: Self
24 Blank assay:

Reagent / Sample

25 Reagent: GLU00
26 R1 reagent volume: 160
27 R2 reagent volume: 40
28 R1 water volume: 0
29 R2 water volume: 0
30 R1 dispense mode: Type 0
31 R2 dispense mode: Type 0
32 Diluent name: SALN0
33 Diluent dispense mode: Type 0

34 Dilution name	35 Sample volume	36 Diluted sample volume	37 Diluent volume	38 Water volume	39 Dilution factor
Default	2.0	0.0	0.0	0	1 : 1.00
Dilution 1	20.0	2.0	80	0	1 : 5.00

Validity checks

40 Reaction check type: None
41 Read time A range:
42 Read time B range:
43 Calculation limit:
44 Minimum absorbance:
45 Rate linearity %:
46 Maximum absorbance variation: 0.0000

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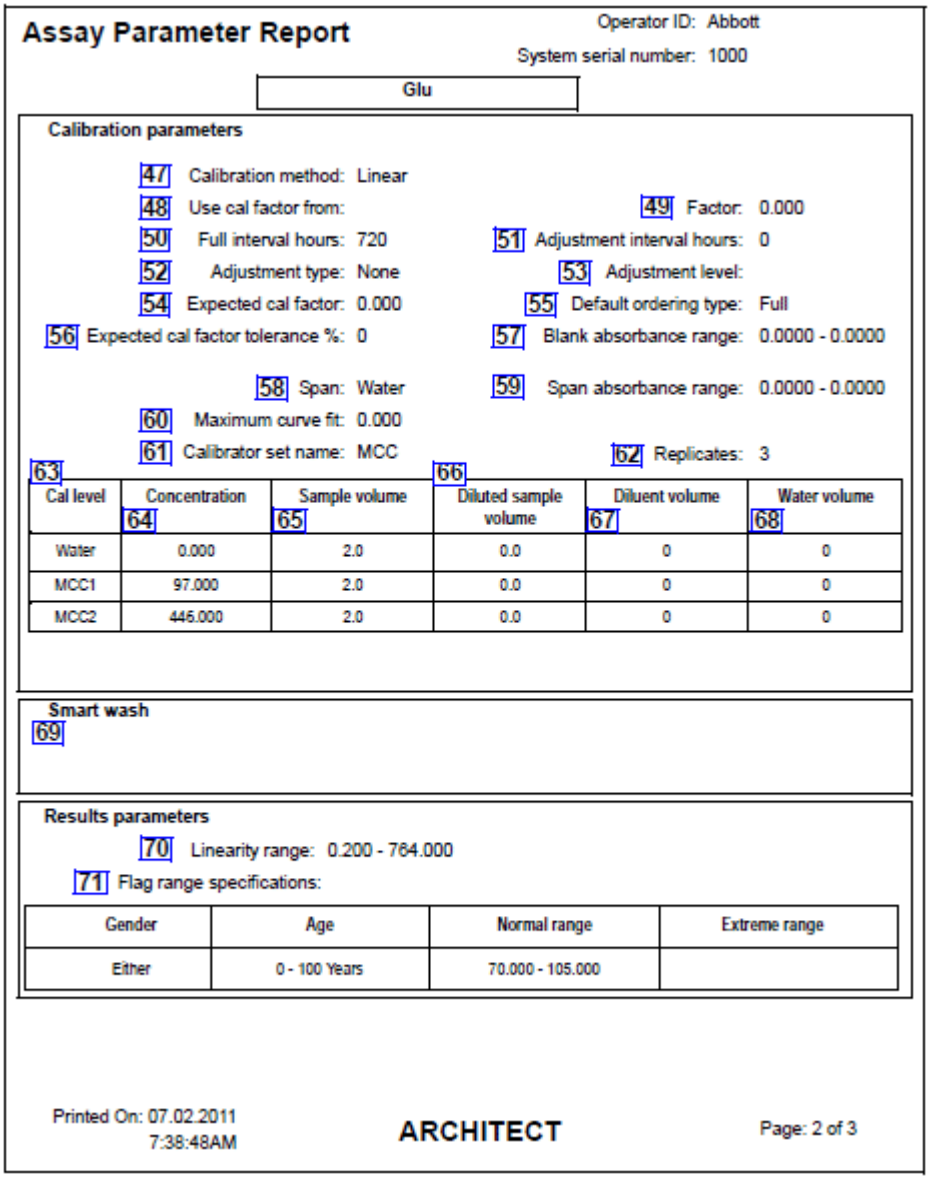

Assay Parameter Report

Operator ID: Abbott
System serial number: 1000

Glu

Calibration parameters

47 Calibration method: Linear
48 Use cal factor from:
49 Factor: 0.000
50 Full interval hours: 720
51 Adjustment interval hours: 0
52 Adjustment type: None
53 Adjustment level:
54 Expected cal factor: 0.000
55 Default ordering type: Full
56 Expected cal factor tolerance %: 0
57 Blank absorbance range: 0.0000 - 0.0000
58 Span: Water
59 Span absorbance range: 0.0000 - 0.0000
60 Maximum curve fit: 0.000
61 Calibrator set name: MCC
62 Replicates: 3

63 66

Cal level	Concentration 64	Sample volume 65	Diluted sample volume	Diluent volume 67	Water volume 68
Water	0.000	2.0	0.0	0	0
MCC1	97.000	2.0	0.0	0	0
MCC2	446.000	2.0	0.0	0	0

Smart wash
69

Results parameters

70 Linearity range: 0.200 - 764.000
71 Flag range specifications:

Gender	Age	Normal range	Extreme range
Either	0 - 100 Years	70.000 - 105.000	

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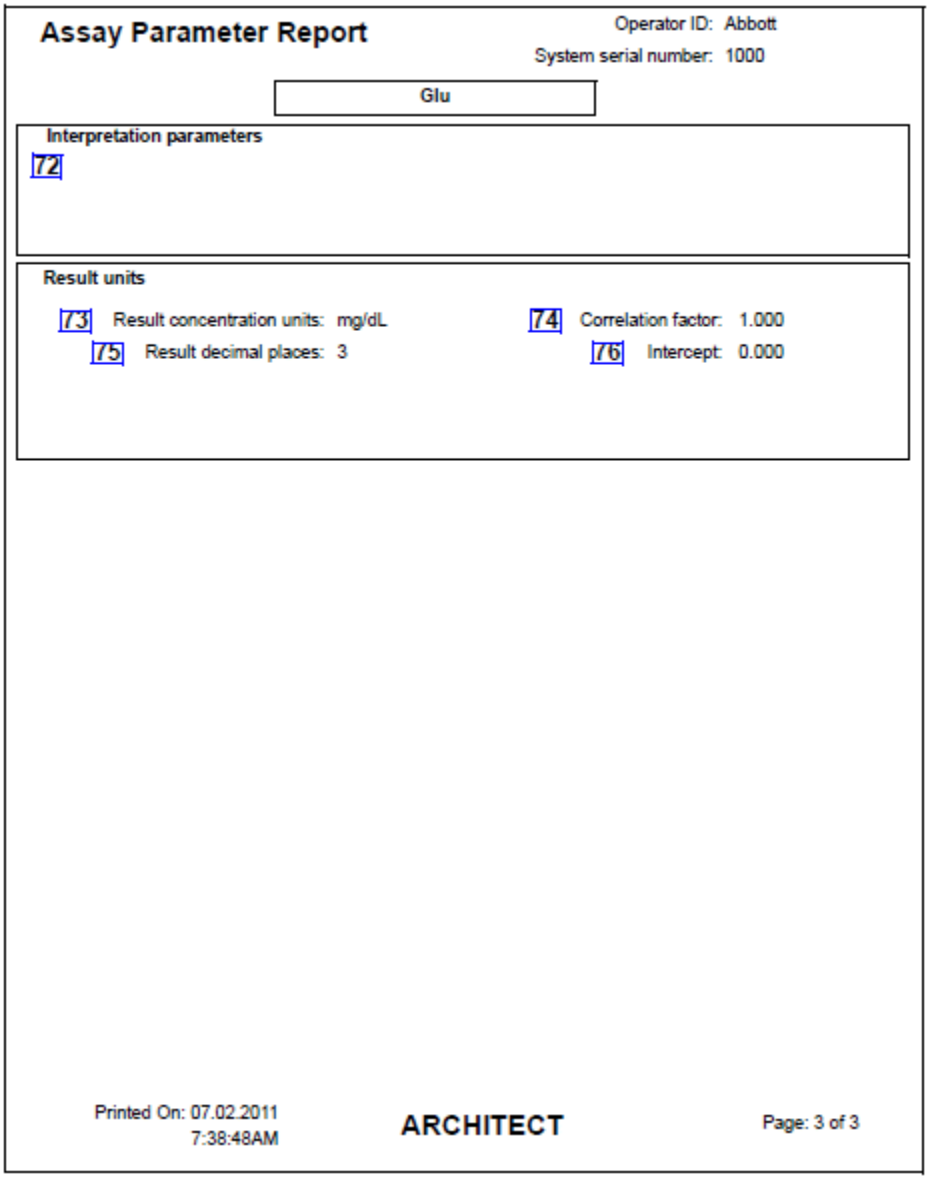


Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Name:

   Shows the name of the assay.
5. Assay type:

   Shows the assay processing protocol type defined for the assay.

Options are:

- Photometric
- Potentiometric
- Sample Interference Index

6. Assay number:

   Shows the number defined for the assay.

   NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

7. Assay availability:

   Shows the availability of the assay for ordering.

   Options are:

   - Enabled
   - Disabled
   - Patient Disabled

8. Assay version:

   Shows the version number of the assay.

9. Cal version:

   Shows the calibration version of the assay.

10. Date:

    Shows the date the assay was last edited.

11. Run controls for reagents by:

    Shows the reagent kit option to run for QC.

    Options are:

    - Lot: Run QC on only one kit per lot (Default)
    - Kit: Run QC on every kit in the lot

12. Time:

    Shows the time the assay was last edited.

13. Operator:

    Shows the ID of the operator logged on when the assay was last edited.

14. Reaction mode:

    Shows the mathematical model used to determine the concentration of the assay in the sample.

    Options are:

    End up

    End down

    Rate up

    Rate down

15. Main read time:

    Shows the starting (1-33) and ending (1-33) photometric points for the main read time.

16. Primary wavelength:

    Shows the primary wavelength used to measure the assay concentration.

17. Flex read time:

    Shows the starting (1-33) and ending (1-33) photometric read points for the flex read time.

18. Secondary wavelength:

    Shows the secondary wavelength used to measure the assay concentration.

19. Color correction read time:

    Shows the starting (1-33) and ending (1-33) photometric points for the color correction read time.

20. Last read required:

    Shows the last read (1-33) required for test calculation so the result can be calculated sooner than the entire ten minute protocol.

21. Blank read time:

    Shows the starting (1-33) and ending (1-33) photometric points for the blank read time.

22. Absorbance range:

    Shows the upper and lower limit of absorbance within which all reads for a sample should measure. If any read is outside the absorbance limits during main or flex time reads, the data is not used to calculate the result.

23. Sample blank type:

    Shows the type of sample blank configured for the assay.

    Options are:

    - None
    - Self

24. Blank assay:

    This feature is not available at this time.

25. Reagent:

    Shows the reagent used for the assay.

26. R1 reagent volume:

    Shows the R1 reagent volume the module dispenses into the cuvette.

27. R2 reagent volume:

    Shows the R2 reagent volume the module dispenses into the cuvette.

28. R1 water volume:

    Shows the volume of water the module dispenses along with the R1 reagent when concentrated reagents are used.

29. R2 water volume:

Shows the volume of water the module dispenses along with the R2 reagent when concentrated reagents are used.

30. R1 dispense mode:

    Shows the reagent pipetting profile the system uses to aspirate and dispense R1 reagents.

31. R2 dispense mode:

    Shows the reagent pipetting profile the system uses to aspirate and dispense R2 reagents.

32. Diluent name:

    Shows the sample diluent the module uses for the assay.

33. Diluent dispense mode:

    Shows the reagent pipetting profile the system uses to aspirate and dispense sample diluent reagents.

34. Dilution name (column):

    Shows the name(s) of the dilutions defined for the assay.

35. Sample volume (column):

    Shows the volume of the sample to be aspirated from the sample cup or tube for the dilution.

36. Diluted sample volume (column):

    Shows the volume of diluted sample to be aspirated from the cuvette for the dilution.

37. Diluent volume (column):

    Shows the volume of the diluent to be aspirated from the cuvette for the dilution.

38. Water volume (column):

    Shows the volume of water to be dispensed along with the diluent when concentrated diluents are used for the dilution.

39. Dilution factor (column):

    Shows the sample dilutions the system calculated based on the volumes you specified.

40. Reaction check type:

    Shows the reaction check type defined for the assay.

    Options are:

    - End Subtraction
    - End Ratio
    - Rate Subtraction
    - Rate Ratio
    - None

41. Read time A range:

    Shows the starting (1-33) and ending (1-33) photometric points for read time A.

42. Read time B range:

Shows the starting (1-33) and ending (1-33) photometric points for read time B.

43. Calculation limit:

    Shows the lower and upper limits for the acceptable range for the calculated results of the comparison of the two read times.

44. Minimum absorbance:

    Shows the minimum limit within the read time B in ABS/min when End ratio or Rate ratio is used as the reaction check type.

45. Rate linearity %:

    Shows the allowable percent variation in the change in absorbance measured during the first three reads as compared to the last three reads in the main and flex read time.

46. Maximum absorbance variation:

    Shows the maximum acceptable absorbance variation (0 - 3.2) allowed for absorbance readings within the main read time.

47. Calibration method:

    Shows the calibration method defined for the assay.

    Options are:

    - Abs
    - Factor
    - Linear
    - Logit 4
    - Spline
    - Use Cal Factor / Blank

48. Use cal factor from:

    Shows the assay to be referenced for calibration information to be used for result calculation.

49. Factor:

    Shows the factor used to calculate the concentration of a result for the assay.

50. Full interval hours:

    Shows the amount of time, in hours, that the full calibration curve is valid.

51. Adjustment interval hours:

    Shows the amount of time, in hours, that the adjustment calibration curve is valid.

52. Adjustment type:

    Shows the type of adjustment calibration defined for the assay.

    Options are:

    - None
    - Blank
    - 1 Point
    - 2 Point

53. Adjustment level:

    Shows the calibrator level(s) used for the 1-point or 2-point adjustment calibration.

54. Expected cal factor:

    Shows the expected target value for the cal factor assay when the system calculates the calibration curve.

55. Default ordering type:

    Shows the default calibration ordering type for the assay if the Calibration type: Adjust type is defined.

56. Expected cal factor tolerance %:

    Shows the percent tolerance from the expected target value for the Cal factor that is allowed when the system calculates the calibration curve.

57. Blank absorbance range:

    Shows the upper and lower limits for the acceptable blank absorbance range if a data check is desired.

58. Span:

    Shows the calibrator level used to perform the calibration data check.

59. Span absorbance range:

    Shows the upper and lower limits for the acceptable absorbance range if a span check is desired.

60. Maximum curve fit:

    Shows the maximum limit of the sum of the absolute values of the difference between the approximated absorbance of the calculated calibration curve and the measured absorbance.

61. Calibrator set name:

    Shows the name defined for the calibrator set.

62. Replicates:

    Shows the number of calibrator replicates the system uses when calculating the calibration curve.

63. Cal level (column):

    Shows the name configured for each calibrator level for the assay.

64. Concentration (column):

    Shows the concentration value configured for each calibrator level for the assay. The calibrator concentration has 4 decimal places (not shown in the example).

65. Sample volume (column):

    Shows the sample volume configured for each calibrator level for the assay.

66. Diluted sample volume (column):

    Shows the diluted sample volume configured for each calibrator level for the assay.

67. Diluent volume (column):

    Shows the diluent volume configured for each calibrator level for the assay.

68. Water volume (column):

    Shows the water volume configured for each calibrator level for the assay.

69. Smart wash:

    Shows the SmartWash parameters configured for the assay.

70. Linearity range:

    Shows the linearity range defined for the assay.

71. Flag range specifications:

    Shows the age and gender-specific normal and extreme flags specified for the assay.

72. Interpretation Parameters:

    Shows the interpretation parameters defined for the assay.

73. Result concentration units:

    Shows the result concentration units configured for the assay.

74. Correlation factor:

    Shows the correlation factor configured if the result required calculation to match another system.

75. Result decimal places:

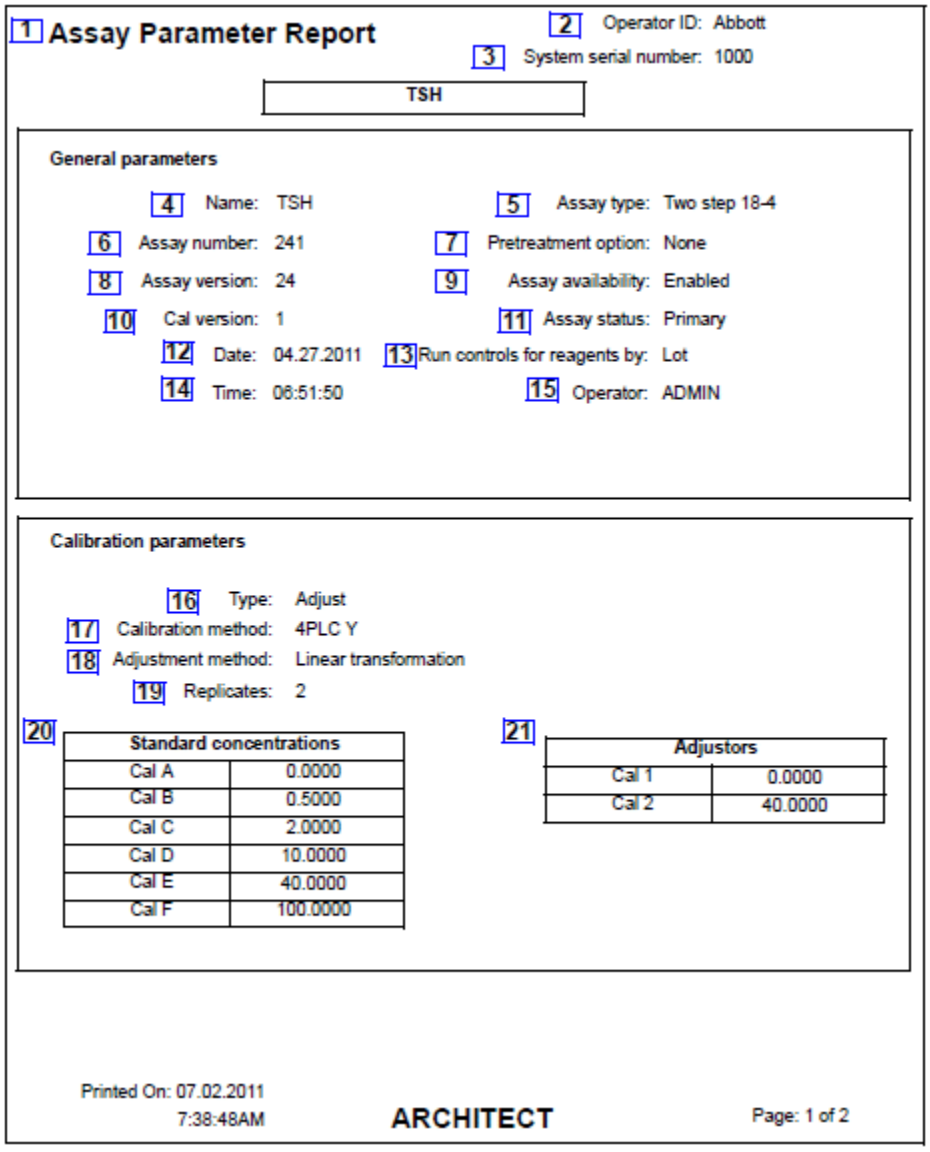
    Shows the number of digits specified to the right of the decimal for the result concentration units.

76. Intercept:

    Shows the intercept configured if the result requires a calculation to match another system.

Assay Parameter Report (*i* System)

Use this report as a hardcopy record of your configured assay parameters.



1 Assay Parameter Report

2 Operator ID: Abbott

3 System serial number: 1000

TSH

General parameters

4 Name: TSH

5 Assay type: Two step 18-4

6 Assay number: 241

7 Pretreatment option: None

8 Assay version: 24

9 Assay availability: Enabled

10 Cal version: 1

11 Assay status: Primary

12 Date: 04.27.2011

13 Run controls for reagents by: Lot

14 Time: 06:51:50

15 Operator: ADMIN

Calibration parameters

16 Type: Adjust

17 Calibration method: 4PLC Y

18 Adjustment method: Linear transformation

19 Replicates: 2

20

Standard concentrations	
Cal A	0.0000
Cal B	0.5000
Cal C	2.0000
Cal D	10.0000
Cal E	40.0000
Cal F	100.0000

21

Adjustors	
Cal 1	0.0000
Cal 2	40.0000

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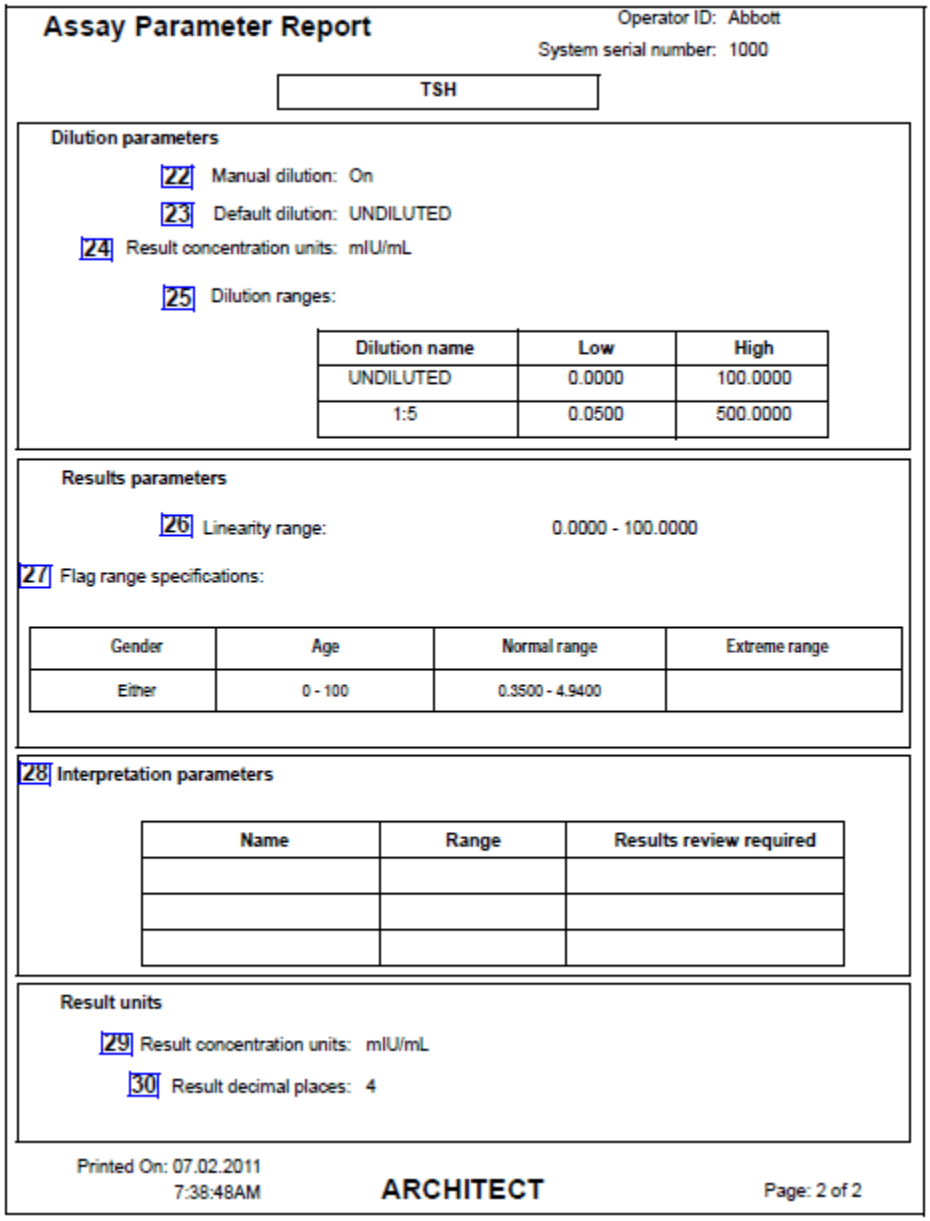

Assay Parameter Report

Operator ID: Abbott
System serial number: 1000

TSH

Dilution parameters

22 Manual dilution: On
23 Default dilution: UNDILUTED
24 Result concentration units: mIU/mL
25 Dilution ranges:

Dilution name	Low	High
UNDILUTED	0.0000	100.0000
1:5	0.0500	500.0000

Results parameters

26 Linearity range: 0.0000 - 100.0000
27 Flag range specifications:

Gender	Age	Normal range	Extreme range
Either	0 - 100	0.3500 - 4.9400	

28 Interpretation parameters

Name	Range	Results review required

Result units

29 Result concentration units: mIU/mL
30 Result decimal places: 4

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Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Name:

   Shows the name of the assay.

5. Assay type:

   Shows the assay processing protocol type defined for the assay.

   Options are:

   - Two step 18 - 4
   - One step 25
   - Two step 4 - 4
   - One step 11

6. Assay number:

   Shows the number defined for the assay.

7. Pretreatment option:

   Shows the pretreatment option the system uses in the assay protocol.

8. Assay version:

   Shows the version number of the assay.

9. Assay availability:

   Shows the availability of the assay for ordering.

   Options are:

   - Enabled
   - Disabled
   - Patient Disabled

10. Cal version:

    Shows the calibration version of the assay.

11. Assay status:

    Shows the assay status defined for the assay.

    Options are:

    - Primary
    - Correlation

12. Date:

    Shows the date the assay was last edited.

13. Run controls for reagents by:

    Shows the reagent kit option to run for QC.

    Options are:

    - Lot: Run QC on only one kit per lot (Default)
    - Kit: Run QC on every kit in the lot

14. Time:

    Shows the time the assay was last edited.

15. Operator:

    Shows the ID of the operator logged on when the assay was last edited.

16. Type:

    Shows the assay type defined for the assay.

    Options are:

    - Full
    - Adjust
    - Index

17. Calibration method:

    Shows the calibration method defined for the assay.

    Options are:

    - Point to Point
    - Linear Regression
    - 4PLC X
    - 4PLC Y
    - Cutoff
    - Reference

      NOTE: If the calibration method is Reference an additional field not shown in the example above will print.

    - Use Calibration From: (Shows the assay referenced for calibration information used for result calculation.)

18. Adjustment method:

    Shows the adjustment method defined for the assay.

    Options are:

    - Linear Transformation
    - Parameter adjustment
    - Ratio techniques (Ratio A, Ratio AB, Adjustment)
    - Curve shape

19. Replicates:

    Shows the number of calibrator replicates the system uses when calculating the calibration curve.

20. Standard concentrations (column):

    Shows the concentrations for the standard calibrators (A - F) defined for the assay.

21. Adjustors (column):

    Shows the concentrations for the adjustor calibrators defined for the assay.

22. Manual dilution:

    Shows the availability of using the manual dilution option for the assay.

23. Default dilution:

    Shows the default dilution configured for the assay.

24. Result concentration units:

    Shows the result concentration units configured for the assay.

25. Dilution ranges:

    Show the dilution names and ranges specified for the assay.

26. Linearity range:

    Shows the linearity range defined for the assay.

27. Flag range specifications:

    Shows the age and gender-specific normal and extreme flags specified for the assay.

28. Interpretation parameters:

    Shows the interpretation parameters defined for the assay.

29. Result concentration units:

    Shows the result concentration units configured for the assay.

30. Result decimal places:

    Shows the number of digits specified to the right of the decimal for the result concentration units.

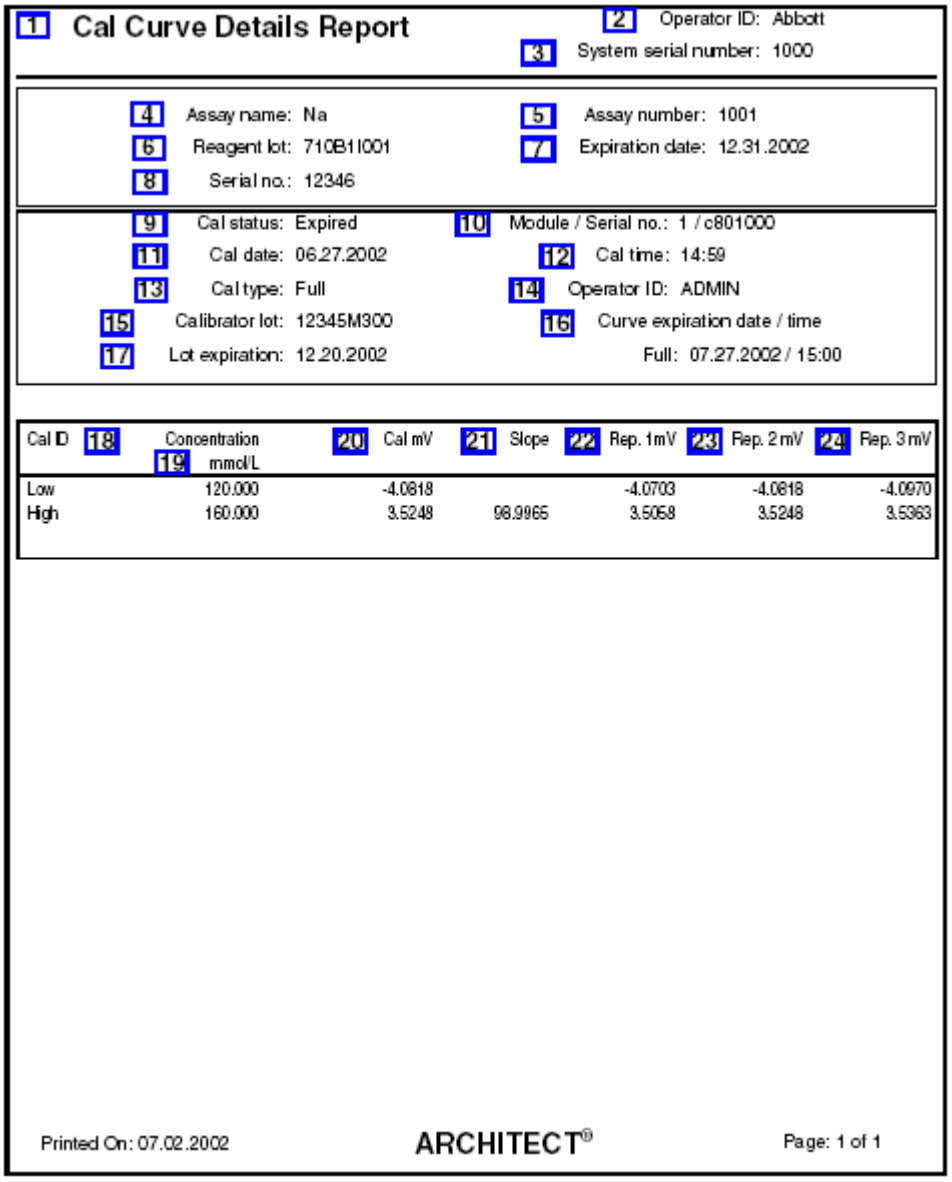
Additional field not shown in example above:

Calibration interval (hours):

Shows the amount of time, in hours, that the calibration curve is valid. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

Cal Curve Details Report - Potentiometric (*c* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration completed.
12. Cal time:

    Shows the time the calibration completed.
13. Cal type:

    Shows the type of calibration performed.
14. Operator ID:

    Shows the ID of the operator logged on when the calibration was completed.
15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
16. Curve expiration date / time:

    Shows the expiration date and time for the full and/or adjust calibration curve.
17. Lot expiration:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.
18. Cal ID (column):

    Shows the name for each calibrator.
19. Concentration / Units (column):

    Shows the concentration and units for the result. The calibrator concentration has 4 decimal places (not shown in the example).
20. Cal mV (column):

    Shows the median millivolt value for each calibrator level.

21. Slope (column):

    Shows the percent response of the ICT (integrated chip technology) module for the low and high calibrators.

22. Rep. 1 mV (column):

    Shows the millivolt value for replicate 1.

23. Rep. 2 mV (column):

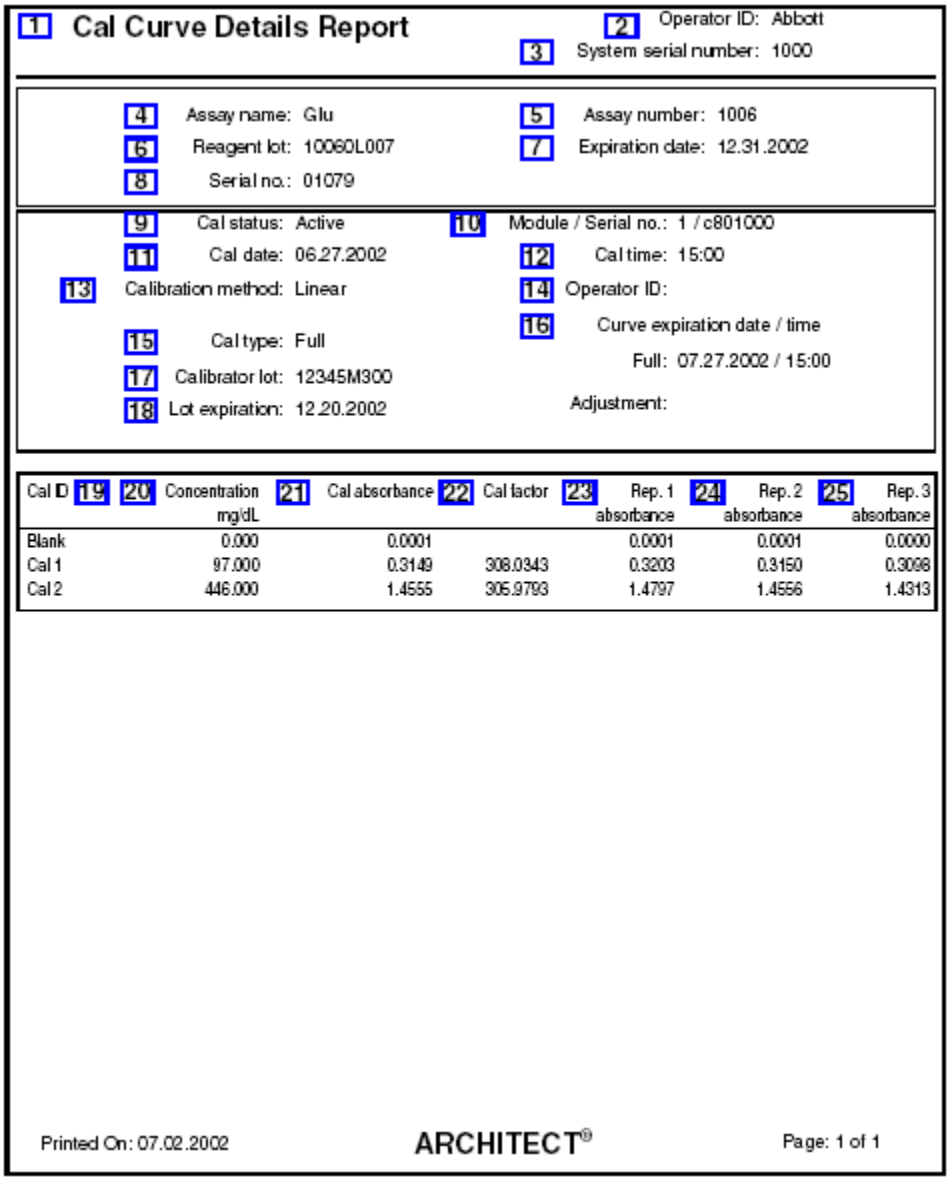
    Shows the millivolt value for replicate 2.

24. Rep. 3 mV (column):

    Shows the millivolt value for replicate 3.

Cal Curve Details Report - Linear (*c* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



1 Cal Curve Details Report

2 Operator ID: Abbott
3 System serial number: 1000

4 Assay name: Glu
5 Assay number: 1006
6 Reagent lot: 10060L007
7 Expiration date: 12.31.2002
8 Serial no.: 01079

9 Cal status: Active
10 Module / Serial no.: 1 / c801000
11 Cal date: 06.27.2002
12 Cal time: 15:00
13 Calibration method: Linear
14 Operator ID:
16 Curve expiration date / time
15 Cal type: Full
Full: 07.27.2002 / 15:00
17 Calibrator lot: 12345M300
18 Lot expiration: 12.20.2002
Adjustment:

Cal ID 19	20 Concentration mg/dL	21 Cal absorbance	22 Cal factor	23 Rep. 1 absorbance	24 Rep. 2 absorbance	25 Rep. 3 absorbance
Blank	0.000	0.0001		0.0001	0.0001	0.0000
Cal 1	97.000	0.3149	308.0343	0.3203	0.3150	0.3098
Cal 2	446.000	1.4555	306.9793	1.4797	1.4556	1.4313

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration completed.
12. Cal time:

    Shows the time the calibration completed.
13. Calibration method:

    Shows the mathematical procedure used to analyze the data.
14. Operator ID:

    Shows the ID of the operator logged on when the calibration was completed.
15. Cal type:

    Shows the type of calibration performed.
16. Curve expiration date / time:

    Shows the expiration date and time for the full and/or adjust calibration curve.
17. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
18. Lot expiration:

    Shows the expiration date of the calibrator lot.
19. Cal ID (column):

    Shows the name for each calibrator.
20. Concentration / Units (column):

    Shows the concentration value for each level of calibrator as defined in the assay parameters. The calibrator concentration has 4 decimal places (not shown in the example).
21. Cal absorbance (column):

Shows the median absorbance value for the calibrator levels.

22. Cal factor (column):

    Shows the calibration factor for the calibrator levels.

23. Rep. 1 absorbance (column):

    Shows the absorbance value for replicate 1.

24. Rep. 2 absorbance (column):

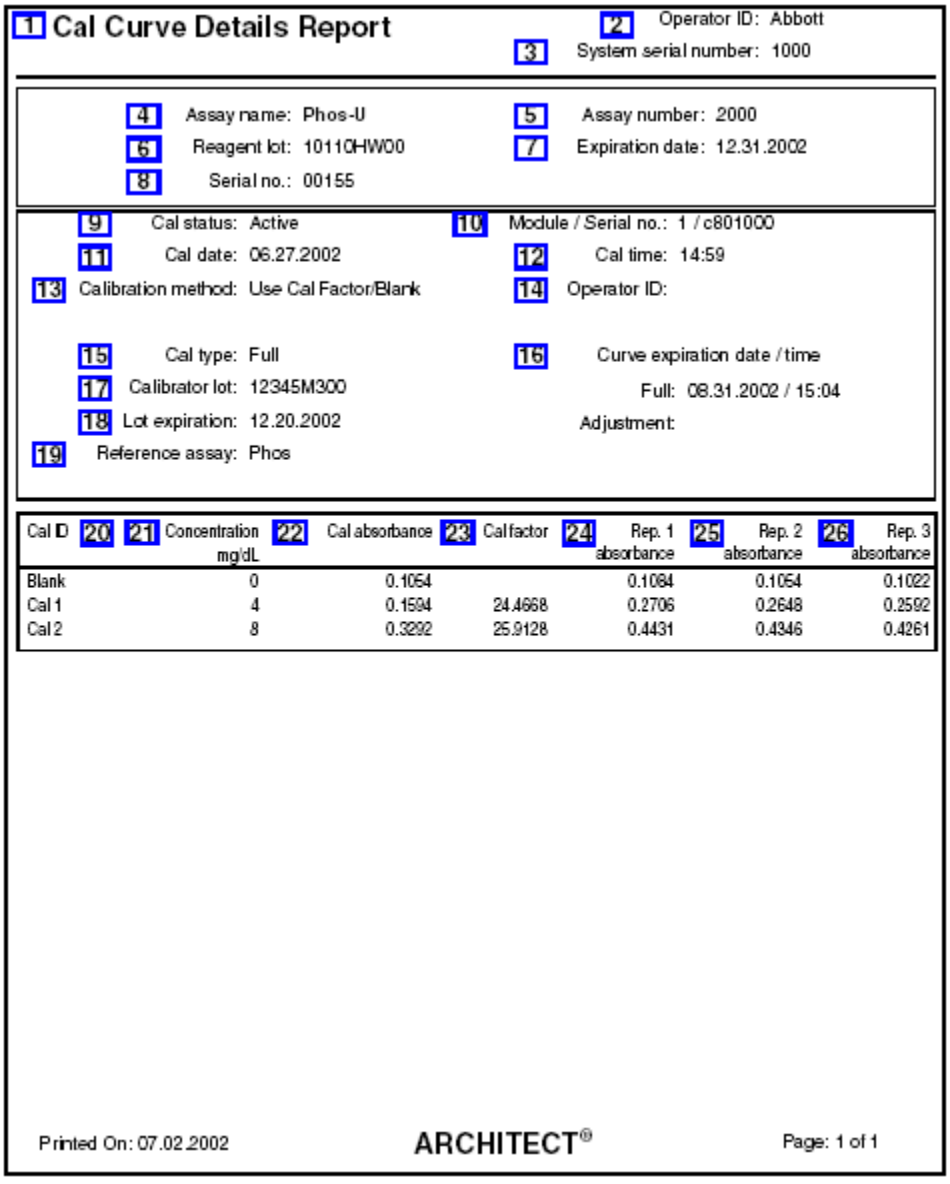
    Shows the absorbance value for replicate 2.

25. Rep. 3 absorbance (column):

    Shows the absorbance value for replicate 3.

Cal Curve Details Report - Use Cal Factor/Blank (*c* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



1 Cal Curve Details Report

2 Operator ID: Abbott
3 System serial number: 1000

4 Assay name: Phos-U
5 Assay number: 2000
6 Reagent lot: 10110HW00
7 Expiration date: 12.31.2002
8 Serial no.: 00155

9 Cal status: Active
10 Module / Serial no.: 1 / c801000
11 Cal date: 06.27.2002
12 Cal time: 14:59
13 Calibration method: Use Cal Factor/Blank
14 Operator ID:

15 Cal type: Full
16 Curve expiration date / time
17 Calibrator lot: 12345M300
Full: 08.31.2002 / 15:04
18 Lot expiration: 12.20.2002
Adjustment:
19 Reference assay: Phos

Cal ID 20	21 Concentration mg/dL	22 Cal absorbance	23 Cal factor	24 Rep. 1 absorbance	25 Rep. 2 absorbance	26 Rep. 3 absorbance
Blank	0	0.1054		0.1084	0.1054	0.1022
Cal 1	4	0.1594	24.4668	0.2706	0.2648	0.2592
Cal 2	8	0.3292	25.9128	0.4431	0.4346	0.4261

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration completed.
12. Cal time:

    Shows the time the calibration completed.
13. Calibration method:

    Shows the mathematical procedure used to analyze the data.
14. Operator ID:

    Shows the ID of the operator logged on when the calibration was completed.
15. Cal type:

    Shows the type of calibration performed.
16. Curve expiration date/time:

    Shows the expiration date and time for the full and/or adjust calibration curve.
17. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
18. Lot expiration:

    Shows the expiration date of the calibrator lot.
19. Reference assay:

    Shows the name of the assay from which the calibration data is referenced when the calibration method is Use Cal factor / Blank.
20. Cal ID (column):

    Shows the name for each calibrator.

21. Concentration / Units (column):

    Shows the concentration value for each level of calibrator as defined in the assay parameters. The calibrator concentration has 4 decimal places (not shown in the example).

22. Cal absorbance (column):

    Shows the median absorbance value for the calibrator levels.

23. Cal factor (column):

    Shows the calibration factor for the calibrator levels.

24. Rep. 1 absorbance (column):

    Shows the absorbance value for replicate 1.

25. Rep. 2 absorbance (column):

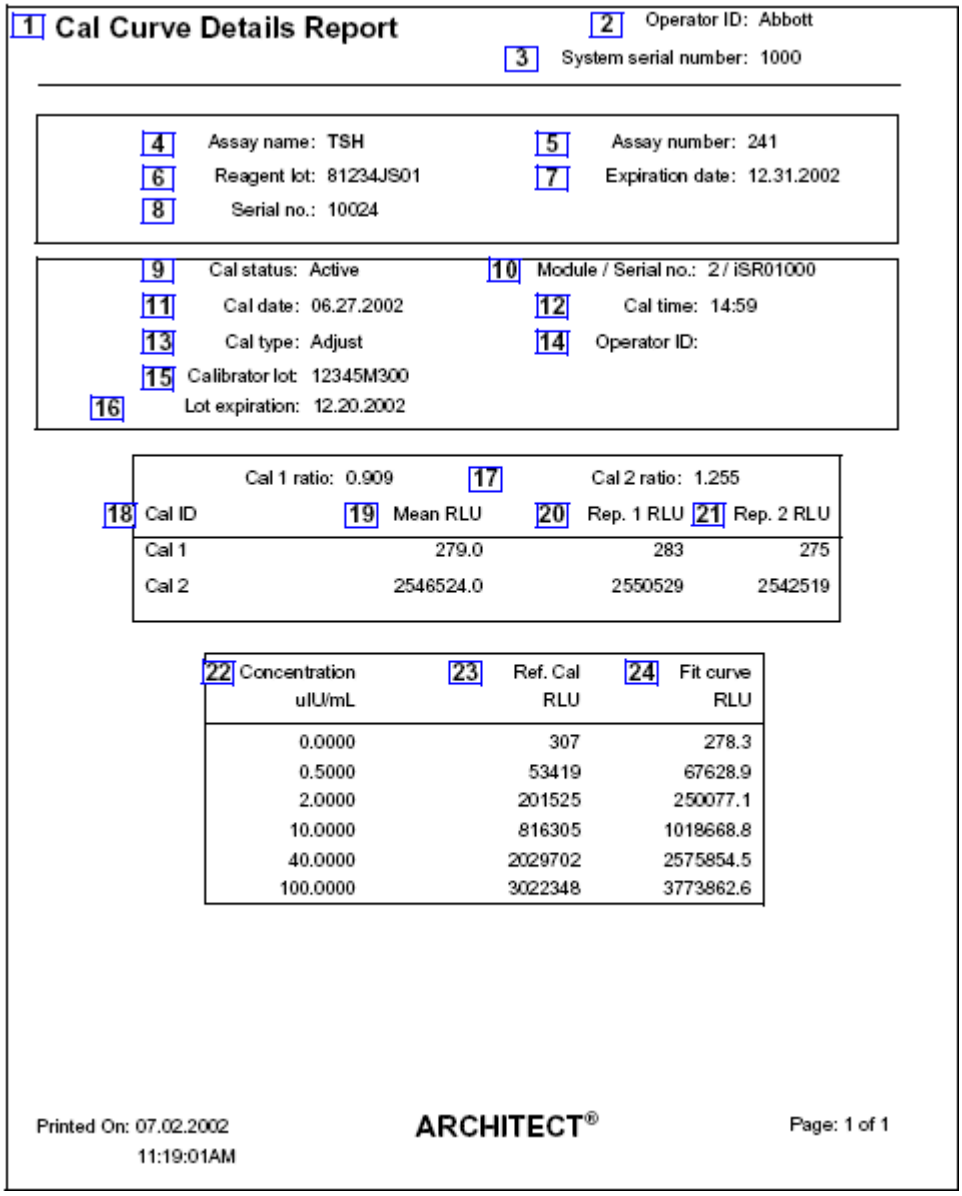
    Shows the absorbance value for replicate 2.

26. Rep. 3 absorbance (column):

    Shows the absorbance value for replicate 3.

Cal Curve Details Report - Adjust (*i* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



1 Cal Curve Details Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Assay name: TSH
5 Assay number: 241
6 Reagent lot: 81234JS01
7 Expiration date: 12.31.2002
8 Serial no.: 10024

9 Cal status: Active
10 Module / Serial no.: 2 / iSR01000
11 Cal date: 06.27.2002
12 Cal time: 14:59
13 Cal type: Adjust
14 Operator ID:
15 Calibrator lot: 12345M300
16 Lot expiration: 12.20.2002

Cal 1 ratio: 0.909 17 Cal 2 ratio: 1.255

18 Cal ID	19 Mean RLU	20 Rep. 1 RLU	21 Rep. 2 RLU
Cal 1	279.0	283	275
Cal 2	2546524.0	2550529	2542519

22 Concentration uIU/mL	23 Ref. Cal RLU	24 Fit curve RLU
0.0000	307	278.3
0.5000	53419	67628.9
2.0000	201525	250077.1
10.0000	816305	1018668.8
40.0000	2029702	2575854.5
100.0000	3022348	3773862.6

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Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration completed.
12. Cal time:

    Shows the time the calibration completed.
13. Cal type:

    Shows the type of calibration performed.
14. Operator ID:

    Shows the ID of the operator logged on when the calibration was completed.
15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
16. Lot expiration:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.
17. Cal 1 ratio and Cal 2 ratio:

    Shows the ratios for the calibration adjustment.
18. Cal ID (column):

    Shows the name for each calibrator.
19. Mean RLU (column):

    Shows the mean RLU (relative light unit) for the calibrator replicates.
20. Rep. 1 RLU (column):

    Shows the RLU value for replicate 1.
21. Rep. 2 RLU (column):

    Shows the RLU value for replicate 2.

22. Concentration / Units (column):

    Shows the concentration value for each level of calibrator as defined in the assay parameters.

23. Ref. Cal RLU (column):

    Shows the reference (master cal) data read from the 2-D bar code label.

24. Fit curve RLU:

    Shows the fit curve RLU data for each concentration.

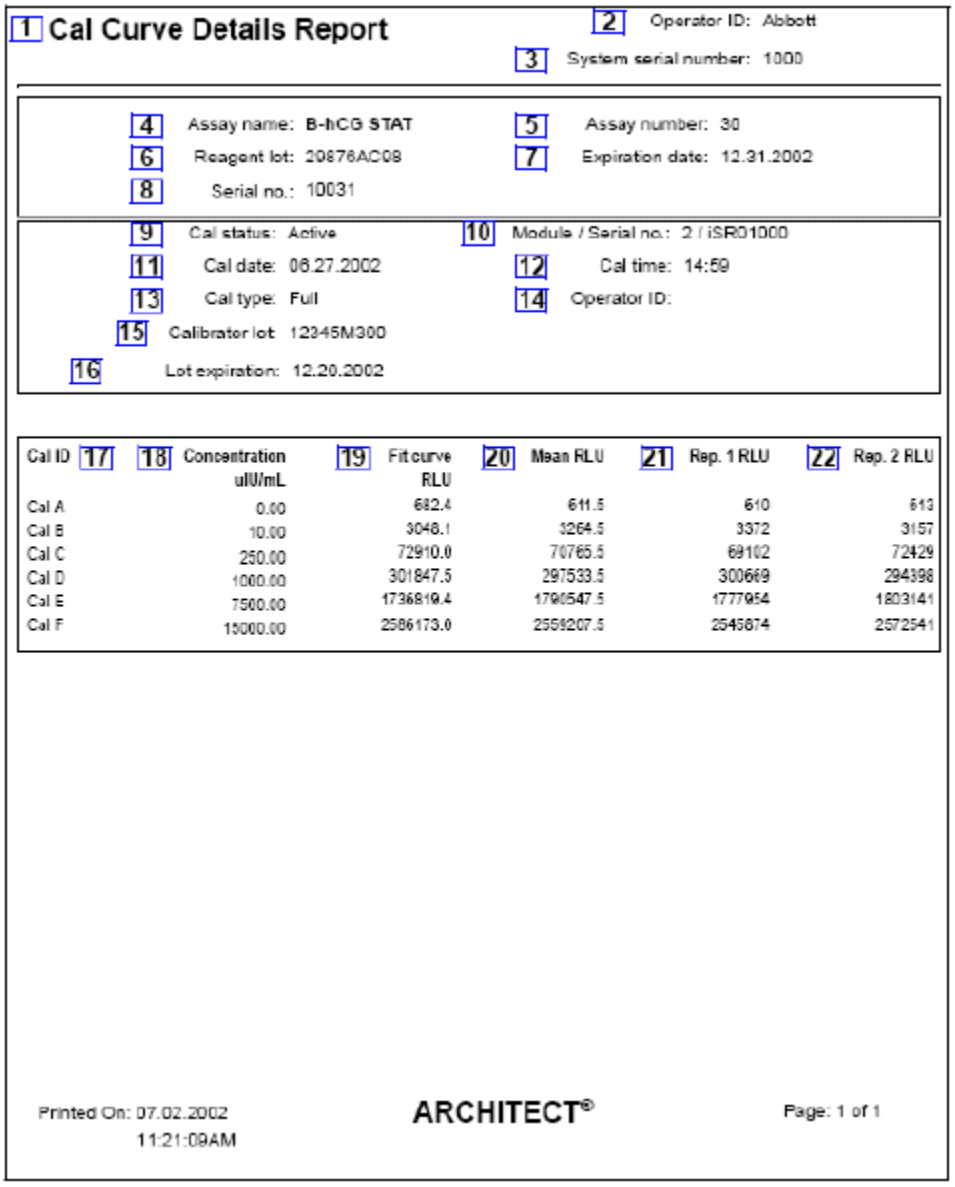
Additional field not shown in the example above:

Curve expiration date/time:

Shows the expiration date and time for the calibration curve. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

Cal Curve Details Report - Full (*i* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



1 Cal Curve Details Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Assay name: B-hCG STAT

5 Assay number: 30

6 Reagent lot: 20676AC08

7 Expiration date: 12.31.2002

8 Serial no.: 10031

9 Cal status: Active

10 Module / Serial no.: 2 / iSR01000

11 Cal date: 06.27.2002

12 Cal time: 14:59

13 Cal type: Full

14 Operator ID:

15 Calibrator lot: 12345M300

16 Lot expiration: 12.20.2002

Cal ID 17	18 Concentration uIU/mL	19 Fit curve RLU	20 Mean RLU	21 Rep. 1 RLU	22 Rep. 2 RLU
Cal A	0.00	682.4	611.5	610	613
Cal B	10.00	3046.1	3264.5	3372	3157
Cal C	250.00	72910.0	70765.5	69102	72429
Cal D	1000.00	301847.5	297533.5	300669	294398
Cal E	7500.00	1736819.4	1790547.5	1777954	1803141
Cal F	15000.00	2586173.0	2559207.5	2545874	2572541

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration was completed.
12. Cal time:

    Shows the time the calibration was completed.
13. Cal type:

    Shows the type of calibration performed.
14. Operator ID:

    Shows the ID of the operator logged on when the calibration was completed.
15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
16. Lot expiration:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.
17. Cal ID (column):

    Shows the name for each calibrator.
18. Concentration / Units (column):

    Shows the concentration value for each level of calibrator as defined in the assay parameters.
19. Fit curve RLU (column):

    Shows the fit curve RLU (relative light unit) data for each concentration.
20. Mean RLU (column):

    Shows the mean RLU data for the calibrator replicates.
21. Rep. 1 RLU (column):

    Shows the RLU values for replicate 1.

22. Rep. 2 RLU (column):

    Shows the RLU values for replicate 2.

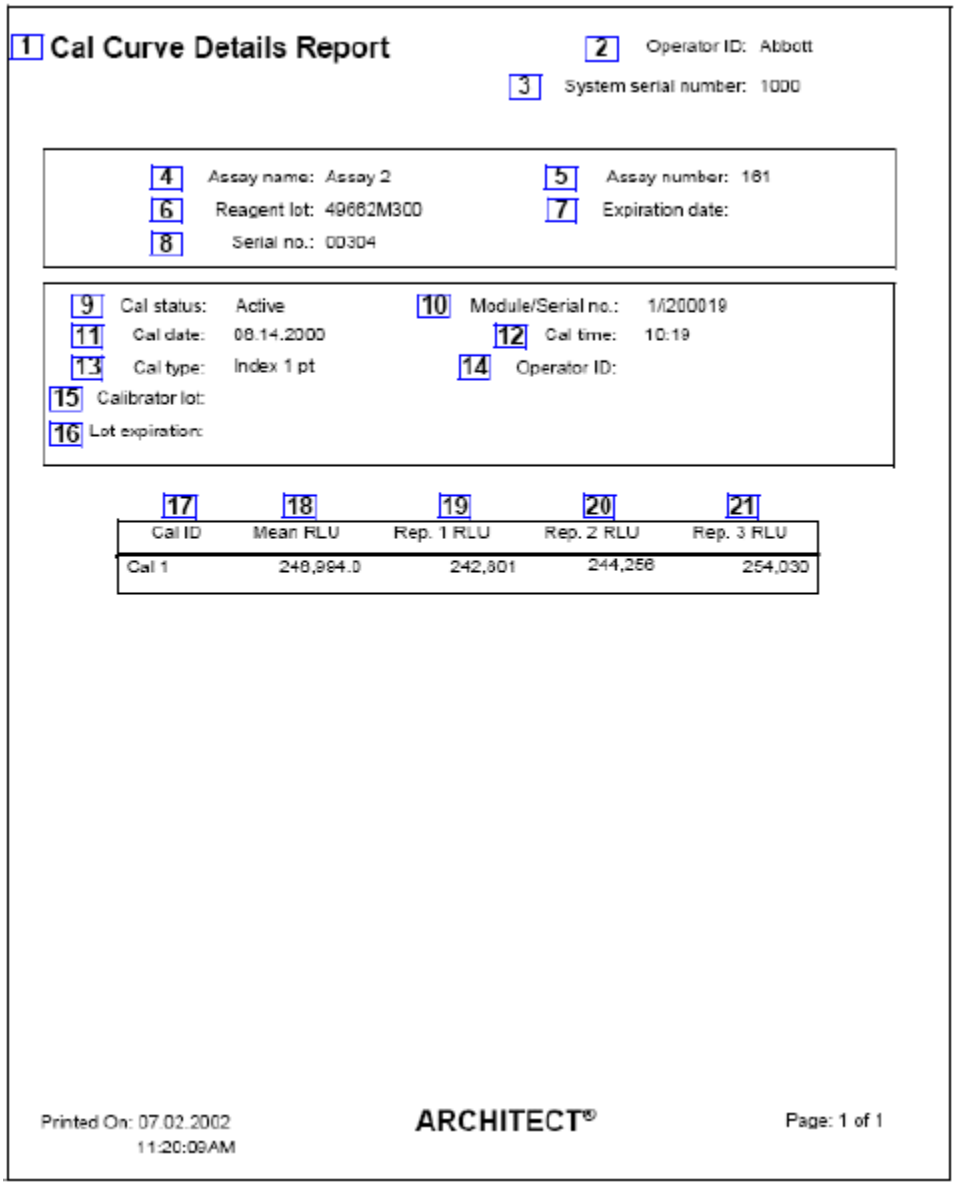
Additional field not shown in the example above:

Curve expiration date/time:

Shows the expiration date and time for the calibration curve. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

Cal Curve Details Report - Index (*i* System)

Use this report as a hardcopy record of your assay calibration details. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Assay name:

   Shows the name of the assay.
5. Assay number:

   Shows the number assigned to the assay.
6. Reagent lot:

   Shows the lot number of the reagent.
7. Expiration date:

   Shows the expiration date of the reagent kit used for the calibration.
8. Serial no.:

   Shows the serial number of the reagent used to obtain the calibration curve.
9. Cal status:

   Shows the status of the calibration.
10. Module/Serial no.:

    Shows the module and serial number on which the assay was calibrated.
11. Cal date:

    Shows the date the calibration completed.
12. Cal time:

    Shows the time the calibration completed.
13. Cal type:

    Shows the type of calibration performed.
14. Operator ID:

    Shows the ID of the operator logged on when the calibration was completed.
15. Calibrator lot:

    Shows the lot number of the calibrator used to calibrate the assay.
16. Lot expiration:

    Shows the expiration date of the calibrator lot number used to calibrate the assay.
17. Cal ID (column):

    Shows the name for each calibrator.
18. Mean RLU (column):

    Shows the mean RLU (relative light unit) for the calibrator replicates.
19. Rep. 1 RLU (column):

    Shows the RLU value for replicate 1.
20. Rep. 2 RLU (column):

    Shows the RLU value for replicate 2.
21. Rep. 3 RLU (column):

    Shows the RLU value for replicate 3.

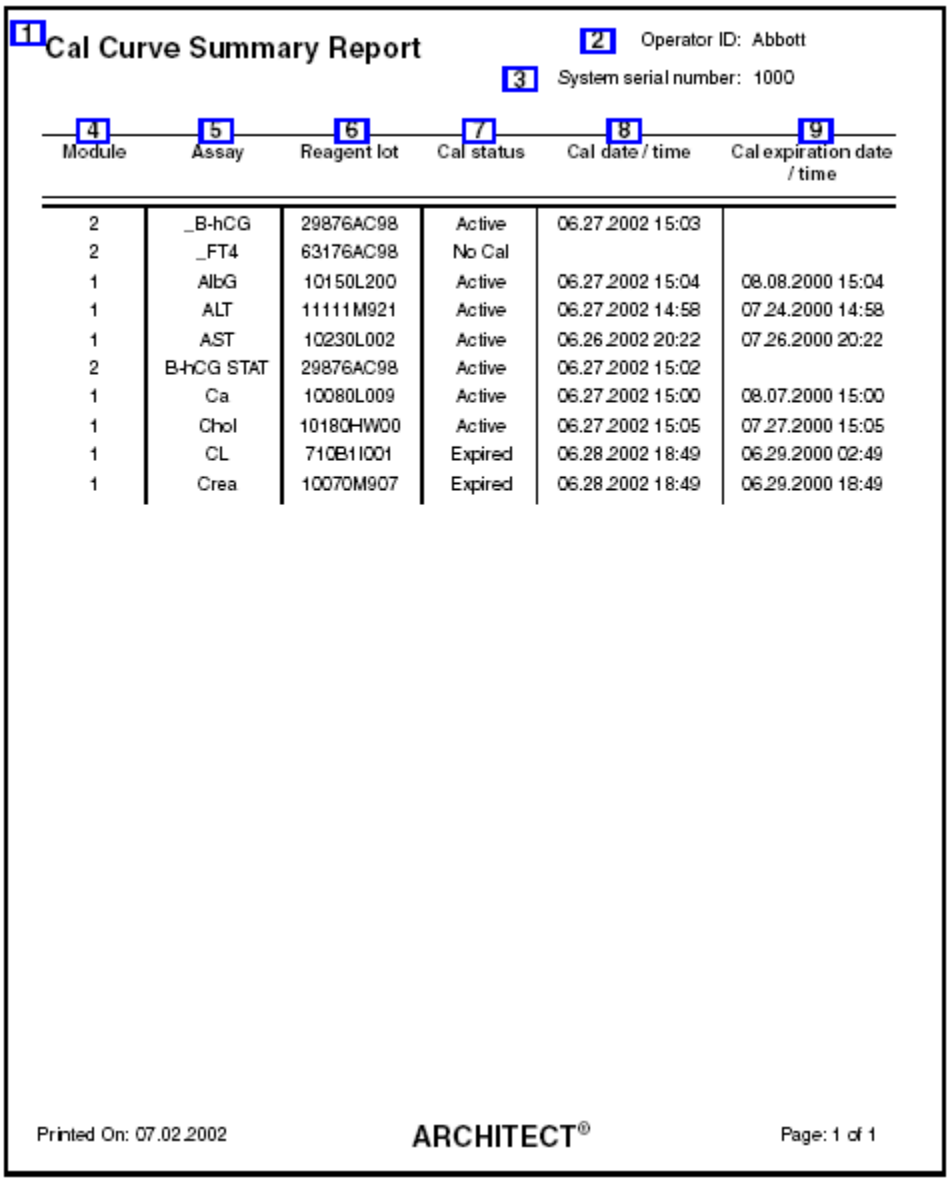
Additional field not shown in the example above:

Curve expiration date/time:

Shows the expiration date and time for the calibration curve. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

Cal Curve Summary Report

Use this report to quickly identify reagent lots with an expired calibration or no calibration.



1 Cal Curve Summary Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Module	5 Assay	6 Reagent lot	7 Cal status	8 Cal date / time	9 Cal expiration date / time
2	_B-hCG	29876AC98	Active	06.27.2002 15:03	
2	_FT4	63176AC98	No Cal		
1	AlbG	10150L200	Active	06.27.2002 15:04	08.08.2000 15:04
1	ALT	11111M921	Active	06.27.2002 14:58	07.24.2000 14:58
1	AST	10230L002	Active	06.26.2002 20:22	07.26.2000 20:22
2	B-hCG STAT	29876AC98	Active	06.27.2002 15:02	
1	Ca	10080L009	Active	06.27.2002 15:00	08.07.2000 15:00
1	Chol	10180HW00	Active	06.27.2002 15:05	07.27.2000 15:05
1	CL	710B1I001	Expired	06.28.2002 18:49	06.29.2000 02:49
1	Crea	10070M907	Expired	06.28.2002 18:49	06.29.2000 18:49

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Module (column):

   Shows the module on which the reagent lot was calibrated.

5. Assay (column):

   Shows the name of the assay.

6. Reagent lot (column):

   Shows the lot number of the reagent.

7. Cal status (column):

   Shows the calibration status of the reagent lot.

8. Cal date / time (column):

   Shows the date and time the reagent lot was calibrated.

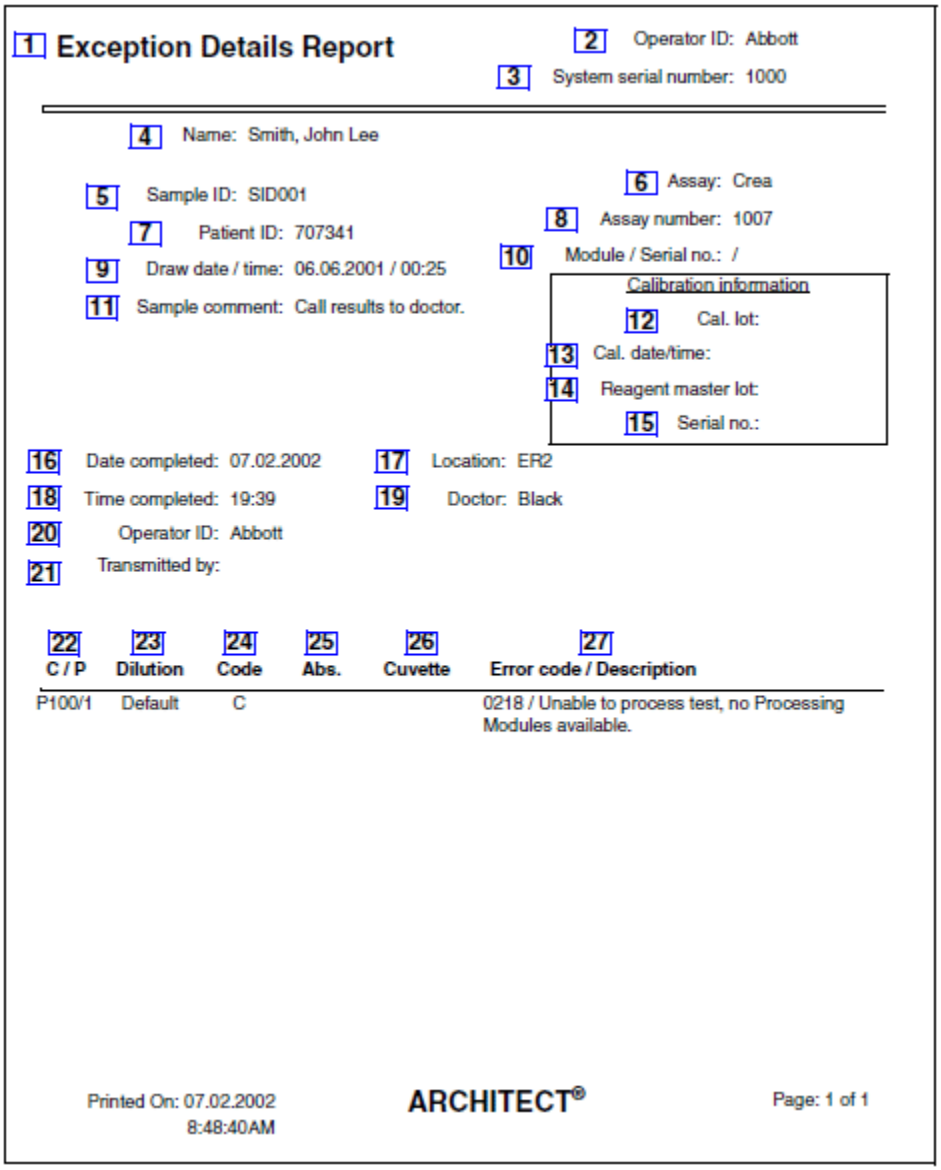
9. Cal expiration date / time (column):

   Shows the date and time the calibration curve expires for the reagent lot.

Exception Details Report

Use this report to troubleshoot your system.

NOTE: This report is also used for Stored exceptions when generated from the Stored exceptions screen.



Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. Name:

   Shows the name of the patient, control, or calibrator.
5. Sample ID:

   Shows the bar code number or ID assigned to the sample.
6. Assay:

   Shows the name of the assay.
7. Patient ID:

   Shows the ID assigned to the patient.
8. Assay number:

   Shows the number assigned to the assay.
9. Draw date / time:

   Shows the date and time the sample was drawn.
10. Module/Serial no.:

    Shows the module and serial number on which the exception was generated. This field is blank when the test cannot be assigned to or processed on a module.
11. Sample comment:

    Shows the comment entered for the test.
12. Cal. lot:

    Shows the calibrator lot number for the calibration used to calculate the result.
13. Cal. date / time:

    Shows the calibration date and time for the reagent lot used to calculate the result.
14. Reagent master lot:

    Shows the reagent master lot for the calibration used to calculate the result.
15. Serial no.:

    Shows the serial number of the reagent used to obtain the calibration curve.
16. Date completed:

    Shows the date the exception completed.
17. Location:

    Shows the location associated with the patient.
18. Time completed:

    Shows the time the exception completed.
19. Doctor:

    Shows the name of the patient's doctor.
20. Operator ID:

    Shows the ID of the operator logged on when the exception was generated.
21. Transmitted by:

    Displays the ID of the operator logged on when the exception was transmitted.

22. C / P (column):

    Shows the sample location for one of the following:

    - Carrier ID and position (P) (RSH/SSH)
    - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
    - LAS - Shown if the sample was pipetted from the LAS track
    - LAS carousel ID (C) and position (P) (*i*2000)

23. Dilution (column):

    Shows the dilution used for the test.

24. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

25. Abs. (column):

    Shows the absorbance value for the test.

26. Cuvette (column):

    Shows the number of the cuvette used to process the exception.

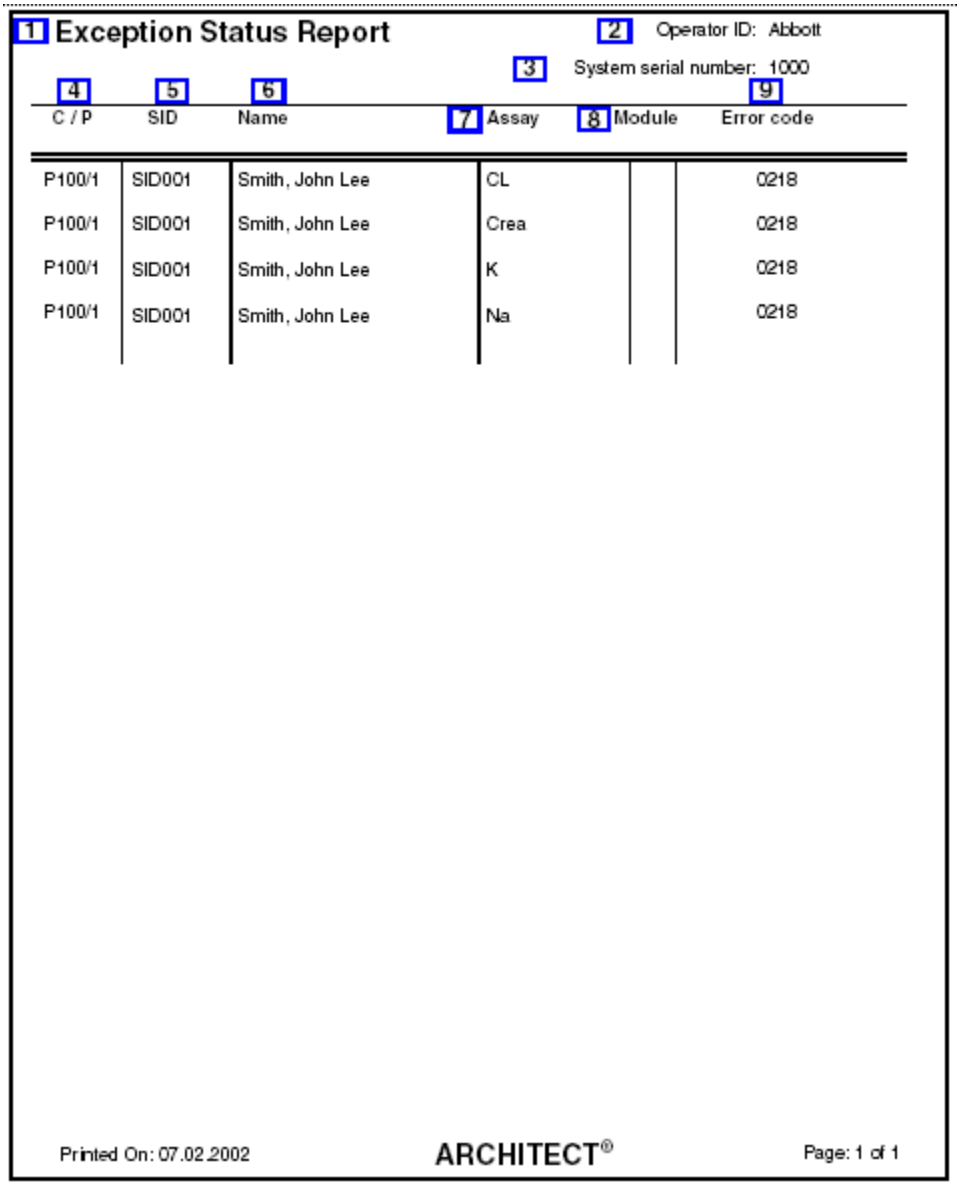
27. Error code / Description (column):

    Shows the error code number and description.

Exception Status Report

Use this report to troubleshoot your system.

NOTE: This report is also used for Stored exceptions when generated from the Stored exceptions screen.



Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   - Carrier ID and position (P) (RSH/SSH)
   - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
   - LAS - Shown if the sample was pipetted from the LAS track
   - LAS carousel ID (C) and position (P) (*i*2000)

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient, control, or calibrator for the order.

7. Assay (column):

   Shows the name of the assay.

8. Module (column):

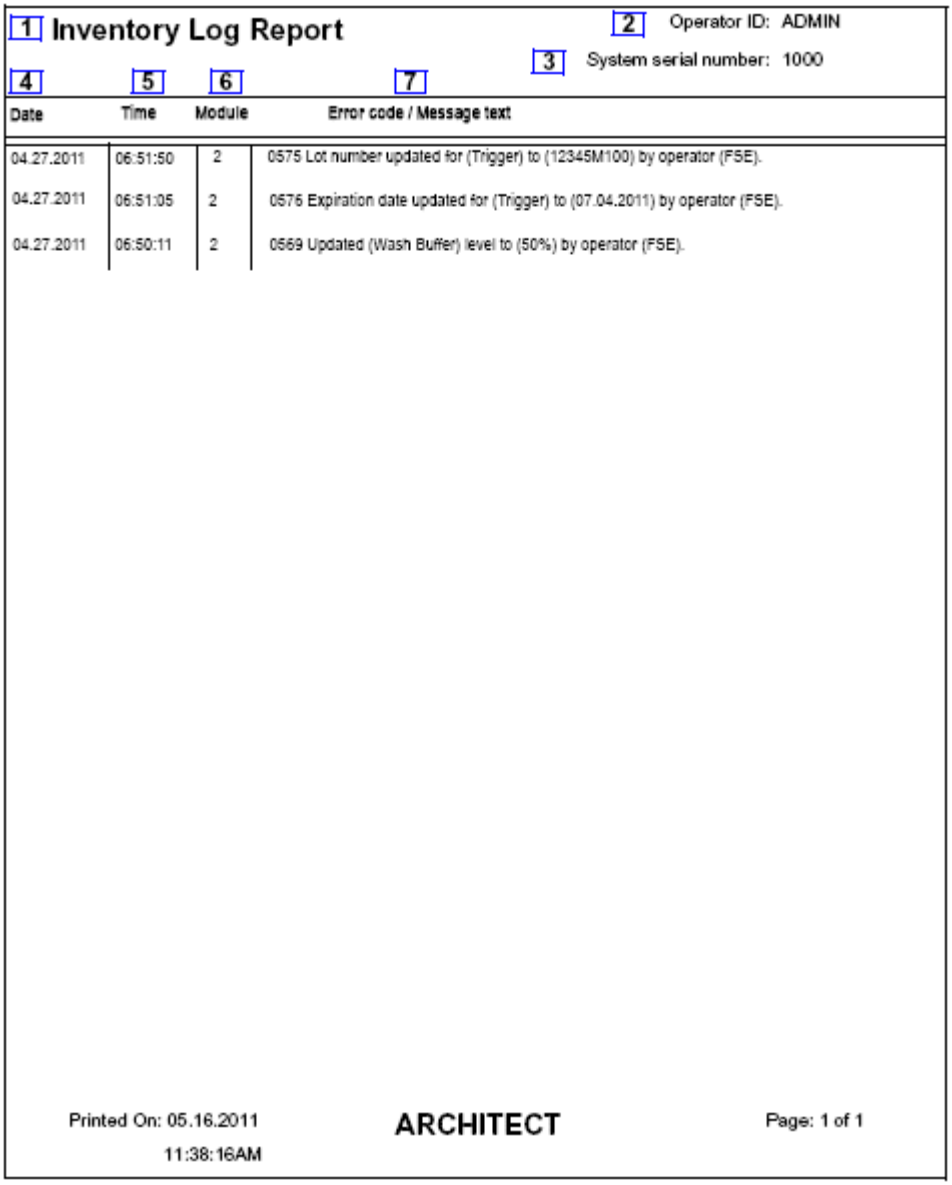
   Shows the module that generated the test exception. This field is blank when the test cannot be assigned to or processed on a module.

9. Error code (column):

   Shows the numeric error code for the exception.

Inventory Log Report (premium feature)

Use this report to review supply related messages or error codes on your system.



1 Inventory Log Report

2 Operator ID: ADMIN

3 System serial number: 1000

4 Date	5 Time	6 Module	7 Error code / Message text
04.27.2011	06:51:50	2	0575 Lot number updated for (Trigger) to (12345M100) by operator (FSE).
04.27.2011	06:51:05	2	0576 Expiration date updated for (Trigger) to (07.04.2011) by operator (FSE).
04.27.2011	06:50:11	2	0569 Updated (Wash Buffer) level to (50%) by operator (FSE).

Printed On: 05.16.2011 11:38:16AM

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Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Date (column):

   Shows the date the error/message was generated.

5. Time (column):

   Shows the time the error/message was generated.

6. Module (column):

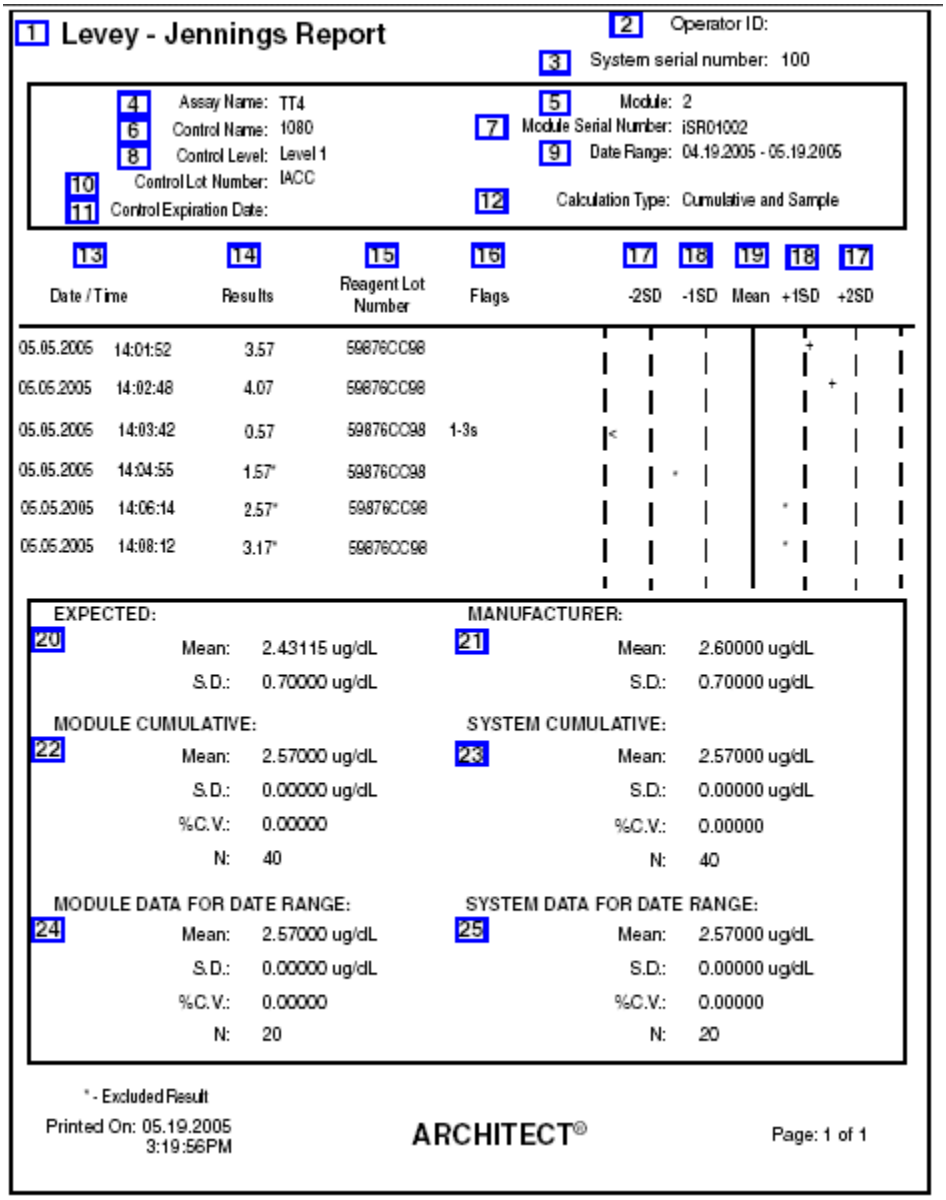
   Shows the module that generated the error/message.

7. Error code / Message text (column):

   Shows the numeric error code for the exception and the message text that describes the error that occurred.

Levey - Jennings Report

Use this report as a hardcopy record of QC data.



1 Levey - Jennings Report

2 Operator ID:

3 System serial number: 100

4 Assay Name: TT4
6 Control Name: 1080
8 Control Level: Level 1
10 Control Lot Number: IACC
11 Control Expiration Date:

5 Module: 2
7 Module Serial Number: iSR01002
9 Date Range: 04.19.2005 - 05.19.2005
12 Calculation Type: Cumulative and Sample

13 Date / Time	14 Results	15 Reagent Lot Number	16 Flags
05.05.2005 14:01:52	3.57	59876CC98	
05.05.2005 14:02:48	4.07	59876CC98	
05.05.2005 14:03:42	0.57	59876CC98	1-3s
05.05.2005 14:04:55	1.57*	59876CC98	
05.05.2005 14:06:14	2.57*	59876CC98	
05.05.2005 14:08:12	3.17*	59876CC98	

17 -2SD | 18 -1SD | 19 Mean | 18 +1SD | 17 +2SD

EXPECTED: (20)
Mean: 2.43115 ug/dL
S.D.: 0.70000 ug/dL

MANUFACTURER: (21)
Mean: 2.60000 ug/dL
S.D.: 0.70000 ug/dL

MODULE CUMULATIVE: (22)
Mean: 2.57000 ug/dL
S.D.: 0.00000 ug/dL
%C.V.: 0.00000
N: 40

SYSTEM CUMULATIVE: (23)
Mean: 2.57000 ug/dL
S.D.: 0.00000 ug/dL
%C.V.: 0.00000
N: 40

MODULE DATA FOR DATE RANGE: (24)
Mean: 2.57000 ug/dL
S.D.: 0.00000 ug/dL
%C.V.: 0.00000
N: 20

SYSTEM DATA FOR DATE RANGE: (25)
Mean: 2.57000 ug/dL
S.D.: 0.00000 ug/dL
%C.V.: 0.00000
N: 20

* - Excluded Result

Printed On: 05.19.2005 3:19:56PM

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Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Assay Name:

   Shows the name of the assay.

5. Module:

   Shows the module number on which the controls were run.

6. Control Name:

   Shows the name of the control.

7. Module Serial Number:

   Shows the serial number of the module on which the controls were run.

8. Control Level:

   Shows the level of the control.

9. Date Range:

   Shows the date range selected for the Levey - Jennings report.

10. Control Lot Number:

    Shows the lot number of the control.

11. Control Expiration Date:

    Shows the expiration date of the control.

12. Calculation Type:

    Shows the calculation type, which includes cumulative data for both the module and the system.

13. Date / Time (column):

    Shows the date and time for each control result.

14. Results (column):

    Shows the results for each control. Results with an asterisk are excluded from the calculations.

15. Reagent Lot Number:

    Shows the lot number for the reagent kit used to run the control.

16. Flags:

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-318.

17. ±2SD:

    Shows ±2 SD (standard deviation) for the control data.

18. ±1SD:

    Shows ±1 SD (standard deviation) for the control data.

19. Mean:

    Shows the mean for the control data.

20. EXPECTED:

    Shows the expected mean and standard deviation configured.

21. MANUFACTURER:

    Shows the manufacturer's mean and standard deviation configured.

22. MODULE CUMULATIVE:

    Shows the module cumulative data for the control run on the specified module.

23. SYSTEM CUMULATIVE:

    Shows the system cumulative data for the control run on the system. This data is the same as the module cumulative data when there is only one module.

24. MODULE DATA FOR DATE RANGE:

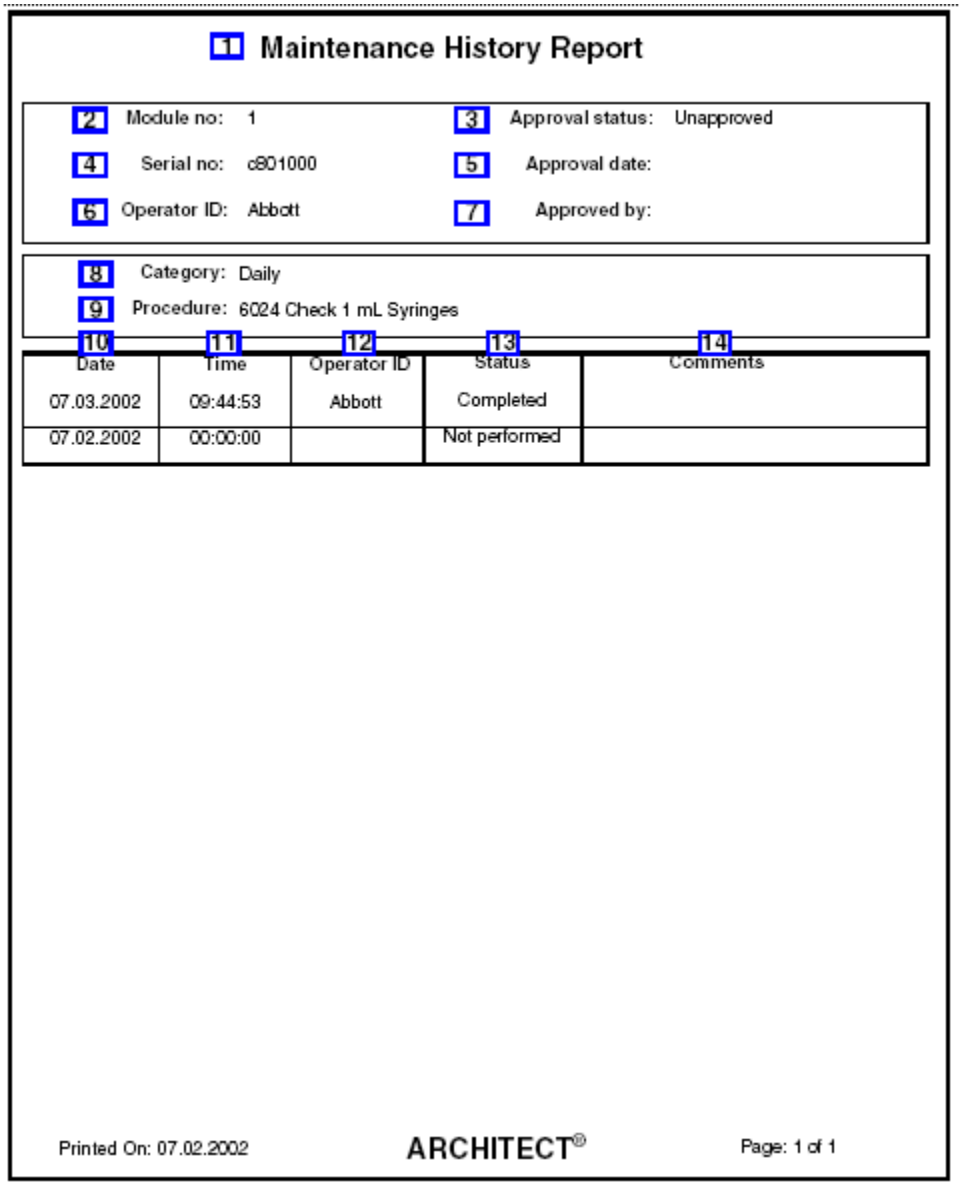
    Shows the module data calculated for the specified module and date range.

25. SYSTEM DATA FOR DATE RANGE:

    Shows the system data calculated for the date range. This data is the same as the module data for date range when there is only one module.

Maintenance History Report

Use this report as a hardcopy record of the maintenance performed on your system.



1 Maintenance History Report

2 Module no: 1 3 Approval status: Unapproved

4 Serial no: c801000 5 Approval date:

6 Operator ID: Abbott 7 Approved by:

8 Category: Daily

9 Procedure: 6024 Check 1 mL Syringes

10 Date	11 Time	12 Operator ID	13 Status	14 Comments
07.03.2002	09:44:53	Abbott	Completed	
07.02.2002	00:00:00		Not performed	

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Module no.:

   Shows the module on which the maintenance procedure was performed.

3. Approval status:

   Shows the status of approval for the maintenance log.

4. Serial no.:

   Shows the serial number of the module on which the maintenance procedure was performed.

5. Approval date:

   Shows the date of approval for the maintenance log.

6. Operator ID:

   Shows the ID of the operator logged on when the procedure was performed.

7. Approved by:

   Shows the ID of the operator who approved the maintenance log.

8. Category:

   Shows the maintenance category of the procedure.

9. Procedure:

   Shows the name of the maintenance procedure.

10. Date (column):

    Shows the date the maintenance procedure was performed.

11. Time (column):

    Shows the time the maintenance procedure was performed.

12. Operator ID (column):

    Shows the ID of the operator logged on when the procedure was performed.

13. Status (column):

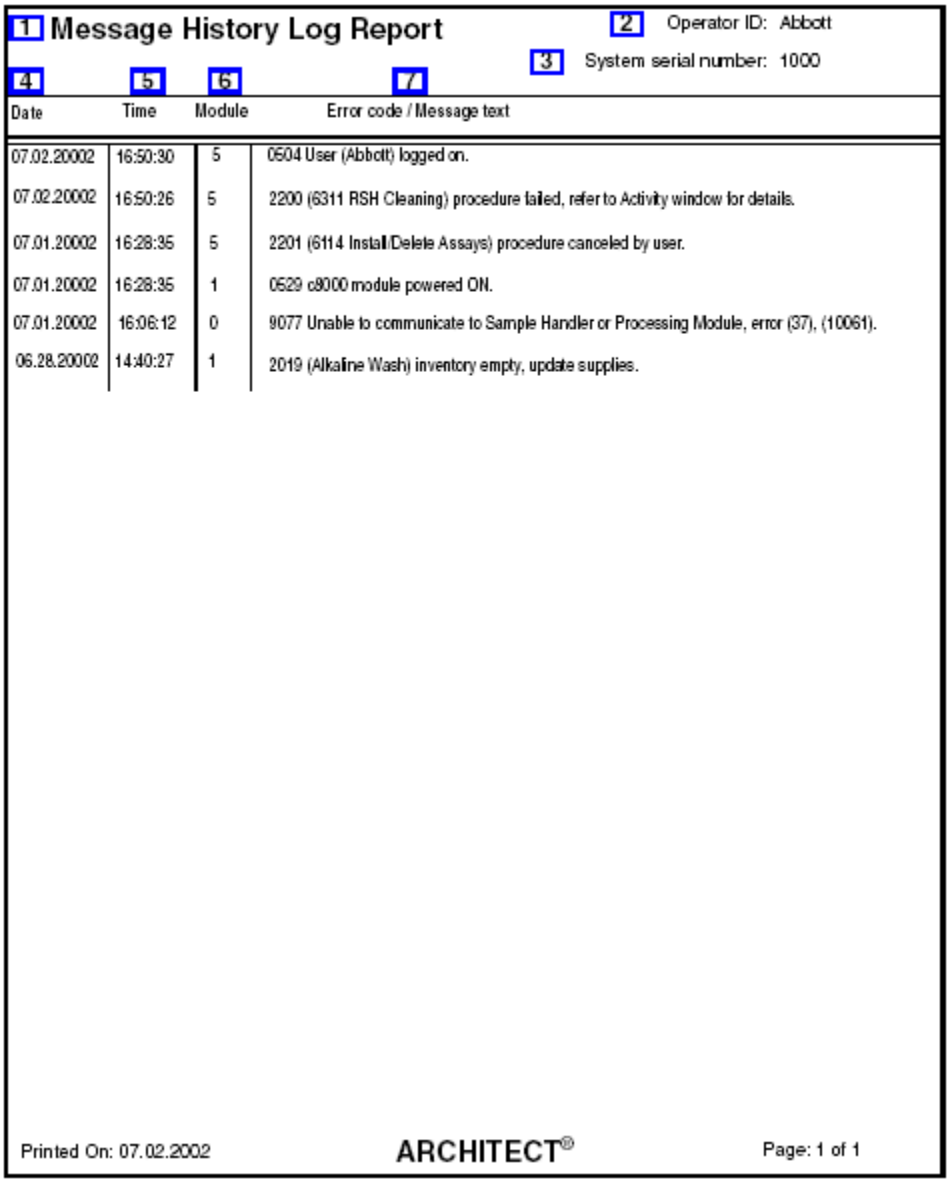
    Shows the status of the maintenance procedure.

14. Comments:

    Shows the comments entered for the maintenance procedure.

Message History Log Report

Use this report to troubleshoot your system.



1 Message History Log Report
2 Operator ID: Abbott
3 System serial number: 1000

4 Date	5 Time	6 Module	7 Error code / Message text
07.02.20002	16:50:30	5	0504 User (Abbott) logged on.
07.02.20002	16:50:26	5	2200 (6311 RSH Cleaning) procedure failed, refer to Activity window for details.
07.01.20002	16:28:35	5	2201 (6114 Install/Delete Assays) procedure canceled by user.
07.01.20002	16:28:35	1	0529 c8000 module powered ON.
07.01.20002	16:06:12	0	9077 Unable to communicate to Sample Handler or Processing Module, error (37), (10061).
06.28.20002	14:40:27	1	2019 (Alkaline Wash) inventory empty, update supplies.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Date (column):

   Shows the date the error/message was generated.

5. Time (column):

   Shows the time the error/message was generated.

6. Module (column):

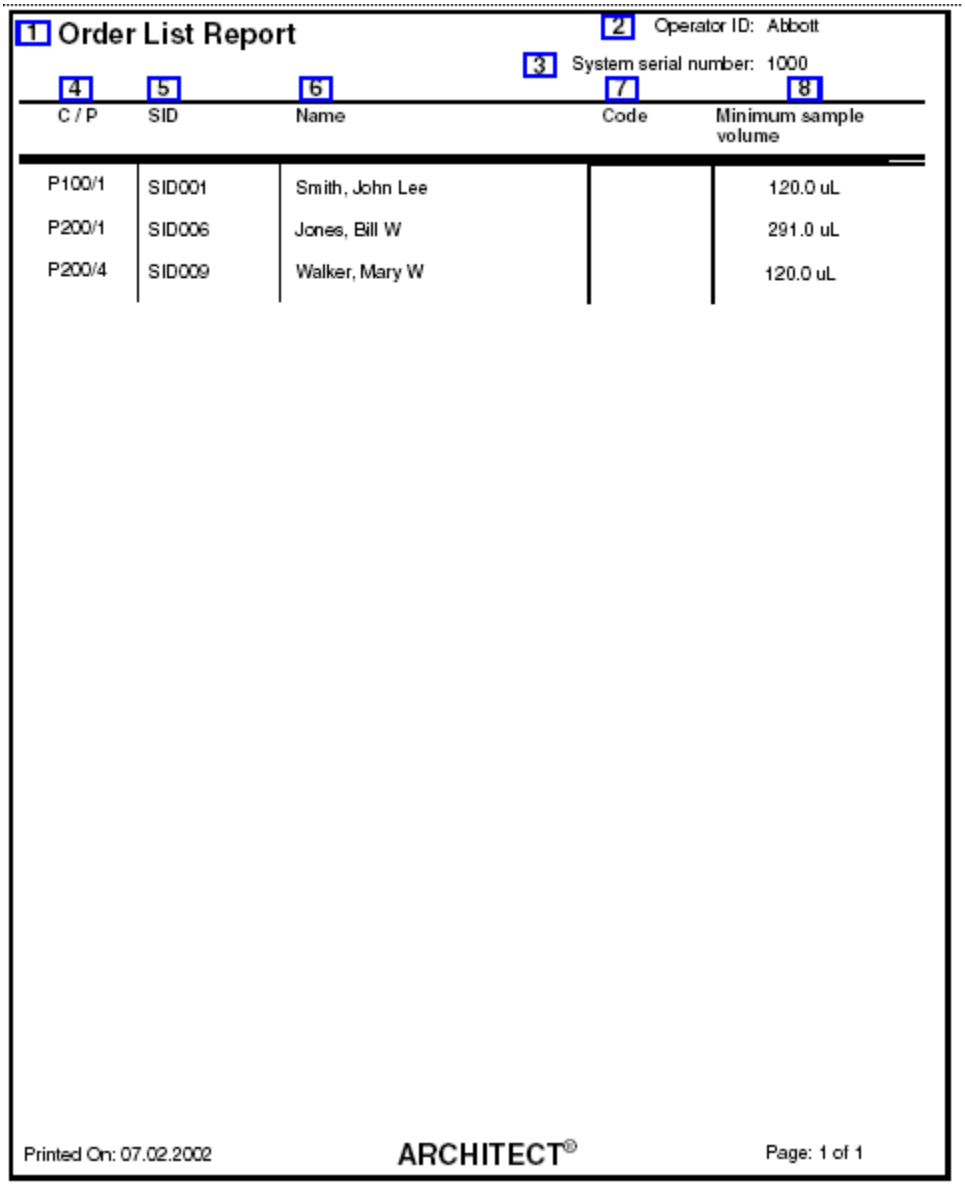
   Shows the module that generated the error/message.

7. Error code / Message text (column):

   Shows the numeric error code for the exception and the message text that describes the error that occurred.

Order List Report

Use this report to aid in loading samples.


1 Order List Report
2 Operator ID: Abbott
3 System serial number: 1000

4 C / P	5 SID	6 Name	7 Code	8 Minimum sample volume
P100/1	SID001	Smith, John Lee		120.0 uL
P200/1	SID006	Jones, Bill W		291.0 uL
P200/4	SID009	Walker, Mary W		120.0 uL

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   - Carrier ID and position (P) (RSH/SSH)
   - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
   - LAS - Shown if the sample was pipetted from the LAS track
   - LAS carousel ID (C) and position (P) (*i*2000)

   NOTE: This field is blank for pending orders that have not been assigned a carrier or carousel position.

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient, control, or calibrator for the order.

7. Code (column):

   Shows the code(s) to indicate a sample processing condition(s). See *Descriptions of processing codes*, page 5-225.

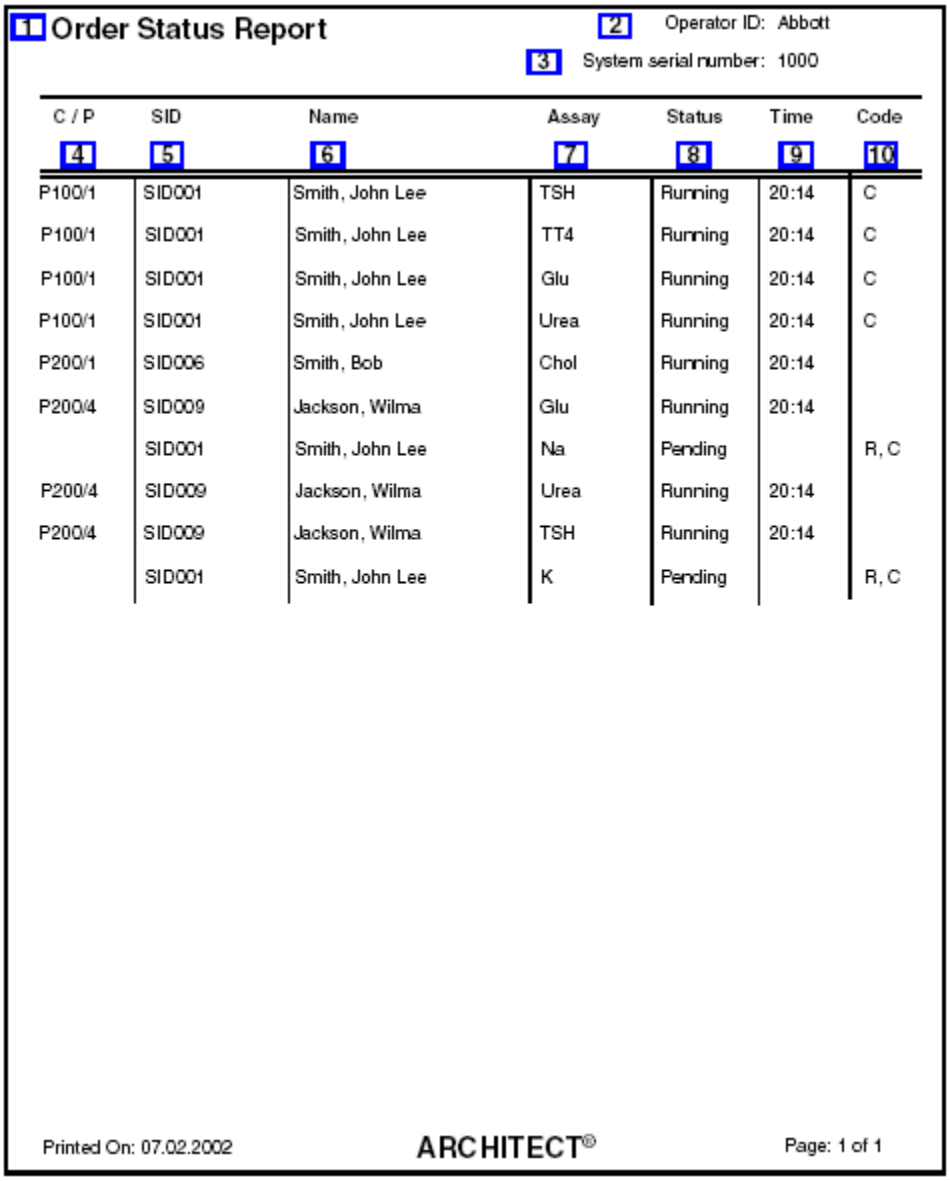
   NOTE: Only sample processing codes (M and S) will print.

8. Minimum sample volume (column):

   Shows the minimum sample cup volume required to process the test.

Order Status Report

Use this report to check the status of an order.



1 Order Status Report

2 Operator ID: Abbott

3 System serial number: 1000

C / P (4)	SID (5)	Name (6)	Assay (7)	Status (8)	Time (9)	Code (10)
P100/1	SID001	Smith, John Lee	TSH	Running	20:14	C
P100/1	SID001	Smith, John Lee	TT4	Running	20:14	C
P100/1	SID001	Smith, John Lee	Glu	Running	20:14	C
P100/1	SID001	Smith, John Lee	Urea	Running	20:14	C
P200/1	SID006	Smith, Bob	Chol	Running	20:14	
P200/4	SID009	Jackson, Wilma	Glu	Running	20:14	
	SID001	Smith, John Lee	Na	Pending		R, C
P200/4	SID009	Jackson, Wilma	Urea	Running	20:14	
P200/4	SID009	Jackson, Wilma	TSH	Running	20:14	
	SID001	Smith, John Lee	K	Pending		R, C

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   - Carrier ID and position (P) (RSH/SSH)
   - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
   - LAS - Shown if the sample was pipetted from the LAS track
   - LAS carousel ID (C) and position (P) (*i*2000)

   NOTE: This field is blank for pending orders that have not been assigned a carrier or carousel position.

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient, control and level, or calibrator for the order.

7. Assay (column):

   Shows the name of the assay.

8. Status (column):

   Shows the current status of the test ordered.

9. Time (column):

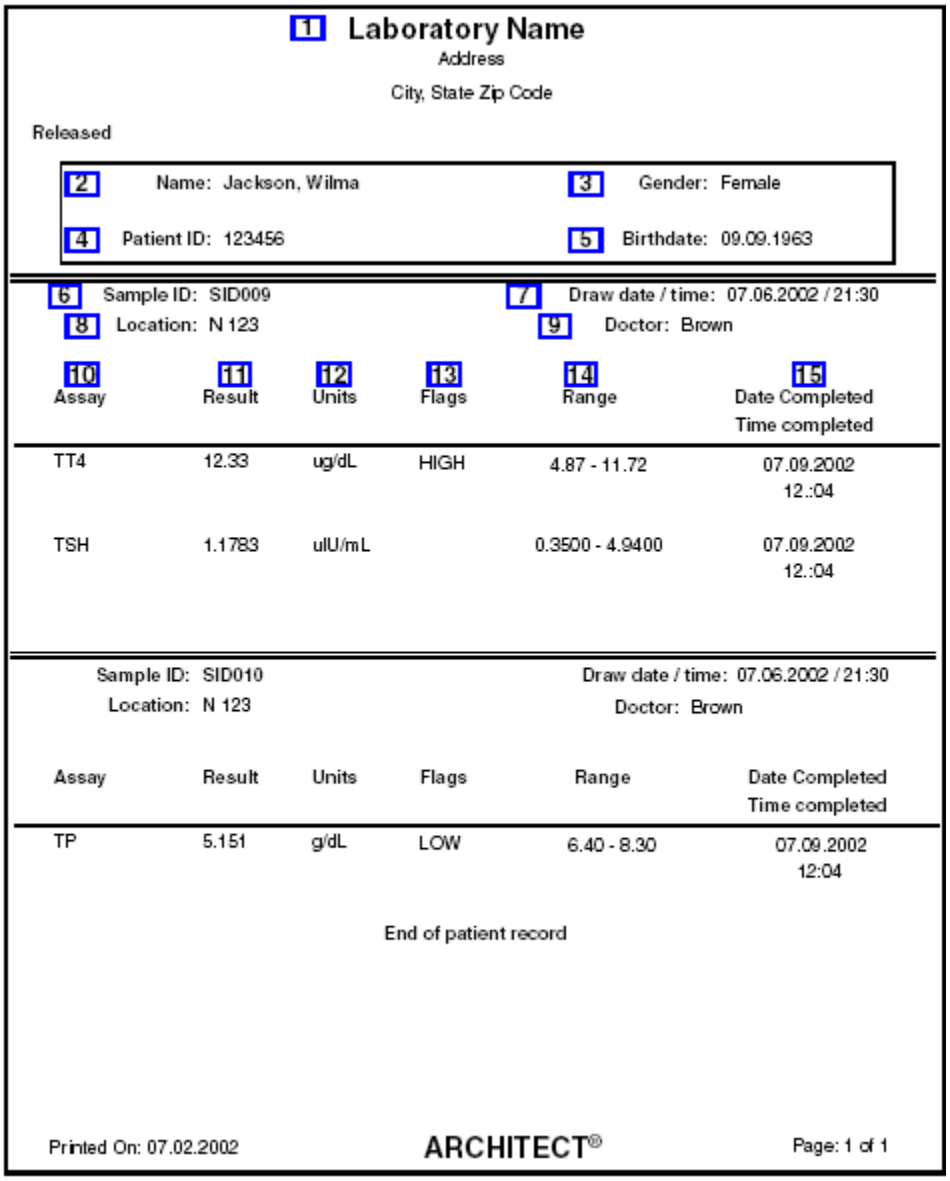
   Shows the time the test with a status of Running will complete (in 24 hour format).

10. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Patient Report

Use this report as a hardcopy patient record.



1 Laboratory Name
Address
City, State Zip Code

Released

2 Name: Jackson, Wilma
3 Gender: Female
4 Patient ID: 123456
5 Birthdate: 09.09.1963

6 Sample ID: SID009
7 Draw date / time: 07.06.2002 / 21:30
8 Location: N 123
9 Doctor: Brown

10 Assay	11 Result	12 Units	13 Flags	14 Range	15 Date Completed Time completed
TT4	12.33	ug/dL	HIGH	4.87 - 11.72	07.09.2002 12.:04
TSH	1.1783	ulU/mL		0.3500 - 4.9400	07.09.2002 12.:04

Sample ID: SID010
Draw date / time: 07.06.2002 / 21:30
Location: N 123
Doctor: Brown

Assay	Result	Units	Flags	Range	Date Completed Time completed
TP	5.151	g/dL	LOW	6.40 - 8.30	07.09.2002 12:04

End of patient record

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report header:

   Shows the configured report header information.
2. Name:

   Shows the name of the patient.
3. Gender:

   Shows the gender of the patient.

4. Patient ID:

   Shows the ID assigned to the patient.

5. Birthdate:

   Shows the patient's birthdate.

6. Sample ID:

   Shows the bar code number or ID assigned to the sample.

7. Draw date / time:

   Shows the date and time the sample was drawn.

8. Location:

   Shows the location associated with the patient.

9. Doctor:

   Shows the name of the patient's doctor.

10. Assay (column):

    Shows the name of the assay.

11. Result (column):

    Shows the value and (where applicable) interpretation of the result.

12. Units (column):

    Shows the units for the result.

13. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

14. Range (column):

    Shows the normal / therapeutic range of the assay, if configured.

15. Date Completed / Time completed:

    Shows the date and time the result completed.

Plan My Day Report (premium feature)

Use this report to prepare your system for processing samples uninterrupted over a user-defined timeframe.

1 Plan My Day Report

2 Operator ID: ADMIN
3 System serial number: 1000

Reagent Category

M 4	P 5	Assay 6	Reagent Lot 7	Remaining Tests 8	Onboard Stability (Hr) 9	Status 10
2	12	B-hCG B-hCG STAT	29876AC98	0	99	Empty
1	A6, A5	Iron	10300LD08	452 (452, 3192)	24	Expired
1	A1, A1	ALT	11111M921	288 (288, 1063)	0	Exceeded onboard stability

Calibration Category

M 11	Assay 12	Expiration Date/Time 13	Position 14	Remaining Tests 15	Status 16
1	Iron		A6, A5	452	No Cal
1	Urea	01.28.2010 / 12.07	A4, A4	2636	Last calibration failed

Supplies Category

M 17	P 18	Supply 19	Exp. Date 20	Status 21
2		Pre-Trigger	01.22.2010	Stability expires soon

QC Category

M 22	Assay 23	Control / Level 24	Lot Number 25	Remaining Tests 26	Position 27	Status 28
1	AlbG	BioRad / Level 2	12345M200	306	A3	Westgard failure
2	TSH	TSH / Medium	12345A300	494 500	2 9	Westgard failure

Printed On: 01.21.2010 1:52:18PM

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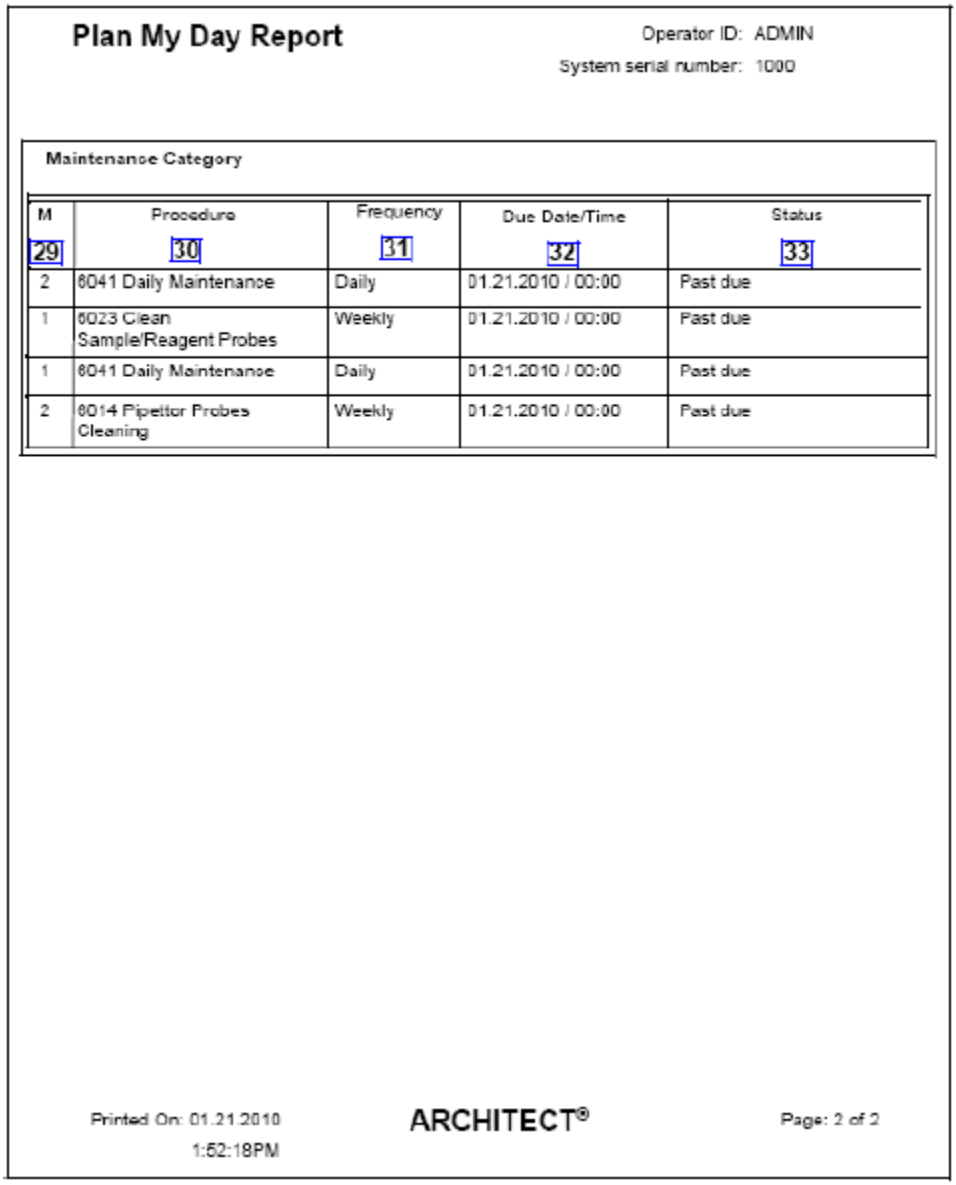

Plan My Day Report

Operator ID: ADMIN
System serial number: 1000

Maintenance Category

M 29	Procedure 30	Frequency 31	Due Date/Time 32	Status 33
2	6041 Daily Maintenance	Daily	01.21.2010 / 00:00	Past due
1	6023 Clean Sample/Reagent Probes	Weekly	01.21.2010 / 00:00	Past due
1	6041 Daily Maintenance	Daily	01.21.2010 / 00:00	Past due
2	6014 Pipettor Probes Cleaning	Weekly	01.21.2010 / 00:00	Past due

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Page: 2 of 2

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was generated.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.
4. M (column):

   Shows the module on which the reagent kit is located.
5. P (column):

   Shows the position(s) in which the reagent kit is located.

6. Assay (column):

   Shows the name of the assay.

7. Reagent Lot (column):

   Shows the lot number of the reagent kit.

8. Remaining Tests (column):

   Shows the number of tests remaining for the reagent kit (also displays a R1/R2 estimate for *c* Systems only).

9. Onboard stability (column):

   Shows the number of onboard stability hours remaining for the reagent kit.

10. Status (column):

    Shows the status of the reagent kit.

11. M (column):

    Shows the module on which the reagent kit is calibrated.

12. Assay (column):

    Shows the name of the assay.

13. Exp Date/Time (column):

    Shows the date and time the calibration curve expires for the reagent kit. The full calibration date always appears first when an adjustment is supported.

14. Position (column):

    Shows the position(s) in which the reagent kit is located.

15. Remaining Tests (column):

    Shows the number of tests remaining for the reagent kit.

16. Status (column):

    Shows the status of the calibration curve.

17. M (column):

    Shows the module on which the system inventory item is located.

18. P (column):

    Shows the position(s) in which the system inventory item is located.

19. Supply (column):

    Shows the name of the system inventory item.

20. Exp. Date (column):

    Shows the expiration date and time of the Trigger and Pre-Trigger solution. (*i* Systems only)

    Shows the expiration date and time of the ICT Module and bulk and on-board solutions, if configured. (*c* Systems only)

21. Status (column):

    Shows the status of the system inventory item.

22. M (column):

    Shows the module that generated the control result.

23. Assay (column):

    Shows the name of the assay that generated the control result.

24. Control/Level (column):

    Shows the name and level for the control.

25. Lot Number (column):

    Shows the lot number of the control.

26. Remaining Tests (column):

    Shows the number of tests remaining for the reagent kit.

27. Position (column):

    Shows the position(s) in which the reagent kit is located.

28. Status (column):

    Shows the status of the control result.

29. M (column):

    Shows the module on which the maintenance item is performed.

30. Procedure (column):

    Shows the name of the maintenance procedure.

31. Frequency (column):

    Shows the category of the maintenance procedure.

32. Due Date/Time (column):

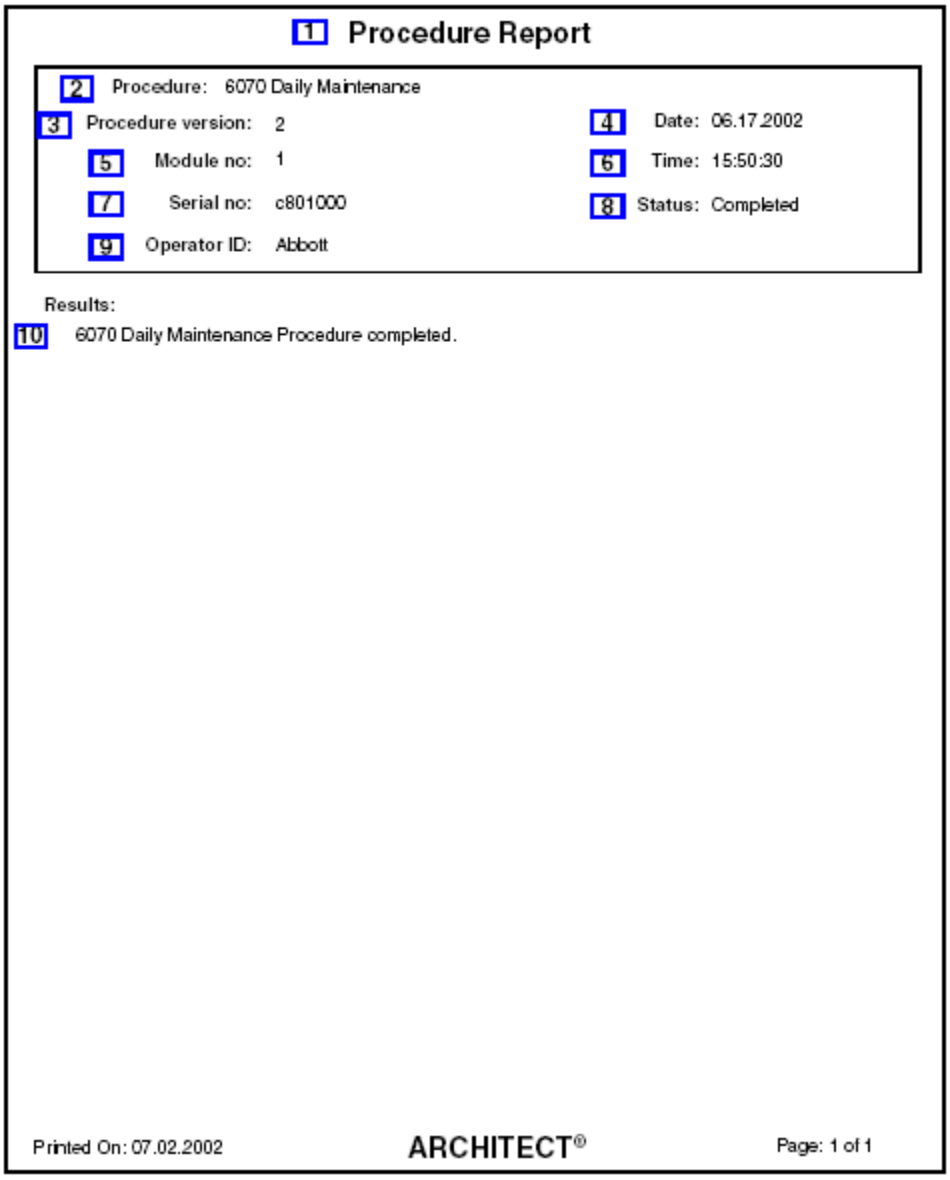
    Shows the date and time when the maintenance procedure is/was due.

33. Status (column):

    Shows the status of the maintenance procedure.

Procedure Report, Basic

Use this report as a hardcopy record of a maintenance or diagnostic procedure performed on your system. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



Legend:

1. Report title:

   Shows the name of the report.

2. Procedure:

   Shows the name of the procedure.

3. Procedure version:

   Shows the version of the procedure.

4. Date:

   Shows the date the procedure was performed.

5. Module no.:

   Shows the number of the module on which the procedure was performed.

6. Time:

   Shows the time when the procedure was performed.

7. Serial no.:

   Shows the serial number of the module on which the procedure was performed.

8. Status:

   Shows the status of the procedure.

9. Operator ID:

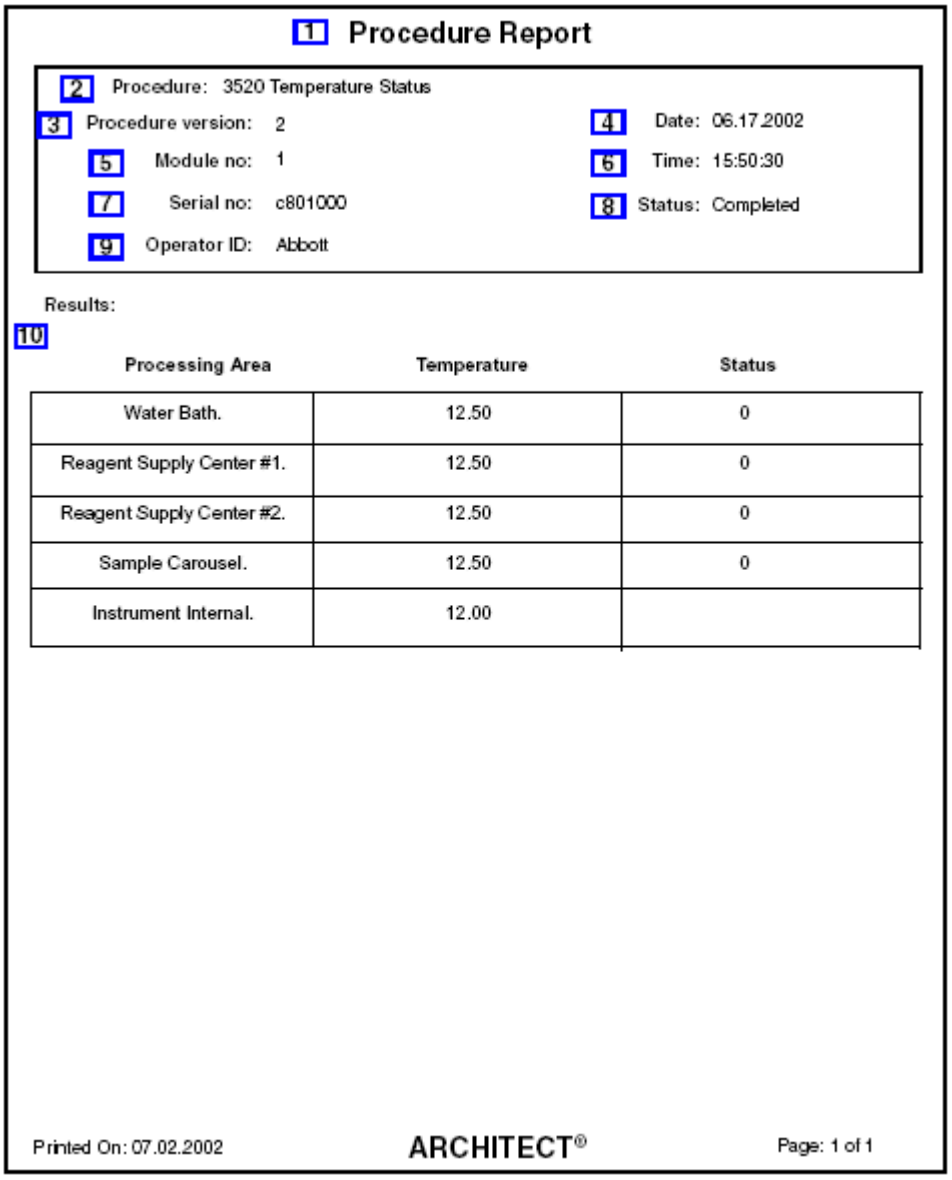
   Shows the ID of the operator logged on when the procedure was performed.

10. Results:

    Shows the results of the procedure.

Procedure Report, Columnar

Use this report as a hardcopy record of a maintenance or diagnostic procedure performed on your system. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



1 Procedure Report

2 Procedure: 3520 Temperature Status

3 Procedure version: 2

4 Date: 06.17.2002

5 Module no: 1

6 Time: 15:50:30

7 Serial no: c801000

8 Status: Completed

9 Operator ID: Abbott

Results:

10

Processing Area	Temperature	Status
Water Bath.	12.50	0
Reagent Supply Center #1.	12.50	0
Reagent Supply Center #2.	12.50	0
Sample Carousel.	12.50	0
Instrument Internal.	12.00	

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Procedure:

   Shows the name of the procedure.

3. Procedure version:

   Shows the version of the procedure.

4. Date:

   Shows the date the procedure was performed.

5. Module no.:

   Shows the number of the module on which the procedure was performed.

6. Time:

   Shows the time when the procedure was performed.

7. Serial no.:

   Shows the serial number of the module on which the procedure was performed.

8. Status:

   Shows the status of the procedure.

9. Operator ID:

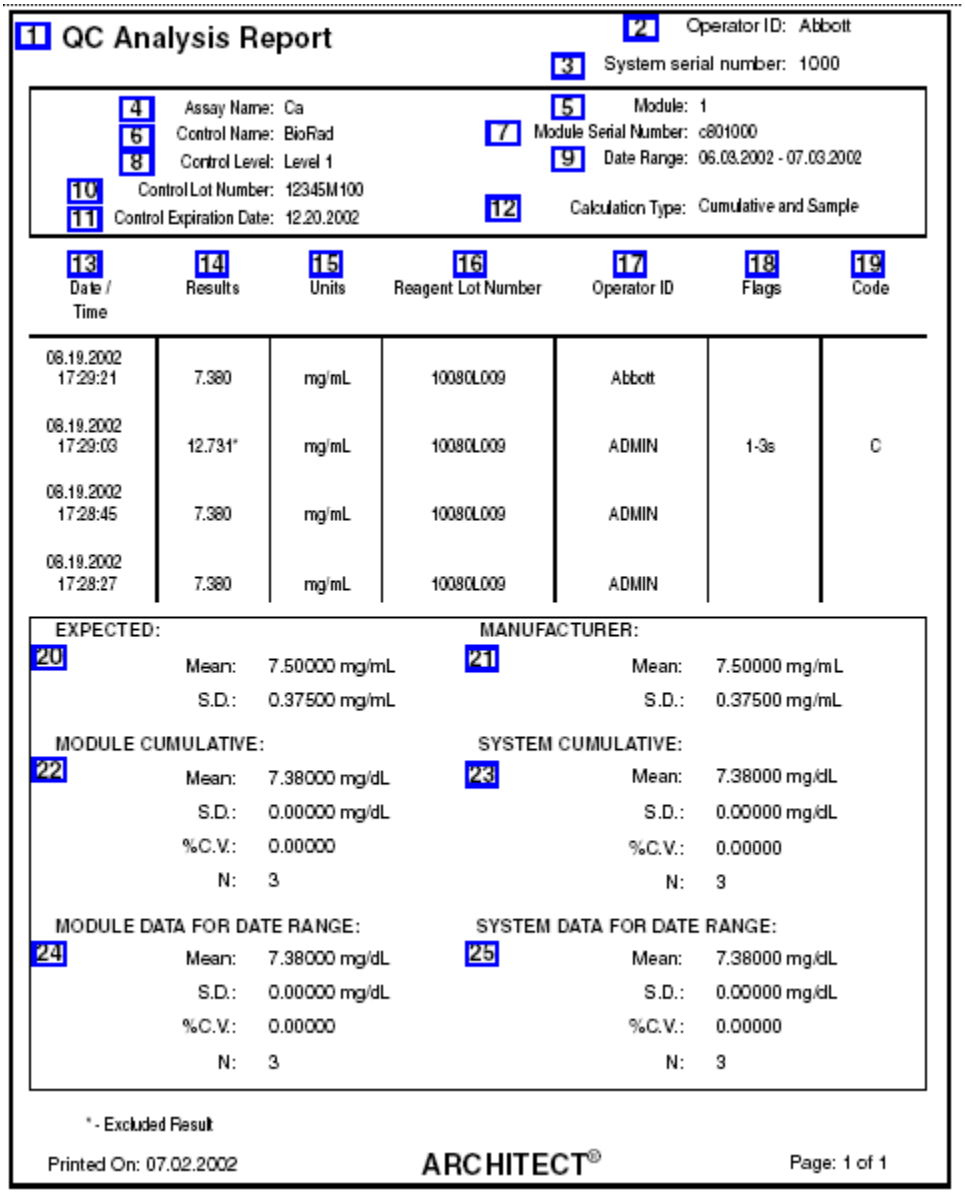
   Shows the ID of the operator logged on when the procedure was performed.

10. Results:

    Shows the results of the procedure.

QC Analysis Report

Use this report as a hardcopy record of QC data.



1 QC Analysis Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Assay Name: Ca
6 Control Name: BioRad
8 Control Level: Level 1
10 Control Lot Number: 12345M100
11 Control Expiration Date: 12.20.2002

5 Module: 1
7 Module Serial Number: c801000
9 Date Range: 06.03.2002 - 07.03.2002
12 Calculation Type: Cumulative and Sample

13 Date / Time	14 Results	15 Units	16 Reagent Lot Number	17 Operator ID	18 Flags	19 Code
08.19.2002 17:29:21	7.380	mg/mL	10080L009	Abbott		
08.19.2002 17:29:03	12.731*	mg/mL	10080L009	ADMIN	1-3s	C
08.19.2002 17:28:45	7.380	mg/mL	10080L009	ADMIN		
08.19.2002 17:28:27	7.380	mg/mL	10080L009	ADMIN		

20 EXPECTED:
Mean: 7.50000 mg/mL
S.D.: 0.37500 mg/mL

21 MANUFACTURER:
Mean: 7.50000 mg/mL
S.D.: 0.37500 mg/mL

22 MODULE CUMULATIVE:
Mean: 7.38000 mg/dL
S.D.: 0.00000 mg/dL
%C.V.: 0.00000
N: 3

23 SYSTEM CUMULATIVE:
Mean: 7.38000 mg/dL
S.D.: 0.00000 mg/dL
%C.V.: 0.00000
N: 3

24 MODULE DATA FOR DATE RANGE:
Mean: 7.38000 mg/dL
S.D.: 0.00000 mg/dL
%C.V.: 0.00000
N: 3

25 SYSTEM DATA FOR DATE RANGE:
Mean: 7.38000 mg/dL
S.D.: 0.00000 mg/dL
%C.V.: 0.00000
N: 3

* - Excluded Result

Printed On: 07.02.2002 ARCHITECT© Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Assay Name:

   Shows the name of the assay.

5. Module:

   Shows the module number on which the controls were run.

6. Control Name:

   Shows the name of the control.

7. Module Serial Number:

   Shows the serial number of the module on which the controls were run.

8. Control Level:

   Shows the level of the control.

9. Date Range:

   Shows the date range selected for the QC report.

10. Control Lot Number:

    Shows the lot number of the control.

11. Control Expiration Date:

    Shows the expiration date of the control.

12. Calculation Type:

    Shows the calculation type, which includes cumulative data for both the module and the system.

13. Date / Time (column):

    Shows the date and time for each control result.

14. Results (column):

    Shows the results for each control. Results with an asterisk are excluded from the calculations.

15. Units (column):

    Shows the units for each control result.

16. Reagent Lot Number:

    Shows the lot number for the reagent kit used to run the control.

17. Operator ID:

    Shows the ID of the operator logged on when the result was generated or released.

18. Flags:

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-318.

19. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

20. EXPECTED:

    Shows the expected mean and standard deviation configured.

21. MANUFACTURER:

    Shows the manufacturer's mean and standard deviation configured.

22. MODULE CUMULATIVE:

    Shows the module cumulative data for the control run on the specified module.

23. SYSTEM CUMULATIVE:

    Shows the system cumulative data for the control run on the system. This data is the same as the module cumulative data when there is only one module.

24. MODULE DATA FOR DATE RANGE:

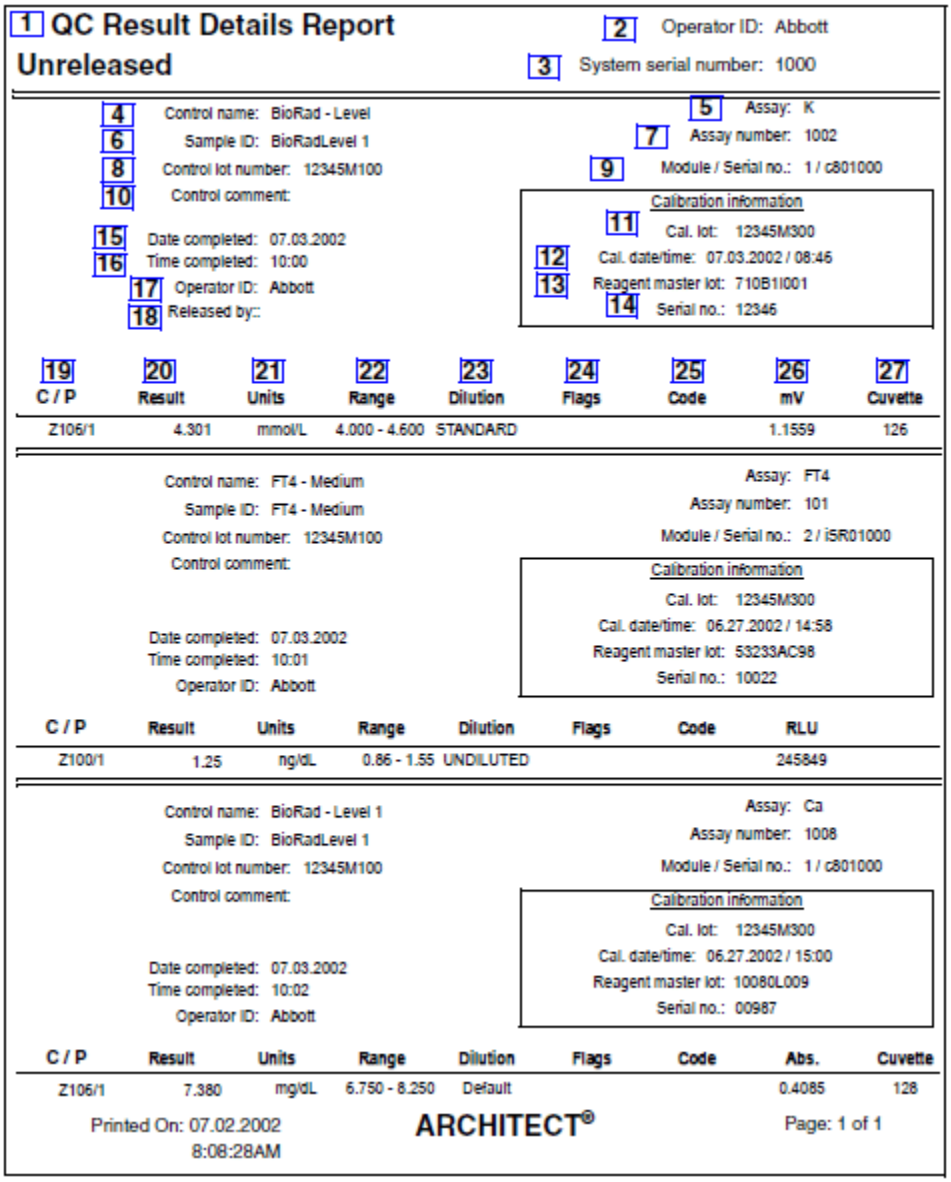
    Shows the module data calculated for the specified module and date range.

25. SYSTEM DATA FOR DATE RANGE:

    Shows the system data calculated for the date range. This data is the same as the module data for date range when there is only one module.

QC Result Details Report

Use this report to troubleshoot your system.



1 QC Result Details Report
Unreleased
2 Operator ID: Abbott
3 System serial number: 1000

4 Control name: BioRad - Level
6 Sample ID: BioRadLevel 1
8 Control lot number: 12345M100
10 Control comment:
15 Date completed: 07.03.2002
16 Time completed: 10:00
17 Operator ID: Abbott
18 Released by::
5 Assay: K
7 Assay number: 1002
9 Module / Serial no.: 1 / c801000
Calibration information
11 Cal. lot: 12345M300
12 Cal. date/time: 07.03.2002 / 08:46
13 Reagent master lot: 710B1I001
14 Serial no.: 12346

19 C / P	20 Result	21 Units	22 Range	23 Dilution	24 Flags	25 Code	26 mV	27 Cuvette
Z106/1	4.301	mmol/L	4.000 - 4.600	STANDARD			1.1559	126

Control name: FT4 - Medium
Sample ID: FT4 - Medium
Control lot number: 12345M100
Control comment:
Date completed: 07.03.2002
Time completed: 10:01
Operator ID: Abbott
Assay: FT4
Assay number: 101
Module / Serial no.: 2 / i5R01000
Calibration information
Cal. lot: 12345M300
Cal. date/time: 06.27.2002 / 14:58
Reagent master lot: 53233AC98
Serial no.: 10022

C / P	Result	Units	Range	Dilution	Flags	Code	RLU
Z100/1	1.25	ng/dL	0.86 - 1.55	UNDILUTED			245849

Control name: BioRad - Level 1
Sample ID: BioRadLevel 1
Control lot number: 12345M100
Control comment:
Date completed: 07.03.2002
Time completed: 10:02
Operator ID: Abbott
Assay: Ca
Assay number: 1008
Module / Serial no.: 1 / c801000
Calibration information
Cal. lot: 12345M300
Cal. date/time: 06.27.2002 / 15:00
Reagent master lot: 10080L009
Serial no.: 00987

C / P	Result	Units	Range	Dilution	Flags	Code	Abs.	Cuvette
Z106/1	7.380	mg/dL	6.750 - 8.250	Default			0.4085	128

Printed On: 07.02.2002 8:08:28AM
ARCHITECT®
Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Control name:

   Shows the name and level of the control.
5. Assay:

   Shows the name of the assay.
6. Sample ID:

   Shows the bar code number or ID assigned to the sample.
7. Assay number:

   Shows the number assigned to the assay.
8. Control lot number:

   Shows the lot number of the control.
9. Module / Serial no.:

   Shows the module and serial number on which the assay was run.
10. Control comment:

    Shows the comment entered for the control.
11. Cal. lot:

    Shows the calibrator lot number for the calibration used to calculate the result.
12. Cal. date / time:

    Shows the calibration date and time for the reagent lot used to calculate the result.
13. Reagent master lot:

    Shows the reagent master lot for the calibration used to calculate the result.
14. Serial no.:

    Shows the serial number of the reagent used to obtain the calibration curve.
15. Date completed:

    Shows the date the control completed.
16. Time completed:

    Shows the time the control completed.
17. Operator ID:

    Shows the ID of the operator logged on when the result was generated.
18. Released by:

    Displays the ID of the operator logged on when the control was released.
19. C / P (column):

    Shows the sample location for one of the following:

    - Carrier ID and position (P) (RSH/SSH)
    - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
    - LAS - Shown if the sample was pipetted from the LAS track
    - LAS carousel ID (C) and position (P) (*i*2000)
20. Result (column):

    Shows the value of the control result.

21. Units (column):

    Shows the units for the control result.

22. Range (column):

    Shows the range configured for the control.

23. Dilution (column):

    Shows the dilution used for the test.

24. Flags (column):

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-318.

25. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

26. mV (column):

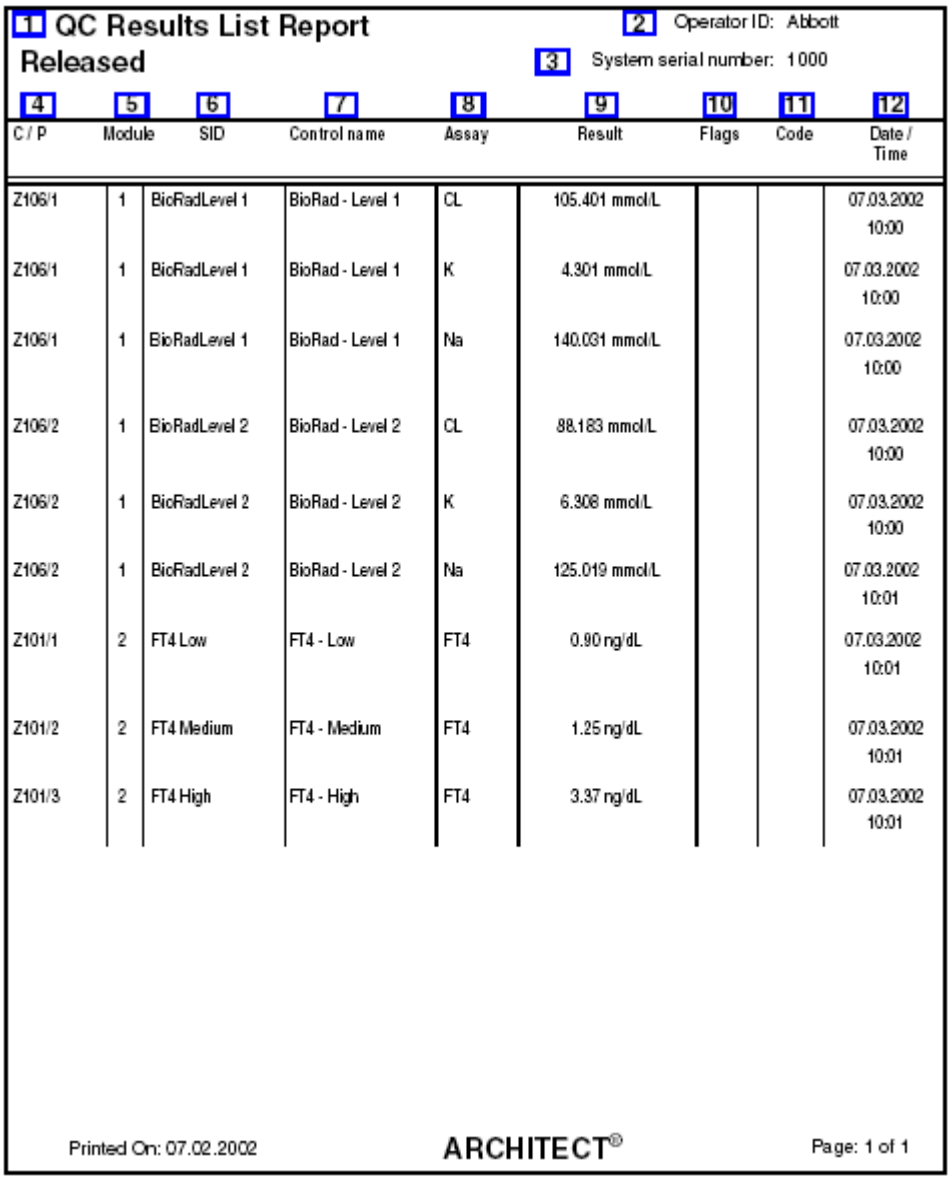
    Shows the millivolt value for the control result.

27. Cuvette (column):

    Shows the number of the cuvette used to process the control.

QC Results List Report

Use this report to troubleshoot your system and as a hardcopy record of QC results.



1 QC Results List Report — 2 Operator ID: Abbott
Released — 3 System serial number: 1000

4 C / P	5 Module	6 SID	7 Control name	8 Assay	9 Result	10 Flags	11 Code	12 Date / Time
Z106/1	1	BioRadLevel 1	BioRad - Level 1	CL	105.401 mmol/L			07.03.2002 10:00
Z106/1	1	BioRadLevel 1	BioRad - Level 1	K	4.301 mmol/L			07.03.2002 10:00
Z106/1	1	BioRadLevel 1	BioRad - Level 1	Na	140.031 mmol/L			07.03.2002 10:00
Z106/2	1	BioRadLevel 2	BioRad - Level 2	CL	88.183 mmol/L			07.03.2002 10:00
Z106/2	1	BioRadLevel 2	BioRad - Level 2	K	6.308 mmol/L			07.03.2002 10:00
Z106/2	1	BioRadLevel 2	BioRad - Level 2	Na	125.019 mmol/L			07.03.2002 10:01
Z101/1	2	FT4 Low	FT4 - Low	FT4	0.90 ng/dL			07.03.2002 10:01
Z101/2	2	FT4 Medium	FT4 - Medium	FT4	1.25 ng/dL			07.03.2002 10:01
Z101/3	2	FT4 High	FT4 - High	FT4	3.37 ng/dL			07.03.2002 10:01

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   - Carrier ID and position (P) (RSH/SSH)
   - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
   - LAS - Shown if the sample was pipetted from the LAS track
   - LAS carousel ID (C) and position (P) (*i*2000)

5. Module (column):

   Shows the module that generated the control result.

6. SID (column):

   Shows the bar code number or ID assigned to the sample.

7. Control name (column):

   Shows the name and level for the control.

8. Assay (column):

   Shows the name of the assay.

9. Result (column):

   Shows the value of the control result.

10. Flags (column):

    Shows the flags associated with the result. See *Descriptions of quality control result flags*, page 5-318.

11. Code (column):

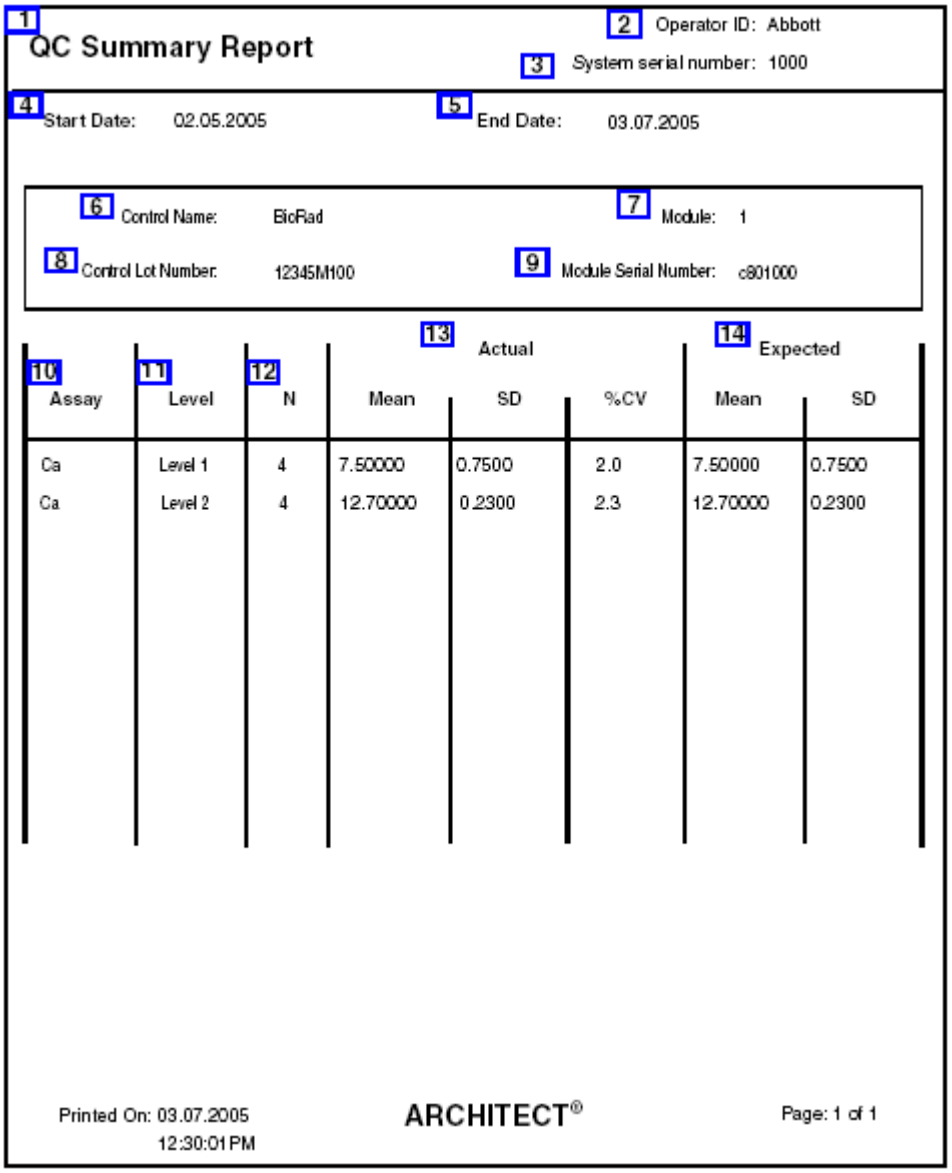
    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

12. Date / Time (column):

    Shows the date and time the control result was completed.

QC Summary Report

Use this report as a hardcopy record of QC data.



1 QC Summary Report

2 Operator ID: Abbott

3 System serial number: 1000

4 Start Date: 02.05.2005

5 End Date: 03.07.2005

6 Control Name: BioRad

7 Module: 1

8 Control Lot Number: 12345M100

9 Module Serial Number: c801000

10 Assay	11 Level	12 N	13 Actual Mean	13 Actual SD	13 Actual %CV	14 Expected Mean	14 Expected SD
Ca	Level 1	4	7.50000	0.7500	2.0	7.50000	0.7500
Ca	Level 2	4	12.70000	0.2300	2.3	12.70000	0.2300

Printed On: 03.07.2005 12:30:01 PM

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Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Start Date:

   Shows the Start Date entered in the QC summary review screen.
5. End Date:

   Shows the End Date entered in the QC summary review screen.
6. Control Name:

   Shows the name of the control.
7. Module:

   Shows the module that generated the control result(s).
8. Control Lot Number:

   Shows the lot number of the control
9. Module Serial Number:

   Shows the serial number of the module on which the controls were run.
10. Assay:

    Shows the name of the assay.
11. Level:

    Shows the level of the control.
12. N:

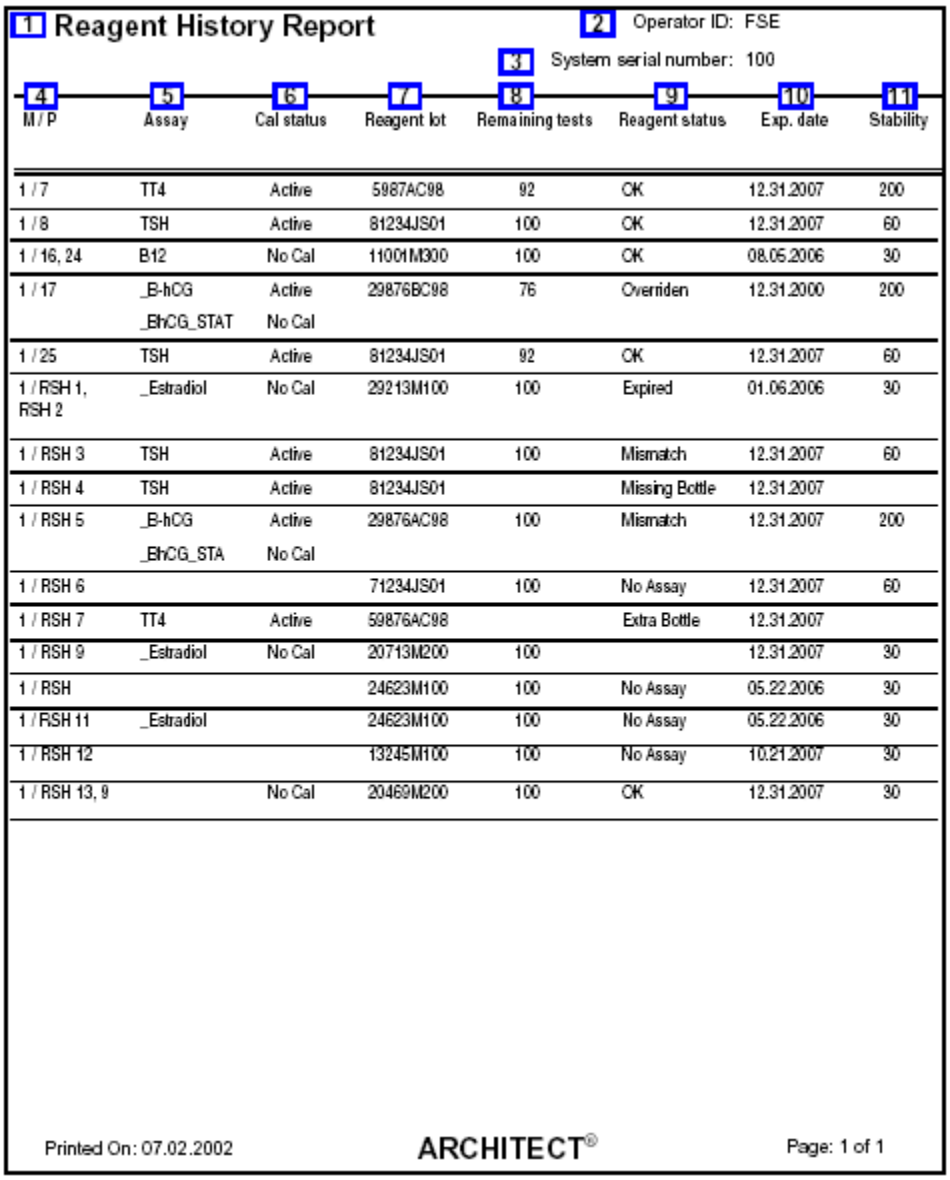
    Shows the number of samples for that control level within the specified date range.
13. Actual:

    Shows the Mean, SD, and %CV for that control level within the specified date range.
14. Expected:

    Shows the expected mean and standard deviation configured.

Reagent History Report

Use this report to identify the number of remaining tests and expiration dates of the last 3000 reagent packs.



1 Reagent History Report — 2 Operator ID: FSE — 3 System serial number: 100

4 M / P	5 Assay	6 Cal status	7 Reagent lot	8 Remaining tests	9 Reagent status	10 Exp. date	11 Stability
1 / 7	TT4	Active	5987AC98	92	OK	12.31.2007	200
1 / 8	TSH	Active	81234JS01	100	OK	12.31.2007	60
1 / 16, 24	B12	No Cal	11001M300	100	OK	08.05.2006	30
1 / 17	_B-hCG	Active	29876BC98	76	Overriden	12.31.2000	200
	_BhCG_STAT	No Cal					
1 / 25	TSH	Active	81234JS01	92	OK	12.31.2007	60
1 / RSH 1, RSH 2	_Estradiol	No Cal	29213M100	100	Expired	01.06.2006	30
1 / RSH 3	TSH	Active	81234JS01	100	Mismatch	12.31.2007	60
1 / RSH 4	TSH	Active	81234JS01		Missing Bottle	12.31.2007	
1 / RSH 5	_B-hCG	Active	29876AC98	100	Mismatch	12.31.2007	200
	_BhCG_STA	No Cal					
1 / RSH 6			71234JS01	100	No Assay	12.31.2007	60
1 / RSH 7	TT4	Active	59876AC98		Extra Bottle	12.31.2007	
1 / RSH 9	_Estradiol	No Cal	20713M200	100		12.31.2007	30
1 / RSH			24623M100	100	No Assay	05.22.2006	30
1 / RSH 11	_Estradiol		24623M100	100	No Assay	05.22.2006	30
1 / RSH 12			13245M100	100	No Assay	10.21.2007	30
1 / RSH 13, 9		No Cal	20469M200	100	OK	12.31.2007	30

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. M / P (column):

   Shows the module and position in which the reagent kit is located.

5. Assay (column):

   Shows the name of the assay.

6. Cal status (column):

   Shows the status of the calibration for the reagent lot.

7. Reagent lot (column):

   Shows the lot number of the reagent kit.

8. Remaining tests (column):

   Shows the number of tests remaining for the reagent kit (*i*2000).

9. Reagent status (column):

   Shows the status of the reagent kit.

10. Exp date (column):

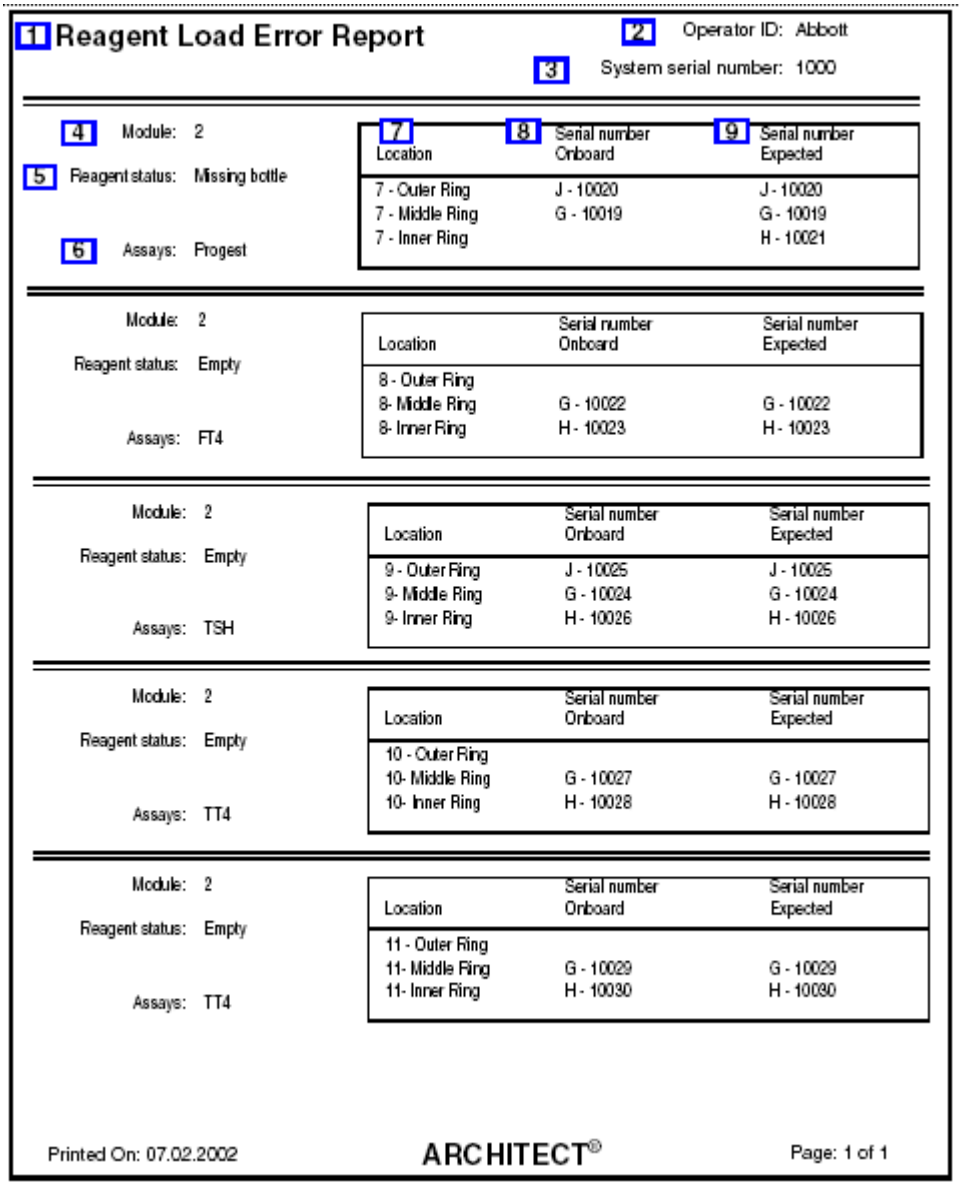
    Shows the date on which the reagent kit expires.

11. Stability (column):

    Shows the number of onboard stability days/hours remaining for the reagent kit.

Reagent Load Error Report

Use this report to troubleshoot reagent load errors.



1 Reagent Load Error Report
2 Operator ID: Abbott
3 System serial number: 1000

4 Module: 2
5 Reagent status: Missing bottle
6 Assays: Progest

7 Location	8 Serial number Onboard	9 Serial number Expected
7 - Outer Ring	J - 10020	J - 10020
7 - Middle Ring	G - 10019	G - 10019
7 - Inner Ring		H - 10021

Module: 2
Reagent status: Empty
Assays: FT4

Location	Serial number Onboard	Serial number Expected
8 - Outer Ring		
8- Middle Ring	G - 10022	G - 10022
8- Inner Ring	H - 10023	H - 10023

Module: 2
Reagent status: Empty
Assays: TSH

Location	Serial number Onboard	Serial number Expected
9 - Outer Ring	J - 10025	J - 10025
9- Middle Ring	G - 10024	G - 10024
9- Inner Ring	H - 10026	H - 10026

Module: 2
Reagent status: Empty
Assays: TT4

Location	Serial number Onboard	Serial number Expected
10 - Outer Ring		
10- Middle Ring	G - 10027	G - 10027
10- Inner Ring	H - 10028	H - 10028

Module: 2
Reagent status: Empty
Assays: TT4

Location	Serial number Onboard	Serial number Expected
11 - Outer Ring		
11- Middle Ring	G - 10029	G - 10029
11- Inner Ring	H - 10030	H - 10030

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Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. Module:

   Shows the number of the module in which the reagent is located.

5. Reagent status:

   Shows the status of the reagent kit.

6. Assays:

   Shows the name of the assay.

7. Location (column):

   Shows the position in which you loaded the reagent bottle/cartridge.

8. Serial number / Onboard (column):

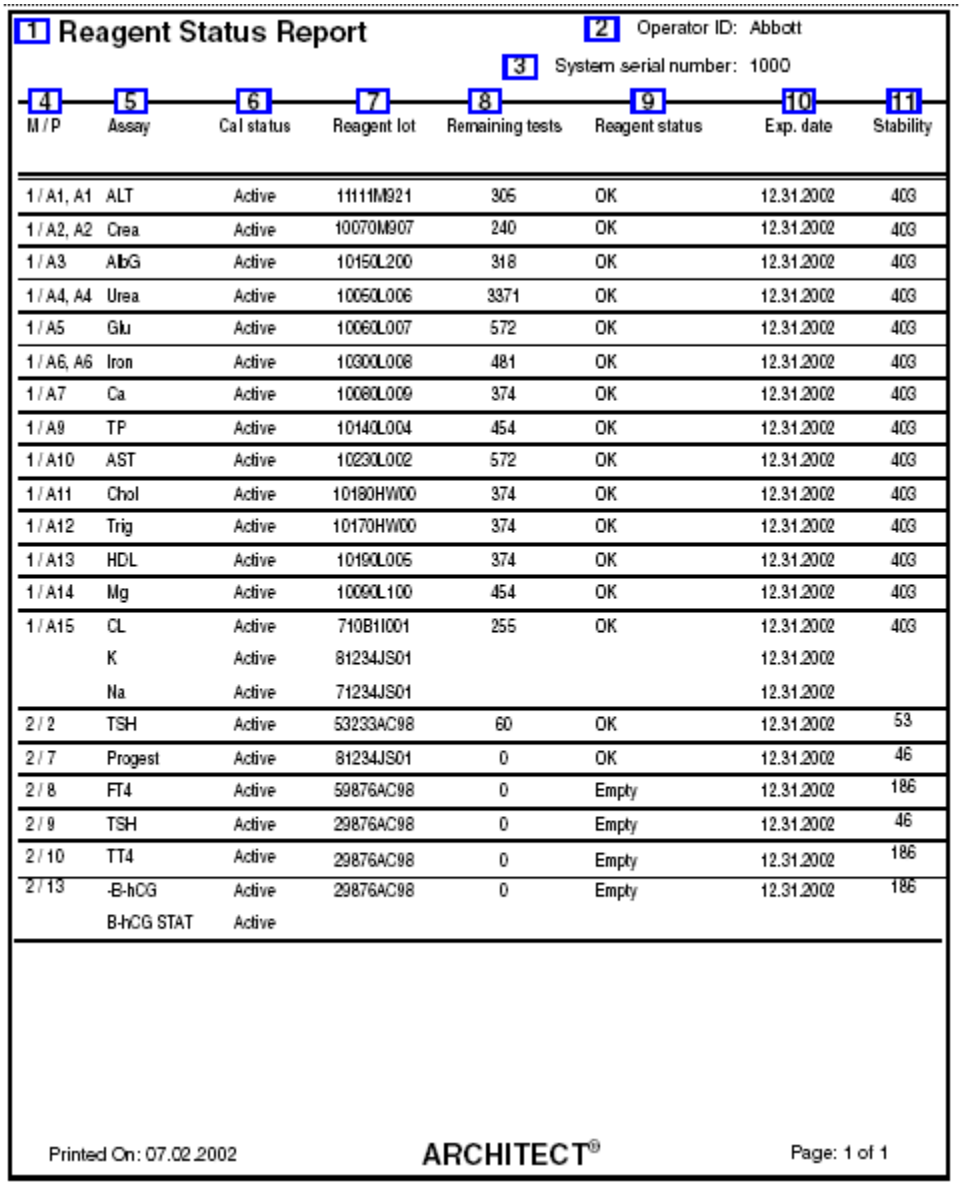
   Shows the serial number of the reagent bottle/cartridge loaded on board the reagent carousel(s).

9. Serial number / Expected (column):

   Shows the serial number of the reagent bottle/cartridge expected to be loaded on the reagent carousel(s).

Reagent Status Report (except for *i*1000SR)

Use this report to quickly identify empty reagent kits.



1 Reagent Status Report — 2 Operator ID: Abbott — 3 System serial number: 1000

4 M/P	5 Assay	6 Cal status	7 Reagent lot	8 Remaining tests	9 Reagent status	10 Exp. date	11 Stability
1 / A1, A1	ALT	Active	11111M921	305	OK	12.31.2002	403
1 / A2, A2	Crea	Active	10070M907	240	OK	12.31.2002	403
1 / A3	AlbG	Active	10150L200	318	OK	12.31.2002	403
1 / A4, A4	Urea	Active	10050L006	3371	OK	12.31.2002	403
1 / A5	Glu	Active	10060L007	572	OK	12.31.2002	403
1 / A6, A6	Iron	Active	10300L008	481	OK	12.31.2002	403
1 / A7	Ca	Active	10080L009	374	OK	12.31.2002	403
1 / A9	TP	Active	10140L004	454	OK	12.31.2002	403
1 / A10	AST	Active	10230L002	572	OK	12.31.2002	403
1 / A11	Chol	Active	10180HW00	374	OK	12.31.2002	403
1 / A12	Trig	Active	10170HW00	374	OK	12.31.2002	403
1 / A13	HDL	Active	10190L005	374	OK	12.31.2002	403
1 / A14	Mg	Active	10090L100	454	OK	12.31.2002	403
1 / A15	CL	Active	710B11001	255	OK	12.31.2002	403
	K	Active	81234JS01			12.31.2002	
	Na	Active	71234JS01			12.31.2002	
2 / 2	TSH	Active	53233AC98	60	OK	12.31.2002	53
2 / 7	Progest	Active	81234JS01	0	OK	12.31.2002	46
2 / 8	FT4	Active	59876AC98	0	Empty	12.31.2002	186
2 / 9	TSH	Active	29876AC98	0	Empty	12.31.2002	46
2 / 10	TT4	Active	29876AC98	0	Empty	12.31.2002	186
2 / 13	-B-hCG	Active	29876AC98	0	Empty	12.31.2002	186
	B-hCG STAT	Active					

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. M / P (column):

   Shows the module and position in which the reagent kit is located.

5. Assay (column):

   Shows the name of the assay.

6. Cal status (column)

   Shows the status of the calibration for the reagent lot.

7. Reagent lot (column):

   Shows the lot number of the reagent kit.

8. Remaining tests (column):

   Shows an estimated number of tests remaining for the reagent kit (*c* System).

   Shows the number of tests remaining for the reagent kit (*i* System).

9. Reagent status (column):

   Shows the status of the reagent kit.

10. Exp. date (column):

    Shows the date on which the reagent kit expires.

11. Stability (column):

    Shows the number of onboard stability days/hours remaining for the reagent kit.

Reagent Status Report (*i*1000SR)

Use this report to quickly identify empty reagent kits.

* Expiration Date and Stability columns are not shown.

1 Reagent Status Report

2 Operator ID: FSE

3 System serial number: 100

4 M/P	5 Assay	6 Cal status	7 Reagent lot	8 Remaining tests	9 Reagent status	*	10 Carrier Status
1 / 7	TT4	Active	59876AC98	92	OK		
1 / 8	TSH	Active	81234JS01	100	OK		Schedule Unloaded
1/ 16, 24	B12	No Cal	11001M300	100	OK		
1 / 17	_B-hCG	Active	29876BC98	76	Overridden		
	_BhCG_STAT	No Cal					
1 / 25	TSH	Active	81234JS01	92	OK		
1 RSH 1, RSH 2	_Estradiol	No Cal	29213M100	100	Expired		
1 / RSH 3	TSH	Active	81234JS01	100	Mismatch		
1 / RSH 4	TSH	Active	81234JS01		Missing Bottle		
1 / RSH 5	_B-hCG	No Cal	29876AC98	100	Mismatch		
	_BhCG_STAT	No Cal					
1 / RSH 6			71234JS01	100	No Assay		
1 / RSH 7	TT4	Active	59876AC98		Extra Bottle		
1 / RSH 8					BC Fail		
1 / RSH 9	_Estradiol	No Cal	20713M200	100			Scanning
1 / RSH 10			24623M100	100	No Assay		
1 / RSH 11			24623M100	100	No Assay		
1 / RSH 12			13245M100	100	No Assay		
1 / RSH 13, 9	_Estradiol	No Cal	20469M200	100	OK		Partially Unloaded

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. M / P (column):

   Shows the module and position in which the reagent kit is located.

5. Assay (column):

   Shows the name of the assay.

6. Cal status (column)

   Shows the status of the calibration for the reagent lot.

7. Reagent lot (column):

   Shows the lot number of the reagent kit.

8. Remaining tests (column):

   Shows the number of tests remaining for the reagent kit (*i* System).

9. Reagent status (column):

   Shows the status of the reagent kit.

10. Carrier Status (column):

    Shows the status of the reagent carriers for loading or unloading.

11. *Exp. date (column - not shown):

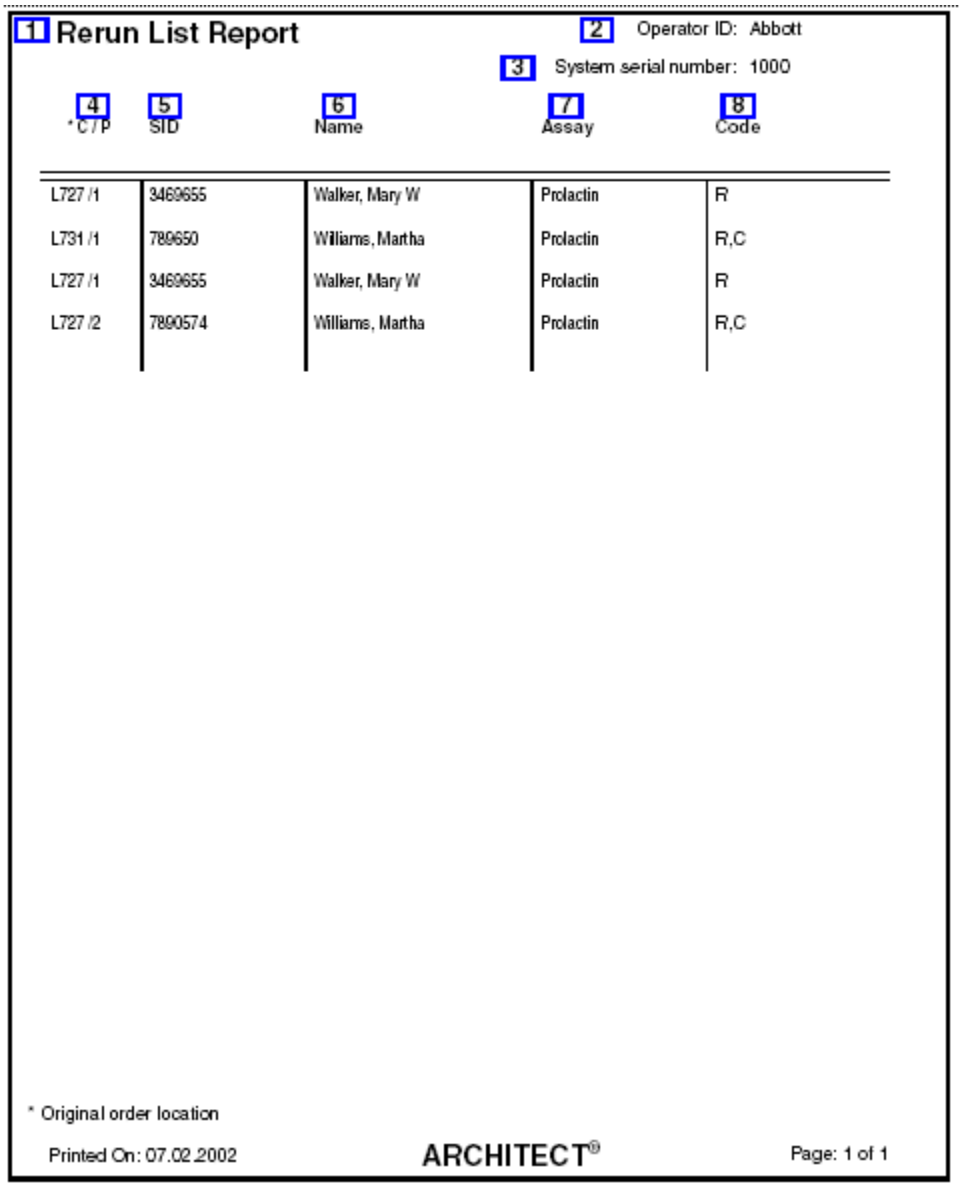
    Shows the date on which the reagent kit expires.

12. *Stability (column - not shown):

    Shows the number of onboard stability days/hours remaining for the reagent kit.

Rerun List Report

Use this report to find samples that have reruns ordered.



1 Rerun List Report
2 Operator ID: Abbott
3 System serial number: 1000

4 *C/P	5 SID	6 Name	7 Assay	8 Code
L727 /1	3469655	Walker, Mary W	Prolactin	R
L731 /1	789650	Williams, Martha	Prolactin	R,C
L727 /1	3469655	Walker, Mary W	Prolactin	R
L727 /2	7890574	Williams, Martha	Prolactin	R,C

* Original order location

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Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. *C / P (column):

   Shows the sample location for one of the following:

   - Carrier ID and position (P) (RSH/SSH)
   - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
   - LAS - Shown if the sample was pipetted from the LAS track
   - LAS carousel ID (C) and position (P) (*i*2000)

5. SID (column):

   Shows the bar code number or ID assigned to the sample.

6. Name (column):

   Shows the name of the patient or control.

7. Assay (column):

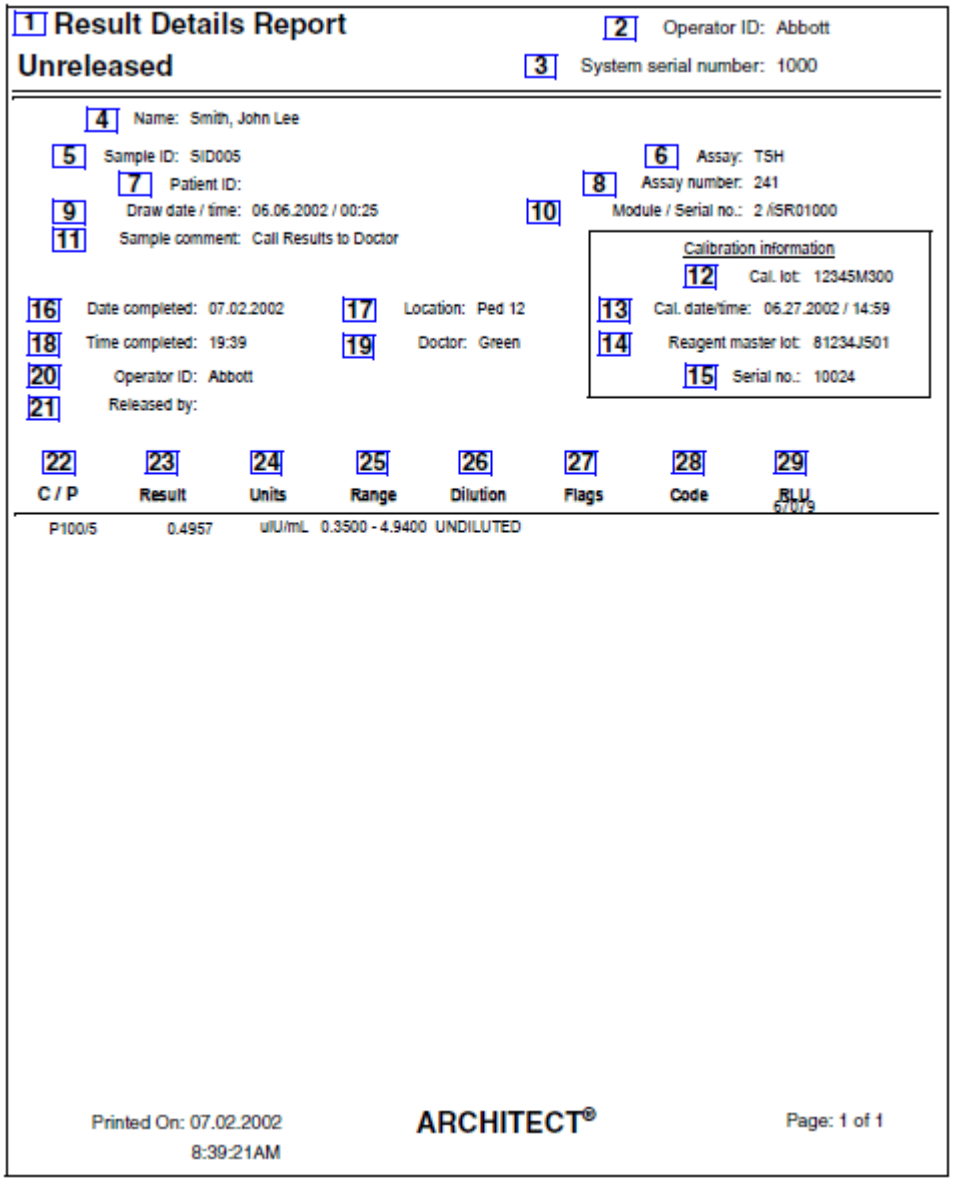
   Shows the name of the assay.

8. Code (column):

   Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Result Details Report

Use this report to troubleshoot your system. Up to three result details print per page.



Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Name:

   Shows the name of the patient.

5. Sample ID:

   Shows the bar code number or ID assigned to the sample.

6. Assay:

   Shows the name of the assay.

7. Patient ID:

   Shows the ID assigned to the patient.

8. Assay number:

   Shows the number assigned to the assay.

9. Draw date / time:

   Shows the date and time the sample was drawn.

10. Module / Serial no.:

    Shows the module and serial number on which the test was run.

11. Sample comment:

    Shows the comment entered for the test.

12. Cal. lot:

    Shows the calibrator lot number for the calibration used to calculate the result.

13. Cal. date/time:

    Shows the calibration date and time for the reagent lot used to calculate the result.

14. Reagent master lot:

    Shows the reagent master lot for the calibration used to calculate the result.

15. Serial no.:

    Shows the serial number of the reagent used to obtain the calibration curve.

16. Date completed:

    Shows the date the result completed.

17. Location:

    Shows the location associated with the patient.

18. Time completed:

    Shows the time the result completed.

19. Doctor:

    Shows the name of the patient's doctor.

20. Operator ID:

    Shows the ID of the operator logged on when the result was generated.

21. Released by:

    Displays the ID of the operator logged on when the result was released.

22. C / P (column):

    Shows the sample location for one of the following:

- Carrier ID and position (P) (RSH/SSH)
- CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
- LAS - Shown if the sample was pipetted from the LAS track
- LAS carousel ID (C) and position (P) (*i*2000)

23. Result (column):

    Shows the value and (where applicable) interpretation of the result.

24. Units (column):

    Shows the units for the result.

25. Range (column):

    Shows the normal / therapeutic range for the assay, if configured.

26. Dilution (column):

    Shows the dilution used for the test.

27. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

28. Code (column):

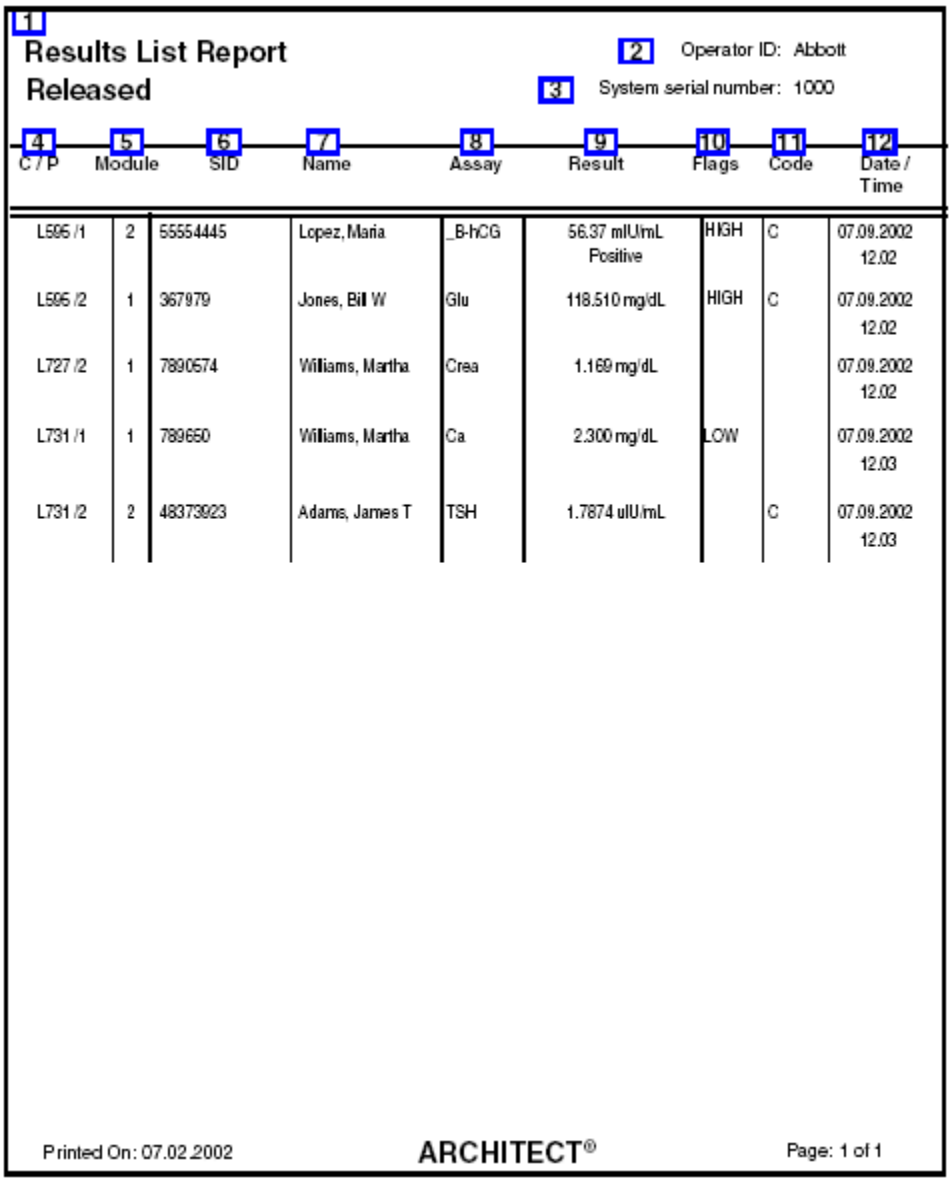
    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

29. RLU (column):

    Shows the RLU (relative light unit) value for the result.

Results List Report

Use this report as a hardcopy record of the results generated by your system. You can configure this report to print automatically. See *Configure report settings*, page 2-7.



1 Results List Report
Released

2 Operator ID: Abbott
3 System serial number: 1000

4 C / P	5 Module	6 SID	7 Name	8 Assay	9 Result	10 Flags	11 Code	12 Date / Time
L595 /1	2	55554445	Lopez, Maria	_B-hCG	56.37 mIU/mL Positive	HIGH	C	07.09.2002 12.02
L595 /2	1	367979	Jones, Bill W	Glu	118.510 mg/dL	HIGH	C	07.09.2002 12.02
L727 /2	1	7890574	Williams, Martha	Crea	1.169 mg/dL			07.09.2002 12.02
L731 /1	1	789650	Williams, Martha	Ca	2.300 mg/dL	LOW		07.09.2002 12.03
L731 /2	2	48373923	Adams, James T	TSH	1.7874 uIU/mL		C	07.09.2002 12.03

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. C / P (column):

   Shows the sample location for one of the following:

   - Carrier ID and position (P) (RSH/SSH)
   - CRSL - Shown if the sample was pipetted from the sample carousel (*c* System)
   - LAS - Shown if the sample was pipetted from the LAS track
   - LAS carousel ID (C) and position (P) (*i*2000)

5. Module (column):

   Shows the module that generated the test result.

6. SID (column):

   Shows the bar code number or ID assigned to the sample.

7. Name (column):

   Shows the name of the patient associated with the result.

8. Assay (column):

   Shows the name of the assay.

9. Result (column):

   Shows the value and (where applicable) interpretation of the result.

10. Flags (column):

    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

11. Code (column):

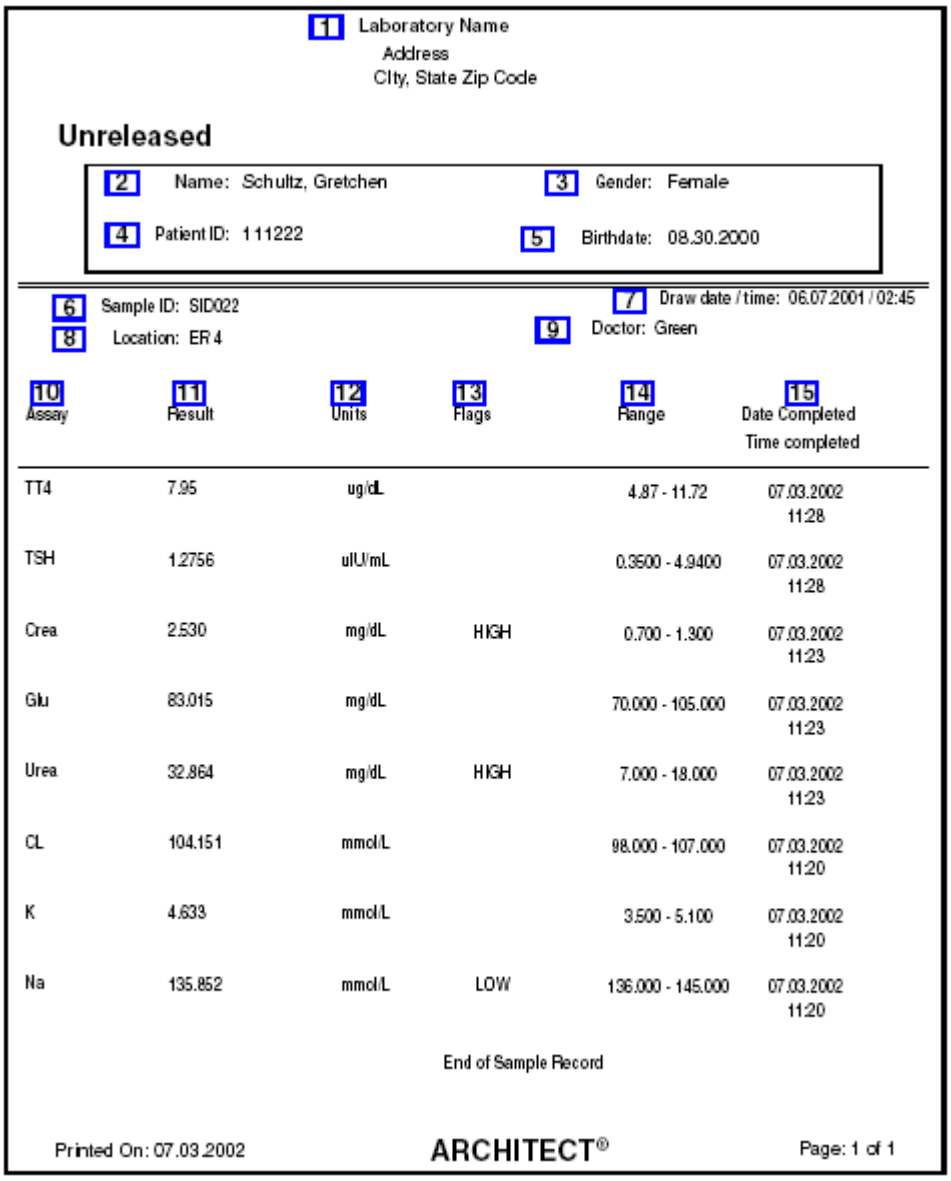
    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

12. Date / Time (column):

    Shows the date and time the test result was completed.

Sample Report

Use this report as a hardcopy sample record. If you add a test to an existing order, the system generates a separate sample report for that test unless the original order is still pending.



1 Laboratory Name
Address
City, State Zip Code

Unreleased

2 Name: Schultz, Gretchen
3 Gender: Female
4 Patient ID: 111222
5 Birthdate: 08.30.2000

6 Sample ID: SID022
7 Draw date / time: 06.07.2001 / 02:45
8 Location: ER 4
9 Doctor: Green

10 Assay	11 Result	12 Units	13 Flags	14 Range	15 Date Completed / Time completed
TT4	7.95	ug/dL		4.87 - 11.72	07.03.2002 11:28
TSH	1.2756	uIU/mL		0.3500 - 4.9400	07.03.2002 11:28
Crea	2.530	mg/dL	HIGH	0.700 - 1.300	07.03.2002 11:23
Glu	83.015	mg/dL		70.000 - 105.000	07.03.2002 11:23
Urea	32.864	mg/dL	HIGH	7.000 - 18.000	07.03.2002 11:23
CL	104.151	mmol/L		98.000 - 107.000	07.03.2002 11:20
K	4.633	mmol/L		3.500 - 5.100	07.03.2002 11:20
Na	135.852	mmol/L	LOW	136.000 - 145.000	07.03.2002 11:20

End of Sample Record

Printed On: 07.03.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report header:

   Shows the configured report header information.

2. Name:

   Shows the name of the patient.

3. Gender:

   Shows the gender of the patient.
4. Patient ID:

   Shows the ID assigned to the patient.
5. Birthdate:

   Shows the birthdate of the patient.
6. Sample ID:

   Shows the bar code number or ID assigned to the sample.
7. Draw date / time:

   Shows the date and time the sample was drawn.
8. Location:

   Shows the location associated with the patient.
9. Doctor:

   Shows the name of the patient's doctor.
10. Assay:

    Shows the name of the assay.
11. Result:

    Shows the value and (where applicable) interpretation of the result.
12. Units:

    Shows the units for the result.
13. Flags:

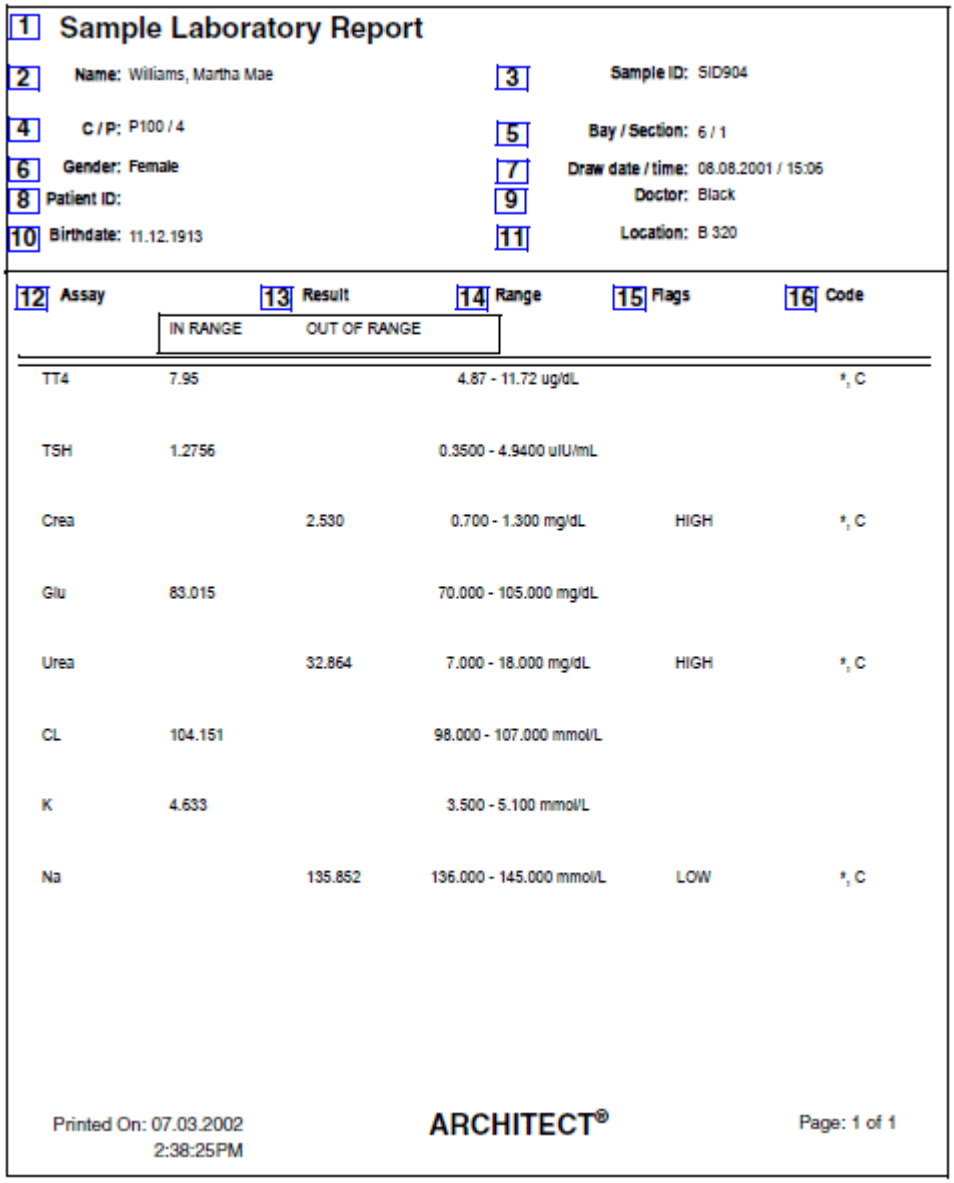
    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
14. Range:

    Shows the normal / therapeutic range for the assay, if configured.
15. Date Completed / Time completed:

    Shows the date and time the result completed.

Sample Laboratory Report

Use this report as a hardcopy sample record for the laboratory of the results generated by your system.



1 Sample Laboratory Report

2 Name: Williams, Martha Mae
3 Sample ID: SID904
4 C / P: P100 / 4
5 Bay / Section: 6 / 1
6 Gender: Female
7 Draw date / time: 08.08.2001 / 15:06
8 Patient ID:
9 Doctor: Black
10 Birthdate: 11.12.1913
11 Location: B 320

12 Assay	13 Result		14 Range	15 Flags	16 Code
	IN RANGE	OUT OF RANGE			
TT4	7.95		4.87 - 11.72 ug/dL		*, C
TSH	1.2756		0.3500 - 4.9400 uIU/mL		
Crea		2.530	0.700 - 1.300 mg/dL	HIGH	*, C
Glu	83.015		70.000 - 105.000 mg/dL		
Urea		32.864	7.000 - 18.000 mg/dL	HIGH	*, C
CL	104.151		98.000 - 107.000 mmol/L		
K	4.633		3.500 - 5.100 mmol/L		
Na		135.852	136.000 - 145.000 mmol/L	LOW	*, C

Printed On: 07.03.2002 2:38:25PM
ARCHITECT®
Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Name:

   Shows the name of the patient.
3. Sample ID:

Shows the bar code number or ID assigned to the sample.

4. C / P:

   Shows the carrier or carousel (CRSL) ID and position for the sample.

5. Bay / Section:

   Shows the bay or section in which the sample was loaded. (RSH)

6. Gender:

   Shows the gender of the patient.

7. Draw date / time:

   Shows the date and time the sample was drawn.

8. Patient ID:

   Shows the ID assigned to the patient.

9. Doctor:

   Shows the name of the patient's doctor.

10. Birthdate:

    Shows the birthdate of the patient.

11. Location:

    Shows the location associated with the patient.

12. Assay (column):

    Shows the name of the assay.

13. Result (column):

    Shows the value and (where applicable) interpretation of the result.

14. Range (column):

    Shows the normal / therapeutic range for the assay, if configured.

15. Flags (column):

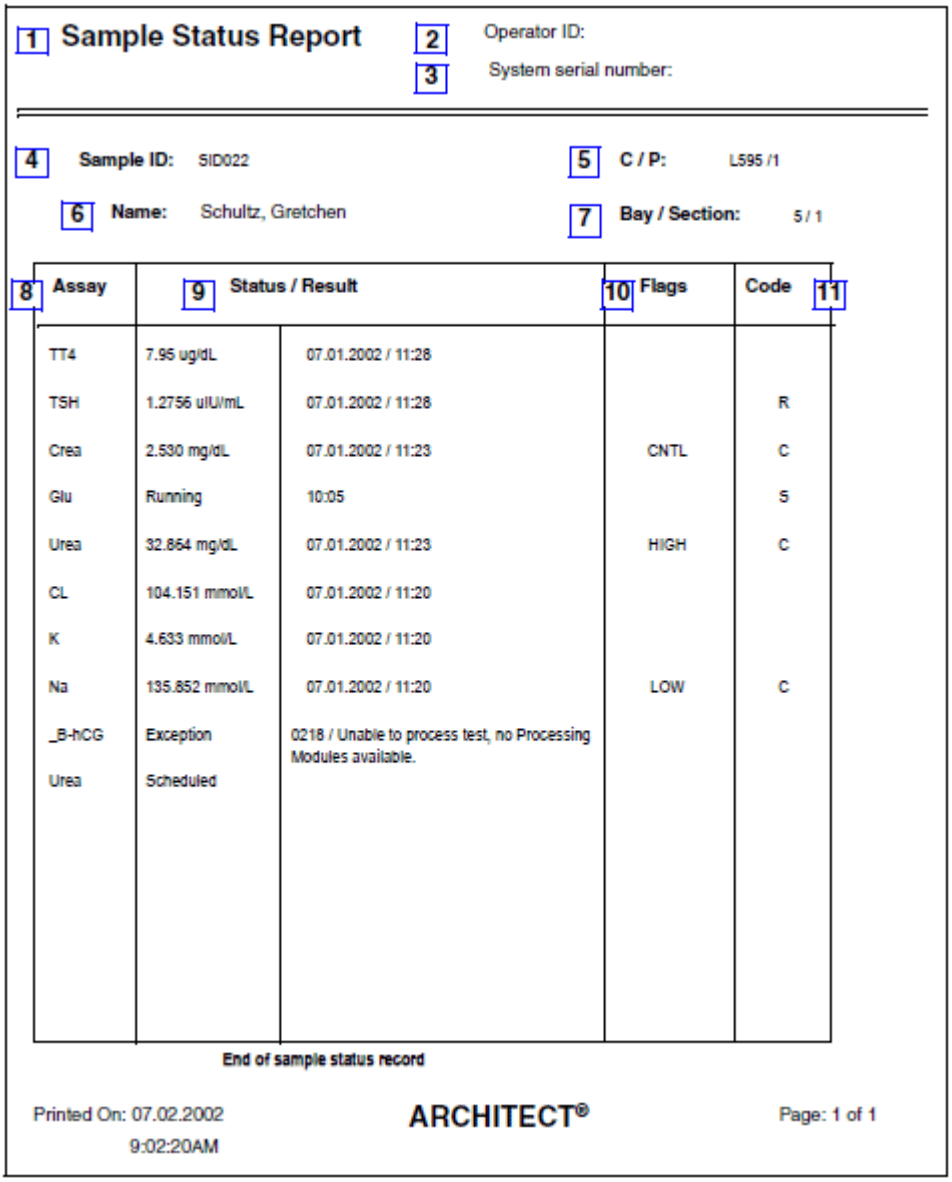
    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

16. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Sample Status Report

Use this report to check the status of a sample or as a hardcopy record of the results generated by your system.



1 Sample Status Report
2 Operator ID:
3 System serial number:

4 Sample ID: SID022
5 C / P: L595 /1
6 Name: Schultz, Gretchen
7 Bay / Section: 5 / 1

8 Assay	9 Status / Result		10 Flags	Code 11
TT4	7.95 ug/dL	07.01.2002 / 11:28		
T5H	1.2756 uIU/mL	07.01.2002 / 11:28		R
Crea	2.530 mg/dL	07.01.2002 / 11:23	CNTL	C
Glu	Running	10:05		S
Urea	32.864 mg/dL	07.01.2002 / 11:23	HIGH	C
CL	104.151 mmol/L	07.01.2002 / 11:20		
K	4.633 mmol/L	07.01.2002 / 11:20		
Na	135.852 mmol/L	07.01.2002 / 11:20	LOW	C
_B-hCG	Exception	0218 / Unable to process test, no Processing Modules available.		
Urea	Scheduled			

End of sample status record

Printed On: 07.02.2002 9:02:20AM
ARCHITECT®
Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.
2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.
3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Sample ID:

   Shows the bar code number or ID assigned to the sample.

5. C / P:

   Shows the carrier or carousel (CRSL) ID and position for the sample.

6. Name:

   Shows the name of the patient.

7. Bay / Section (column):

   Displays the bay / section number in which you loaded the sample. (RSH)

   NOTE: For pending orders, the Bay / Section field will not display.

8. Assay (column):

   Shows the name of the assay.

9. Status / Result (column):

   Displays the:

   - Status - current status of the test, see *Descriptions of test statuses*, page 5-224
   - Time the order will complete (in 24- hour format), for all samples with a status of Running
   - Result - value, unit, and (where applicable) interpretation of result
   - Date and time the result was completed

10. Flags (column):

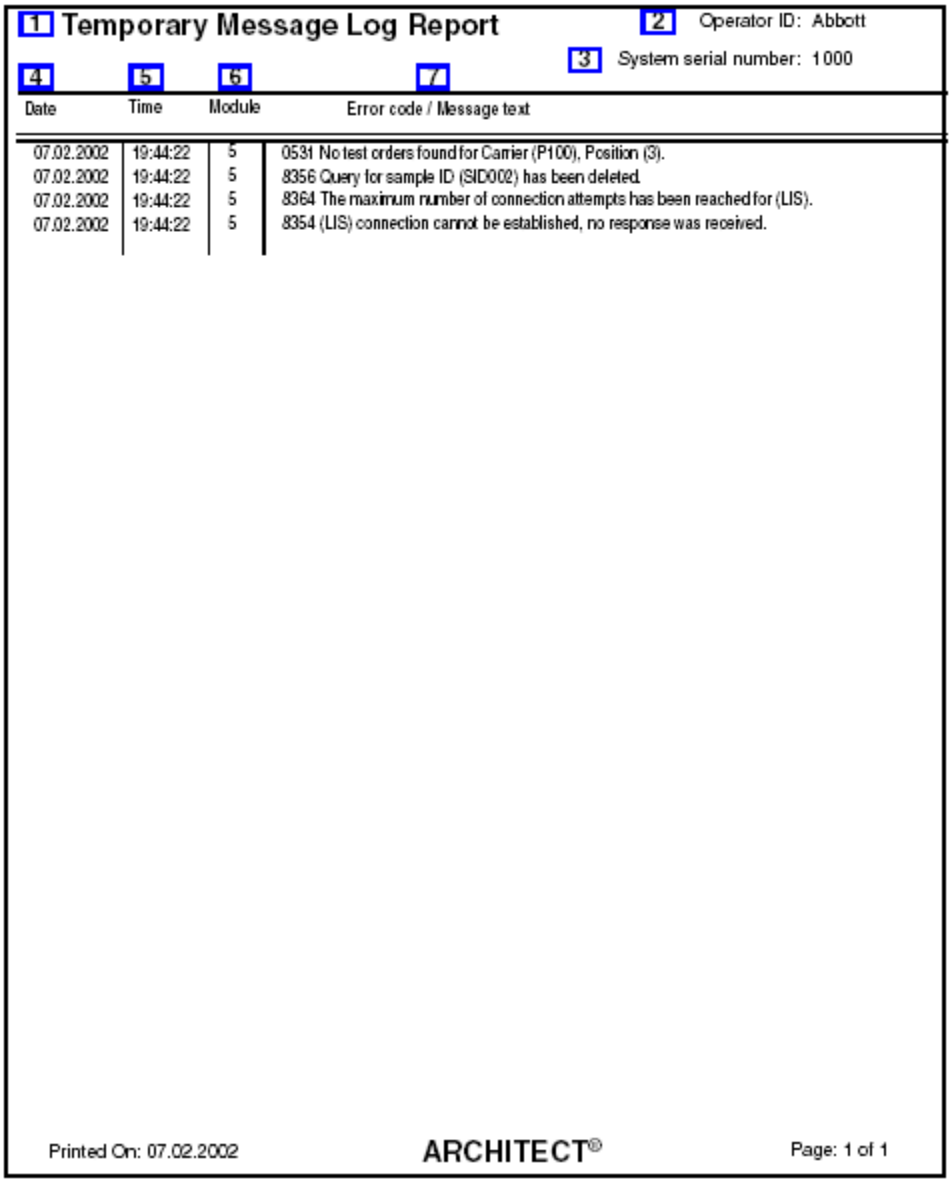
    Shows the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

11. Code (column):

    Shows the code(s) to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Temporary Message Log Report

Use this report to troubleshoot your system.



1 Temporary Message Log Report
2 Operator ID: Abbott
3 System serial number: 1000

4 Date	5 Time	6 Module	7 Error code / Message text
07.02.2002	19:44:22	5	0531 No test orders found for Carrier (P100), Position (3).
07.02.2002	19:44:22	5	8356 Query for sample ID (SID002) has been deleted.
07.02.2002	19:44:22	5	8364 The maximum number of connection attempts has been reached for (LIS).
07.02.2002	19:44:22	5	8354 (LIS) connection cannot be established, no response was received.

Printed On: 07.02.2002 ARCHITECT® Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

Shows the serial number configured for your ARCHITECT System.

4. Date (column):

   Shows the date the temporary message occurred.

5. Time (column):

   Shows the time the temporary message occurred.

6. Module (column):

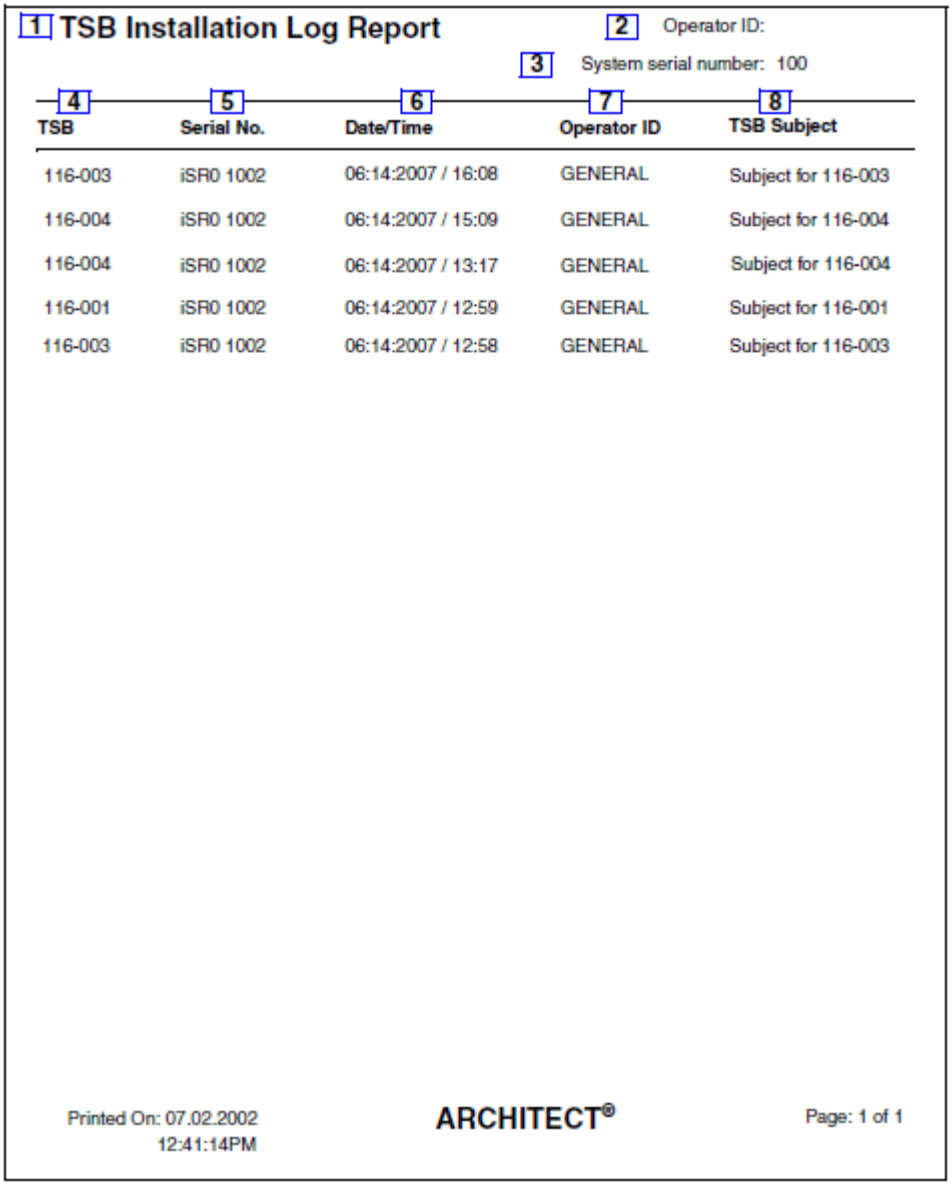
   Shows the module that generated the temporary message.

7. Error code / Message text (column):

   Shows the numeric error code for the exception and the message text that describes the error that occurred.

TSB Installation Log Report

Use the TSB (Technical Service Bulletin) Installation Log Report to show which ARCHITECT System Software updates, identified by their associated TSB number, have been installed on your system.



1 TSB Installation Log Report

2 Operator ID:

3 System serial number: 100

4 TSB	5 Serial No.	6 Date/Time	7 Operator ID	8 TSB Subject
116-003	iSR0 1002	06:14:2007 / 16:08	GENERAL	Subject for 116-003
116-004	iSR0 1002	06:14:2007 / 15:09	GENERAL	Subject for 116-004
116-004	iSR0 1002	06:14:2007 / 13:17	GENERAL	Subject for 116-004
116-001	iSR0 1002	06:14:2007 / 12:59	GENERAL	Subject for 116-001
116-003	iSR0 1002	06:14:2007 / 12:58	GENERAL	Subject for 116-003

Printed On: 07.02.2002 12:41:14PM

ARCHITECT®

Page: 1 of 1

Legend:

1. Report title:

   Shows the name of the report.

2. Operator ID:

   Shows the ID of the operator logged on when the report was printed.

3. System serial number:

   Shows the serial number configured for your ARCHITECT System.

4. TSB (column):

   Shows the unique identifier of the TSB (Technical Service Bulletin).

5. Serial No. (column):

   Shows the serial number of the module the TSB was installed on.

6. Date/Time (column):

   Shows the date and time the software update was installed.

7. Operator ID (column):

   Shows the ID of the operator logged on when the software update was installed.

8. TSB subject (column):

   Shows the title of the software update.

Introduction

You can verify the ARCHITECT *i* System assay claims by performing verification protocols. These protocols are categorized into method groups. You can find the method group number for an assay under ***QUALITY CONTROL PROCEDURES/ Verification of Assay Claims*** section in the ARCHITECT *i* System assay-specific package insert.

Not all protocols are required for all assays in the group. You can find the protocols performed for the assay and the assay performance under the ***SPECIFIC PERFORMANCE CHARACTERISTICS*** section in the ARCHITECT *i* System assay-specific package insert.

Method groups for verification protocols

Protocol	Method Group Number					
	Group 1	**Group 2**	**Group 3**	**Group 4**	**Group 5**	**Group 6**
Sensitivity:						
• Limit of Blank	Method 1	Method 1	N/A	N/A	N/A	Method 1
• Analytical	Method 1	Method 1	N/A	Method 2	N/A	Method 1
• Limit of Detection	Method 1	Method 1	N/A	N/A	N/A	Method 1
• Functional	Method 2	Method 2	N/A	N/A	Method 1	Method 2
• Limit of Quantitation	Method 1	Method 1	N/A	N/A	N/A	Method 1
Precision	Method 1	Method 1	Method 1	Method 1	Method 1	Method 1
Reportable range / calibration verification	Method 1	Method 2	Method 1	Method 1	N/A	Method 3
Automated dilution verification	Method 1	N/A	N/A	N/A	N/A	N/A
Methods comparison (correlation)	Method 1	Method 1	Method 1	Method 1	N/A	Method 1
Methods comparison (concordance)	N/A	N/A	N/A	Method 2	Method 2	N/A
Analytical specificity	Method 1	Method 1	Method 1	Method 1	N/A	Method 1
Reference range	Method 1	Method 1	Method 1	N/A	N/A	Method 1

Verification of *i* System assay claims topics include:

Limit of Blank - method 1

This method verifies a LoB (Limit of Blank) claim based on the definition from CLSI document EP17- A using proportions of false positives less than 5%.

Procedure

Run a 0 level sample in replicates of 20.

NOTE: The A calibrator or other appropriate material may be used.

Data evaluation

Count the number of replicates that fall above the LoB (Limit of Blank).

For a sample size of 20 measurements, when 3 or less replicates are above the LoB claim then the claim is verified.

A worksheet and example are provided:

- *Limit of Blank - method 1 data sheet*, page B-4
- *Limit of Blank - method 1 data sheet example*, page B-5

Limit of Blank - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Replicate	Concentration
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

LoB* _____

*Assay LoB data can be found in the *SPECIFIC PERFORMANCE CHARACTERISTICS* section in the ARCHITECT *i* System assay-specific package insert.

Number of values > LoB _____

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Limit of Blank - method 1 data sheet example

DATE: 01/12/08 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i*2000SR SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/08
Controls	336x5	3/08
Reagent Kit	447M108	3/08
Pre-Trigger	27B58	3/08
Trigger	4211AZ	3/08
Wash Buffer	541M120	3/08
RV	1235RJ	3/08
Assay Diluent	14884JK	3/08
Multi-Assay Manual Diluent	1765R2	3/08

Replicate	Concentration
1	0.000
2	0.001
3	0.000
4	0.000
5	0.001
6	0.002
7	0.001
8	0.000
9	0.001
10	0.002
11	0.003
12	0.002
13	0.005
14	0.001
15	0.003
16	0.002
17	0.003
18	0.001
19	0.002
20	0.030

LoB* 0.04 ug/mL

*Assay LoB data can be found in the *SPECIFIC PERFORMANCE CHARACTERISTICS* section in the ARCHITECT *i* System assay-specific package insert.

Number of values > LoB 1

COMMENTS: Confirmed LoB

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Analytical sensitivity - method 1

This method is defined as the concentration at 2 standard deviations from the mean RLU value of a zero concentration sample (Calibrator A) and represents the lowest measurable concentration of analyte that can be distinguished from 0.

This method uses the measurements of Calibrator A and Calibrator B. If calibrators are not available, substitute other appropriate materials, for Calibrator A (zero concentration) and for Calibrator B (at or near the value of Calibrator B).

NOTE: The calibrator values can be obtained by reviewing the Details for assay parameters window and selecting the **Calibration** option.

Procedure

1. Run Calibrator A (zero concentration) in replicates of 10.
2. Run Calibrator B in replicates of 4.

Data evaluation

1. Calculate the mean and standard deviation for the Calibrator A replicates and the mean for the Calibrator B replicates.
2. Determine the sensitivity using the following formula:

$$\text{Analytical sensitivity} = 2(\text{Cal A RLU SD}) \times \frac{\text{Cal B concentration}}{(\text{Cal B RLU mean} - \text{Cal A RLU mean})}$$

Analytical sensitivity = _____

A worksheet and example are provided:

- *Analytical sensitivity - method 1 data sheet*, page B-7
- *Analytical sensitivity - method 1 data sheet example*, page B-8

Analytical sensitivity - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Replicate	RLUs	
	Cal A	Cal B
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
x		
SD		

Concentration of Cal B _____

Analytical sensitivity =

$$2(\text{Cal A RLU SD}) \times \frac{\text{Cal B concentration}}{(\text{Cal B RLU mean} - \text{Cal A RLU mean})}$$

_____ = 2 ( ) x _____

(_____ - _____)

Data Summary	
Calculated Analytical Sensitivity	Expected Analytical Sensitivity

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Analytical sensitivity - method 1 data sheet example

DATE: 12/1/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Specific Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

	RLUs	
Replicate	Cal A	Cal B
1	373	61125
2	348	61326
3	378	60793
4	333	60983
5	378	
6	332	
7	359	
8	353	
9	348	
10	340	
x	354	61057
SD	17.42	

Concentration of Cal B ___5____

Analytical sensitivity =

$$2(17.42) \times \frac{5}{(61057 - 354)}$$

Data Summary	
Calculated Analytical Sensitivity	Expected Analytical Sensitivity
0.003 ng/mL	0.1 ng/mL

COMMENTS: Confirmed sensitivity

TECHNOLOGIST: (NAME) DATE: 12/1/02

REVIEWED BY: (NAME) DATE: 12/1/02

Analytical sensitivity - method 2

This method uses the concentration value of the last dilution at which the observed values still fall inside the tolerance limits established by your laboratory for Calibrator B or other appropriate material with a low concentration, to determine assay sensitivity on an ARCHITECT *i* System.

This method uses the measurements of Calibrator A and Calibrator B. If calibrators are not available, substitute other appropriate materials, for Calibrator A (zero concentration) and for Calibrator B (at or near the value of Calibrator B).

NOTE: The calibrator values can be obtained by reviewing the Details for assay parameters window and selecting the **Calibration** option.

Procedure

1. Prepare the following serial dilutions of Calibrator B with Calibrator A.

   1:2, 1:4, 1:8, 1:16, 1:32, and so forth until the expected value is well below the claimed value.

	Dilution	Volume of Cal B	Volume of Cal A	Expected Value
1	Cal B	_____ µL	0 µL	Label Value
2	1:2	400 µL	400 µL	Label Value/2
3	1:4	400 µL of Dilution 2	400 µL	Label Value/4
4	1:8	400 µL of Dilution 3	400 µL	Label Value/8
5	1:16	400 µL of Dilution 4	400 µL	Label Value/16
6	1:32	400 µL of Dilution 5	400 µL	Label Value/32

2. Run the serial dilutions and the undiluted Calibrator B in replicates of 4.

Data evaluation

1. Calculate the mean for each level.
2. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
3. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
4. Plot the assayed value mean versus the expected value on the graph, and then the tolerance limits.

Worksheets and examples are provided:

- *Analytical sensitivity - method 2 data sheet*, page B-10
- *Analytical sensitivity - method 2 graph*, page B-11
- *Analytical sensitivity - method 2 data sheet example*, page B-12
- *Analytical sensitivity - method 2 graph example*, page B-13

Analytical sensitivity - method 2 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

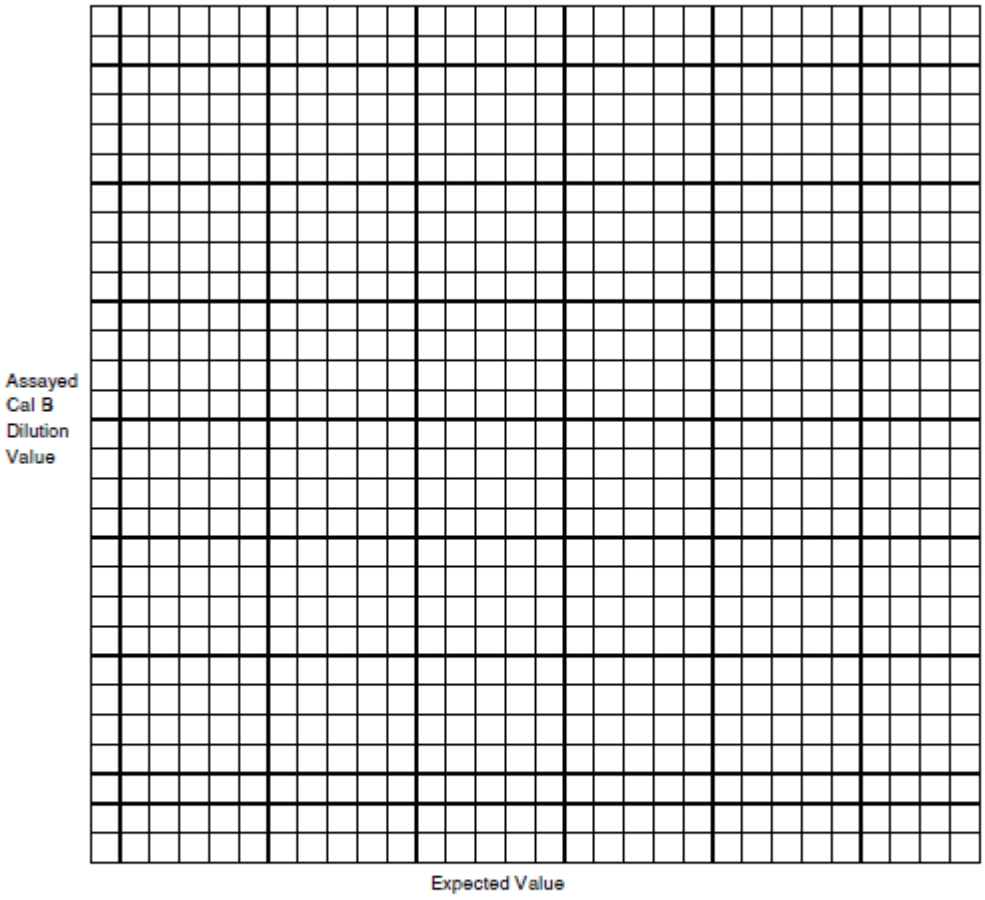
Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Data Summary						
	Dilution Set	Replicates	Mean Assayed Value	Expected Value	Lower Tolerance Limit - _____%	Upper Tolerance Limit + _____%
1	Cal B	_____ _____ _____ _____				
2	1:2	_____ _____ _____ _____				
3	1:4	_____ _____ _____ _____				
4	1:8	_____ _____ _____ _____				
5	1:16	_____ _____ _____ _____				
6	1:32	_____ _____ _____ _____				

Analytical sensitivity - method 2 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____



EXPECTED ANALYTICAL SENSITIVITY RESULTS: _____

CALCULATED ANALYTICAL SENSITIVITY RESULTS: _____

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Analytical sensitivity - method 2 data sheet example

DATE: 12/9/02 ANALYTE: ___ABC____

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

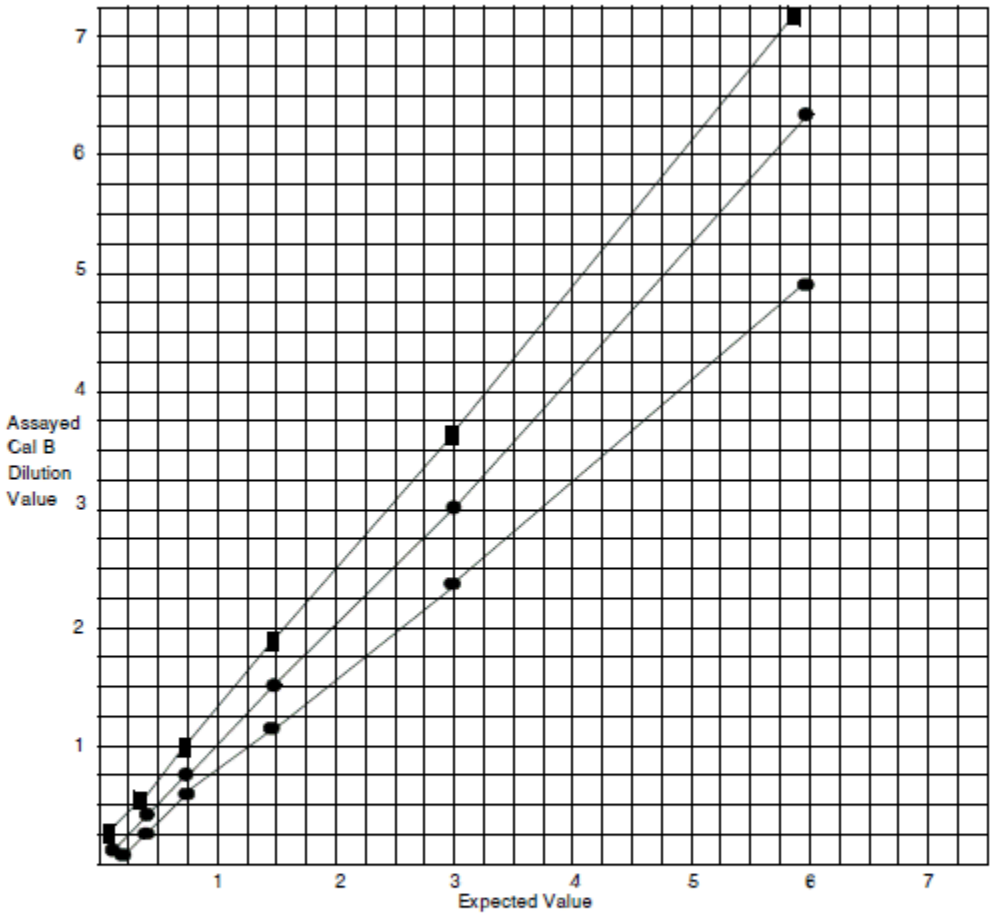
Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

Data Summary						
	Dilution Set	Replicates	Mean Assayed Value ng/mL	Expected Value	Lower Tolerance Limit - 20%	Upper Tolerance Limit + 20%
1	Cal B	6.26 6.40 6.28 6.34	6.32	6	4.8	7.2
2	1:2	2.89 3.00 3.00 2.97	2.96	3.0	2.4	3.6
3	1:4	1.50 1.53 1.50 1.52	1.52	1.50	1.2	1.8
4	1:8	0.74 0.74 0.75 0.76	0.75	0.75	0.6	0.9
5	1:16	0.33 0.33 0.32 0.32	0.32	0.37	0.3	0.44
6	1:32	0.16 0.16 0.16 0.16	0.16	0.19	0.15	0.23

Analytical sensitivity - method 2 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234



EXPECTED ANALYTICAL SENSITIVITY RESULTS: 0.20 ng/mL

CALCULATED ANALYTICAL SENSITIVITY RESULTS: <0.16 ng/mL

COMMENTS: Calculated analytical sensitivity is below 0.16 ng/mL

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Limit of Detection- method 1

This method verifies a LoD (Limit of Detection) claim based on the definition from CLSI document EP17- A using proportions of false negatives less than 5%.

Procedure

1. Obtain 4 suitable samples with a concentration level equal to the claimed LoD by testing with a reference method. You may spike or dilute a sample to obtain the correct concentration.

   NOTE: Dilutions of Calibrator B or other appropriate material may be used.

2. Run the 4 samples in replicates of 5 for a total of 20 results.

Data evaluation

Count the number of replicates that fall below the LoB (Limit of Blank).

NOTE: LoB assay data is found in the ***SPECIFIC PERFORMANCE CHARACTERISTICS*** section in the ARCHITECT *i* System assay-specific package insert.

For a sample size of 20 measurements, when 3 or less replicates are below the LoB claim the LoD claim is verified.

A worksheet and example are provided:

- *Limit of Detection - method 1 data sheet*, page B-15
- *Limit of Detection - method 1 data sheet example*, page B-16

Limit of Detection - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Replicate	Concentration
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	

LoD* _____

LoB* _____

*Assay LoD and LoB data can be found in the *SPECIFIC PERFORMANCE CHARACTERISTICS* section in the ARCHITECT *i* System assay-specific package insert.

Number of values < LoB_____

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Limit of Detection - method 1 data sheet example

DATE: 01/12/08 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i*2000SR SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/08
Controls	336x5	3/08
Reagent Kit	447M108	3/08
Pre-Trigger	27B58	3/08
Trigger	4211AZ	3/08
Wash Buffer	541M120	3/08
RV	1235RJ	3/08
Assay Diluent	14884JK	3/08
Multi-Assay Manual Diluent	1765R2	3/08

Replicate	Concentration
1	0.052
2	0.051
3	0.064
4	0.040
5	0.051
6	0.010
7	0.009
8	0.056
9	0.008
10	0.003
11	0.050
12	0.061
13	0.011
14	0.009
15	0.051
16	0.007
17	0.009
18	0.010
19	0.035
20	0.040

LoD* 0.05

LoB* 0.004

*Assay LoD and LoB data can be foundin the *SPECIFIC PERFORMANCE CHARACTERISTICS* section in the ARCHITECT *i* System assay-specific package insert.

Number of values < LoB 1

COMMENTS: Confirmed LoD

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Functional sensitivity - method 1 (serial dilution)

This method uses serial dilution of positive samples and comparison of performance to a reference method to determine the sensitivity of a qualitative assay on an ARCHITECT *i* System. If an assay has comparable sensitivity the dilution factor should be equivalent or better than the reference method.

Procedure

1. Prepare the following serial dilutions of 5 or more positive samples (mid to high-range) with a known negative sample:

   1:2, 1:4, 1:8, 1:16, 1:32 (and so forth until the sample is nonreactive)

   NOTE: The positive and negative samples should be serum or plasma of the same anticoagulant type.

2. Run 2 replicates of the undiluted sample and each dilution for each method.

Data evaluation

1. Average the 2 replicates for each sample.
2. Determine the highest dilution at which the sample was reactive for each method.

A worksheet and example are provided:

- *Functional sensitivity - method 1 serial dilution data sheet*, page B-18
- *Functional sensitivity - method 1 serial dilution data sheet example*, page B-19

Functional sensitivity - method 1 serial dilution data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

REFERENCE METHODOLOGY ____ ARCHITECT METHODOLOGY CMIA

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Sample	Dilution Factor*	Replicates		ARCHITECT Result Mean S/CO (Unit)	Replicates		Reference Result Mean S/CO (Unit)
ID #_____	undiluted	___	___		___	___	
	1:2	___	___		___	___	
	1:4	___	___		___	___	
	1:8	___	___		___	___	
	1:16	___	___		___	___	
	1:32	___	___		___	___	
	1:64	___	___		___	___	
	1:128	___	___		___	___	
	1:256	___	___		___	___	
	1:512	___	___		___	___	

*More or fewer dilutions may be required to dilute the sample to be non-reactive.

Results

Report Last Reactive Dilution Factor	
ARCHITECT Assay	Reference Assay

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Functional sensitivity - method 1 serial dilution data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

REFERENCE METHODOLOGY XAT ARCHITECT METHODOLOGY CMIA

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

Sample 1	Dilution Factor*	Replicates		ARCHITECT Result Mean S/CO (Unit)	Replicates		Reference Result Mean S/CO (Unit)
ID #354A	undiluted	35.7	35.9	35.8	36.2	36.8	36.5
	1:2	18.2	17.4	17.8	17.9	18.5	18.2
	1:4	8.7	9.1	8.9	8.8	9.0	8.9
	1:8	4.0	4.6	4.3	4.5	4.1	4.3
	1:16	2.25	1.95	2.1	2.1	1.9	2.0
	1:32	1.0	1.0	1.0	0.95	0.85	0.9
	1:64	0.4	0.2	0.3	0.6	0.4	0.5
	1:128			NT**			NT**
	1:256			NT**			NT**
	1:512			NT**			NT**

*More or fewer dilutions may be required to dilute the sample to be non-reactive.

**NT = Not tested.

Report Last Reactive Dilution Factor	
ARCHITECT assay	Reference assay
1:32	1:16

COMMENTS: Functional sensitivity is 1:32.

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Functional sensitivity - method 2

This method verifies functional sensitivity where the sensitivity is the concentration at which imprecision is 20% CV or less.

Procedure

1. Prepare a suitable sample with a concentration at or below the functional sensitivity stated in the ARCHITECT *i* System assay-specific package insert.
2. Run the sample a total of 20 times across multiple days, for example 4 replicates on each of 5 days.

Data evaluation

Calculate the mean, SD, and %CV for the 20 replicates.

The claim is verified if the calculated %CV is less than or equal to 20%.

A worksheet is provided:

- *Functional sensitivity - method 2 data sheet*, page B-21

Functional sensitivity - method 2 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Replicate	Date	Concentration
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Expected Functional Sensitivity: %CV $\leq$ 20%

SD: _____

%CV: _____

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Limit of Quantitation - method 1

This method verifies a LoQ (Limit of Quantitation) claim based on the definition from CLSI document EP17- A. The LoQ is defined as the lowest amount of analyte in a sample that can be quantitatively determined with the stated acceptable precision and trueness.

Procedure

1. Obtain a suitable sample with a concentration level equal to the claimed LoQ by testing with a reference method. You may spike or dilute a sample to obtain the correct concentration.
2. Run the sample in replicates of 25.

Data evaluation

1. Obtain the target concentration (reference value) of the sample using a reference method other than the method being verified.
2. Determine the % total allowable error goal for the method.

   % Total allowable error = % imprecision x 2 + % bias*

   *% Bias can be determined from the % interference

   NOTE: The % imprecision and % interference assay data is found in the ***SPECIFIC PERFORMANCE CHARACTERISTICS*** section in the ARCHITECT *i* System assay-specific package insert.
3. Count the number of measurements that fall outside the total allowable error goal for the assay by comparing each replicate to the tolerance interval below.

   Tolerance interval = A - (B/100 x A) to A + (B/100 x A)

   Where:

   A = reference value of the sample

   B = % total allowable error
4. For a sample size of 25 measurements, when 3 or less replicates are outside the % total allowable error the LoQ claim is verified.

A worksheet and example are provided:

- *Limit of Quantitation - method 1 data sheet*, page B-23
- *Limit of Quantitation - method 1 data sheet example*, page B-24

Limit of Quantitation - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Replicate	Concentration
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

Reference value: _____

% bias: _____

% Imprecision: _____

% Total allowable error = % Imprecision x 2 + % bias

_____ = ( ) x 2 + ( )

Tolerance interval = Reference value +/- % Total allowable error

_____ to _____ = ( ) - [( )/100 x ( )] to ( ) + [( )/100 x ( )]

Number of values outside the % Total allowable error _____

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Limit of Quantitation - method 1 data sheet example

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/08
Controls	336x5	3/08
Reagent Kit	447M108	3/08
Pre-Trigger	27B58	3/08
Trigger	4211AZ	3/08
Wash Buffer	541M120	3/08
RV	1235RJ	3/08
Assay Diluent	14884JK	3/08
Multi-Assay Manual Diluent	1765R2	3/08

Replicate	Concentration
1	145
2	140
3	150
4	156
5	150
6	145
7	145
8	120
9	160
10	162
11	121
12	130
13	150
14	145
15	135
16	140
17	161
18	175
19	143
20	167
21	140
22	150
23	160
24	145
25	151

Reference value: 150

% bias: 10
% Imprecision: 10

% Total allowable error = % Imprecision x 2 + % bias
30 = (10) x 2 + (10)

Tolerance interval = Reference value +/- % Total allowable error
105 to 195 = (150) - [(30)/100 x (150)] to (150) + [(130)/100 x (150)]

Number of values outside the % Total allowable error 0

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Precision - method 1

This method uses the calculation of mean values to determine assay precision on an ARCHITECT *i* System. Precision indicates how well the assay or system provides the same result when a given sample is tested repeatedly.

Within-run and total precision is used to evaluate the performance of an assay or system. Within-run precision provides a "best case" estimate of the expected performance since there is minimal opportunity for conditions to change during the course of the run. Total precision is the most realistic assessment of the performance because it includes variables such as different operators and laboratory conditions.

Precision data for assays on the ARCHITECT *i* System is found under the *SPECIFIC PERFORMANCE CHARACTERISTICS* section in the ARCHITECT *i* System assay-specific package insert.

Procedure

1. Determine the material to use (Abbott control material, commercial control material, or patient pool).
2. Run the material in duplicate, twice a day.

   NOTE: The runs should be at least two hours apart.

Data evaluation

1. Calculate the mean values for both runs.
2. Perform the appropriate calculation to determine the precision. See the *SPECIFIC PERFORMANCE CHARACTERISTICS* section of the ARCHITECT *i* System assay-specific package insert.

A worksheet is provided:

- *Precision - method 1 data sheet*, page B-26

Precision - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO.: _____

REAGENT LOT: _____ CALIBRATOR LOT: _____

DAY #	DATE	RUN 1 RESULTS		RUN 2 RESULTS		RUN1 MEAN	RUN2 MEAN
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							

EXPECTED % CV: _____

CALCULATED % CV: _____

COMMENTS: _____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 1

This method uses the measurement of samples throughout the reportable range to determine the reportable range/calibration verification for an assay on an ARCHITECT *i* System. The terms reportable range and calibration verification are interchangeable and use the same protocol.

This method uses the measurement of Calibrators A, C or D, and F. If calibrators are not available, substitute other appropriate material with zero analyte, mid-range analyte concentration and upper-range analyte concentration.

NOTE: The calibrator values can be obtained by reviewing the Details for assay parameters window and selecting the **Calibration** option.

If the value exceeds the assay range, method 1 uses an 8:10 dilution of Calibrator F. If Calibrator F is not available, substitute other appropriate material when available.

NOTE: By adding a sample with a value greater than Calibrator F to the run you can perform this procedure concurrently with the automated dilution verification procedure.

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run Calibrators A, C or D, and F as unknown samples.

   If the value of Calibrator F exceeds the assay range, make an 8:10 dilution of Calibrator F using eight parts Calibrator F to two parts Calibrator A.
3. Use the appropriate sensitivity method for the specific assay to determine the limit of detection.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
3. Average the replicates for each level if you ran more than one replicate.
4. Plot the assayed calibrator value on the Y-axis of the graph versus the expected calibrator value on the X-axis.

   If the value of Calibrator F exceeds the calibrator range, plot the calculated value of the 8:10 dilution of Calibrator F.
5. Plot the lower tolerance limit on the Y-axis versus the expected values of Calibrators A, C or D, and F on the X-axis.

6. Plot the upper tolerance limit on the Y-axis versus the expected values of Calibrators A, C or D, and F on the X-axis.
7. Connect the points for each of the three lines.

   If the line formed by connecting the points for the assayed Calibrators A, C or D, and F values falls between the upper and lower tolerance limits, the reportable range is verified.

Worksheets and examples are provided:

- *Reportable range/calibration verification - method 1 data sheet*, page B-29
- *Reportable range/calibration verification - method 1 graph*, page B-30
- *Reportable range/calibration verification - method 1 - data sheet example*, page B-31
- *Reportable range/calibration verification - method 1 graph example*, page B-32

Reportable range/calibration verification - method 1 data sheet

DATE: _____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO._____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Data Summary					
	Calibrator Value	Expected Values	Lower Tolerance Limit - _____%	Upper Tolerance Limit +_____%	Assayed Values Mean*
1	Cal A				
2	Cal C or D				
3	Cal F 8:10 dil				
4	Cal F				

Analytical sensitivity**	

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

RESULTS: _____

COMMENTS:_____

_____

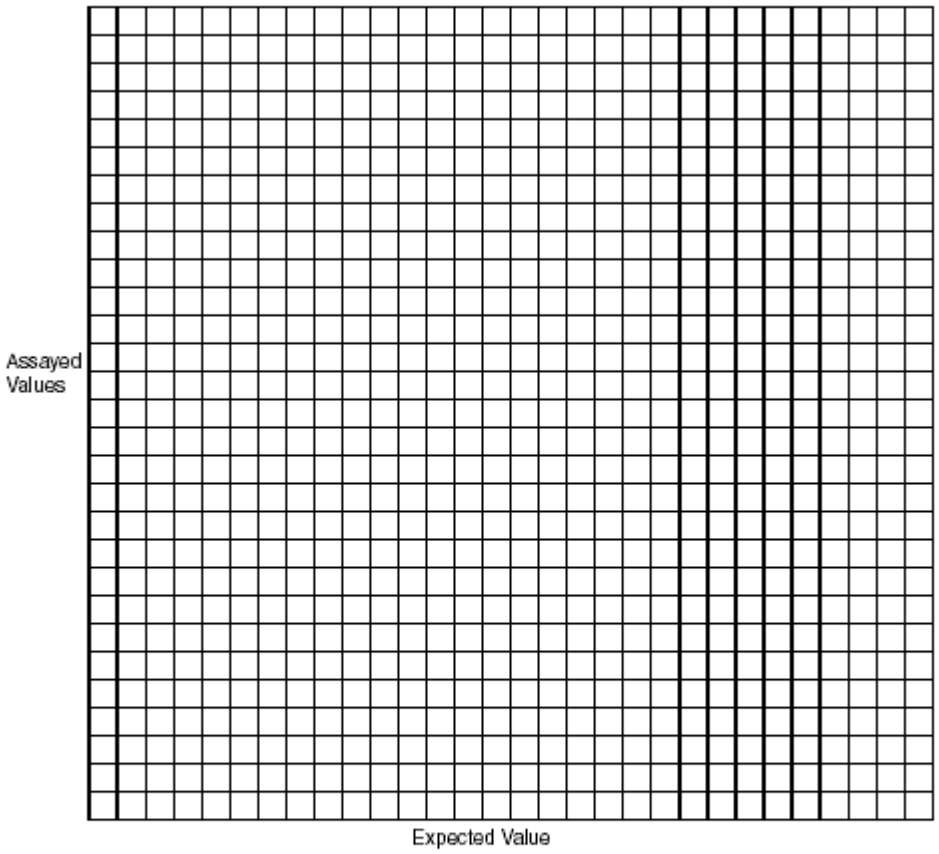
TECHNOLOGIST: _____ DATE:_____

REVIEWED BY: _____ DATE:_____

Reportable range/calibration verification - method 1 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____



PATIENT REPORTABLE RANGE: _____

COMMENTS: _____

_____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 1 - data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

Data Summary					
	Calibrator Value	Expected Values ng/mL	Lower Tolerance Limit - 20%	Upper Tolerance Limit +20%	Assayed Values Mean* ng/mL
1	Cal A	0	N/A	N/A	N/A
2	Cal C or D	60	48	72	56.1
3	Cal F 8:10 dil				
4	Cal F	180	144	216	175

Analytical sensitivity**	0.1

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

PATIENT REPORTABLE RANGE: Assay is linear from 0.1 to 180 ng/mL

COMMENTS: _____

_____

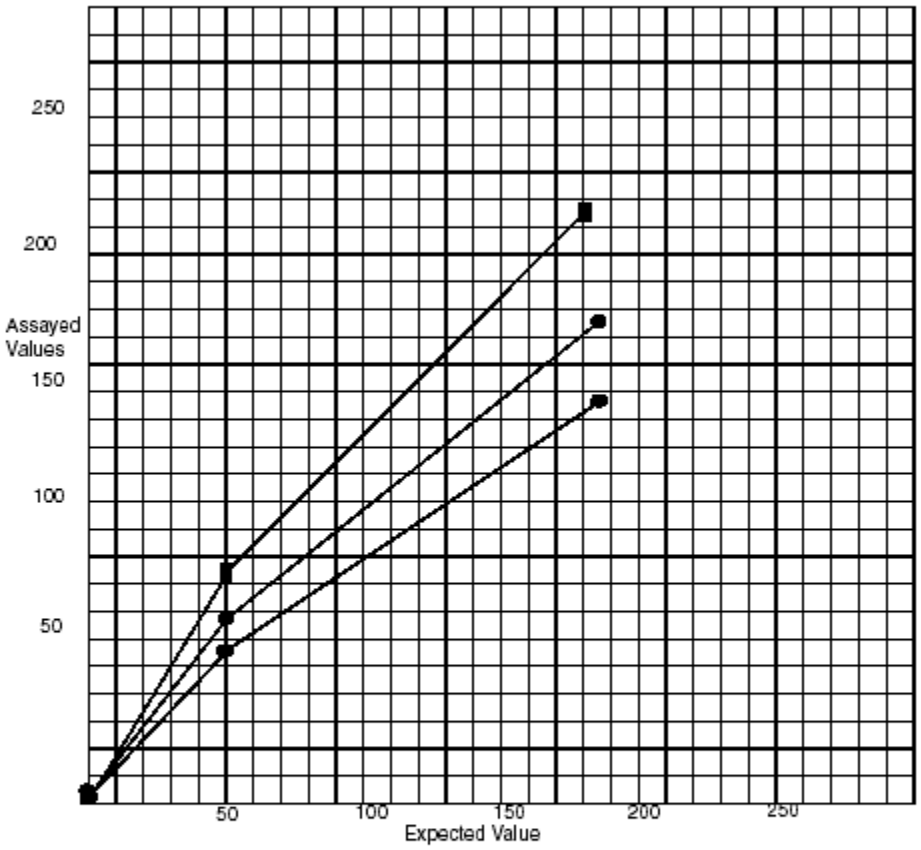
TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 1 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234



PATIENT REPORTABLE RANGE: 0.1 – 180 ng/mL

COMMENTS: _____

_____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 2

This method uses the measurement of samples throughout the reportable range to determine the reportable range/calibration verification for an assay on an ARCHITECT *i* System. The terms reportable range and calibration verification are interchangeable and use the same protocol.

This method uses the measurement of Calibrators A, C or D, and F. If calibrators are not available, substitute other appropriate material with zero analyte, mid-range analyte concentration and upper-range analyte concentration.

NOTE: The calibrator values can be obtained by reviewing the Details for assay parameters window and selecting the **Calibration** option.

If the value exceeds the assay range, method 2 uses an 9:10 dilution of Calibrator F.

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run Calibrators A, C or D, and F as unknown samples.

   If the value of Calibrator F exceeds the assay range, make a 9:10 dilution of Calibrator F using nine parts Calibrator F to one part Calibrator A.
3. Use the appropriate analytical sensitivity method for the specific assay to determine the limit of detection.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
3. Average the replicates for each level if you ran more than one replicate.
4. Plot the assayed calibrator value on the Y-axis of the graph versus the expected calibrator value on the X-axis.

   If the value of Calibrator F exceeds the calibrator range, plot the calculated value of the 9:10 dilution of Calibrator F.
5. Plot the lower tolerance limit on the Y-axis versus the expected values of Calibrators A, C or D, and F on the X-axis.
6. Plot the upper tolerance limit on the Y-axis versus the expected values of Calibrators A, C or D, and F on the X-axis.
7. Connect the points for each of the three lines.

If the line formed by connecting the points for the assayed Calibrators A, C or D, and F values falls between the upper and lower tolerance limits, the reportable range is verified.

Worksheets and examples are provided:

- *Reportable range/calibration verification - method 2 data sheet*, page B-35
- *Reportable range/calibration verification - method 2 graph*, page B-36
- *Reportable range/calibration verification - method 2 data sheet example*, page B-37
- *Reportable range/calibration verification - method 2 graph example*, page B-38

Reportable range/calibration verification - method 2 data sheet

DATE: _____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO._____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Data Summary					
	Calibrator Value	**Expected Values**	**Lower Tolerance Limit - _____%**	**Upper Tolerance Limit +_____%**	**Assayed Values Mean***
1	Cal A				
2	Cal C or D				
3	Cal F 9:10 dil				
4	Cal F				

Analytical sensitivity**	

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

COMMENTS:_____

_____

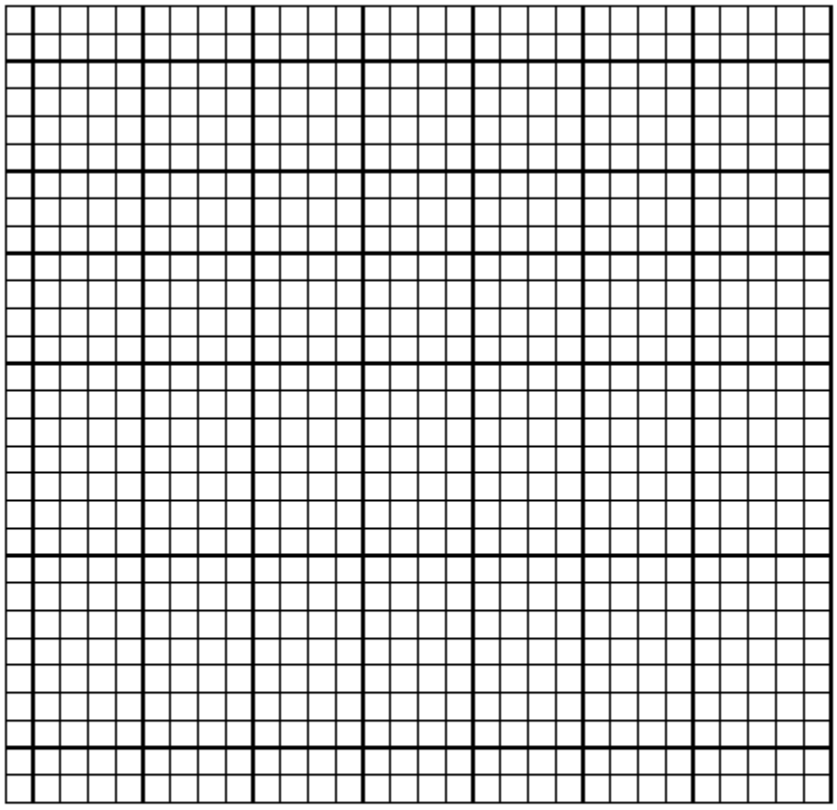
TECHNOLOGIST: _____ DATE:_____

REVIEWED BY: _____ DATE:_____

Reportable range/calibration verification - method 2 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____



PATIENT REPORTABLE RANGE: _____

COMMENTS: _____

_____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 2 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

Data Summary					
	Calibrator Value	**Expected Values ng/mL**	**Lower Tolerance Limit - 20%**	**Upper Tolerance Limit +20%**	**Assayed Values Mean* ng/mL**
1	Cal A	0	N/A	N/A	N/A
2	Cal C or D	60	48	72	56.1
3	Cal F 9:10 dil				
4	Cal F	180	144	216	175

Analytical sensitivity**	0.1

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

PATIENT REPORTABLE RANGE: Assay is linear from 0.1 to 180 ng/mL.

COMMENTS: _____

_____

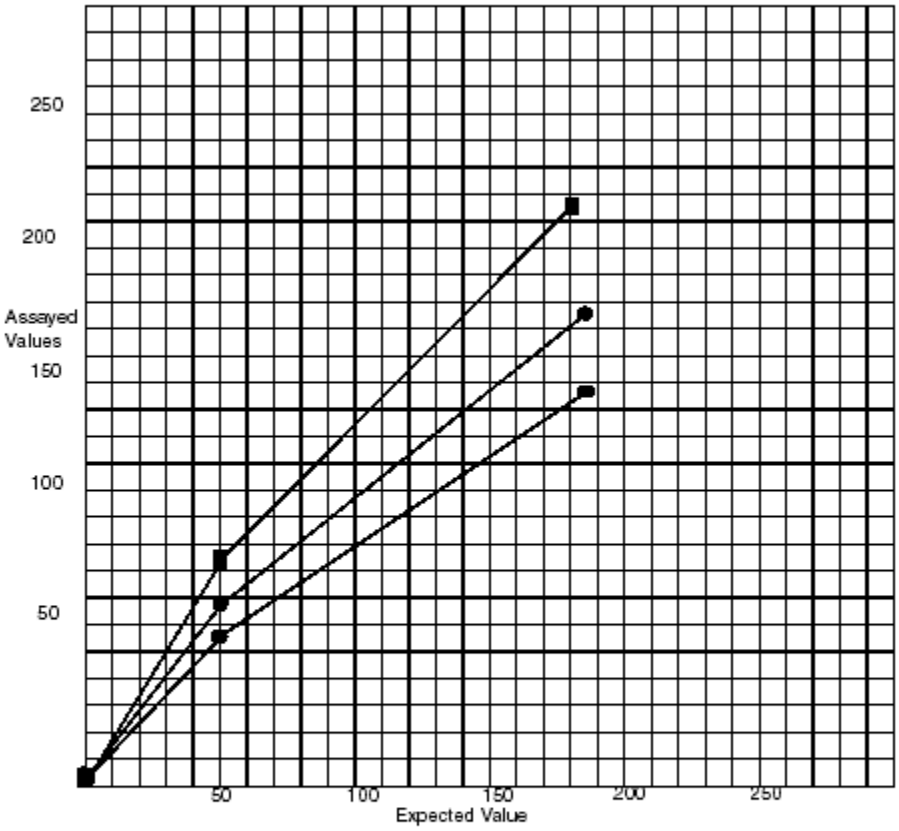
TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 2 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234



PATIENT REPORTABLE RANGE: 0.1 – 180 ng/mL

COMMENTS: _____

_____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 3

This method uses the measurement of samples throughout the reportable range to determine the reportable range/calibration verification for an assay on an ARCHITECT *i* System. The terms reportable range and calibration verification are interchangeable and use the same protocol.

This method uses the measurement of Calibrators A, C or D, and F. If calibrators are not available, substitute other appropriate material with zero analyte, mid-range analyte concentration and upper-range analyte concentration.

NOTE: The calibrator values can be obtained by reviewing the Details for assay parameters window and selecting the **Calibration** option.

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run Calibrators A, C or D, and F as unknown samples.
3. Use the appropriate analytical sensitivity method for the specific assay to determine the limit of detection.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges, and then record the upper and lower tolerance limits on the data sheet.
3. Average the replicates for each level if you ran more than one replicate.
4. Plot the assayed calibrator value on the Y-axis of the graph versus the expected calibrator value on the X-axis.
5. Plot the lower tolerance limit on the Y-axis versus the expected values of Calibrators A, C or D, and F on the X-axis.
6. Plot the upper tolerance limit on the Y-axis versus the expected values of Calibrators A, C or D, and F on the X-axis.
7. Connect the points for each of the three lines.

   If the line formed by connecting the points for the assayed Calibrators A, C or D, and F values falls between the upper and lower tolerance limits, the reportable range is verified.

Worksheets and examples are provided:

- *Reportable range/calibration verification - method 3 data sheet*, page B-40
- *Reportable range/calibration verification - method 3 graph*, page B-41

- *Reportable range/calibration verification - method 3 data sheet example*, page B-42
- *Reportable range/calibration verification - method 3 graph example*, page B-43

Reportable range/calibration verification - method 3 data sheet

DATE: _____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO._____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

Data Summary					
	Calibrator Value	Expected Values	Lower Tolerance Limit - _____%	Upper Tolerance Limit +_____%	Assayed Values Mean*
1	Cal A				
2	Cal C or D				
3	Cal F				

Analytical sensitivity**	

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

RESULTS: _____

COMMENTS:_____

_____

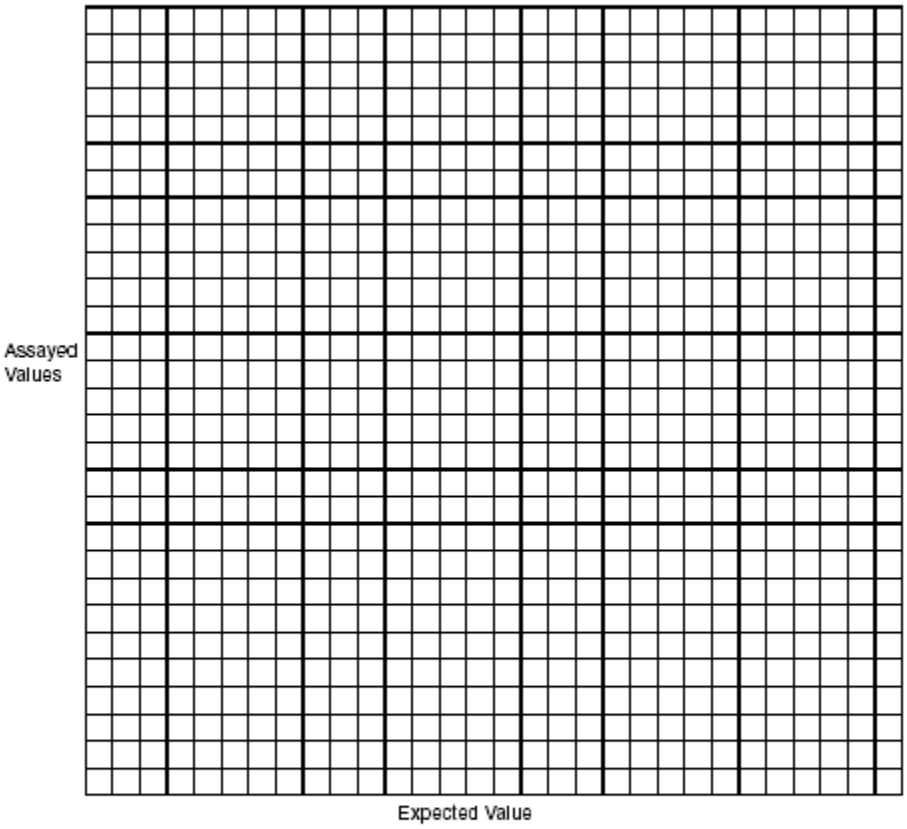
TECHNOLOGIST: _____ DATE:_____

REVIEWED BY: _____ DATE:_____

Reportable range/calibration verification - method 3 graph

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____



PATIENT REPORTABLE RANGE: _____

COMMENTS: _____

_____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Reportable range/calibration verification - method 3 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

Data Summary					
	Calibrator Value	Expected Values ng/mL	Lower Tolerance Limit - 20%	Upper Tolerance Limit +20%	Assayed Values Mean* ng/mL
1	Cal A	0	N/A	N/A	N/A
2	Cal C or D	30	24	36	29.5
3	Cal F	60	48	72	56.1

Analytical sensitivity**	0.1

*Mean applies if more than one replicate was run.

**From analytical sensitivity – method 1.

Results

PATIENT REPORTABLE RANGE: Assay is linear from 0.1 to 60 ng/mL

COMMENTS: _____

_____

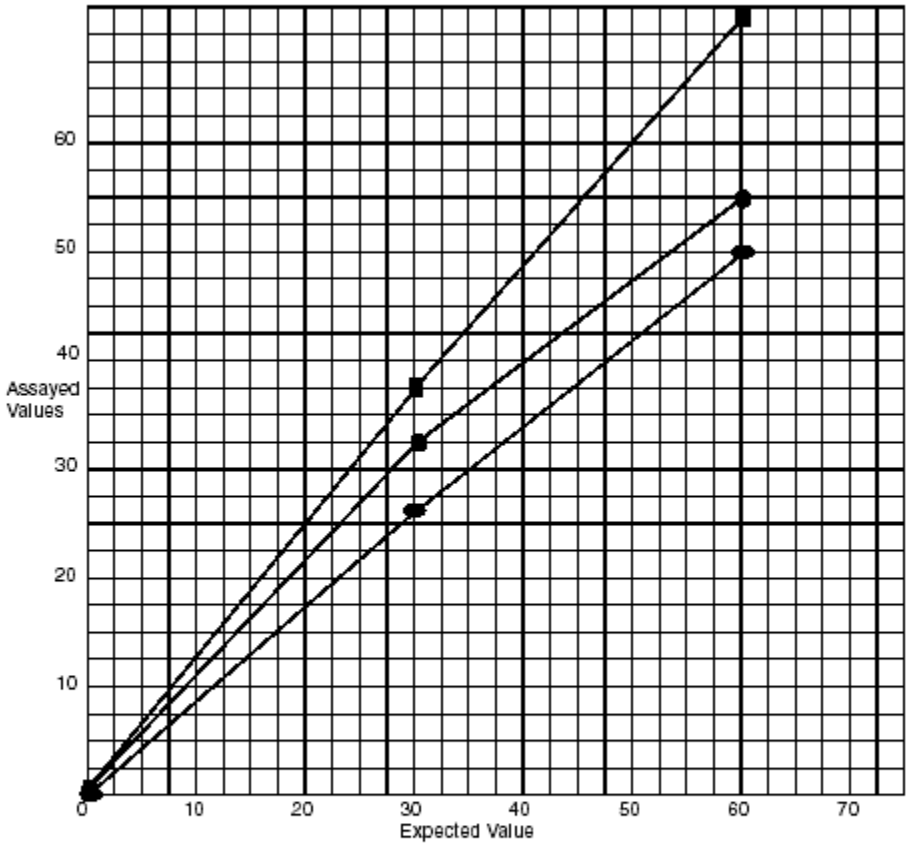
TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Reportable range/calibration verification - method 3 graph example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234



PATIENT REPORTABLE RANGE: 0.1 – 60 ng/mL

COMMENTS: _____

_____

_____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Automated dilution verification - method 1

This method uses the calculation of a mean value to verify the automated dilution for an assay on an ARCHITECT *i* System.

NOTE: By adding Calibrators A, C or D, and F or other appropriate material with zero analyte, mid-range analyte concentration and upper-range analyte concentration to the run, you can perform this procedure concurrently with the reportable range procedure.

Procedure

1. Determine the number of replicates (up to 3) to run.
2. Run a sample with a value greater than Calibrator F using the automated dilution protocol.

   NOTE: The calibrator values can be obtained by reviewing the Details for assay parameters window and selecting the **Calibration** option.
3. Perform the following steps if the value of the sample chosen for this verification exceeds the assay range:

   a. Prepare the desired manual dilution of the selected sample (for example, 8:10) using Calibrator A or the appropriate sample diluent.

   b. Run the diluted sample with the automated dilution protocol in replicates of up to 3.

Data evaluation

1. Determine the tolerance limits acceptable to your laboratory. Your laboratory is responsible for determining acceptable tolerance limits.
2. Calculate the tolerance limit ranges. Record the upper and lower tolerance limits on the data sheet.
3. If more than one replicate was run, average the results obtained.

   If the value of the selected sample exceeds the calibrator range, evaluate the calculated value of the manual dilution for the sample.
4. If the assayed sample value falls between the upper and lower tolerance limits, the automated dilution for this assay is verified.

A worksheet and example are provided:

- *Automated dilution verification - method 1 data sheet*, page B-45
- *Automated dilution verification - method 1 data sheet example*, page B-46

Automated dilution verification - method 1 data sheet

DATE:_____ ANALYTE: _____

INSTRUMENT: _____ SERIAL NO. _____

Reagents	Lot Number	Expiration Date
Calibrators		
Controls		
Reagent Kit		
Pre-Trigger		
Trigger		
Wash Buffer		
RV		
Assay Diluent		
Multi-Assay Manual Diluent		

	Selected Sample Value	Expected Value	Lower Tolerance Limit - _____ %	Upper Tolerance Limit + _____ %	Assayed Value Mean*
1	Selected sample				
2	Selected sample ____:____ dil				

*Mean applies if more than one replicate was run. Use the adjusted mean value if a manual dilution was performed.

RESULTS: _____

COMMENTS: _____

_____

TECHNOLOGIST: _____ DATE: _____

REVIEWED BY: _____ DATE: _____

Automated dilution verification - method 1 data sheet example

DATE: 12/9/02 ANALYTE: ABC

INSTRUMENT: ARCHITECT *i* 2000 System SERIAL NO. 1234

Reagents	Lot Number	Expiration Date
Calibrators	12741	3/03
Controls	336X5	3/03
Reagent Kit	447M108	3/03
Pre-Trigger	27B58	3/03
Trigger	4211AZ	3/03
Wash Buffer	541M120	3/03
RV	1235RJ	3/03
Assay Diluent	14884JK	3/03
Multi-Assay Manual Diluent	1765R2	3/03

	Selected Sample Value	Expected Value	Lower Tolerance Limit - 20%	Upper Tolerance Limit + 20%	Assayed Value Mean* ng/mL
1	Selected sample	150	144	216	175
2	Selected sample ____:____ dil				

*Mean applies if more than one replicate was run. Use the adjusted mean value if a manual dilution was performed.

RESULTS: Automated Dilution verified for ABC Assay.

COMMENTS: _____

TECHNOLOGIST: (NAME) DATE: 12/9/02

REVIEWED BY: (NAME) DATE: 12/9/02

Methods comparison - method 1 (correlation)

This method uses correlation to determine the method comparison between your existing assay method and the ARCHITECT *i* System assay method.

Procedure

1. Determine the number of samples to run ensuring adequate distribution throughout the assay range.
2. Run the samples.
3. Record the sample values using the X column for your existing method and the Y column for the ARCHITECT *i* System method values.

A worksheet is provided:

- *Methods comparison - method 1 correlation data sheet*, page B-48

Methods comparison - method 1 correlation data sheet

INSTRUMENT (X) _____ INSTRUMENT (Y) _____
METHODOLOGY _____ METHODOLOGY _____
REFERENCE RANGE _____ REFERENCE RANGE _____
ASSAY RANGE _____ ASSAY RANGE _____

SAMPLE NO.	SID	VALUE X	VALUE Y	SAMPLE NO.	SID	VALUE X	VALUE Y
1				31			
2				32			
3				33			
4				34			
5				35			
6				36			
7				37			
8				38			
9				39			
10				40			
11				41			
12				42			
13				43			
14				44			
15				45			
16				46			
17				47			
18				48			
19				49			
20				50			
21				51			
22				52			
23				53			
24				54			
25				55			
26				56			
27				57			
28				58			
29				59			
30				60			

Methods comparison - method 2 (concordance)

This method uses concordance to determine the method comparison between your existing assay method and the ARCHITECT *i* System. Concordance is a study used to compare the agreement between two methods when assessing the distribution of values in specific concentration ranges (for example, at a cut-off value).

Procedure

1. Determine the number of samples to run ensuring adequate distribution throughout the assay range.
2. Run the samples.
3. Record the sample values using the X column for your existing method and the Y column for the ARCHITECT *i* System method values.
4. Determine the concordance using the following formula.

   % Concordance = (total true positives and true negatives)/total samples x 100
5. Determine the specificity, correct true negative results, using the following formula. ***(optional)***

   % Specificity = true negatives/(total true negatives and false positives) x 100
6. Determine the sensitivity, correct true positive results, using the following formula. ***(optional)***

   % Sensitivity = true positives/(total true positives and false negatives) x 100

Where:

True negative	=	Negative by both reference and test method
True positive	=	Positive by both reference and test method
False negative	=	Negative by test method; positive by reference method
False positive	=	Positive by test method; negative by reference method

Worksheets and examples are provided:

- *Methods comparison - method 2 concordance data sheet*, page B-50
- *Methods comparison - method 2 concordance calculation sheet*, page B-51
- *Methods comparison - method 2 concordance calculation sheet example*, page B-52

Methods comparison - method 2 concordance data sheet

ASSAY _____ INSTRUMENT (Y) _____
INSTRUMENT (X) _____ METHODOLOGY _____
METHODOLOGY _____ REFERENCE RANGE _____
REFERENCE RANGE _____ ASSAY RANGE _____
ASSAY RANGE _____

SAMPLE NO.	SID	VALUE X	VALUE Y	SAMPLE NO.	SID	VALUE X	VALUE Y
1				26			
2				27			
3				28			
4				29			
5				30			
6				31			
7				32			
8				33			
9				34			
10				35			
11				36			
12				37			
13				38			
14				39			
15				40			
16				41			
17				42			
18				43			
19				44			
20				45			
21				46			
22				47			
23				48			
24				49			
25				50			

Methods comparison - method 2 concordance calculation sheet

ASSAY _____

REFERENCE METHOD _____

	Reference Negative	Reference Positive
ARCHITECT *i* System Negative	A	B
ARCHITECT *i* System Positive	C	D

Concordance = _____

Specificity = _____

Sensitivity = _____

$$\text{Concordance} = \frac{\text{True Negative} + \text{True Positive}}{\text{Total Samples}} \times 100 \quad \text{OR} \quad \frac{A + D}{A + B + C + D} \times 100$$

$$\text{Specificity} = \frac{\text{True Negatives}}{\text{Total True Negatives} + \text{False Positives}} \times 100 \quad \text{OR} \quad \frac{A}{A + C} \times 100$$

$$\text{Sensitivity} = \frac{\text{True Positives}}{\text{Total True Positives} + \text{False Negatives}} \times 100 \quad \text{OR} \quad \frac{D}{D + B} \times 100$$

Methods comparison - method 2 concordance calculation sheet example

ASSAY ABC

REFERENCE METHOD XAT

	Reference Negative	Reference Positive
ARCHITECT *i* System Negative	IIIII IIIII IIIII III (19) A	I (1) B
ARCHITECT *i* System Positive	(0) C	IIIII IIIII III (13) D

Concordance = 97%

Specificity = 100%

Sensitivity = 93%

$$\text{Concordance} = \frac{A+D}{A+B+C+D} \times 100 = \frac{19+13}{19+1+0+13} = 97\%$$

$$\text{Specificity} = \frac{A}{A+C} \times 100 = \frac{19}{19+0} \times 100 = 100\%$$

$$\text{Sensitivity} = \frac{D}{D+B} \times 100 = \frac{13}{13+1} \times 100 = 93\%$$

Analytical specificity - method 1

See the ARCHITECT *i* System assay-specific package insert for the description of the procedure used and the results for specificity and interferences studies.

Reference range - method 1

Initially use the reference range for the specific ARCHITECT *i* assay as stated in the assay-specific package insert.

NOTE: Your laboratory is responsible for determining the appropriate reference range(s).

Introduction

Data reduction/calibration methods use various math models to analyze a set of given data and calculate results. These math models may range in complexity from simple subtraction to polynomial equations.

Math model topics include:

c System data reduction methods

The ARCHITECT *c* System uses photometric and potentiometric technology to measure analyte concentrations in samples. Data reduction/calibration methods are specific to the technology type.

c System data reduction methods topics include:

Photometric data reduction methods

Photometric data reduction/calibration methods analyze photometric read data to calculate results.

Photometric data reduction methods include:

Absorbance method (photometric - *c* System)

The absorbance data reduction method uses the comparison between the absorbance of the sample and the absorbance of water to calculate results. For end-point assays the data is expressed as absorbance and for rate assays the data is expressed as the rate of absorbance change/minute.

Factor method (photometric - *c* System)

The Factor data reduction method uses a reagent blank and a fixed cal factor value to calculate results. This method is applicable to assays for which the reaction is linear and stable across all reagent lots. It is ideal for measuring enzyme activity in a sample at a predictable and steady rate that can be determined for the chromophore, wavelengths, and instrument in use.

The enzyme activity or sample concentration is calculated using the following equation:

X = (A-Ablk) x Factor

Where:

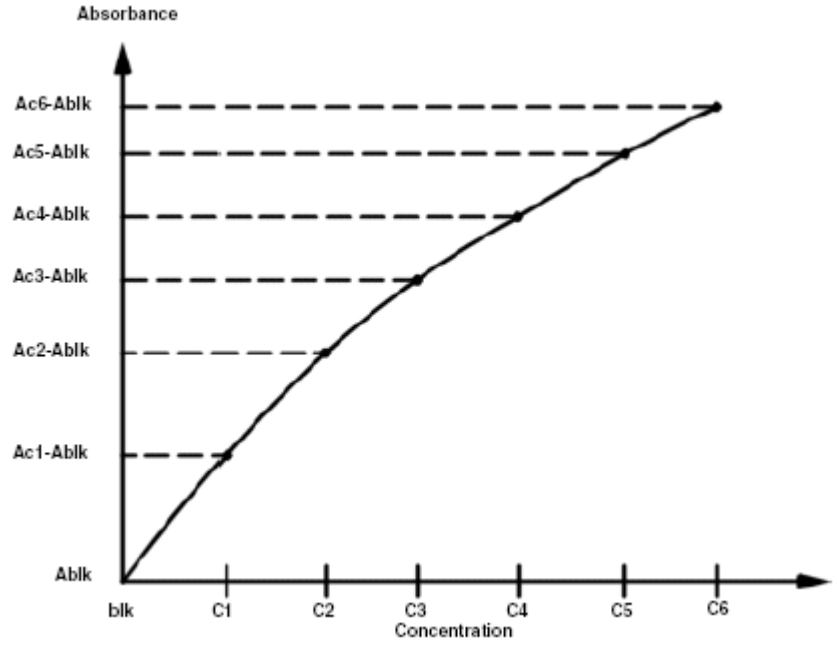
X	=	Activity or concentration of the sample (unknown)
A	=	Absorbance or absorbance change of the unknown

Ablk	=	Absorbance or absorbance change of the reagent blank
Factor	=	Calibration factor

Linear method (photometric - *c* System)

The linear data reduction method uses a reagent blank and one to six calibrators to generate a point-to-point calibration curve. The slope is calculated for each segment of the curve between the calibrator levels.

Figure A.1: Linear calibration curve - six calibrators



Legend:

blk	Concentration of the reagent blank
C1 to C6	Concentration of calibrator
Ablk	Absorbance or absorbance change of the reagent blank
Ac1 to Ac6	Absorbance or absorbance change of the calibrator

The absorbance or absorbance change measured for the sample determines which of the following equations are used to calculate the sample concentration.

When $A \leq Ac1$

$X = F1 \times (A - Ablk) + blk$

$$F1 = \frac{C1 - blk}{Ac1 - Ablk}$$

When $Ac1 < A \leq Ac2$

$X = F2 \times (A - Ac1) + C1$

$$F2 = \frac{C2 - C1}{Ac2 - Ac1}$$

When $Ac2 < A \leq Ac3$

$X = F3 \times (A - Ac2) + C2$

$$F3 = \frac{C3 - C2}{Ac3 - Ac2}$$

When $Ac3 < A \leq Ac4$

$X = F4 \times (A - Ac3) + C3$

$$F4 = \frac{C4 - C3}{Ac4 - Ac3}$$

When $Ac4 < A \leq Ac5$

$X = F5 \times (A - Ac4) + C4$

$$F5 = \frac{C5 - C4}{Ac5 - Ac4}$$

When $Ac5 < A$

$X = F6 \times (A - Ac5) + C5$

$$F6 = \frac{C6 - C5}{Ac6 - Ac5}$$

Where:

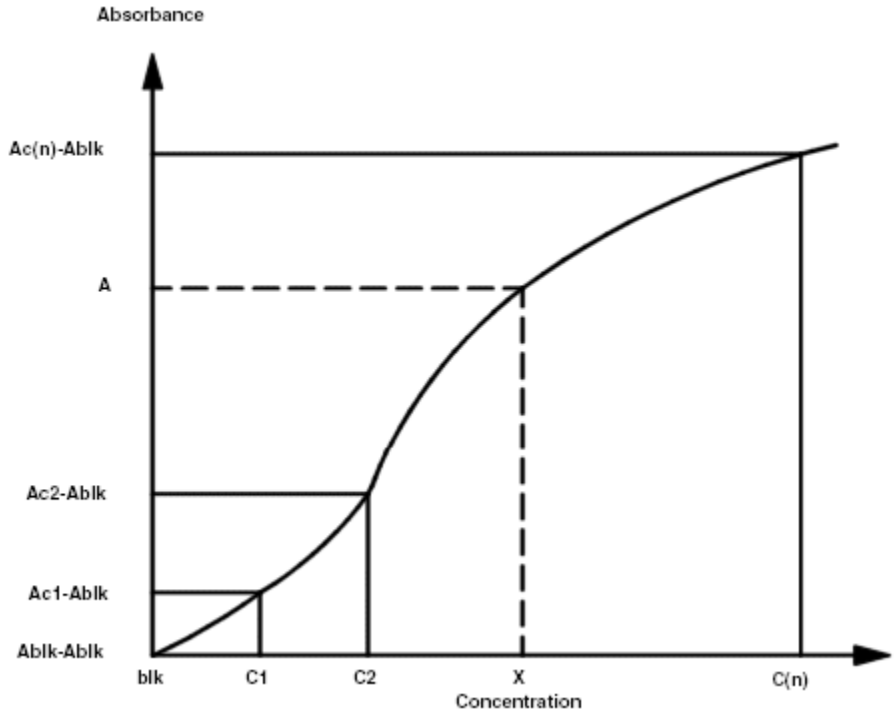
A	=	Absorbance or absorbance change of the sample (unknown)
Ac1 to Ac6	=	Absorbance or absorbance change of the calibrator
Ablk	=	Absorbance or absorbance change of the reagent blank
X	=	Concentration of the sample (unknown)
C1 to C6	=	Concentration of calibrator
blk	=	Concentration of the reagent blank
F1 to F6	=	Cal factor (1 / slope)

Logit-4 method (photometric - *c* System)

The Logit-4 data reduction method uses a reagent blank and three to six calibrators to generate a calibration curve. This method is applicable to assays

for which the absorbance or absorbance change increases as the calibrator concentration increases.

Figure A.2: Logit-4 calibration curve - three to six calibrators



Legend:

blk	Concentration of the reagent blank
C1 to C(n)	Concentration of calibrator
X	Concentration of unknown sample
Ablk	Absorbance or absorbance change of the reagent blank
Ac1 to Ac(n)	Absorbance or absorbance change of the calibrator
A	Absorbance or absorbance change of the unknown sample

The equation used in the approximation is:

$$A = \frac{Kc}{1 + \frac{1}{e^{a + b \times \ln X}}} + Ablk$$

Where:

A	=	Absorbance or absorbance change of the sample (unknown)
Kc, a, b	=	Constants of the approximation expression
Ablk	=	Approximate value of the absorbance or absorbance change of the reagent blank

X	=	Concentration of sample (unknown)
ln	=	Natural log

When the concentration is close to 0, the Logit-4 calibration curve converges asymptotically toward the absorbance or absorbance change of the reagent blank as the concentration approaches 0. This convergence may not show on the graph if the scale is too large.

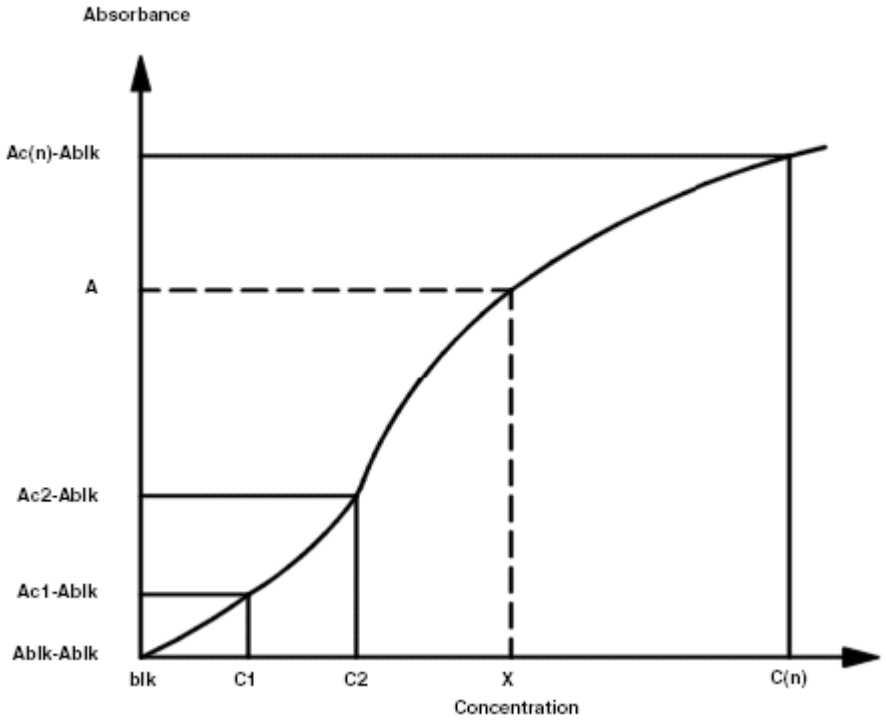
The approximation expression is simple and the constant is determined through approximation by non-linear regression. Therefore, the curve may not always pass through the absorbance (or absorbance change) data points of the calibrator.

It is possible to set a parameter to detect an error if the SD (standard deviation) of the absorbance or absorbance change of the calibrators exceeds the user-specified value.

Spline method (photometric - *c* System)

The spline data reduction method uses a reagent blank and three to six calibrators to generate a calibration curve. The concentration axis of the calibration curve graph is divided into multiple sections with the divisions corresponding to the concentrations of the calibrators. Each section of the curve is interpolated using a polynomial expression so that the adjoining sections are connected smoothly.

Figure A.3: Spline calibration curve - three to six calibrators



Legend:

blk	Concentration of the reagent blank
C1 to C(n)	Concentration of calibrator
Ablk	Absorbance or absorbance change of the reagent blank
Ac1 to Ac(n)	Absorbance or absorbance change of the calibrator

The polynomial equation used is:

$$A = a(n) + b(n) \times X + c(n) \times X^2 + d(n) \times X^3$$

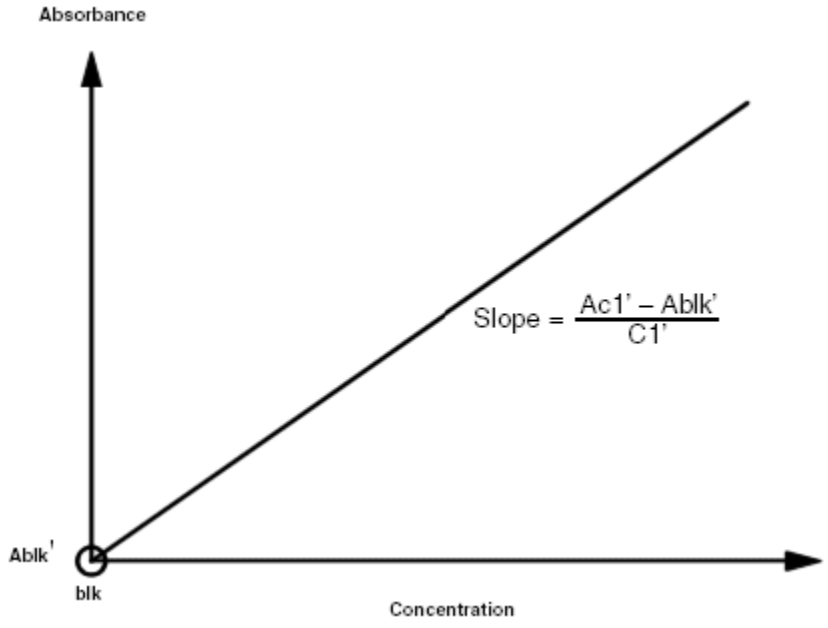
Where:

A	=	Absorbance or absorbance change of the sample (unknown)
a(n), b(n), c(n), d(n)	=	Constants of the approximation expression
X	=	Concentration of sample (unknown)

Use factor and blank method (photometric - *c* System)

The use factor and blank data reduction method uses the factor and reagent blank of a calibration curve generated for another assay (reference assay) to calculate results. This method is used when two or more assays use the same reagents. The reference assay is defined in the assay parameter file.

Figure A.4: Use factor and blank - linear calibration curve



Legend:

blk	Concentration of the reagent blank
Ac1'	Absorbance or absorbance change of the calibrator used for the reference test
Ablk'	Absorbance or absorbance change of the reagent blank for the reference test
C1'	Concentration of the calibrator used for the reference test

The equation used is:

$$X = \frac{A - Ablk'}{Ac1' - Ablk'} \times C1'$$

Potentiometric data reduction method

The potentiometric data reduction method analyzes electrical potential data to calculate electrolyte results.

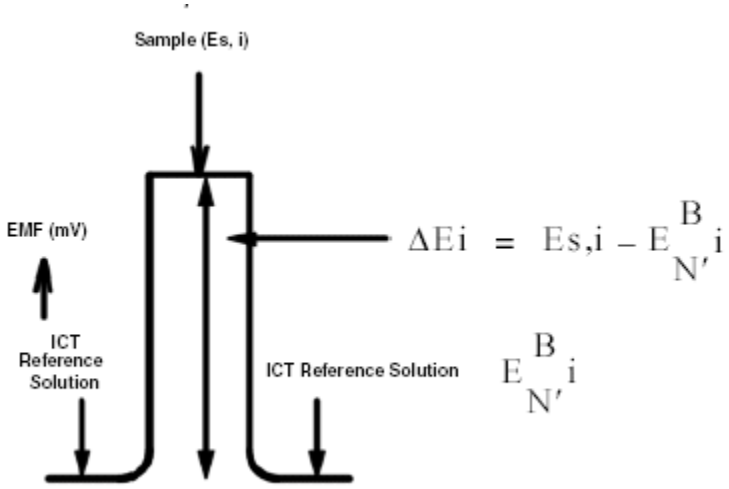
There are three components to the potentiometric method:

- *Electromotive force measurement (potentiometric - c System)*, page C-8
- *Slope calculation (potentiometric - c System)*, page C-9
- *Sample measurement (potentiometric - c System)*, page C-10

Electromotive force measurement (potentiometric - *c* System)

The electromotive force measurement uses the difference (potential difference) between the electromotive force of an unknown sample and the electromotive force of the ICT Reference Solution, measured immediately after the sample, to determine electrolyte concentration.

Figure A.5: Electromotive force calculation



Where:

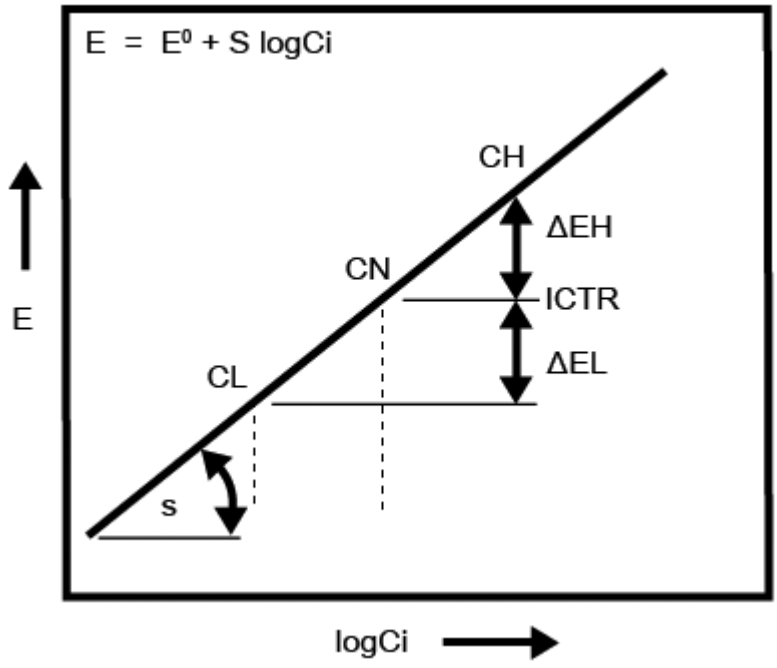
ΔEi	=	Potential difference between the sample and ICT Reference Solution for each electrode
$E^{B}_{N'i}$	=	Potential of each electrode (i), in contact with ICT Reference Solution
Es,i	=	Potential of each electrode (i), in contact with the sample
i	=	Ion of interest (Na^+, K^+, and Cl^-)
EMF	=	Electromotive force expressed in millivolts

Slope calculation (potentiometric - *c* System)

The slope calculation uses the differences (potential differences) between the electromotive forces of two calibrators and the electromotive force of the ICT Reference Solution and compares them to the calibrator concentrations to generate a calibration curve. Two graphs are generated:

- Calibration graph showing the relationship of the ion electrolyte concentration to the electromotive force
- Electrode response curve during calibration

Figure A.6: Relationship between ion electrolyte concentration and electromotive force

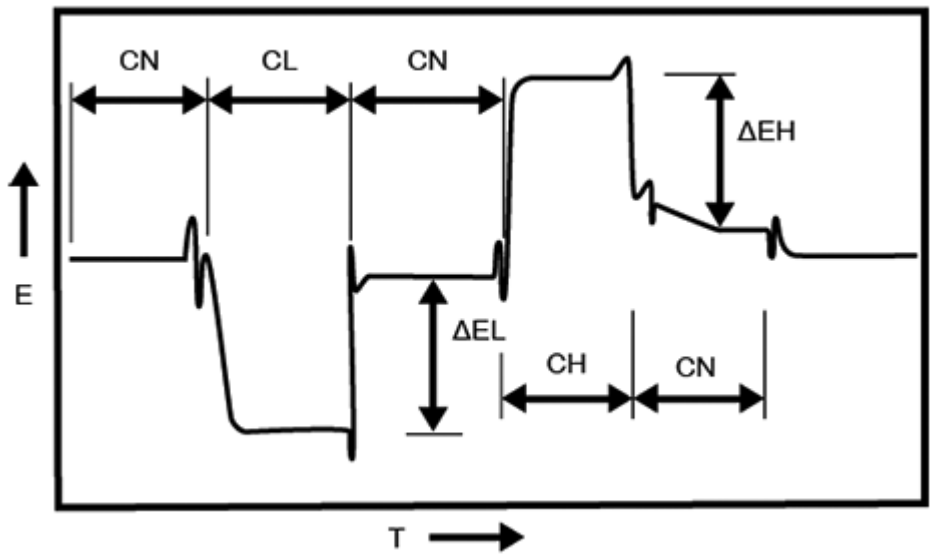


Electromotive force is derived from the Nernst equation, $E = E^0 + S \log Ci$, where:

E	=	Electromotive force expressed in millivolts

E^0	=	Electromotive force under standard conditions
S	=	Slope (mV/decade) of each electrode
CL, CH	=	Concentration of the Low and High Calibrators
CN	=	Concentration of ICT Reference Solution
ΔEL, ΔEH	=	Difference in potential of each electrode between the ICT Reference Solution and the calibrator
ICTR	=	ICT Reference Solution
log Ci	=	Logarithm of the concentration of the ion of interest

Figure A.7: Electrode (mV) response curve during calibration



Where:

E	=	Electromotive force expressed in millivolts
CL, CH	=	Concentration of the Low and High Calibrators
CN	=	Concentration of ICT Reference Solution
ΔEL, ΔEH	=	Difference in potential of each electrode between the ICT Reference Solution and the calibrator
T	=	Time

Sample measurement (potentiometric - *c* System)

The sample measurement uses the following data to determine the electrolyte (ICT) concentration in an unknown sample:

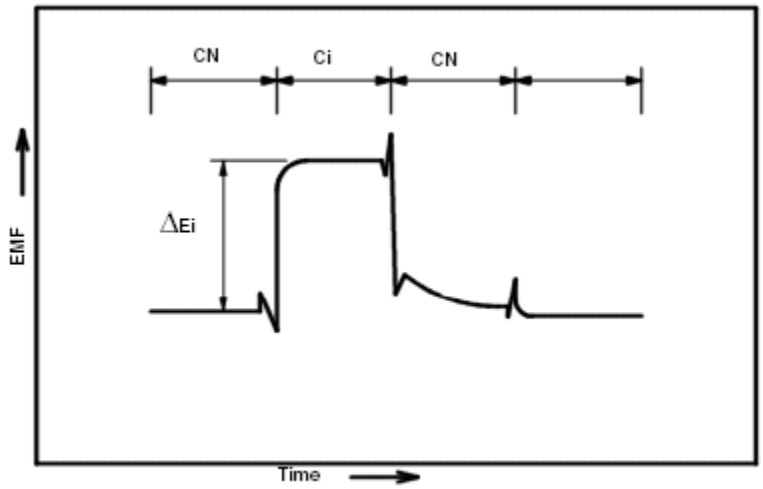
- The difference between the electromotive forces of the unknown sample and the ICT Reference Solution
- The difference between the electromotive forces of the low calibrator and the ICT Reference Solution

- The slope of the specific ICT electrode

The following equation is used:

$$Ci = CL \times 10^{(\Delta Ei - \Delta EL)/S}$$

Figure A.8: Electrode (mV) response curve during sample measurement



Where:

Ci	=	Concentration of the specific ion of interest in the sample
CL	=	Concentration of the ion of interest in the Low Calibrator (This is the baseline for sample calculations.)
S	=	Slope of the ICT electrode of interest
ΔEi	=	Difference in electrode potential when exposed to the sample and ICT Reference Solution
ΔEL	=	Difference in the ICT electrode potential when exposed to ICT Reference Solution and the Low Calibrator during calibration
CN	=	Concentration of ICT Reference Solution
EMF	=	Electromotive force expressed in millivolts

ICT Index

An Index solution can be used to compensate for differences between ICT modules, day-to-day instrument variations, and matrix differences between calibrators and patient samples. The Index solution is a sample with a known concentration and is used during calibration of an ICT analyte. After calibration sample measurements are then automatically adjusted.

Measured sample values are adjusted using the following equation:

Conc' = Conc - (Comp' - Comp)

Where:

Conc'	=	Adjusted ICT sample value
Conc	=	Measured ICT sample value (not adjusted)
Comp'	=	Measured value of Index solution
Comp	=	Nominal Index concentration (known value)
(Comp' - Comp)	=	Adjustment value

The Index solution concentration for the specific analyte is calculated using the following equation:

Comp' =

$$CL \times 10^{(\Delta Ei - \Delta EL)/S}$$

NOTE: When the Index concentration is set to zero the Index value is not calculated.

i System data reduction methods

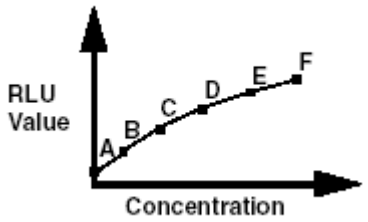
The ARCHITECT *i* System uses CMIA (chemiluminescent microparticle immunoassay) technology to measure analyte concentrations in samples. Data reduction/calibration methods are specific to this type of technology.

i System data reduction methods topics include:

Point to point method (*i* System)

The point to point data reduction method uses the average RLU (relative light unit) value obtained for each calibrator compared to the calibrator concentration to generate a calibration curve. A straight line is used to connect each point and the slope is calculated for each line segment. Concentrations of unknown samples are calculated from the line segment that brackets the sample RLU values.

Figure A.9: Point to point calibration method



For example, if a sample has an RLU value between the RLU values for Calibrator B and Calibrator C, the unknown sample concentration is calculated using the following equation:

$$\text{Conc (X)} = \frac{\text{Conc (C)} - \text{Conc (B)}}{\text{RLU (C)} - \text{RLU (B)}} \times (\text{RLU (X)} - \text{RLU (B)}) + \text{Conc (B)}$$

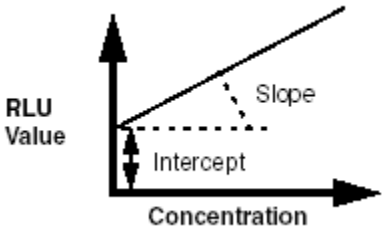
Linear regression method (*i* System)

The linear regression data reduction method uses the linear relationship between the RLU (relative light unit) value and the concentration of the analyte in the sample as follows to generate a calibration curve:

RLU = Intercept + Slope x Concentration

The intercept in this case is the RLU value at concentration zero. The slope defines how much the concentration increases when the RLU value increases.

Figure A.10: Linear regression calibration method



The unknown specimen concentration is calculated using the following equation:

$$\text{Concentration} = \frac{\text{RLU} - \text{Intercept}}{\text{Slope}}$$

Slope and intercept are obtained from the calibration. The parameters are determined by minimizing the sum of squares of the difference between the observed and predicted (by the regression equation) values for all calibrators as shown in the following formulas:

$$\text{Intercept} = \frac{S_{xx} \times S_y - S_x \times S_{xy}}{\Delta}$$

$$\text{Slope} = \frac{S \times S_{xy} - S_x \times S_y}{\Delta}$$

$$\Delta = S \times S_{xx} - S_x^{\,2}$$

$$S = \sum \frac{1}{\sigma_i^2}$$

$$S_x = \sum \frac{x_i}{\sigma_i^2}$$

$$S_y = \sum \frac{y_i}{\sigma_i^2}$$

$$S_{xx} = \sum \frac{x_i^2}{\sigma_i^2}$$

$$S_{xy} = \sum \frac{x_i \times y_i}{\sigma_i^2}$$

Where:

σ_i	=	Standard deviation associated with a calibrator
x_i	=	Observed calibrator concentration
y_i	=	Observed calibrator RLU value

4PLC methods (*i* System)

4PLC (four-parameter logistic curve fit or four-parameter logistic calibration) data reduction methods use the difference between the predicted and observed calibrator concentration or signal to generate a calibration curve.

4PLC is calculated as follows:

$$RLU = P1 + \frac{P2}{P3 + Concentration^{P4}}$$

The four parameters (P1 through P4) control the shape of the curve. Depending on the data generated a 4PLC curve can be either sigmoidal (S-shaped) or have no second bend at all.

The four parameters are used as follows:

P_1	Defines the signal at an infinite concentration
$\frac{P_2}{P_3}$	Defines the maximum theoretical range of the RLU (relative light unit) value from concentration zero to infinity
$x_{50} = P_3^{\left(\frac{1}{P_4}\right)}$	Defines the concentration that yields a signal midway between the highest and the lowest possible signal
P_4	Determines if the curve is S-shaped. The curve is S-shaped when P4>1.

These parameters are calculated to find the P values that result in a curve with the lowest sum of squares.

$$\text{Concentration} = \left(\frac{P2}{RLU - P1} - P3\right)^{\frac{1}{P4}}$$

There are two types of 4PLC curve fit methods:

- *4PLC with x residual minimization (x-weighted) method (i System)*, page C-16
- *4PLC with y residual minimization (y-weighted) method (i System)*, page C-17

4PLC with x residual minimization (x-weighted) method (*i* System)

The 4PLC (four-parameter logistic curve fit) with x-residual minimization data reduction method uses the difference between the predicted and observed calibrator concentration to generate a calibration curve. The four parameters are computed to result in the lowest possible sum of squares using the following equation:

$$\sum \left[\frac{x_i - \bar{x}_i}{\sigma_i}\right]^2$$

Where:

x_i	=	Observed calibrator concentration
$\bar{x}_i$	=	Predicted calibrator concentration
σ_i	=	Standard deviation associated with a calibrator

4PLC with y residual minimization (y-weighted) method (*i* System)

The 4PLC (four-parameter logistic curve fit) with y-residual minimization data reduction method uses the difference between the predicted and observed calibrator signals to generate a calibration curve. The four parameters are computed to result in the lowest possible sum of squares using the following equation:

$$\sum \left(\frac{y_i - \bar{y}_i}{\sigma_i} \right)^2$$

Where:

y_i	=	Observed calibrator signal (RLU)
$\bar{y}_i$	=	Predicted calibrator signal (RLU)
σ_i	=	Standard deviation associated with a calibrator

Cutoff assay method (*i* System)

The cutoff assay data reduction method uses a one or two point calibration to determine the point (cutoff) where reactive and non-reactive samples are differentiated. Cutoff formulas can use addition, subtraction, and multiplication and it is possible to add constants. Once the cutoff is determined the unknown sample RLU (relative light unit) value is divided by the cutoff to determine the cutoff ratio (index).

For more information on the methods, see:

- *One-point qualitative (index formula) method (i System)*, page C-17
- *Two-point qualitative (index formula) method (i System)*, page C-18

One-point qualitative (index formula) method (*i* System)

The one point qualitative data reduction method uses one calibrator in the index formula. Depending on the cutoff formula, the calibrator can be either reactive or non-reactive for the assay.

The following is an example of a one-point cutoff formula where a and b are assay-specific constants:

Cutoff = a x Calibrator Signal + b

Two-point qualitative (index formula) method (*i* System)

The two point qualitative data reduction method uses two calibrators in the index formula. Depending on the cutoff formula, the calibrators for the assay can be:

- Both reactive
- Both non-reactive
- One reactive and the other non-reactive

The following is an example of a two-point cutoff formula where a and b are assay-specific constants:

Cutoff = a x Calibrator 1 Signal + Calibrator 2 Signal - b

Reference method (*i* System)

The reference data reduction method uses the calibration curve generated from another assay (reference assay) to calculate results. This method is used when two or more assays use the same reagents. The reference assay is defined in the assay parameter file.

i System adjustment methods

Adjustment methods allow you to run two calibrator levels instead of six to calibrate an assay. The two calibrator levels (adjusters) are used to adjust the master calibration curve stored in the reagent bar code to reflect the actual RLU (relative light unit) values measured on your system.

The ARCHITECT *i* System offers the following methods of calibration adjustment:

Ratio technique method (*i* System)

The ratio technique adjustment method compares the RLU (relative light unit) value of the calibrators to the corresponding calibrator values from the master calibration curve. This technique is used when the lower end of the calibration curve has different characteristics than the rest of the curve, but the general behavior of the curve is still proportional and linear.

Ratios are calculated for calibrator 1 and calibrator 2 using the following formulas:

$$\text{Ratio}_1 = \frac{\text{Calibrator}_1}{\text{Master}_1}$$

Where:

Calibrator_1	=	RLU (value) measured for Calibrator 1
Master_1	=	RLU (value) stored in the reagent bar code for the calibrator corresponding to Calibrator 1

$$\text{Ratio}_2 = \frac{\text{Calibrator}_2}{\text{Master}_2}$$

Where:

Calibrator_2	=	RLU (value) measured for Calibrator 2
Master_2	=	RLU (value) stored in the reagent bar code for the calibrator corresponding to Calibrator 2

Two types of ratio techniques, A and AB, are used depending on which master calibrator level(s) is multiplied by ratio 1 and ratio 2.

The ratio A technique adjustment method produces an estimate of RLU values by multiplying the RLU (relative light unit) value stored in the reagent bar code for:

- Calibrator A by ratio 1
- Calibrator B through F by ratio 2

The ratio AB technique adjustment method produces an estimate of RLU values by multiplying the RLU (relative light unit) value stored in the reagent bar code for:

- Calibrators A and B by ratio 1
- Calibrators C through F by ratio 2

The estimated instrument specific RLU values are used to generate the calibration curve.

Linear transformation method (*i* System)

The linear transformation adjustment method assumes a linear relationship between the calibrator RLU (relative light unit) values generated by the system and the master calibration information stored in the reagent bar code.

The following is an example where the slope and intercept that describe the linear relationship are based on the RLU values of calibrator 1 and calibrator 2 generated by the system and their corresponding values stored in the reagent bar code.

The slope is calculated as follows:

$$\text{Slope} = \frac{\text{Calibrator}_2 - \text{Calibrator}_1}{\text{Master}_2 - \text{Master}_1}$$

The intercept is calculated as follows:

$$\text{Intercept} = \text{Calibrator}_1 - \left(\text{Master}_1 \times \frac{\text{Calibrator}_2 - \text{Calibrator}_1}{\text{Master}_2 - \text{Master}_1}\right)$$

The instrument RLU values for the six calibrators in the master calibration can be estimated as follows:

$$\text{Calibrator}_i = \text{Master}_i \times \text{Slope} + \text{Intercept}$$

The resulting estimated instrument RLU values for the six calibrators are then used to generate the calibration curve using the appropriate calibration curve model.

Parameter method (*i* System)

The parameter adjustment method uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration. Calibrator 1 and calibrator 2 adjusters are then used to provide an instrument specific calibration curve based on the parameters.

The following equation is used to calculate the residual sum of squares for the parameter adjustment method:

$$\sum \left(\frac{\bar{P}_j - P_j}{\sigma_j} \right)^2 + \sum \left(\frac{\bar{y}_i - y_i}{\sigma_i} \right)^2$$

Where:

$\bar{P}_j$	=	Population average parameter
P_j	=	System specific parameter
σ_j	=	Standard deviation parameter
$\bar{y}_i$	=	Predicted calibrator signal
y_i	=	Observed calibrator signal
σ_i	=	Standard deviation of calibrator signal

Curve shape method (*i* System)

The curve shape adjustment method uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration. Calibrator 1 and calibrator 2 adjusters are then used to provide an instrument-specific calibration curve based on the shape of the curve.

The following equation is used to calculate the residual sum of squares for the curve shape adjustment method:

$$\sum \left(\frac{\bar{S}_j - S_j}{\sigma_j} \right)^2 + \sum \left(\frac{\bar{Y}_i - Y_i}{\sigma_i} \right)^2$$

Where:

$\bar{S}_j$	=	Population average shape parameter
S_j	=	System specific shape parameter
σ_j	=	Standard deviation shape parameter
$\bar{Y}_i$	=	Predicted calibrator signal
Y_i	=	Observed calibrator signal
σ_i	=	Standard deviation of calibrator signal

Introduction

List numbers are unique identifiers that are used when ordering products. These numbers are provided for guidance only and are subject to change. Contact your Abbott representative for the most current list numbers.

List numbers topics include:

Consumable list numbers (*c* System)

Consumables are replenishable items required to run assays on an ARCHITECT *c* System. Contact your Abbott representative to order the following consumables.

ARCHITECT c System consumables

Item	Quantity	List Number
Acid Wash Solution	2 x 500 mL	06K01-20
Alkaline Wash Solution	2 x 500 mL	09D31-20
ICT Reference Solution	2 x 2 L	01E49-20
ICT Cleaning Fluid	10 x 12 mL	01E50-20
ICT module	1	09D28-03
Detergent A	2 x 500 mL	01J72-20
Detergent B	2 x 400 mL	02J94-21
Water Bath Additive (excluding US)	2 x 500 mL	09D29-20
Water Bath Additive (US only)	2 x 500 mL	09D29-21
Sample Cups	1000/box	07C14-01
Small Cartridge, Natural (55 mL)	20/bag	03E20-20
Small Cartridge, White (55 mL)	20/bag	03E21-20
Large Cartridge, Natural (90 mL)	20/bag	03E22-20
Large Cartridge, White (90 mL)	20/bag	03E23-20
20 mL Truncated, Clear	20/bag	04J67-20
20 mL Truncated, Opaque	20/bag	04J66-20
Container Caps	20/bag	03E24-20

Consumable list numbers (*i* System)

Consumables are replenishable items required to run assays on an ARCHITECT *i* System. Contact your Abbott representative to order the following consumables.

ARCHITECT i System consumables

Item	Quantity	List Number
Concentrated Wash Buffer: • Concentrated Wash Buffer (1 L bottle) • Concentrated Wash Buffer, ARCHITECT ARM (10 L cubitainer) (*i*2000/*i*2000SR)	 4 x 975 mL 1 x 9.75 L	 06C54-58 06C54-88
Filter, Buffer	1	08C94-29
Multi-Assay Manual Diluent	1 x 100 mL	07D82-50
Pre-Trigger Solution	4 x 975 mL	06E23-65
Probe Conditioning Solution	4 x 25 mL	01L56-40
Trigger Solution	4 x 975 mL	06C55-60
Reaction Vessels	4000/box	07C15 (-02 or -03)
Replacement Caps	100/box	04D19-01
Septums	200/box	04D18
Sample Cups	1000/box	07C14-01

Accessory kit list numbers (*c*4000)

There are three accessory kits for the ARCHITECT *c*4000 System:

- *Accessory kit 1 (c4000) - LN 02P68-02*, page D-4 - contains items used for the installation of the system, items used to perform maintenance and troubleshooting procedures, and some spare accessories for as-needed component replacement.
- *Accessory kit 2 (c4000) - LN 02P73-02*, page D-5 - contains some items used during installation of the system and two calibration tools used for some maintenance procedures.
- *Customer maintenance kit (c4000) - LN 02P69-01*, page D-5 - contains all accessories required to perform scheduled maintenance for one year.

Your Abbott representative orders the accessory kits for you. Contact your Abbott representative to order individual items.

For other accessories such as sample carriers and cuvette segments see *Additional accessory list numbers*, page D-16.

Accessory kit 1 (c4000) - LN 02P68-02

Item	Quantity	List Number
Installation components		
10 Micron Filter, Water Bath	1	NA
High Concentration Waste Tubing Kit	1	NA
ICT Probe and Probe Holder	1	NA
Large Cartridge Segment, Inner	2	02P80-01
Large Cartridge Segment, Outer (Target)	1	02P83-01
Large Cartridge Segment, Outer	1	02P84-01
Small Cartridge Segment, Inner	2	02P79-01
Small Cartridge Segment, Outer	9	02P81-01
Small Cartridge Segment, Inner (Target)	1	02P82-01
Reagent Probe	2	01G47-04
Reagent Probe Tubing	2	02P76-01
Sample Probe	1	01G48-04
Sample Probe Tubing	1	02P77-01
Sample Wash Solution Carrier	1	02P78-01
Waste and Water Tubing Kit	1	NA
Maintenance components		
10 mm Wrench	1	NA
Container, Parts Case	1	NA

Item	Quantity	List Number
Cuvette Segment Alignment Tool	1	02P86-01
Nozzle, Cleaning Wire	5	09D50-02
Phillips Screwdriver	1	NA
Slotted Screwdriver	1	NA
Spare components		
1 mL Syringe	6	09D41-03
20 mL reagent Cartridge Adaptor	5	09D22-12
Cuvette Dry Tip	1	09D51-02
Cuvette Pair Replacement Set	2	01G46-02
ICT Probe	1	09D63-04
ICT Probe Holder	1	NA
Mixer	1	09D59-03
Probe Screw, Sample / Reagent	1	NA
Reagent Probe	2	01G47-04
Reagent Probe Tubing, *c*4000	1	02P76-01
Reagent Syringe O-ring	4	09D53-03
Reagent Syringe Seal Tip # 1	2	09D39-03
Reagent Syringe Seal Tip # 2	2	09D40-04
Sample Probe	1	01G48-04
Sample Probe Tubing, *c*4000	1	02P77-01
Sample/Wash Solution Syringe O-ring	2	09D52-03
Sample/Wash Solution Syringe Seal Tip #1	1	09D37-03
Sample/Wash Solution Syringe Seal Tip #2	1	09D38-03
Source Lamp	1	09D45-03

Accessory kit 2 (c4000) - LN 02P73-02

Item	Quantity	List Number
Carrier Calibration Tool	1	01P16-01
Pressure Monitor PCB	1	NA
Sample Carriers	30	NA
SH Bar code Tool	2	06E69-02

Customer maintenance kit (c4000) - LN 02P69-01

Item	Quantity	List Number
1 mL Syringe	24	09D41-03
ICT Reference Solution Check Valve	4	09D35-03
Reagent Syringe O-ring	8	09D53-03

Item	Quantity	List Number
Reagent Syringe Seal Tip # 1	8	09D39-03
Reagent Syringe Seal Tip # 2	8	09D40-04
Sample/Wash Solution Syringe O-ring	12	09D52-03
Sample/Wash Solution Syringe Seal Tip #1	12	09D37-03
Sample/Wash Solution Syringe Seal Tip #2	12	09D38-03
Source Lamp	4	09D45-03

Accessory kit list numbers (*c*8000)

There are three accessory kits for the ARCHITECT *c*8000 System:

- *Accessory kit 1 (c8000) - LN 01G09-03*, page D-7 - contains items used for the installation of the system, items used to perform maintenance and troubleshooting procedures, and some spare accessories for as-needed component replacement.
- *Accessory kit 2 (c8000 and c16000) - LN 02K10-01*, page D-8 - contains some consumable items used during installation of the system and while you perform any required validation studies, and two calibration tools used for some maintenance procedures.
- *Customer maintenance kit (c8000) - LN 02J53-01*, page D-8 - contains all accessories required to perform scheduled maintenance for one year.

Your Abbott representative orders the accessory kits for you. Contact your Abbott representative to order individual items.

For other accessories such as sample carriers, carrier trays, and cuvette segments see *Additional accessory list numbers*, page D-16.

Accessory kit 1 (c8000) - LN 01G09-03

Item	Quantity	List Number
Installation components		
Waste and Water Tubing Kit	1	NA
High Concentration Waste Tubing Kit	1	NA
ICT Probe	1	09D63-04
ICT Probe Holder	1	NA
Reagent Probe	1	01G47-04
Reagent Probe Tubing	1	01G47-02
Sample Probe	1	01G48-04
Sample Probe Tubing	1	01G48-05
*c*8000 (R1)/*c*16000 (R1 and R2) Large Cartridge, Segment A (Target)	1	04J30-01
*c*8000 (R1)/*c*16000 (R1 and R2) Small Cartridge, Segment A, B, C	2	01G51-01
*c*8000 (R1)/*c*16000 (R1 and R2) Segment D (Target)	1	04J32-01
R2, Small Cartridge, Segment A (target)	1	04J29-01
R2, Large Cartridge, Segment B, C, and D	1	04J31-01
R2, Small Cartridge, Segment B, C, and D	2	01G52-01
Maintenance components		
Phillips Screwdriver	1	NA
Slotted Screwdriver	1	NA

Item	Quantity	List Number
10 mm Wrench	1	NA
*c*8000 Cuvette Segment Alignment Tool	1	02J93-01
Nozzle, Cleaning Wire	10	09D50-02
Container, Parts case	1	NA
Accessories		
20 mL Reagent Cartridge Adapter	10	09D22 (-11 or -12)
Small Reagent Cartridge Adapter	10	09D22-07
Spare components		
1 mL Syringe	6	09D41-03
Cuvette Dry Tip	1	09D51-02
Cuvette Pair Replacement Set	2	01G46-02
Mixer	1	09D59-03
Reagent Probe	1	01G47-04
Reagent Probe Tubing	1	01G47-02
Reagent Syringe O-ring	2	09D53-03
Reagent Syringe Seal Tip # 1	2	09D39-03
Reagent Syringe Seal Tip # 2	2	09D40-04
Reagent/Sample Probe Screw	5	02J51-01
Sample Probe	1	01G48-04
Sample Probe Tubing	1	01G48-05
Sample/Wash Solution Syringe O-ring	1	09D52-03
Sample/Wash Solution Syringe Seal Tip #1	1	09D37-03
Sample/Wash Solution Syringe Seal Tip #2	1	09D38-03
Source Lamp	1	09D45-03

Accessory kit 2 (c8000 and c16000) - LN 02K10-01

Item	Quantity	List Number
Large Cartridge, Natural (90 mL)	1 bag of 20	03E22-20
Small Cartridge, Natural (55 mL)	1 bag of 20	03E20-20
20 mL Truncated, Clear	1 bag of 20	04J67-20
Container Caps	1 bag of 20	03E24-20
Sample Cups	1 box of 1000	07C14-01

Customer maintenance kit (c8000) - LN 02J53-01

Item	Quantity	List Number
1 mL Syringe	24	09D41-03

Item	Quantity	List Number
ICT Reference Solution Check Valve	4	09D35-03
Reagent Syringe O-ring	8	09D53-03
Reagent Syringe Seal Tip # 1	8	09D39-03
Reagent Syringe Seal Tip # 2	8	09D40-04
Sample/Wash Solution Syringe O-ring	12	09D52-03
Sample/Wash Solution Syringe Seal Tip #1	12	09D37-03
Sample/Wash Solution Syringe Seal Tip #2	12	09D38-03
Source Lamp	4	09D45-03

Accessory kit list numbers (*c*16000)

There are three accessory kits for the ARCHITECT *c*16000 System:

- *Accessory kit 1 (c16000) - LN 08L71-03*, page D-10 - contains items used for the installation of the system, items used to perform maintenance and troubleshooting procedures, and some spare accessories for as-needed component replacement.
- *Accessory kit 2 (c8000 and c16000) - LN 02K10-01*, page D-11 - contains some consumable items used during installation of the system and while you perform any required validation studies, and two calibration tools used for some maintenance procedures.
- *Customer maintenance kit (c16000) - LN 08L72-01*, page D-12 - contains all accessories required to perform scheduled maintenance for one year.

Your Abbott representative orders the accessory kits for you. Contact your Abbott representative to order individual items.

For other accessories such as sample carriers, carrier trays, and cuvette segments see *Additional accessory list numbers*, page D-16.

Accessory kit 1 (c16000) - LN 08L71-03

Item	Quantity	List Number
Installation components		
Waste and Water Tubing Kit	1	NA
High Concentration Waste Tubing Kit	1	NA
ICT Probe	1	09D63-04
ICT Probe Holder	1	NA
Reagent Probe - R1A/R2B (L)	1	09D48-03
Reagent Probe - R1B/R2A(r)	1	09D49-03
Tubing, Joint to R Probe, R1 & 2A	2	09D48-05
Tubing, Joint to R Probe, R1 & 2B	2	09D49-05
Sample Probe	1	01G48-04
Sample Probe Tubing	1	01G48-05
*c*8000 (R1)/*c*16000 (R1 and R2) Large Cartridge, Segment A (Target)	2	04J30-01
*c*8000 (R1)/*c*16000 (R1 and R2) Large Cartridge, Segment A, B, C	4	04J33-01
*c*8000 (R1)/*c*16000 (R1 and R2) Segment D (Target)	2	04J32-01
10 micron filter, waterbath	1	NA
Maintenance components		
Phillips Screwdriver	1	NA
Slotted Screwdriver	1	NA

Item	Quantity	List Number
10 mm Wrench	1	NA
*c*16000 Cuvette Segment Alignment Tool	1	08L73-01
Nozzle Cleaning Wire	10	09D50-02
Container, Parts case	1	NA
Accessories		
20 mL Reagent Cartridge Adapter	10	09D22 (-11 or -12)
Small Reagent Cartridge Adapter	20	09D22-07
Spare components		
1 mL Syringe	8	09D41-03
Cuvette Dry Tip	2	09D51-02
Cuvette Pair Replacement Set	2	09D33-03
Peristaltic Pump Tubing Kit	1	NA
Mixer	1	09D59-03
Pipettor Arm Cover Screw	3	09D46-20
Reagent Probe R1A/R2B	1	09D48-03
Reagent Probe R1B/R2A	1	09D49-03
Reagent Probe Screw	3	09D48-10
Tubing, Joint to R Probe, R1 & 2A	2	09D48-05
Tubing, Joint to R Probe, R1 & 2B	2	09D49-05
Reagent Syringe O-ring	4	09D53-03
Reagent Syringe Seal Tip # 1	4	09D39-03
Reagent Syringe Seal Tip # 2	4	09D40-04
Sample Probe	1	01G48-04
Sample Probe Tubing	1	01G48-05
Probe Screw, *c*8000 (Reagent and Sample)/*c*16000 (Sample)	5	02J51-01
Sample/Wash Solution Syringe O-ring	2	09D52-03
Sample/Wash Solution Syringe Seal Tip #1	1	09D37-03
Sample/Wash Solution Syringe Seal Tip #2	1	09D38-03
Source Lamp	1	09D45-03

Accessory kit 2 (c8000 and c16000) - LN 02K10-01

Item	Quantity	List Number
Large Cartridge, Natural (90 mL)	1 bag of 20	03E22-20
Small Cartridge, Natural (55 mL)	1 bag of 20	03E20-20
20 mL Truncated, Clear	1 bag of 20	04J67-20
Container Caps	1 bag of 20	03E24-20
Sample Cups	1 box of 1000	07C14-01

Customer maintenance kit (c16000) - LN 08L72-01

Item	Quantity	List Number
1 mL Syringe	32	09D41-03
ICT Reference Solution Check Valve	4	09D35-03
Reagent Syringe O-ring	16	09D53-03
Reagent Syringe Seal Tip # 1	16	09D39-03
Reagent Syringe Seal Tip # 2	16	09D40-04
Sample/Wash Solution Syringe O-ring	12	09D52-03
Sample/Wash Solution Syringe Seal Tip #1	12	09D37-03
Sample/Wash Solution Syringe Seal Tip #2	12	09D38-03
Source Lamp	4	09D45-03

Accessory kit list numbers (*i* System)

The ARCHITECT *i* System accessory kit contains items used for the installation of the system, items used to perform maintenance and troubleshooting procedures, and some spare accessories for as-needed component replacement. Your Abbott representative orders the accessory kits for you. Contact your Abbott representative to order individual items.

For other accessories such as an external thermometer, sample carriers, and carrier trays see *Additional accessory list numbers*, page D-16.

ARCHITECT i System accessory kits - LN 08C94-30 (i2000), LN 03M77-10 (i2000SR), and LN 01L87-03 (i1000SR)

Item	Quantity	List Number
***i*2000 and *i*2000SR components - LN 08C94-30 and LN 03M77-10**		
Bag, Biohazard	12	NA
External Waste Tubing	1	NA
Filter, Card Cage/Supply	2	08C94-07
Filter, Processing Center	1	08C94-14
Inlet assembly, buffer	1	NA
Maintenance Kit:		
• Bar Code Calibration Tool	2	06E67-01
• Carrier Calibration Tool	1	05E13-01
• Flashlight	1	NA
• Grease	1	NA
• Lens Paper	1	NA
• Maintenance Cleaning Bottle	1	02G16-99
• Optics Cap	1	NA
• WZ Probe Maintenance Water Bottle	1	06E68-01
• Screwdriver #1 Phillips	1	NA
• Screwdriver #2 Phillips	1	NA
• SH Bar Code Tool	2	06E69-02
• Thermistor Removal Wrench	1	NA
• Valve Removal Tool	1	NA
Power cord kit	1	NA
Probe, Wash Zone	3	08C94-36
Probe (Sample/Reagent)	2	08C94-47
Probe/Tubing, Waste Arm	1	08C94-89
Sensor, Level, Buffer	1	08C94-65
Sensor, Level, Trigger	1	08C94-66
Sensor, Level, Pre-Trigger	1	08C94-67
Tubing/Sensor, Temp, WZ	3	08C94-90

Item	Quantity	List Number
Tubing, Wash Buffer Transfer	1	08C94-21
Wash Buffer Preparation Container	2	08C94-56
Wash Buffer Reservoir	1	NA
***i*2000 components - LN 08C94-30**		
Internal component cover 1	1	06E27-10
Internal component cover 2 & 3	1	06E27-20
Internal component cover 4 (*i*2000 accessory kit only)	1	06E27-30
Internal component cover 5 (*i*2000 accessory kit only)	1	06E27-40
Internal component cover 6 (*i*2000 accessory kit only)	1	06E27-50
Internal component cover 7 (*i*2000 accessory kit only)	1	06E27-60
Internal component cover 8 (*i*2000 accessory kit only)	1	06E27-70
***i*2000SR components - LN 03M77-10**		
STAT Probe Tubing (*i*2000SR accessory kit only)	1	03M77-49
Internal component cover 1	1	06E27-11
Internal component cover 2 & 3	1	06E27-21
Internal component cover 4 (*i*2000SR accessory kit only)	1	02J63-14
Internal component cover 5 (*i*2000SR accessory kit only)	1	02J63-15
Internal component cover 6 (*i*2000SR accessory kit only)	1	02J63-16
Internal component cover 7 (*i*2000SR accessory kit only)	1	02J63-17

ARCHITECT i1000SR components - LN 01L87-03

Item	Quantity	List Number
Bag, Biohazard	6	NA
Bleach Preparation Container	1	08C94-63
Buffer filter	1	08C94-29
Buffer outlet assembly	1	01P12-01
Card cage/SCC door filter	1	03L99-01
Card cage filter	1	06L00-01
External Waste Tubing	1	NA
Internal Decon Extension Tubing/Cable Kit	1	01P83-01
Maintenance Kit:	1	
• Bar Code Calibration Tool	2	06E67-01
• Buffer Reservoir Cap	1	NA
• Carrier Calibration Tool	1	01P16-01
• Flashlight	1	NA
• Lens Paper	1	NA
• Maintenance Cleaning Bottle	1	02G16-99
• Optics Cap	1	NA
• WZ Probe Maintenance Water Bottle	1	06E68-01

Item	Quantity	List Number
• Screwdriver #1 Phillips	1	NA
• Screwdriver #2 Phillips	1	NA
• SH Bar Code Tool	2	06E69-02
• Thermistor Removal Wrench	1	NA
• Valve Removal Tool	1	NA
• Ground strap	1	NA
• O-ring Removal Tool	1	NA
Probe (Sample/Reagent)	1	08C94-47
Probe, Wash Zone	3	08C94-36
Reagent Carriers	30	NA
Sample Carriers	30	NA
Sensor, Level, Buffer	1	06L01-01
Sensor, Level, Pre-Trigger	1	8C94-67
Sensor, Level, Trigger	1	8C94-66
Tubing, Probe	1	06L04 (-01 or -02)
Tubing/Sensor, Temp, WZ	2	08C94-90
Tubing, Wash Buffer Transfer	1	08C94-21
Unloader	1	NA
Wash Cup Baffle	6	01P41-01
Wash Buffer Preparation Container	1	08C94-56
Wash Buffer Reservoir	1	06L06-01
Waste pressure switch to floor tubing	1	NA

Additional accessory list numbers

Additional accessories are products not included in an accessory kit. These products are used during routine processing, in maintenance procedures, and for component replacement. Contact your Abbott representative to order the following accessories.

Additional accessories

Item	Quantity	List Number
Alternate *c*8000/*c*16000 Reagent Supply Center Segments:		
• *c*8000 (R1)/*c*16000 (R1 and R2) Large Cartridge, Segment A, B, C	1	04J33-01
• R2, large cartridge, segments B, C, and D	1	04J31-01
• R2, small cartridge, segments B, C, and D	1	01G52-01
Alternate *c*4000 Reagent Supply Center Segments:		
• Large Cartridge Segment, Inner	1	02P80-01
• Large Cartridge Segment, Outer	1	02P84-01
• Large Cartridge Segment, Outer (Target)	1	02P83-01
• Small Cartridge Segment, Inner	1	02P79-01
• Small Cartridge Segment, Outer	1	02P81-01
• Small Cartridge Segment, Inner (Target)	1	02P82-01
ARCHITECT *i*ARM (Automated Reconstitution Module) accessory	1	08C95-91
Cuvette Segment (*c*4000)	1	02P75-01
Cuvette Segment (*c*8000)	1	01G46-01
Cuvette Segment (*c*16000)	1	09D32-05
External Waste Pump:		
• *i* System	1	08C94-19
• *c* System	1	09D61-03
High Concentration Waste Bottle	1	03E50-26
High Concentration Float Switch Cable	1	03E50-31
LAS Sample Carousel ID Labels (*i*2000)	1 sheet	08C96-25
LAS Sample Carousels (*i*2000)	2	08C96-07
Liquid Waste Container (*i*1000SR)	1	06L05-01
Pump Poppet Valve Set (*c* System)	1	09D36-02
Reagent carriers (*i*1000SR)	10	08L20-01
RSH Sample Carrier Trays	2	04J49-01
Sample Carousel (*c*8000/*c*16000)	1	02J50-01
Sample Carousel Clip (*c*8000/*c*16000)	1	04J45-01
Sample Carriers	10	05E15-01
Thermometer, External (*i* System)	1	08C94-88
Tubing, probe (*i*2000/*i*2000SR)	1	08C94-49

Electronic media list numbers

Some products are distributed on electronic media such as assay files, maintenance and diagnostic procedure files, and online documentation. Contact your Abbott representative to order the following electronic media.

Electronic media

Item	List Number
Assay disk, ARCHITECT *c* System:	
• Assay disk (Conventional Units)	08G98
• Assay disk (SI Units)	04J62
Assay Disk, Multigent	
• Assay disk (Conventional Units)	8K50
• Assay disk (SI Units)	8K51
Assay Disk, Special Chemistry	
• Assay disk (Conventional Units)	2P10
• Assay disk (SI Units)	2P11
Assay CD-ROM, ARCHITECT *i* System:	
• Assay CD-ROM - WW (excluding US)	06E59
• Assay CD-ROM - US	06E58
• Assay CD-ROM - WW (excluding US) Addition A	03K52
• Assay CD-ROM - US Addition A	03K50
• Assay CD-ROM - WW (excluding US) Addition B	03K53
• Assay CD-ROM - US Addition B	03K51
• Assay CD-ROM - WW (excluding US) Addition C	08K30
• Assay CD-ROM - US Addition C	06L81
• Assay CD-ROM - WW (excluding US) Addition E	01L66
• Assay CD-ROM - US Addition E	01L65
• Assay CD-ROM - WW (excluding US) Addition F	01P38
• Assay CD-ROM - US Addition F	01P39
e-Assay CD-ROM, ARCHITECT *i* System:	
• ARCHITECT *i* System e-Assay CD-ROM - US	04P55
• ARCHITECT *i* System e-Assay CD-ROM - WW (excluding US)	04P56
• ARCHITECT *i*1000SR System e-Assay CD-ROM - US	04P57
• ARCHITECT *i*1000SR System e-Assay CD-ROM - WW (excluding US)	04P58
System Software CD-ROM, ARCHITECT System	05F48

NOTE: Electronic files of manuals and e-Assay CD-ROMs are available on the Abbott Diagnostics web site.

SCC component list numbers

The following products are required and optional SCC (system control center) components. Contact your Abbott representative to order the following components.

SCC components

Item	List Number
Required	
Keyboard:	
• English Keyboard	07D11-01
• English Keyboard (black)	07D11-02
• French Keyboard	07D11-20
• French Keyboard (black)	07D11-22
• German Keyboard	07D11-30
• German Keyboard (black)	07D11-32
• Italian Keyboard	07D11-40
• Italian Keyboard (black)	07D11-42
• Spanish Keyboard	07D11-50
• Spanish Keyboard (black)	07D11-52
Monitor - Touchscreen Flatscreen	07D03-15
Monitor - Touchscreen LCD (dark gray)	07D03-22
Mouse	07D01-99
Mouse (black)	07D02-01
Network HUB (USB Powered)	07D04-60
Optional	
Bar Code Scanner	07D09-14
ARCHITECT Bar Code Scanner User's Guide	02K93-05
Component Stand	09D19-01
Bar Code Scanner holder kit (with installation instructions)	07D10-03
Printer:	
• Printer (110V)	07D08-18
• Printer (220V)	07D08-28
UPS for SCC only:	
• UPS 110V	07D06-11
• UPS 220V	07D06-22

Introduction

Screen elements are items on each screen that allow you to interact with the system software. Screen elements can be any of the following:

- Icons, which allow you to display a menu
- Menus, which allow you to display a screen
- Buttons, which allow you to initiate a command such as:
  - Display another screen or window
  - Add items to a list
  - Refresh the data on the screen or window
  - Confirm that you want to save the changes you have entered
  - Delete items from the system
  - Display help for a screen, window, or error message
- Data entry boxes, which allow you to enter text
- List buttons, which allow you to display a list so you can select an item
- Options, which allow you to select one item from the displayed choices
- Check boxes, which allow you to select one or more items from the displayed choices

Descriptions of screen elements topics include:

Icons and menus

Icons and menus allow you to display screens. Also, icons blink to inform you that a condition requires your attention.

Overview icon • Snapshot • Sample status • Plan my day • Operations manual	The Overview icon provides access to overall system monitoring data. When you select it, a menu displays the following options: • Snapshot - Select to navigate to the *Snapshot screen*, page 1-22, which displays system status information. • Sample status - Select to navigate to the *Sample status screen*, page 5-233, which allows you to: – View all unreleased tests for a sample regardless of test status – Rerun patient results – Release completed patient results – Suspend a bay or section on the RSH to allow immediate access to a sample in process • Plan my day - Select to navigate to the Plan my day screen, which displays consolidated information and statuses for reagent inventory, assay calibrations, supplies inventory, QC, and system maintenance. These may require operator intervention to successfully process samples uninterrupted within the user defined timeframe. • Operations manual - Select to access the online ARCHITECT System Operations Manual.
Orders icon • Order status • Patient order • Control order • Calibration order	The Orders icon provides access to test ordering functions and illuminates to notify you that new orders have been downloaded by the host computer but have not been viewed. When you select the Orders icon, a menu displays the following options. • Order status - Select to navigate to the *Order status screen*, page 5-222, which displays information on the patient, control, and calibration orders currently managed by the ARCHITECT System. An indicator next to this menu item displays when new orders have been downloaded by the host computer but have not been viewed. • Patient order - Select to navigate to the *Patient order screens and views*, page 5-187, which allows you to enter a patient order. • Control order - Select to navigate to the *Control order screen and views*, page 5-207, which allows you to enter single analyte or multiconstituent control orders. • Calibration order - Select to navigate to the *Calibration order screen*, page 6-10, which allows you to enter a calibration order.
Results icon • Results review • Stored results	The Results icon provides access to patient results and illuminates to notify you results have completed and are awaiting review prior to release. When you select the Results icon, a menu displays the following options. • Results review - Select to navigate to the *Results review screen*, page 5-297, which displays information on the completed patient results awaiting review and release. An indicator next to this menu item displays to notify you results have completed. From this screen you can select the patient results to rerun. • Stored results - Select to navigate to the *Stored results screen*, page 5-336, which allows you to: – View patient results that have been reviewed and released

	– Retransmit patient results to the host computer – Archive patient results
QC-Cal icon • QC result review • QC summary • Levey-Jennings graph • Calibration status • Calibration history • Stored QC result • QC reports	The QC-Cal icon provides access to QC results, QC graphs, and calibration results. The icon illuminates to notify you that QC samples have completed and are awaiting review prior to release, or that a calibration is within 1 hour of expiration or has an Expired or Failed status. When you select the QC-Cal icon, a menu displays the following options: • QC result review - Select to navigate to the *QC result review screen*, page 5-316, which displays information on completed QC results awaiting review and release. An indicator next to this menu item displays to notify you QC results have completed. From this screen you can select the QC results to rerun. • QC summary - Select to navigate to the QC summary review screen, which provides a summary of QC data for all assay control levels. You can select and review individual control level QC data details and the associated Levey-Jennings graph. From this screen you can also print the QC analysis, QC summary, and Levey-Jennings reports. • Levey-Jennings graph - Select to view and manipulate QC data. From this screen you can also print the Levey-Jennings report. • Calibration status - Select to navigate to the *Calibration status screen*, page 6-17, which provides a summary list of the calibration status of each assay and reagent lot loaded on the system. You can select and review individual calibration curves. An indicator next to this menu item displays to notify you when a calibration is within 1 hour of expiration or has an Expired or Failed status. • Calibration history - Select to navigate to the Calibration history screen, which provides a summary list of the calibration status for current and previously performed calibrations. You can select, review, and archive individual calibration curves. • Stored QC results - Select to navigate to the *Stored QC results screen*, page 5-351, which allows you to: – View QC results that have been reviewed and released – Retransmit QC results to the host computer – Archive QC results • QC reports - Select to navigate to the *QC reports screen*, page 5-400, which allows you to print the QC analysis, QC summary, and Levey-Jennings reports.
Exceptions icon • Exception status • Stored exceptions • Rerun status	The Exceptions icon provides access to patient, QC, and calibration result exceptions and illuminates to notify you of new order exceptions. When you select the Exceptions icon, a menu displays the following options: • Exception status - Select to navigate to the *Exception status screen*, page 5-364, which provides a summary listing of the exceptions that have occurred. An indicator next to this menu item displays to notify you there are new exceptions. From this screen you can select the patient and QC exception results to rerun. • Stored exceptions - Select to navigate to the *Stored exceptions screen*, page 5-378, which provides a summary listing of the resolved order exceptions that have occurred over the past 24 hours. For stored exceptions to display you must have taken action (for example transmit to host, rerun) on the entry(s) in the Exception status screen. • Rerun status - Select to navigate to the *Rerun status screen*, page 5-331, which provides a listing of the orders scheduled to be rerun.

Reagents icon • Reagent status • Reagent history	The Reagents icon provides access to reagent inventory management functions and illuminates to notify you that a reagent kit has a status other than OK, Mixing (*i* System), or Overridden. When you select the Reagents icon, a menu displays the following options: • Reagent status - Select to navigate to the *Reagent status screens*, page 5-104, which provides a summary and listing of the current inventory status of the onboard reagents, and allows you to request a scan of the current reagent kits for a selected processing module. An indicator next to this menu item displays to notify you that a reagent kit has a status other than OK, Mixing (*i* System), Overridden, or Low Alert. • Reagent history - Select to navigate to the *Reagent history screen*, page 5-124, which provides a historical summary listing of the reagent kits that have been scanned by the reagent bar code reader.
Supplies icon • Supply status	The Supplies icon provides access to supply inventory management functions and illuminates to notify you that an inventory item has a status other than OK. When you select the Supplies icon, a menu displays the following option: • Supply status - Select to navigate to the *Supply status screens*, page 5-40, which provides inventory information for the onboard supplies for each processing module. An indicator next to this menu item displays to notify you that an inventory item has a status other than OK. From this screen you can update the status for each item.
System icon • Maintenance • Diagnostics • System logs • Configuration • Utilities • Abbott mail	The System icon provides access to system diagnostics, maintenance, and configuration functions and illuminates to notify you that an in-process maintenance procedure requires user interaction or that a new message has been entered into the Temporary message log. When you select the System icon, a menu displays the following options: • Maintenance - Select to navigate to the *Maintenance screen*, page 9-3, which allows you to perform system maintenance procedures. An indicator next to this menu item displays when an in-process maintenance procedure requires user input or is complete. • Diagnostics - Select to navigate to the *Diagnostics screen*, page 10-622, which allows you to perform system diagnostic procedures. • System logs - Select to navigate to the *System logs screen*, page 10-9, which allows you to review the Temporary message log, Message history log, Software update log, and Inventory log. An indicator next to this menu item displays when a new message has been entered into the Temporary message log. • Configuration - Select to navigate to the *System configuration*, page 2-4, which allows you to configure system, assay, and QC-Cal parameters. • Utilities - Select to navigate to the *Software installation and backup*, page 2-195, which allows you to perform system software maintenance tasks. • Abbott mail - Select to navigate to the *Abbott mail screen*, page 2-204, which allows you to view and print package inserts, download assay file information and *c* System calibrator value assignment information.

Buttons

Each screen, window, and message has buttons. Buttons allow you to display other screens or windows, add, edit, or delete information from the system, print reports, or toggle between two views of a screen or window.

Activity	Allows you to toggle from the Result list to the Activity list during maintenance and diagnostic procedures.
Add	Saves the information you enter and updates the corresponding list or table. Also clears data from the window so you can add the next new item.
Add>	Allows you to move the selected assay(s) from the Assay list to the Display order list.
Add kit (*c* System)	Allows you to configure a new reagent kit. This button is unavailable until you select a lot.
Add level	Allows you to add the control level information you define. Once added, the new control level displays in the Level list. This button is unavailable until you select a lot.
Add rule	Displays the *Add / edit assay retest rules window*, page 2-145. In this window you can configure or edit retest rules for the assay you selected.
Assign assay	Allows you to assign an import file assay with an assay number from 2000 - 2999 to a user-defined assay on the system. When the button is selected the system displays the *Select assay window*, page 2-146. When importing a calibrator the window lists all the user-defined assays configured on the system assigned to that calibrator set. When importing a control the window lists all the user-defined assays configured on the system.
Calculate mean / SD	Converts entered Control ranges to Expected mean and 1 SD values. The mean is calculated by adding the range of the high and low values, then dividing by two. The expected 1 SD is the range high value minus the range low value divided by 4. **NOTE:** If the Expected mean and 1 SD fields have data, the Calculate mean / SD button is not active.
Cancel	Cancels your selections or entries and displays the screen or window you were previously viewing.
Carousel (*c* System) 	Allows you to order a sample to be run on the carousel.
Carrier 	Allows you to order a sample to be run on the carrier.

Clear queue	Allows you to clear all queued messages pending transmission to the host and secondary HL7 connections. This button is unavailble until queued messages are waiting to be transmitted.
Close window	Allows you to close the Maintenance Perform window of an in-process procedure so you can perform a maintenance procedure on another module or access other screens and windows.
Continue	Allows you to continue to the next step of a maintenance or diagnostic procedure.
Current curve data	Displays the calibration curve data for the current active calibration.
Deactivate	Allows you to deactivate the premium features.
Define data	Displays the *Define control data window*, page 2-186 allowing you to enter expected values for multiconstituent controls. This button is unavailable until you select an assay(s).
Delete	Allows you to delete the item(s) you selected.
Delete all	Allows you to delete all the print jobs from the printer queue.
Delete assay	Allows you to delete an assay(s) for a multiconstituent control. This button is unavailable until you select an assay(s).
Delete kit (*c* System)	Allows you to delete a reagent kit. This button is unavailable until you select a reagent kit.
Delete level	Allows you to delete the control level(s) you selected. This button is unavailable until you select a control level.
Delete rule	Allows you to delete the retest rule(s) you selected. This button is unavailable until you select a retest rule.
Delete user	Allows you to delete a user name. This button is unavailable until you select a user name.
Deselect all	Allows you to deselect all items in a list. This button toggles between Deselect all and Select all.
Details view (*c* System)	Displays the details window(s) for QC and patient results. This window displays information for a test run using a photometric assay (*c* System).
Disable	Allows you to disable the host and secondary HL7 connections.
Done	Accepts or saves your selections or entries and displays the screen or window you were previously viewing.
Edit result	Displays an edit result window allowing the system administrator to edit the result. The result flag EDIT displays for the result to indicate it was edited by the system administrator. This button is available only for photometric or potentiometric test results.
Edit rule	Displays the *Add / edit assay retest rules window*, page 2-145 allowing you to edit a retest rule to create a new one. This button is unavailable until you select a retest rule.
Edit	Allows you to edit the item(s) you selected.

Enable	Allows you to enable the host connection and secondary HL7 connections.
Error ?	Displays help for the probable cause and corrective action for the error.
Export	Initiates the process of exporting an assay file.
F1 - Exit	Displays the *Snapshot screen*, page 1-22.
F2 - Add order	Saves the order information and clears data from the screen so that you can add the next order.
F2 - Batch details	Displays the *Details for batch window*, page 5-206 allowing you to name the batch and add comments for the current batch order. This button is available only when the order type is batch.
F2 - Log on	Displays the *Log on window*, page 1-24 allowing you to log on to the system.
F2 - Maint. Log	Displays the *Maintenance log screen*, page 9-13. This button toggles between F2 - Maint. Log and F2 - To do.
F2 - Print	Displays the *Print options window*, page 5-415 allowing you to select the report you want to print.
F2 - QC selection	Displays the *QC selection window*, page 5-393 allowing you to select the data to display on the *Levey-Jennings graph screen*, page 5-385.
F2 - Sample details	Displays the *Details for sample window*, page 5-205 allowing you to enter patient demographic information and comments for the current sample. This button is available only when the order type is single.
F2 - Select all / F2 - Deselect all	Allows you to select or deselect all items in a list or table. This button toggles between Select all and Deselect all.
F2 - To do	Displays the *Maintenance screen*, page 9-3 with the To do tab selected. This button toggles between F2 - To do and F2 - Maint. Log.
F2 - Update supplies	Displays the *Windows - Supply status screen*, page 5-48 allowing you to update the inventory for the supplies.
F3 - Add order	Saves the order information and clears data from the screen so that you can add the next order.
F3 - Adjust level	Displays the *Adjust inventory level window - c System view*, page 5-52 or *Adjust inventory level window - i System view*, page 5-53, allowing you to adjust inventory level of bulk solutions.
F3 - Find	Displays a find options window allowing you to search for specific data.
F3 - Import (*c* System)	Displays the *Import assay window*, page 2-70 allowing the system administrator to import a clinical chemistry assay parameter file(s).
F3 - Install	Scans the CD and initiates the system software installation program. This button is available only if your log on is system administrator, CSC, or FSE.

F3 - Print	Displays the *Print options window*, page 5-415 allowing you to select the report you want to print.
F3 - Shutdown	Displays a message asking you to confirm that you want to shut down the system.
F4 - Approve	Displays the *Approve maintenance log window*, page 9-17 allowing the system administrator to approve the maintenance log. This button is unavailable for the months when no procedures were performed.
F4 - Create backup	Displays the *Create backup window*, page 2-202 allowing you to initiate a system backup.
F4 - Export (*c* System)	Displays the *Export assay window*, page 2-71 allowing you to export a clinical chemistry assay parameter file(s) to a floppy disk or USB flash drive.
F4 - Print	Displays the *Print options window*, page 5-415 allowing you to select the report you want to print.
F4 - Replace ICT (*c* System)	Displays the *Replace ICT window (c System) view*, page 5-53 which provides you with instructions to replace the ICT module and enter the lot number and expiration date.
F4 - Scan	Allows you to request a scan of the reagent carousel(s) for a selected module for the assay(s) you selected.
F5 - Assay options	Displays an assay options window allowing you to select or enter assay-specific data for the assay(s) you selected.
F5 - Delete	Displays a message asking you to confirm that you want to delete the selected item(s).
F5 - Details	DIsplays the details window allowing you to view detailed information for the item(s) you selected.
F5 - Perform	Displays the Maintenance perform window or Diagnostic perform window for the selected procedure.
F5 - Print	Displays the Print options window allowing you to select the report you want to print.
F5 - Restore	Displays the Restore backup window allowing you to restore a system backup onto the system. This button is available only if your logon level is CSC or FSE
F5 - Start-up	Displays a message asking you to confirm that you want to start-up the system.
F6 - Assign location (*c* System)	Displays the assign location window allowing you to select a specific location for the reagent.
F6 - Configure	Displays the configuration window allowing you to configure the information for the selected item(s).
F6 - Delete	Displays a message asking you to confirm that you want to delete the selected item(s).
F6 - Rerun	Displays a rerun options window allowing you to schedule the selected tests to be rerun, the module on which you want to rerun them, and the dilutions for the assay.

	NOTE: You can not rerun a calibration.
F6 - Suspend	Displays a message asking you to confirm that you want to suspend the selected bay or section to access the sample you selected.
F6 - Stop	Displays a message asking you to confirm that you want to stop the selected module.
F6 - Transmit to host	Allows you to transmit the selected result(s) or exception(s) to the LIS. This button is unavailable until bidirectional host communication is configured to On or On with query.
F6 - Version	Displays the *Version details for procedure (maintenance) window*, page 9-12, or the *Version details for procedure (diagnostics) window*, page 10-627. This button is unavailable until you select a maintenance item from one of the categories.
F7 - Delete	Displays a message asking you to confirm that you want to delete the selected item(s).
F7 - Details	Displays the details window allowing you to view detailed information for the item(s) you selected.
F7 - Error ?	Displays help for the probable cause and corrective action for the error. Only one **ERROR CODE-MESSAGE TEXT** can be selected to view the probable cause and corrective action.
F7 - Pause	Displays a message asking you to confirm that you want to pause the selected module.
F7 - Review	Allows you to view and download assay disks, assay inserts, and *c* System calibrator value assignments for use on the ARCHITECT System when logged on as the System administrator.
F7 - Unload (*i*1000SR)	Allows you to manually unload a reagent kit from the reagent carousel. This button is unavailable until you select a reagent(s) to unload.
F8 - Archive	Displays the *Archive results window*, page 5-350 so that you can save the selected results or calibration curves to a CD. This button is unavailable until you select a result or calibration curve.
F8 - Cancel Unload (*i*1000SR)	Allows you to cancel an unload request when a reagent(s) is in the scheduled unload status.
F8 - Release	Releases the selected test results. **NOTE:** On the Sample status screen this button is not available if any of the selected items are exceptions (red text) or are already released (blue text).
F8 - Reset (*c* System)	Displays a message asking you to confirm that you want to reset the volume and onboard stability for the non-bar coded reagent kit you selected.

F8 - Run	Displays a message asking you to confirm that you want to initialize the selected module to running status.
F8 - Transmit to host	Allows you to transmit the selected result(s) or exception(s) to the host (LIS). **NOTE:** You can not transmit calibration exceptions to the host. This button is unavailable until bidirectional host communication is configured to On or On with query.
Fail Curve	Displays a message asking that you confirm you are failing the selected curve so that it can no longer be used to calculate results.
Flush ICT (*c* System)	Allows you to flush the ICT module with ICT Reference solution.
Formula tool 	Allows the system administrator to enter a formula when creating a calculated assay. Buttons on the formula tool provide the following functions: / = Divide * = Multiply + = Add - = Subtract  = Backspace  = Calculate square root exp = Perform an exponential calculation
Graph scroll buttons 	Allows you to scroll left and right one page at a time.
Graph view (*c* System)	Displays the reaction graph and absorbance data for QC and patient results.
Help 	Provides access to context-sensitive help for the active SCC screen, window, or error message.
Import (*c* System)	Initiates the process of importing an assay file.
Insert after	Allows you to insert an assay(s) after the selected assay in the Display order list.
Insert before	Allows you to insert an assay(s) before the selected assay in the Display order list.
L1	Corresponds to the processing module keypad L1 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
L2	Corresponds to the processing module keypad L2 key.

	When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
L3	Corresponds to the processing module keypad L3 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
L4	Corresponds to the processing module keypad L4 key. When you are instructed to select this button during a maintenance or diagnostic procedure, you can select either the screen button or the keypad button.
Left scroll arrow 	Allows you to move left one grid square at a time to select a procedure.
Line scroll down arrow 	Allows you to scroll down one line at a time.
Line scroll up arrow 	Allows you to scroll up one line at a time.
List 	Displays a list of items from which to choose. You can select one of the items from the list or press the Esc key on the keyboard to exit. This button is unavailable (gray background) if there are no items in a list.
Next 	Allows you to display the next item when you have selected more than one.
OK	Allows you to acknowledge a displayed message and displays the screen or window you were previously viewing.
Page scroll down 	Allows you to move the cursor down one page (view) at a time.
Page scroll up 	Allows you to move the cursor up one page (view) at a time.
Page scroll left 	Allows you to display additional columns to the left.
Page scroll right	Allows you to display additional columns to the right.

	
Point details scroll buttons 	Allows you to scroll left or right one point at a time.
Previous 	Allows you to display the previous item when you have selected more than one.
Previous curve data	Displays the calibration curve data for the previous inactive calibration.
Print	Allows you to print the results of the procedure you selected.
Proceed	Allows you to continue to the next step of the maintenance or diagnostic procedure.
Quit	Cancels your selection and displays the screen or window you were previously viewing.
Recalc (*c* System)	Allows you to recalculate results based on a new active calibration curve.
Refresh 	Allows you to refresh the screen to see any new items that may be available.
Replace (*c* System)	Allows you to access the appropriate ICT module component replacement procedure.
Rescale (*c* System)	Allows you to adjust the Y axis scale for the reaction graph based on the range provided.
<**Reset**	Allows you to move the selected assay(s) from the Display order list back to the Assay list.
<<**Reset all**	Allows you to move all assays from the Display order list back to the Assay list.
Results	Allows you to toggle from the Activity list to the Result list during maintenance and diagnostic procedures.
Review insert	Allows you to display the assay package insert for the specific reagent lot number.
Right arrow 	Allows you to move right one grid square at a time to select a procedure.
Save / Test	Displays the *Test connection window*, page 2-64, allowing you to test the connection for the selected port. When this button is selected for TCP/IP ports any entered data is verified and saved.
Save user	Saves the new user name information entered and clears the data from the screen allowing you to enter a new user.
Select all	Allows you to select all items in a list.

	This button toggles between Select all and Deselect all.
Select assays	Displays the *Select assay window*, page 2-146 allowing you to select one or more assays from the list.
Show Picture	Displays a picture which can be used as an aid in performing the maintenance procedure.
Show Video	Displays a video which can assist in performing the maintenance procedure.
Test	Displays the *Test connection window*, page 2-64, allowing you to test the connection for the selected port.
Unassign assay	Allows you to delete an assay assignment. When this button is selected the previously assigned assay is deleted from the System Assay/Number column and the status is changed to No Assay.
Unload (*c* System)	Notifies the system that the selected non-bar coded reagent kit is no longer in the selected position.
Update 	Allows you to update the screen to view data for the selected range.

Field descriptions

Field descriptions explain the kinds of information you can enter, select, or view.

Field description topics include:

Overview icon screens and windows

The Overview icon allows you to access the menu items Snapshot, Sample status, and Operations manual.

Overview icon screens and windows topics include:

Snapshot screen field descriptions

To see a description of the function bar buttons on this screen, see *Buttons*, page E-5.

Legend:

1. **Operator**:

   Displays the ID of the operator who is logged on.
2. **Date**:

   Displays the current system date.
3. **Time**:

   Displays the current system time.
4. **Sample handler graphic**:

   Displays the status of the sample handler graphic.

   The sample handler graphic is not displayed on an *i*2000SR LAS.
5. **Processing module graphic (*c* System):**

   Displays the module number in an integrated system and the current status of the module.
6. **Processing module graphic (*i* System)**:

   Displays the module number in a multi-module/integrated system and the current status of the module.
7. **Order status button**:

   Displays the number of tests currently processing for the module you selected.

   When you select the Order status button, the *Order status screen*, page 5-222 displays.
8. **Reagent status button**:

   Displays the total number of reagent kits on the module you selected. If you select the Reagent status button, the *Reagent status screens*, page 5-104 display. A

caution symbol displays if any kit has a status other than OK, Mixing (*i* System), or Overridden.

Once you resolve the problem(s), the caution symbol no longer displays.

9. **Calibration status button**:

   Displays the status of the calibration curves for the *c* System module.

   OK displays if all calibration curves for the onboard reagents have an Active, Overridden, or Overridden lot status.

   A caution symbol displays if any calibration curve for the onboard reagents is within 1 hour of expiration or has an Expired or Failed status. Once you resolve the problem(s), the caution symbol no longer displays.

10. **Supply status button (*c* System)**:

    Displays the status of bulk and onboard solutions and liquid waste for the processing module.

    If you select the Supply status button, the Supply status screen - *c* System view displays. See *Supply status screens*, page 5-40.

    For bulk and onboard solutions, OK displays if all liquids have an inventory volume equal to or greater than 20% (default) or the defined inventory low alert value when Premium features are activated.

    For bulk and onboard solutions, a caution symbol displays if liquid inventory is either empty or the volume is less than 20% (default) or the defined inventory low alert value when Premium features are activated.

    For onboard solutions in the sample carousel, OK displays if the sample carousel contains adequate volume.

    For onboard solutions in the sample carousel, a caution symbol displays if the sample carousel does not contain adequate volume.

    Once you replenish the solution(s), the caution symbol no longer displays.

    For liquid waste, OK displays until the waste is full. A caution symbol displays when the waste is full.

    Once you empty the waste, the caution symbol no longer displays.

11. **Supply status button (*i* System)**:

    Displays the status of bulk solutions, solid waste, and RVs (reaction vessels) for the processing module. If you select the Supply status button, the Supply status screen - *i* System view displays. See *Supply status screens*, page 5-40.

    For bulk solutions, OK displays if all liquids have an inventory volume equal to or greater than 20% (default) or the defined inventory low alert value when Premium features are activated.

    For bulk solutions, a caution symbol displays if liquid inventory is either empty or the volume is less than 20% (default) or the defined inventory low alert value when Premium features are activated.

    Once you replenish the solution, the caution symbol no longer displays.

    For solid waste, OK displays until the waste inventory is at 80%. A caution symbol displays when the waste is 80% or more.

Once you empty the waste, the caution symbol no longer displays.

For RVs, OK displays until inventory is at 20%. A caution symbol displays when inventory is below 20%.

Once you add RVs, the caution symbol no longer displays.

12. **Updates button**:

    Displays when one or more ARCHITECT System Software updates is available for installation. When you select the **Updates** button, the *Utilities screen - System updates view*, page 2-197 displays.

13. **Rerun status button**:

    Displays the number of tests waiting to be rerun. The tests may have been ordered manually or automatically. After the system software schedules the tests, the button no longer displays.

    When you select the Reruns status button, the *Rerun status screen*, page 5-331 displays.

14. **Exceptions status button**:

    Displays the number of exceptions for review.

    When you select the Exceptions status button, the *Exception status screen*, page 5-364 displays.

15. **Printer status button**:

    Displays only if a printer is available.

    When you select the Printer status button, the *Printer window*, page 5-415 displays.

    The Printer status button displays a caution symbol if an alert condition exists.

16. **LIS status button**:

    Displays only when the LIS (host) is enabled.

    When you select the LIS status button, the *LIS communication window*, page 5-418 displays. The number of messages pending transmission displays.

    The button displays a caution symbol when a communication problem exists.

17. **ARM status button**:

    Displays only when the system is configured with the ARCHITECT ARM (Automatic Reconstitution Module accessory).

    When you select the ARM status button, the *System logs screen*, page 10-9 displays.

    The button displays a caution symbol when a problem exists with the ARM.

18. **Abbott mail button:**

    Displays the number of downloads available when AbbottLink is installed and activated on the ARCHITECT System. When you select the Abbott mail button the *Abbott mail screen*, page 2-204 displays.

    The Abbott mail button displays a caution symbol when a problem exists with an AbbottLink download or connection. See observed problem, *Abbott mail button displays a caution icon*, page 10-584 for troubleshooting information.

19. **Sample find button**:

When you select the Sample find button the *Find options (Sample status) window*, page 5-239 displays.


The LAS button is not shown in the example above and displays only when the system is configured for the LAS sample handler. When you select the LAS status button, the *System logs screen*, page 10-9 displays. The button displays a caution symbol when a communication problem exists with the LAS.


The RSHx status button is not shown in the example above and displays only when the system is configured for the RSH Extension. When you select the RSHx status button, the Message history log displays. The button displays a caution symbol when the ACCELERATOR p540 status is not Module Initialization or Running.

Log on window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

User name Allows you to enter a user name of up to 12 alphanumeric characters. If your system is configured for password-controlled logon, a user name and password must be configured before password-controlled logon is used.

ADMIN is the system administrator default logon.

Password Displays if you type ADMIN or your system is configured for password-controlled logon.

NOTE: General operators are only required to enter a password when your system is configured for password-controlled logon.

LIS communication window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Host type Displays the type of host communication interface.

- Connection status - Displays the current connection status for the host communication interface.

- Queued messages - Displays the number of queued messages pending transmission to the host interface connection.
- Error message - Displays the last error message pertaining to the communication interface.

Secondary HL7 connection

Displays when the secondary HL7 connection is configured for use (typically used for a middleware connection).

- Connection status - Displays the current connection status for the secondary HL7 communication interface, if configured.
- Queued messages - Displays the number of queued messages pending transmission to the secondary HL7 connection, if configured.
- Error message - Displays the last error message pertaining to the secondary HL7 communication interface, if configured.

This field is not shown in the example provided.

Sample status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID and Name

Displays the sample ID, which can be one of the following:

- The bar code number or ID assigned to the patient sample
- The SID of the first sample in the batch
- The control name and level
- The calibrator name and level

Displays the name, which can be one of the following:

- The patient's name for patient orders
- The batch name for batch orders
- The control name and level for control orders
- The calibrator name and level for calibration orders

C / P and B / S

Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- Bay / section numbers (RSH)
- CRSL (*c* System sample carousel)

- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank.

ASSAY and CODES

- Assay - name of the test requested for processing
- Codes - up to four single character codes to indicate processing condition(s)

  See *Descriptions of processing codes*, page 5-225.

These display:

- Black if the test has a status of Pending, Scheduled, or Running
- Green if the test is completed but not released
- Blue if the test is completed and released
- Red if the test is an exception or has a flag

STATUS/RESULT

- Status - current status (Pending, Scheduled, or Running) of the test. See *Descriptions of test statuses*, page 5-224.
- Date and time (estimated time of completion)
- Result - value, unit, and (where applicable) interpretation of result
- Date and time (time of completion)
- Error code and message (where applicable)

  NOTE: If the error code and message cannot be displayed, Released will display in its place.

These display:

- Black if the test has a status of Pending, Scheduled, or Running
- Green if the test is completed but not released
- Blue if the test is completed and released
- Red if the test is an exception or has a flag

Find options (Sample status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.
PID	Allows you to enter the patient ID you want to search for. This field supports a wildcard (*) search.
Last name	Allows you to enter the last name of the patient you want to search for. This field supports a wildcard (*) search.
First name	Allows you to enter the first name of the patient you want to search for. This field supports a wildcard (*) search.
Date	Allows you to enter a date range you want to search on.
C	Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i*2000) This field supports a wildcard (*) search. This field is not displayed on an *i*2000SR LAS.
P	Allows you to enter the position number you want to search on. This field is not displayed on an *i*2000SR LAS.
Bay or Section	Allows you to enter the bay or section number you want to search for. (RSH)

Plan my day screen - Reagents view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Shift start time	The time when the Plan my day screen was accessed. It is used as the Start time of the evaluation period.
to	Allows you to enter an end time (00:00 - 23:59) for the evaluation period.

NOTE: The field is blank the first time that the screen is entered since the SCC power was cycled.

The configured end time remains the same until a new end time is entered and the update button is selected. If the defined end time is less than the start time, it is interpreted as the next day.

Category Allows you to select a category to display information and statuses appropriate for the user defined timeframe.

M Indicates the module specific to the information displayed.

P Displays the reagent supply center position of a specific R1 and R2 reagent for *c* System, or carousel position for *i* System reagents.

ASSAY Displays the name of the assay using the reagent kit.

REAGENT LOT Displays the lot number for the reagent kit.

REMAINING TESTS Displays the number of tests remaining in the reagent kit (also displays a R1/R2 estimate for *c* System only).

NOTE: When you load a new bar coded reagent and it is scanned, the system calculates the number of remaining tests in the cartridge using the maximum cartridge capacity instead of the actual fill volume. The remaining tests number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System only)

STABILITY Displays the number of hours remaining for stability tracking.

STATUS Displays the status of the reagent kits that may require operator intervention during the user defined timeframe. See *Descriptions of the Reagents view statuses*, page 5-31.

Plan my day screen - Calibrations view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Shift start time The time when the Plan my day screen was accessed. It is used as the Start time of the evaluation period.

to Allows you to enter an end time (00:00 - 23:59) for the evaluation period.

NOTE: The field is blank the first time that the screen is entered since the SCC power was cycled.

The configured end time remains the same until a new end time is entered and the update button is selected. If the defined end time is less than the start time, it is interpreted as the next day.

Category Allows you to select a category to display information and statuses appropriate for the user defined timeframe.

M Indicates the module specific to the information displayed.

ASSAY Displays the name of the assay using the calibration curve.

EXP DATE/TIME Displays the expiration date and time of the calibration.

NOTE: If an assay supports both Full and Adjust calibration curves, the full calibration date always appears first. (*c* System only)

P Displays the supply center position of a specific R1 and R2 reagent for *c* Systems, or carousel position for *i* System reagents.

REMAINING TESTS Displays the number of tests remaining in the reagent kit (also displays a R1/R2 estimate for *c* System only).

STATUS Displays the status of the calibration curves that may require operator intervention during the user defined timeframe. See *Descriptions of the Calibrations view statuses*, page 5-33.

Plan my day screen - Supplies view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Shift start time The time when the Plan my day screen was accessed. It is used as the Start time of the evaluation period.

to Allows you to enter an end time (00:00 - 23:59) for the evaluation period.

NOTE: The field is blank the first time that the screen is entered since the SCC power was cycled.

The configured end time remains the same until a new end time is entered and the update button is selected. If the defined end time is less than the start time, it is interpreted as the next day.

Category Allows you to select a category to display information and statuses appropriate for the user defined timeframe.

M	Indicates the module specific to the information displayed.
P	Applies to *c* Systems wash solution positions in the reagent carousel, sample carousel, or sample wash solution area. For *i* Systems, this field is blank.
SUPPLY	Displays the name of the system inventory item that may require operator intervention within the evaluation window.
EXP. DATE	Displays the expiration date of the trigger or pre-trigger. (*i* Systems only) Displays the expiration date and time of the ICT Module and bulk and on-board solutions, if configured. (*c* Systems only)
STATUS	Displays the status of the system inventory item that may require operator intervention during the user defined timeframe. See *Descriptions of the Supplies view statuses*, page 5-35.

Plan my day screen - QC view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Shift start time	The time when the Plan my day screen was accessed. It is used as the Start time of the evaluation period.
to	Allows you to enter an end time (00:00 - 23:59) for the evaluation period. **NOTE:** The field is blank the first time that the screen is entered since the SCC power was cycled. The configured end time remains the same until a new end time is entered and the update button is selected. If the defined end time is less than the start time, it is interpreted as the next day.
Category	Allows you to select a category to display information and statuses appropriate for the user defined timeframe.
M	Indicates the module specific to the information displayed.
ASSAY	Displays the name of the assay specific to the QC information.
CONTROL/LEVEL	Displays the control and level name for the QC material.
LOT NUMBER	Displays the lot number of the QC material.

REMAINING TESTS Displays the total number of tests remaining in the reagent kit(s) that the QC status is addressing.

P Displays the supply center position of a specific R1 and R2 reagent for *c* Systems, or carousel position for *i* System reagents.

STATUS Displays the status of the QC item that may require operator intervention during the user defined timeframe. See *Descriptions of the QC view statuses*, page 5-38.

Plan my day screen - Maintenance view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Shift start time The time when the Plan my day screen was accessed. It is used as the Start time of the evaluation period.

to Allows you to enter an end time (00:00 - 23:59) for the evaluation period.

NOTE: The field is blank the first time that the screen is entered since the SCC power was cycled.

The configured end time remains the same until a new end time is entered and the update button is selected. If the defined end time is less than the start time, it is interpreted as the next day.

Category Allows you to select a category to display information and statuses appropriate for the user defined timeframe.

M Indicates the module specific to the information displayed.

PROCEDURE Displays the maintenance procedure number and name of the maintenance item.

FREQUENCY Indicates the scheduled frequency of the maintenance item.

DUE DATE/TIME Displays the due date and time of the maintenance item.

The date and time displayed is dependant on the time the maintenance was performed last.

STATUS Displays the status of the maintenance item that may require operator intervention during the user defined timeframe. See *Descriptions of the Maintenance view statuses*, page 5-39.

Orders icon screens and windows

The Order icon allows you to access the menu items Order status, Patient order, Control order, and Calibration order.

Orders icon screens and windows topics include:

Patient order screen - Single patient view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type

Allows you to specify whether you want to create a single patient or batch order.

NOTE: Batch ordering is not available on the sample carousel (*c* System) or if your system is configured with an LAS (laboratory automation system).

Sampling priority

Allows you to indicate the priority of the sample on the *Order List Report*, page A-54. If you select the STAT option, an S code displays on the Order List report. You MUST priority load the samples with the S code to process these samples first.

C / P

Allows you to select the carrier or carousel button to specify whether to run the sample on the sample carrier or the sample carousel (*c* System).

This field is not displayed on an *i*2000SR LAS.

C

Displays when you select the carrier button. Allows you to enter the ID for the carrier or LAS carousel (*i*2000) in which you place the sample for processing. (Optional when using bar coded samples.)

This field is not displayed on an *i*2000SR LAS.

P

Allows you to enter the position for the sample carrier or carousel in which you place the sample for processing. (Optional when using bar coded samples).

SID

Allows you to enter the sample ID. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

IMPORTANT: Contact your host system vendor to verify that your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.

Panels (list)

Lists the panels available on the system. When you select a panel, all assays in that panel are selected.

NOTE: If you deselect an assay from the panel, the panel name is deselected.

Assays (list)

Lists the assays available on the system. You must select at least one assay before you can create an order using the F3 - Add order button.

Sample manual dilution factor: 1:

Allows you to specify a manual dilution factor for a sample.

The system uses the dilution factor to automatically calculate the sample concentration and report the result.

NOTE: The entry range that is allowed for a manual dilution factor is 2 - 9999.

Patient order screen - Batch (bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type

Allows you to specify whether you want to create a single patient or batch order.

NOTE: Batch ordering is not available on the sample carousel (*c* System) or if your system is configured with an LAS (laboratory automation system).

Starting SID

Allows you to enter the starting sample ID of the batch to be processed. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

IMPORTANT: Contact your host system vendor to verify your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.

Ending SID

Allows you to enter the ending sample ID of the batch to be processed. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

IMPORTANT: Contact your host system vendor to verify your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.

Panels (list)

Lists the panels available on the system. When you select a panel, all assays in that panel are selected.

NOTE: If you deselect an assay from the panel, the panel name is deselected.

Assays (list)

Lists the assays available on the system. You must select at least one assay before you can create an order using the F3 - Add order button.

Sample manual dilution factor: 1:

Allows you to specify a manual dilution factor for a sample.

The system uses the dilution factor to automatically calculate the sample concentration and report the result.

NOTE: The entry range that is allowed for a manual dilution factor is 2 - 9999.

Patient order screen - Batch (non-bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type
Allows you to specify whether you want to create a single patient or batch order.

NOTE: Batch ordering is not available on the sample carousel (*c* System) or if your system is configured with an LAS (laboratory automation system).

Starting C
Allows you to enter the starting carrier ID.

P
Allows you to enter the starting carrier position for the sample.

Starting SID
Allows you to enter the starting sample ID of the batch to be processed. You can enter up to nine numeric characters.

Number of samples
Allows you to enter the number of samples to be tested as part of this batch.

Sample manual dilution factor: 1:
Allows you to specify a manual dilution factor for a sample.

The system uses the dilution factor to automatically calculate the sample concentration and report the result.

NOTE: The entry range that is allowed for a manual dilution factor is 2 - 9999.

Panels (list)
Lists the panels available on the system. When you select a panel, all assays in that panel are selected.

NOTE: If you deselect an assay from the panel, the panel name is deselected.

Assays (list)
Lists the assays available on the system. You must select at least one assay before you can create an order using the F3 - Add order button.

Assay options (Patient order) window - Manual dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P
Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)

- LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank.

Assay Displays the name of the assay(s) you ordered.

SID Displays the sample ID.

Name Displays the patient's name if entered on the *Details for sample window*, page 5-205

Module selection (*i* System) Allows you to select a processing module other than the default module when you have a multi-module (*i* System). If you select Module, a check box displays for each processing module.

Module (*i* System) Displays a check box for each processing module if you select manual as the Module selection option.

Dilution protocols / number of replicates Allows you to enter the number of replicates for the specified manual dilution factor when you desire more than one replicate.

Assay options (Patient order) window - Automated dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank.

Assay Displays the name of the assay(s) you ordered.

SID Displays the sample ID.

Name Displays the patient's name if entered on the *Details for sample window*, page 5-205.

Module selection (*i* System)	Allows you to select a processing module other than the default module when you have a multi-module (*i* System). If you select Module, a check box displays for each processing module.
Module (*i* System)	Displays a check box for each processing module if you select manual as the Module selection option.
Dilution protocols / number of replicates	Allows you to select an automated dilution and number of replicates.

Details for sample window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample identification number that you entered on the *Patient order screens and views*, page 5-187.
PID	Allows you to enter a patient ID number. You can enter up to 20 alphanumeric characters. **NOTE:** When you enter a PID, enter only details that you know to be accurate. If you do not know the information, leave this field empty. Never edit information entered previously in a field. If you make edits, the software recognizes the PID as a different and unique patient.
Last name	Allows you to enter a patient's last name. You can enter up to 20 alphanumeric characters.
First name	Allows you to enter a patient's first name. You can enter up to 20 alphanumeric characters.
M.	Allows you to enter the patient's middle name. You can enter up to 12 alphanumeric characters.
Date of birth	Allows you to enter the month, year, and the day of the patient's birth. This information provides an age-specific reference range if you have configured the assay to provide reference ranges.
Gender	Allows you to select a gender. This information provides a gender-specific reference range if you have configured the assay to provide reference ranges.
Draw date	Allows you to enter the date the sample was drawn.

Time	Allows you to enter the time the sample was drawn.
Location	Allows you to enter the location associated with the patient. You can enter up to 20 alphanumeric characters.
Doctor	Allows you to enter the name of the patient's doctor. You can enter up to 20 alphanumeric characters.
Comment	Allows you to enter a comment for the sample. You can enter up to 50 characters.

Details for batch window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Batch name	Displays the name of the batch. The default name is BATCHXX:XX:XX, where XX:XX:XX represents a timestamp. The timestamp is based on when the patient order batch screen was entered, or the time after the previous order was added. The name can be edited to contain up to 20 alphanumeric characters. The name displays for all samples in the batch order.
Comment	Allows you to enter a comment for the samples in the batch. You can enter up to 50 characters. The comment displays for all samples in the batch order.

Control order screen - Single analyte view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type	Allows you to specify whether you want to create a single analyte or multiconstituent control order.
Sampling priority	Allows you to indicate the priority of the sample on the *Order List Report*, page A-54. If you select the STAT option, an S code prints on the Order List report. You MUST priority load the samples with the S code to process these samples first.
C / P	Allows you to select the carrier or carousel button to specify whether to run the sample on the sample carrier or the sample carousel (*c* System).

Starting C	Displays when you select the carrier button. Allows you to enter the starting ID for the carrier or LAS carousel (*i*2000) in which you place the first control for processing. **NOTE:** All control levels selected must fit on one carrier/carousel.
Starting P	Displays the position (P) in which you place the first control for processing. (Optional when using bar coded samples). **NOTE:** All control levels selected must fit on one carrier/carousel.
Assays (list)	Lists the assays available on the system. You must first select an assay to display the control level(s) and lot number(s) configured for that assay.
Sample manual dilution factor: 1:	Allows you to select a manual dilution for the sample. You must then enter the manual dilution factor. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 9999.
Lot (list)	Displays a list of control lots configured for the assay. The default lot displays when you select the assay. **NOTE:** If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
Levels	Required field that allows you to select user-configured control levels for the selected assay. You can select one or more levels to process. Based on the assay selected, up to six levels of controls are supported.

Control order screen - Single analyte view field descriptions (*i*2000SR LAS)

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type	Allows you to specify whether you want to create a single analyte or multiconstituent control order.
Sampling priority	Allows you to indicate the priority of the sample on the *Order List Report*, page A-54. If you select the STAT option, an S code prints on the Order List report. You MUST priority load the samples with the S code to process these samples first.

SID

Allows you to enter the sample ID. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

IMPORTANT: Contact your host system vendor to verify that your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.

Sample manual dilution factor: 1:

Allows you to select a manual dilution for the sample. You must then enter the manual dilution factor.

The system uses the dilution factor to automatically calculate the sample concentration and report the result.

NOTE: The entry range that is allowed for a manual dilution factor is 2 - 9999.

Assays (list)

Lists the assays available on the system. You must first select an assay to display the control level(s) and lot number(s) configured for that assay.

Lot (list)

Displays a list of control lots configured for the assay. The default lot displays when you select the assay.

NOTE: If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.

Levels

Required field that allows you to select user-configured control levels for the selected assay. You can select one or more levels to process. Based on the assay selected, up to six levels of controls are supported.

Control order screen - Multiconstituent view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type

Allows you to specify whether you want to create a single analyte or multiconstituent control order.

Sampling priority

Allows you to indicate the priority of the sample on the *Order List Report*, page A-54. If you select the STAT option, an S code displays on the Order List report. You MUST priority load the samples with the S code to process these samples first.

C / P	Allows you to select the carrier or carousel button to specify whether to run the sample on the sample carrier or the sample carousel (*c* System).
Starting C	Displays when you select the carrier button. Allows you to enter the starting ID for the carrier or LAS carousel (*i*2000) in which you place the first control for processing.
Starting P	Displays the position (P) in which you place the first control for processing.
SID (list):	Displays a list of the multiconstituent bar code sample IDs configured for the selected control lot and level.
Control (list)	Displays a list of the multiconstituent control names configured on the system.
Sample manual dilution factor: 1:	Allows you to select a manual dilution for the sample. You must then enter the manual dilution factor. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 9999.
Lot (list)	Displays a list of lot numbers configured for the control. The default lot displays when you select the control. **NOTE:** If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
Levels	Allows you to select the user-configured control levels for the control. Based on the control you select, up to three levels are supported.
Panels (list)	Lists the QC panels available on the system. When you select a panel, all assays in that panel are selected. **NOTE:** If you deselect an assay from the panel, the panel name is deselected.
Assays (list)	Lists the assays configured for the control level on the system. You must select at least one assay before you can create an order using the F2 - Add order button.

Control order screen - Multiconstituent view field descriptions (*i*2000SR LAS)

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Order type	Allows you to specify whether you want to create a single analyte or multiconstituent control order.
Sampling priority	Allows you to indicate the priority of the sample on the *Order List Report*, page A-54. If you select the STAT option, an S code displays on the Order List report. You MUST priority load the samples with the S code to process these samples first.
SID	Allows you to enter the sample ID. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>. **IMPORTANT:** Contact your host system vendor to verify that your host computer handles special characters (if used in sample IDs) as characters rather than functions. Some computers may interpret special characters as a line return, line feed, delimiter, or wildcard.
Sample manual dilution factor: 1:	Allows you to select a manual dilution for the sample. You must then enter the manual dilution factor. The system uses the dilution factor to automatically calculate the sample concentration and report the result. **NOTE:** The entry range that is allowed for a manual dilution factor is 2 - 9999.
Control (list)	Displays a list of the multiconstituent control names configured on the system.
Lot (list)	Displays a list of lot numbers configured for the control. The default lot displays when you select the control. **NOTE:** If your system is configured to track control lot expiration (premium feature), control lots displayed in red are either expired or are not configured with an expiration date. These lots can not be used for the control order.
Levels	Allows you to select the user-configured control levels for the control. Based on the control you select, up to three levels are supported.
Panels (list)	Lists the QC panels available on the system. When you select a panel, all assays in that panel are selected. **NOTE:** If you deselect an assay from the panel, the panel name is deselected.
Assays (list)	Lists the assays configured for the control level on the system. You must select at least one assay before you can create an order using the F2 - Add order button.

Assay options (Control order) window - Manual dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P

Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank

Assay

Displays the name of the assay(s) you ordered.

Control name

Displays the name of the control you selected on the Control order screen.

Control level

Displays the control level you selected on the Control order screen.

Control lot

Displays the control lot number you selected on the Control order screen.

Reagent selection

Allows you to select a processing module (multi-module *i* System) or reagent kit other than the default selection.

Auto

The processing module and reagent kit are selected by the system scheduler.

Select kit

When active, allows you to select a reagent kit other than the default selection. If selected, the kit selection list box displays the available reagent kits.

Module

Allows you to select a processing module other than the default module when you have a multi-module *i* System. If selected, a check box displays for each processing module.

Dilution protocols / number of replicates

Allows you to enter the number of replicates for the dilution when more than one replicate is desired.

Assay options (Control order) window - Automated dilution view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / **P**	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS carousel ID (C) and position (P) (*i*2000) **NOTE:** For pending orders when you have not manually assigned a carrier or carousel position, this field is blank
Assay	Displays the name of the assay(s) you ordered.
Control name	Displays the name of the control you selected on the Control order screen.
Control level	Displays the control level you selected on the Control order screen.
Control lot	Displays the control lot number you selected on the Control order screen.
Reagent selection	Allows you to select a processing module (multi-module *i* System) or reagent kit other than the default selection.
Auto	The processing module and reagent kit are selected by the system scheduler.
Select kit	When active, allows you to select a reagent kit other than the default selection. If selected, the kit selection list box displays the available reagent kits.
Module	Allows you to select a processing module other than the default module when you have a multi-module *i* System. If selected, a check box displays for each processing module.
Dilution protocols / **number of replicates**	Allows you to select an automated dilution and number of replicates.

Order status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / **P**	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank

SID Displays the sample ID, which can be one of the following:

- The bar code number or ID assigned to the patient sample
- The SID of the first sample in the batch
- The control name and level
- The calibrator name and level

NAME Displays the name, which can be one of the following:

- The patient's name for patient orders
- The batch name for batch orders
- The control name and level for control orders
- The calibrator name and level for calibration orders

ASSAY Displays the name of the test you ordered.

STATUS Displays the current status of the assay you ordered. See *Descriptions of test statuses*, page 5-224.

TIME Displays the time the order will complete (in 24 hour format). Time information displays for all samples with a status of Running.

CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Find options (Order status/Rerun status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module/integrated system to search on.

Name Allows you to enter the patient or control name you want to search for.

This field supports a wildcard (*) search.

SID Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters.

This field supports a wildcard (*) search.

C Allows you to enter one of the following:

- Carrier ID (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS for samples aspirated from the LAS track
- LAS carousel ID (*i*2000)

This field supports a wildcard (*) search.

This field is not displayed on an *i*2000SR LAS.

P Allows you to enter the position number you want to search on.

This field is not displayed on an *i*2000SR LAS.

Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)

PID Allows you to enter the patient ID you want to search for.

This field supports a wildcard (*) search.

Assay Allows you to search for a specific assay ordered.

This field supports a wildcard (*) search.

Time from / to Allows you to enter a time range you want to search for.

Details for order (Order status/Rerun status) window - Single order view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank

Bay / Section Displays the numbers of the bay / section in which the sample is located. (RSH)

SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient. (For patient samples only)
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay. (For calibration orders only)
Control lot	Displays the lot number of the control. (For control orders only)
Name	Displays the name, which can be one of the following: • The patient's name for patient orders • The batch name for batch orders • The control name and level for control orders • The calibrator name and level for calibration orders
Lot expiration	Displays the expiration date of the calibrator or control. (For calibration or control orders only)
Gender	Displays the gender of the patient. (For patient samples only)
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host. (For patient samples only)
Draw date/time	Displays the date and time the sample was drawn. (For patient samples only)
Assay	Displays the name of the assay you ordered.
Dilution	Displays the dilution requested for the assay.
Assay number	Displays the number defined for the assay.
Status	Displays the status of the order. See *Descriptions of test statuses*, page 5-224.
Codes	Displays the codes that indicate processing conditions. See *Descriptions of processing codes*, page 5-225.

Reagent lot	Displays the reagent lot once the test has been scheduled or assigned to a reagent. If the select kit option was used (for calibration or control orders only), the reagent lot will be displayed after the order is added.
Reagent S/N	Displays the reagent serial number once the test has been scheduled or assigned to a reagent. If the select kit option was used (for calibration or control orders only), the reagent serial number will be displayed after the order is added.
Time to completion	Displays the time and date the test will complete.
Operator ID	Displays the ID of the operator logged on when the test was ordered.
Location	Displays the location associated with the patient.
Doctor	Displays the name of the patient's doctor.
Reference assay	Displays the photometric reference assay. (For sample interference index assays only - *c* System)
Comment	Allows you to enter a comment for the order. You can enter up to 50 characters.

Details for order (Order status) window - Batch (bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Starting C / P	Displays the starting carrier (C) and position (P) for the first sample in the batch.
Starting SID	Displays the sample ID of the first sample in the batch.
Ending SID	Displays the sample ID of the last sample in the batch.
Name	Displays the name of the batch.
Samples scanned	Displays the number of samples in the batch order scanned by the sample handler.
Assay info (table)	Displays the assay(s) and dilution(s) ordered for the batch. • Assay • Dilution

Status	Displays the status of the batch order. See *Descriptions of test statuses*, page 5-224.
Operator ID	Displays the ID of the operator logged on when the test was ordered.
Comment	Allows you to enter a comment for the batch. You can enter up to 50 characters. **NOTE:** If the status is Pending, the comment is applied to all orders within the batch. If the status is In Process, a comment cannot be entered for batch orders and must be entered for each individual sample. If you entered a comment on the *Details for batch window*, page 5-206, the comment displays here.

Details for order (Order status) window - Batch (non-bar coded) view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Starting C / P	Displays the starting carrier (C) and position (P) for the first sample in the batch.
Starting SID	Displays the sample ID of the first sample in the batch.
Number of samples	Displays the number of samples to be processed in the batch.
Name	Displays the name of the batch.
Samples scanned	Displays the number of samples in the batch order scanned by the sample handler.
Assay info (table)	Displays the assay(s) and dilution(s) ordered for the batch. • Assay • Dilution
Status	Displays the status of the batch order. See *Descriptions of test statuses*, page 5-224.
Operator ID	Displays the ID that of the operator logged on when the test was ordered.
Comment	Allows you to enter a comment for the batch. You can enter up to 50 characters.

NOTE: If the status is Pending, the comment is applied to all orders within the batch. If the status is In Process, a comment cannot be entered for batch orders and must be entered for each individual sample.

If you entered a comment on the *Details for batch window*, page 5-206, the comment displays here.

Calibration order screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Allows you to specify whether to run the sample on the sample carrier or the sample carousel (*c* System).

NOTE: This field is not displayed on an *i*2000SR LAS.

Starting C Displays when you select the carrier button. Allows you to enter the starting ID for the carrier or LAS carousel (*i*2000) in which you place the first control for processing.

This field is not displayed on an *i*2000SR LAS.

NOTE: The system automatically increments the correct number of positions required for the calibration for up to five consecutive carriers.

Starting P Displays the starting carousel position (P) in which the calibrator will be placed for processing.

NOTE: This field is not displayed on an *i*2000SR LAS.

Panels (list) Lists calibration panels available on the system. When a panel is selected, all assays in that panel are selected except for calculated assays.

NOTE: If you deselect an assay from the panel, the panel name is deselected.

Assays (list) Lists the assays installed on the system. If you select the carousel button, only *c* System assays display.

If your system is configured to track calibration lot and lot expiration (premium feature), installed assays are listed with the default calibration lot number. Assays display in red when the calibration lot number is missing. Assays and the calibration lot display in red when the calibration lot is expired.

Assay options (Calibration order) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay to be processed.

Calibrator name Displays the name of the calibrator set used to calibrate the assay.

Lot (list) Allows you to enter a calibrator lot (*i* System).

NOTE: If your system is configured to track calibration lot and lot expiration (premium feature), a lot number must be entered to order the calibration.

Displays the default calibrator lot number and allows you to select an alternate lot if more than one is configured (*c* System).

Expiration date Allows you to enter the calibrator expiration date (*i* System).

NOTE: If your system is configured to track calibration lot and lot expiration (premium feature), an expiration date must be entered to order the calibration.

Displays the expiration date configured for the selected lot (*c* System).

Calibration type Displays the calibration type for the assay selected. (*i* System)

Allows you to select the calibration type if configured for the assay. (*c* System)

Number of levels Displays the number of levels defined for the assay.

Reagent selection Allows you to select a processing module (multi-module *i* System) or reagent kit other than the default selection.

Auto The processing module and reagent kit are selected by the system scheduler.

Select kit When active, allows you to select a reagent kit other than the default selection. If selected, the kit selection list box displays the available reagent kits.

Module Allows you to select a processing module other than the default module when you have a multi-module *i* System. If selected, a check box displays for each processing module.

Results icon screens and windows

The Results icon allows you to access the menu items Results review and Stored results.

Results icon screens and windows topics include:

- *Results review screen field descriptions*, page E-46
- *Find options (Results review) window field descriptions*, page E-47

Results review screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P

Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

SID

Displays the sample ID.

NAME

Displays the name of the patient.

ASSAY Displays the name of the assay.

RESULT Displays the value, unit, and (where applicable) interpretation of the result.

FLAG Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Find options (Results review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.

Name Allows you to enter the patient or control name you want to search for.

This field supports a wildcard (*) search.

C Allows you to enter one of the following:

- Carrier ID (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS for samples aspirated from the LAS track
- LAS carousel ID (*i*2000)

This field supports a wildcard (*) search.

This field is not displayed on an *i*2000SR LAS.

P Allows you to enter the position number you want to search on.

This field is not displayed on an *i*2000SR LAS.

Bay or Section Allows you to enter the bay or section number you want to search for. (RSH)

SID Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters.

This field supports a wildcard (*) search

PID Allows you to enter the patient ID you want to search for.

This field supports a wildcard (*) search.

Assay	Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Reagent lot	Allows you to search by the reagent lot number. This field supports a wildcard (*) search.
Results with option	Allows you to search for results with flags or interpretations.
Date from / to	Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Time from / to	Allows you to enter a time range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Operator ID	Allows you to search for the operator ID logged on to the system at the time the order was placed. This field supports a wildcard (*) search.

Details for result (Results review) window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and system serial number.
Name	Displays the name of the patient or batch.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.

PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the assay that was processed.
Constituent assays (table)	Displays the names, results, and flags for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags
Assay number	Displays the number defined for the assay.
Result	Displays the value, unit, and (where applicable) interpretation of the result.
Normal range	Displays the normal / therapeutic range of the assay.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed processing
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the result was generated.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Location	Displays the location associated with the patient.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for result (Results review) window - Data view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)

Module / Serial No. Displays the module number and serial number of the module on which the assay was run.

Name Displays the name of the patient or batch.

Gender Displays the gender of the patient.

SID Displays the sample ID.

Date of birth Displays the date of birth for the patient.

PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.

Bay / Section Displays the bay / section in which you loaded the sample. (RSH)

Assay Displays the assay that was processed.

Assay number Displays the number defined for the assay.

Result Displays the value, unit, and (where applicable) interpretation of the result.

Absorbance Displays the response value used in calculating the result.

- mV (ICT only)
- absorbance (photometric assays only)

NOTE: This field does not display for sample interference index assays.

Normal range Displays the normal / therapeutic range of the assay.

Cuvette Displays the number of the cuvette used to process results.

Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed processing
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the result was generated.
Reagent lot	Displays the reagent lot used to process the sample and generate the result.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Location	Displays the location associated with the patient.
Time of cal	Displays the date and time the reagent lot calibration was completed.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for result (Results review) window - Photometric - graph view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel)

- LAS (laboratory automation system)

Module / Serial No. Displays the module number and serial number of the module on which the assay was run.

Name Displays the name of the patient or batch.

Gender Displays the gender of the patient.

SID Displays the sample ID.

Date of birth Displays the date of birth for the patient.

PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.

Bay / Section Displays the bay / section in which you loaded the sample. (RSH)

POINT (table) Displays the read points and absorbance readings.

- Point - Displays the read points 1 through 33.
- Primary - Displays the absorbance readings for each read point at the primary wavelength.
- Secondary - Displays the absorbance readings for each read point at the secondary wavelength.
- PRIM - SEC - Displays the difference of the primary wavelength minus the secondary wavelength absorbance.

NOTE: If no absorbance data is available, no information displays in this table.

Wavelength Displays the wavelength and reaction type.

Graph Indicates the type of absorbance data that displays on the graph.

Y axis scale Allows you to specify the absorbance axis range to view on the graph. When you edit these fields, the Rescale button becomes available.

Assay Displays the name of the assay that was processed.

Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

Result Displays the value, unit, and (where applicable) interpretation of the result.

Cuvette Displays the number of the cuvette used to process results.

Details for result (Results review) window - Sample interference index view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)

Module / Serial No.: Displays the module number and serial number of the module on which the assay was run.

Name Displays the name of the patient or batch.

Gender Displays the gender of the patient.

SID Displays the sample ID.

Date of birth Displays the date of birth for the patient.

PID Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.

Bay / Section Displays the bay / section in which you loaded the sample. (RSH)

Assay Displays the assay that was processed.

Assay number Displays the number defined for the assay.

Result Displays the value, unit, and (where applicable) interpretation of the result.

Normal range Displays the normal range configured for the assay.

Cuvette Displays the number of the cuvette used to process results.

Dilution Displays the dilution used for this test.

Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed processing
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the result was generated.
Reagent lot	Displays the reagent lot used to process the sample and generate the result.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Location	Displays the location associated with the patient.
Reference assay	Displays the photometric reference assay.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for result (Results review) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and serial number of the module on which the assay was run.
Name	Displays the name of the patient or batch.

Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the assay that was processed.
Assay number	Displays the number defined for the assay.
Result	Displays the value, unit, and (where applicable) interpretation of the result.
RLU	Displays the response value in RLUs (relative light units) used to calculate the result.
Normal range	Displays the normal range configured for the assay.
Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed processing
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the result was generated.
Reagent lot	Displays the reagent lot used to process the sample and generate the result.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.

Location	Displays the location associated with the patient.
Time of cal	Displays the date and time the reagent lot calibration was completed.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Rerun options (patient tests) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Allows you to select the carrier or carousel button to specify whether to rerun the sample on the sample carrier or the sample carousel (*c* System). This field is not displayed on an *i*2000SR LAS.
C	Allows you to enter the RSH/SSH carrier ID or *i*2000 LAS carousel ID (C) in which the sample will be rerun. The default carrier or carousel ID and position are the same location as the original order. **NOTE:** If the original order did not have a carrier or carousel ID (C) and position (P) manually assigned, these fields are blank.
P	Allows you to enter the position (P) in which you place the sample for rerun.
SID	Displays the identifier for the sample or control being rerun.
Assay	Displays the name of the assay to be used for rerun.
Name	Displays the name of the patient or control.
Result	Displays the value, unit, and (where applicable) interpretation of the result.
Module selection (*i* System)	Allows you to select a processing module other than the default module when you have a multi-module *i* System. If you select Manual, a check box displays for each processing module. Selecting multiple modules results in processing being performed on each module.
Module (*i* System)	Displays a check box for each processing module if you select manual as the Module selection option.

Dilution protocols / number of replicates	Displays the dilution at which the original order was run. Allows you to select an automated dilution and number of replicates. If the original order was a manual dilution, only Number of replicates is available. The rerun must use the original manual dilution. To use a different dilution protocol, you must generate a new order. If the original order was undiluted or an automated dilution, you can select a dilution protocol and replicates.

Stored results screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
SID	Displays the sample ID.
NAME	Displays the name of the patient.
ASSAY	Displays the name of the assay.
RESULT	Displays the value, unit, and (where applicable) interpretation of the stored result.
FLAG	Displays the flags associated with the stored result. See *Descriptions of patient result flags*, page 5-299.
CODE	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Find options (Stored results) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module in a multi-module system to search on.
Name	Allows you to enter the patient or control name you want to search for. This field supports a wildcard (*) search.
C	Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i*2000) This field supports a wildcard (*) search. This field is not displayed on an *i*2000SR LAS.
P	Allows you to enter the position number you want to search on. This field is not displayed on an *i*2000SR LAS.
Bay or Section	Allows you to enter the bay or section number you want to search for. (RSH)
SID	Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.
PID	Allows you to enter the patient ID you want to search for. This field supports a wildcard (*) search.
Assay	Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Reagent lot	Allows you to search by the reagent lot number. This field supports a wildcard (*) search.
Results with option	Allows you to search for results with flags or interpretations.
Date from / to	Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Time from / to	Allows you to enter a time range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.

Operator ID	Allows you to search for the operator ID logged on to the system at the time the order was placed. This field supports a wildcard (*) search.
Status	Allows you to search by result status. See *Descriptions of test statuses*, page 5-224.

Details for result (Stored results) window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and system serial number.
Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that was processed.
Constituent assays (table)	Displays the following information for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result

- Flags

Assay number	Displays the number defined for the assay.
Result	Displays the value, unit, and (where applicable) interpretation of the result.
Normal range	Displays the normal / therapeutic range for the assay.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer). • Pending collation - Results have been selected for release to the host and, depending on the collation option setting: – all results associated with the SID have not completed or have not been selected for release. OR – all results associated with the SID on a particular processing module have not completed or have not been selected for release.
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the test completed.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Location	Displays the location associated with the patient.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Displays the comment entered for the result.

Details for result (Stored results) window - Data view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P

Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)

Module / Serial No.

Displays the module number and the serial number on which the assay was run.

Name

Displays the name of the patient.

Gender

Displays the gender of the patient.

SID

Displays the sample ID.

Date of birth

Displays the date of birth for the patient.

PID

Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.

Bay / Section

Displays the bay / section in which you loaded the sample. (RSH)

Assay

Displays the name of the assay that was processed.

Assay number

Displays the number defined for the assay.

Result

Displays the value, unit, and (where applicable) interpretation of the result.

Absorbance

Displays the response value used in calculating the result.

- mV (ICT only)
- absorbance (photometric assays only)

NOTE: This field does not display for sample interference index assays.

Normal range

Displays the normal / therapeutic range for the assay.

Cuvette

Displays the number of the cuvette used to process results.

Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer). • Pending collation - Results have been selected for release to the host and, depending on the collation option setting: – all results associated with the SID have not completed or have not been selected for release. OR – all results associated with the SID on a particular processing module have not completed or have not been selected for release.
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the test completed.
Reagent lot	Displays the master lot number of the reagent used to process the sample and generate the result.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Location	Displays the location associated with the patient.
Time of cal	Displays the date and time the reagent lot calibration was calibrated.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Displays the comment entered for the result.

Details for result (Stored results) window - Photometric - graph view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P

Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)

Module / Serial No.

Displays the module number and the serial number on which the assay was run.

Name

Displays the name of the patient.

Gender

Displays the gender of the patient.

SID

Displays the sample ID.

Date of birth

Displays the date of birth for the patient.

PID

Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.

Bay / Section

Displays the bay / section in which you loaded the sample. (RSH)

POINT (table)

Displays the following information.

- Point - Displays the read points 1 through 33.
- Primary - Displays the absorbance readings for each read point at the primary wavelength.
- Secondary - Displays the absorbance readings for each read point at the secondary wavelength.
- PRIM - SEC - Displays the difference of the primary wavelength minus the secondary wavelength absorbance.

NOTE: If no absorbance data is available, no information displays in this table.

Wavelength

Displays the wavelength and reaction type.

Graph

Indicates the type of absorbance data that displays on the graph.

Y axis scale	Allows you to specify the absorbance axis range to view on the graph. When you edit these fields, the Rescale button becomes available.
Assay	Displays the name of the assay that processed.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Result	Displays the value, unit, and (where applicable) interpretation of the result.
Cuvette	Displays the number of the cuvette used to process results.

Details for result (Stored results) window - Sample interference index view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.

Result	Displays the value, unit, and (where applicable) interpretation of the result.
Normal range	Displays the normal / therapeutic range for the assay.
Cuvette	Displays the number of the cuvette used to process results.
Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer). • Pending collation - Results have been selected for release to the host and, depending on the collation option setting: – all results associated with the SID have not completed or have not been selected for release. OR – all results associated with the SID on a particular processing module have not completed or have not been selected for release.
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the test completed.
Reagent lot	Displays the master lot number of the reagent used to process the sample and generate the result.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Location	Displays the location associated with the patient.
Reference assay	Displays the photometric reference assay.

Draw date / time	Displays the date and time the sample was drawn.
Comment	Displays the comment entered for the result.

Details for result (Stored results) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID if entered on the *Details for sample window*, page 5-205 or sent by the host.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Result	Displays the value, unit, and (where applicable) interpretation of the result.
RLU	Displays the response value in RLUs (relative light units) used to calculate the result.
Normal range	Displays the normal / therapeutic range for the assay.
Dilution	Displays the dilution used for this test.

Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer). • Pending collation - Results have been selected for release to the host and, depending on the collation option setting: – all results associated with the SID have not completed or have not been selected for release. OR – all results associated with the SID on a particular processing module have not completed or have not been selected for release.
Time completed	Displays the date and time the result was completed.
Operator ID	Displays the ID of the operator logged on when the test completed.
Reagent lot	Displays the master lot number of the reagent used to process the sample and generate the result.
Released by	Displays the ID of the operator logged on when the result was released.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Location	Displays the location associated with the patient.
Time of cal	Displays the date and time the reagent lot calibration was completed.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Displays the comment entered for the result.

Archive results window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays the step-by-step instructions you must perform.

Archive name Displays the name the system uses to archive the file. You cannot change the name. The naming convention displays in the format xxxxx\yyyyyyyy.Pzz, where:

- xxxxx represents the ARCHITECT System number
- yyyyyyyy represents that day's date
- Pzz represents the archive number

The patient archive identifier (.Pzz) starts at 01 and increments for each patient archive created on each new day.

Number of results selected Displays the number of results you selected for the archive from the *Stored results screen*, page 5-336.

Space required Displays the approximate amount of space needed on the CD to perform the archive.

Space available Displays the amount of space available on the CD currently in the CD drive. If the correct CD is not recognized, an information message displays in this field. See *Descriptions of archive messages*, page 5-343.

Delete records after archive Allows you to delete the result records after you archive them.

Default: Delete records after archive.

QC-Cal icon screens and windows

The QC-Cal icon allows you to access the menu items QC result review, QC summary, Levey-Jennings graph, Calibration status, Calibration history, Stored QC results, and QC reports.

QC-Cal icon screens and windows topics include:

- *QC result review screen field descriptions*, page E-69
- *Find options (QC result review) window field descriptions*, page E-70
- *Details for QC result (QC result review) window - Data view (c System) field descriptions*, page E-71
- *Details for QC result (QC result review) window - Photometric - graph view (c System) field descriptions*, page E-73
- *Details for QC result (QC result review) window (i System) field descriptions*, page E-74
- *Details for QC result (QC result review) window - Calculated view field descriptions*, page E-76

QC result review screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the number of the module that processed the control.

NOTE: Calculated assay results are assigned to module 5.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

SID Displays the sample ID.

CONTROL NAME Displays the name of the control that processed.

LEVEL Displays the level of the control that was processed.

ASSAY Displays the name of the assay.

RESULT Displays the value and units of the result.

FLAG Displays the flags associated with the result. See *Descriptions of quality control result flags*, page 5-318.

Find options (QC result review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.

Control name Allows you to enter the control name you want to search for.

This field supports a wildcard (*) search.

Control lot Allows you to enter the lot number of the control you want to search for.

This field supports a wildcard (*) search.

SID Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters.

This field supports a wildcard (*) search.

C

Allows you to enter one of the following:

- Carrier ID (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS for samples aspirated from the LAS track
- LAS carousel ID (*i*2000)

This field supports a wildcard (*) search.

This field is not displayed on an *i*2000SR LAS.

P

Allows you to enter the position (P) number you want to search on.

This field is not displayed on an *i*2000SR LAS.

Bay or Section

Allows you to enter the bay or section number you want to search for. (RSH)

Assay

Allows you to search for a specific assay ordered.

This field supports a wildcard (*) search.

Reagent lot

Allows you to search by the reagent lot number.

This field supports a wildcard (*) search.

Results with option

Allows you to search for results with flags.

Date from / to

Allows you to enter a date range you want to search for.

NOTE: Do not enter multiple dates when searching for a specific time interval.

Time from / to

Allows you to enter a time range you want to search for.

NOTE: Do not enter multiple dates when searching for a specific time interval.

Operator ID

Allows you to search for the operator ID logged on to the system at the time the order was placed.

This field supports a wildcard (*) search.

Details for QC result (QC result review) window - Data view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample ID.
C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Control name	Displays the name of the control.
Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the level that was run for the control.
Cuvette	Displays the number of the cuvette used to process results.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Result	Displays the value and unit of the result.
Absorbance	Displays the response value used in calculating the result. • mV (ICT only) • absorbance (photometric assays only) **NOTE:** This field does not display for sample interference index assays.
Control range	Displays the control range configured when you created the control during QC configuration. If a control range is not configured, the control range displayed is calculated based on the configured expected mean and 1SD.
Dilution	Displays the dilution value used for this control.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows:

- Complete - Results have completed.

Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Time completed	Displays the date and time the control was processed.
Operator ID	Displays the ID of the operator logged on when the control completed.
Time of cal	Displays the date and time the reagent lot calibration was completed.
Released by	Displays the ID of the operator logged on when the result was released.
Reagent lot	Displays the reagent lot used to process the control and generate the result.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for QC result (QC result review) window - Photometric - graph view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample ID.
C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Control name	Displays the name of the control.
Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the level that was run for the control.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)

POINT (table) Displays the following information.

- Point - Displays the read points 1 through 33.
- Primary - Displays the absorbance readings for each read point at the primary wavelength.
- Secondary - Displays the absorbance readings for each read point at the secondary wavelength.
- PRIM - SEC - Displays the difference of the primary wavelength minus the secondary wavelength absorbance.

NOTE: If no absorbance data is available, no information displays in this table.

Wavelength Displays the wavelength and reaction type.

Graph Indicates the type of absorbance data that displays on the graph.

Y axis scale Allows you to specify the absorbance axis range to view on the graph. When you edit these fields, the Rescale button becomes available.

Assay Displays the name of the assay that processed.

Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

Result Displays the value and unit of the result.

Cuvette Displays the number of the cuvette used to process results.

Details for QC result (QC result review) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID Displays the sample ID.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

Control name Displays the name of the control.

Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the level that was run for the control.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Result	Displays the value and unit of the result.
RLU	Displays the response value in RLUs (relative light units) used to calculate the result.
Control range	Displays the control range configured when you created the control during QC configuration. If a control range is not configured, the control range displayed is calculated based on the configured expected mean and 1SD.
Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed processing
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Time completed	Displays the date and time the control was processed.
Operator ID	Displays the ID of the operator logged on when the control completed.
Time of cal	Displays the date and time the reagent lot calibration was completed.
Released by	Displays the ID of the operator logged on when the result was released.
Reagent lot	Displays the reagent lot used to process the control and generate the result.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.

Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for QC result (QC result review) window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample ID.
C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Control name	Displays the name of the control.
Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the level that was run for the control.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Constituent assays (table)	Displays the following information for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags
Assay number	Displays the number defined for the assay.
Result	Displays the value and unit of the result.

Control range	Displays the control range configured when you created the control during QC configuration. If a control range is not configured, the control range displayed is calculated based on the configured expected mean and 1SD.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed processing
Time completed	Displays the date and time the control was processed.
Operator ID	Displays the ID of the operator logged on when the control completed.
Released by	Displays the ID of the operator logged on when the result was released.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Rerun options (QC tests) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Allows you to select the carrier or carousel button to specify whether to rerun the sample on the sample carrier or the sample carousel (*c* System).
C	Allows you to enter the RSH/SSH carrier ID or *i*2000 LAS carousel ID (C) in which the sample will be rerun. The default carrier or carousel ID and position are the same location as the original order. **NOTE:** If the original order did not have a carrier or carousel ID (C) and position (P) manually assigned, these fields are blank.
P	Allows you to enter the position (P) in which the sample will be placed for rerun.
Control name	Displays the name of the control.
Assay	Displays the name of the assay you requested for the control.
Control level	Displays the name of the level for the control.

Result	Displays the value and unit of the result.
Control lot	Displays the lot number for the control.
Reagent selection	Allows you to select a processing module (multi-module *i* System) or reagent kit other than the default selection.
Auto	The processing module and reagent kit are selected by the system scheduler.
Select kit	When active, allows you to select a reagent kit other than the default selection. If selected, the kit selection list box displays the available reagent kits.
Module	Allows you to select a processing module other than the default module when you have a multi-module *i* System. If selected, a check box displays for each processing module. Tests are processed on the module(s) you select.
Dilution protocols / number of replicates	Displays the dilution at which the original order was run. Allows you to select an automated dilution and number of replicates. If the original order was a manual dilution, only Number of replicates is available. The rerun must use the original manual dilution. To use a different dilution protocol, you must generate a new order.

Levey-Jennings graph screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay.
Control lot	Displays the lot number for the control.
Comparison type	Displays the source of the mean used to compare to the expected mean.
Control	Displays the name of the control selected.
Exp. date	Displays the expiration date of the control lot selected.
Module	Displays the number of the module used to process the control(s).
Status	Displays the current status of the assay on the selected module.
Statistics (fields)	Displays the following statistical data elements related to a specific level of control:

- Level
- N
- Mean
- SD
- Control range
- Comparison mean
- Visible data range

See *Levey-Jennings graph statistical data elements*, page 5-386.

Date range Displays the date range used for the calculation.

Time completed Displays the date and time for the selected point on the graph.

Value Displays the value of the selected point on the graph.

QC selection window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a processing module other than the default module.

NOTE: Calculated assay results are assigned to module 5.

Date range for calculations / to Allows you to enter the date range of the data to display.

Comparison type Allows you to select the source of the mean used to compare to the expected control mean.

Options are:

- None
- Manufacturers
- Module cumulative
- System cumulative

Assay (list) Allows you to select one assay to include in the Levey-Jennings graph.

Control name (list) Allows you to select one control name to include in the Levey-Jennings graph.

Control lot (list)	Allows you to select one control lot to include in the Levey-Jennings graph. The system uses the configured default lot number if you do not make another selection.
Control level	Allows you to select one or more levels to include in the Levey-Jennings graph.

Point detail window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Point value	Displays the value and units of the control point selected.
Point SD	Displays the point value's standard deviation from the mean.
Mean	Displays the expected mean of the control data selected.
1 SD	Displays the +/- 1 standard deviation of the control data selected.
2 SD	Displays the +/- 2 standard deviation of the control data selected.
3 SD	Displays the +/- 3 standard deviation of the control data selected.
Time completed	Displays the date and time the control result completed.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Operator ID	Displays the ID of the operator logged on when the control completed and is updated when it is released.
Reagent lot	Displays the reagent lot used to process the control and generate the result.
Reagent S / N	Displays the reagent serial number used to process the control and generate the result.
Module / Position	Displays the module and position of the reagent used to process the control and generate the result.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Include / Exclude	Allows you to include the point again or exclude it.

NOTE: You must enter a comment before the point is included again or excluded.

Westgard re-evaluation Allows you to re-evaluate a selected control result after including or excluding the point.

Comment Allows you to enter a comment for the control point. You can enter up to 50 characters.

Calibration status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the module on which the calibration was ordered and processed for the reagent lot.

ASSAY Displays the name of the assay.

REAGENT LOT Displays the lot number of the reagent.

CAL DATE / TIME Displays the date and time of the last calibration.

CAL STATUS Displays the calibration status for the reagent lot. See *Calibration statuses*, page 6-19.

EXP DATE / TIME Displays the date and time the calibration curve expires. (*c* System)

Find options (Calibration status and Calibration history) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module on which you want to search.

Assay Allows you to search by assay name.

This field supports a wildcard (*) search.

Reagent lot Allows you to search by reagent lot number.

This field supports a wildcard (*) search.

Curves with an expiration less than	Allows you to enter an expiration time interval from 1-24 hours for a *c* System calibration curve(s).
Status	Allows you to search by calibration *Descriptions of calibration statuses*, page 6-18.

Calibration curve window - Linear assay view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay that was processed.
Assay number	Displays the number defined for the assay.
Reagent lot	Displays the lot number of the reagent kit used to calibrate the assay.
Reagent S / N	Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date	Displays the expiration date of the reagent lot number used for calibration.
Calibration status	Displays the current *Descriptions of calibration statuses*, page 6-18 of the assay.
Cal date / time	Displays the date and time the calibration completed.
Cal method	Displays the mathematical procedure used to analyze the data.
Calibration type	Displays the calibration type for this assay.
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay.
Expiration date	Displays the expiration date of the calibrator lot used to calibrate the assay.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Operator ID	Displays the ID of the operator logged on when the calibration was performed.
Error code	Displays the calibration error code and message text, if any.
Curve expiration date / time	Displays the expiration date and time for the full and adjust (assay specific) calibration curve. If the curve is expired, the date/time displays in red.

Override curve expiration date	Allows you to override the calibration curve expiration date if the calibration expiration override is configured On.
CAL ID	Displays the name of the calibrator.
CONC / UNITS	Displays the concentration value for each level of calibrator defined in the assay parameters. The calibrator concentration has 4 decimal places. **NOTE:** If the sample volume of the highest calibrator is not equal to the standard sample volume, concentration values in the Calibration curve screen will not reflect the dilution factor. An assay-specific dilution factor is generated internally and sample results are accurately calculated.
CAL / ABSORBANCE	Displays the median absorbance value for the calibrator level.
CAL FACTOR	Displays the calibration factor for the calibration level(s).
REP 1	Displays the absorbance value or mV value for replicate 1.
REP 2	Displays the absorbance value or mV value for replicate 2.
REP 3	Displays the absorbance value or mV value for replicate 3.

Calibration curve window - Use cal factor / blank assay view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay that was processed.
Assay number	Displays the number defined for the assay.
Reagent lot	Displays the lot number of the reagent kit used to calibrate the assay.
Reagent S / N	Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date	Displays the expiration date of the reagent lot number used for calibration.
Calibration status	Displays the current calibration *Descriptions of calibration statuses*, page 6-18 of the assay.
Cal date / time	Displays the date and time the calibration completed.

Cal method	Displays the mathematical procedure used to analyze the data.
Calibration type	Displays the calibration type for this assay.
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay.
Expiration date	Displays the expiration date of the calibrator lot used to calibrate the assay.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Operator ID	Displays the ID of the operator logged on when the last calibration was performed.
Error code	Displays the calibration error code and message text, if any.
Curve expiration date / time	Displays the expiration date and time for the full and adjust (assay specific) calibration curve. If the curve is expired, the date and time displays in red.
Reference assay	Displays the name of the assay from which the calibration data is referenced when the calibration method is Use Cal factor/Blank.
CAL ID	Displays the name of the calibrator.
CONC / UNITS	Displays the concentration value for each level of calibrator defined in the assay parameters. The calibrator concentration has 4 decimal places.
CAL / ABSORBANCE	Displays the median absorbance value for the calibrator level.
CAL FACTOR	Displays the calibration factor for the calibration level(s).
REP 1	Displays the absorbance value or mV value for replicate 1.
REP 2	Displays the absorbance value or mV value for replicate 2.
REP 3	Displays the absorbance value or mV value for replicate 3.

Calibration curve window - Potentiometric assay view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay that was processed.
Assay number	Displays the number defined for the assay.

Reagent lot	Displays the lot number of the reagent kit used to calibrate the assay.
Reagent S / N	Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date	Displays the expiration date of the reagent lot number used for calibration.
Calibration status	Displays the current *Descriptions of calibration statuses*, page 6-18 of the assay.
Cal date / time	Displays the date and time the calibration completed.
Calibration type	Displays the calibration type for this assay.
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay.
Expiration date	Displays the expiration date of the calibrator lot used to calibrate the assay.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Operator ID	Displays the ID of the operator logged on when the last calibration was performed.
Error code	Displays the calibration error code and message text, if any.
Curve expiration date / time	Displays the expiration date and time for the calibration curve. If the curve is expired, the date and time displays in red.
Override curve expiration date	Allows you to override the calibration curve expiration date if the calibration expiration override is configured On.
CAL ID	Displays the name of the calibrator.
CONC / UNITS	Displays the concentration value for each level of calibrator defined in the assay parameters. The calibrator concentration has 4 decimal places.
CAL / mV	Displays the median millivolt value for each calibrator level.
CAL / SLOPE	Displays the percent response of the ICT (integrated chip technology) module for the low and high calibrators.
REP 1	Displays the absorbance value or mV value for replicate 1.
REP 2	Displays the absorbance value or mV value for replicate 2.
REP 3	Displays the absorbance value or mV value for replicate 3.

Calibration curve window - Adjust assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay that was processed.
Assay number	Displays the number defined for the assay.
Reagent lot	Displays the lot number of the reagent kit used to calibrate the assay.
Reagent S / N	Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date	Displays the expiration date of the reagent lot number used for calibration.
Calibration status	Displays the current calibration *Descriptions of calibration statuses*, page 6-18 of the assay.
Cal date / time	Displays the date and time the calibration completed.
Cal method	Displays the mathematical procedure used to analyze the data. If Cal method is reference, calibration information is from the reference assay.
Calibration type	Displays the calibration type for this assay.
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay.
Expiration date	Displays the expiration date of the calibrator lot used to calibrate the assay.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Operator ID	Displays the ID of the operator logged on when the last calibration was performed.
Reference assay	Displays the name of the assay from which the calibration data is referenced when the calibration method is Reference. This field is not shown in the example provided.
Error code	Displays the calibration error code and message text, if any.
Curve expiration date/ time	Displays the expiration date and time for the calibration curve. If the curve is expired, the date/time displays in red. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

This field is not shown in this example.

Override curve expiration date — Allows you to override the calibration expiration date if the calibration interval is defined and the calibration expiration override is configured On.

This field is not shown in this example.

Cal 1 ratio — Displays the calibration 1 adjustment ratio.

Cal 2 ratio — Displays the calibration 2 adjustment ratio.

CAL ID — Displays the name of the calibrator.

MEAN RLU — Displays the mean of the calibrator replicates RLU (relative light units).

REP 1 RLU — Displays the RLU value for replicate 1.

REP 2 RLU — Displays the RLU value for replicate 2.

CONC / UNITS — Displays the concentration value for each level of calibrator defined in the assay parameters.

NOTE: The displayed concentration is the default unit.

REF CAL RLU — Displays the reference (master cal) data read from the 2-D reagent bar code label on the microparticle bottle.

FIT CURVE RLU — Displays the fit curve RLU data for each calibrator.

Calibration curve window - Index assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay — Displays the name of the assay that was processed.

Assay number — Displays the number defined for the assay.

Reagent lot — Displays the lot number of the reagent kit used to calibrate the assay.

Reagent S / N — Displays the serial number of the reagent used to obtain the calibration curve.

Expiration date — Displays the expiration date of the reagent lot number used for calibration.

Calibration status	Displays the current calibration *Descriptions of calibration statuses*, page 6-18 of the assay.
Cal date / time	Displays the date and time the calibration completed.
Cal method	Displays the mathematical procedure used to analyze the data. If Cal method is reference, calibration information is from the reference assay.
Calibration type	Displays the calibration type for this assay.
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay.
Expiration date	Displays the expiration date of the calibrator lot used to calibrate the assay.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Operator ID	Displays the ID of the operator logged on when the last calibration was performed.
Reference assay	Displays the name of the assay from which the calibration data is referenced when the calibration method is Reference. This field is not shown in the example provided.
Error code	Displays the calibration error code and message text, if any.
Curve expiration date/ time	Displays the expiration date and time for the calibration curve. If the curve is expired, the date/time displays in red. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information. This field is not shown in this example.
Override curve expiration date	Allows you to override the calibration expiration date if the calibration interval is defined and the calibration expiration override is configured On. This field is not shown in this example.
CAL ID	Displays the name of the calibrator.
MEAN RLU	Displays the mean of the calibrator replicates RLU (relative light units).
REP 1 RLU	Displays the RLU value for replicate 1.
REP 2 RLU	Displays the RLU value for replicate 2.
REP 3 RLU	Displays the RLU value for replicate 3.

Calibration curve window - Full assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay that was processed.
Assay number	Displays the number defined for the assay.
Reagent lot	Displays the lot number of the reagent kit used to calibrate the assay.
Reagent S / N	Displays the serial number of the reagent used to obtain the calibration curve.
Expiration date	Displays the expiration date of the reagent lot number used for calibration.
Calibration status	Displays the current calibration *Descriptions of calibration statuses*, page 6-18 of the assay.
Cal date / time	Displays the date and time the calibration completed.
Cal method	Displays the mathematical procedure used to analyze the data. If Cal method is reference, calibration information is from the reference assay.
Calibration type	Displays the calibration type for this assay.
Calibrator lot	Displays the lot number of the calibrator used to calibrate the assay.
Expiration date	Displays the expiration date of the calibrator lot used to calibrate the assay.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Operator ID	Displays the ID of the operator logged on when the last calibration was performed.
Reference assay	Displays the name of the assay from which the calibration data is referenced when the calibration method is Reference. This field is not shown in the example provided.
Error code	Displays the calibration error code and message text, if any.
Curve expiration date/ time	Displays the expiration date and time for the calibration curve. If the curve is expired, the date/time displays in red. This is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information.

This field is not shown in this example.

Override curve expiration date Allows you to override the calibration expiration date if the calibration interval is defined and the calibration expiration override is configured On.

This field is not shown in this example.

CAL ID Displays the name of the calibrator.

CONC / UNITS Displays the concentration value for each level of calibrator defined in the assay parameters.

NOTE: The displayed concentration is the default unit.

FIT CURVE RLU Displays the fit curve RLU (relative light units) data for each calibrator.

MEAN RLU Displays the mean of the calibrator replicates.

REP 1 RLU Displays the RLU value for replicate 1.

REP 2 RLU Displays the RLU value for replicate 2.

Calibration history screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the module on which the calibration was ordered and processed for the reagent lot.

ASSAY Displays the name of the assay.

REAGENT LOT Displays the lot number of the reagent.

CAL DATE / TIME Displays the date and time of the last calibration.

CAL STATUS Displays the calibration status for the reagent lot. See *Calibration statuses*, page 6-19.

EXP DATE / TIME Displays the date and time the calibration curve expires (*c* System).

Archive calibration curves window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays the step-by-step instructions you must perform.

Archive name Displays the name the system uses to archive the file. You cannot change the name. The naming convention displays in the format xxxxx\yyyyyyyy.Czz, where:

- xxxxx represents the ARCHITECT System number
- yyyyyyyy represents that day's date
- Czz represents the archive number

The calibration curve archive identifier (.Czz) starts at 01 and increments for each calibration curve archive created on each new day.

Number of results selected Displays the number of results you selected for the archive from the *Calibration history screen*, page 6-26.

Space required Displays the approximate amount of space needed on the CD to perform the archive.

Space available Displays the amount of space available on the CD currently in the CD drive. If the correct CD is not recognized, an information message displays in this field. See *Descriptions of archive messages*, page 5-343.

Delete inactive curves after archive Allows you to delete calibration curves with a status of Inactive or No Cal after you archive them.

Default: Delete inactive curves after archive.

Stored QC results screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M Displays the number of the module that processed the control.

NOTE: Calculated assay results are assigned to module 5.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)

- LAS carousel ID (C) and position (P) (*i*2000)

SID Displays the sample ID.

CONTROL NAME Displays the name of the control that processed.

LEVEL Displays the level of the control that processed.

ASSAY Displays the name of the assay.

RESULT Displays the value and units of the stored result.

FLAG Displays the flags associated with the result. See *Descriptions of quality control result flags*, page 5-318.

Find options (Stored QC results) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module in a multi-module system to search on.

Control name Allows you to enter the control name you want to search for.

This field supports a wildcard (*****) search.

C Allows you to enter one of the following:

- Carrier ID (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS for samples aspirated from the LAS track
- LAS carousel ID (*i*2000)

This field supports a wildcard (*****) search.

This field is not displayed on an *i*2000SR LAS.

P Allows you to enter the position (P) number you want to search on.

This field is not displayed on an *i*2000SR LAS.

SID Allows you to enter the sample ID. You can enter up to 20 alphanumeric characters.

This field supports a wildcard (*****) search.

Bay or Section	Allows you to enter the bay or section number you want to search for. (RSH)
Control lot	Allows you to enter the lot number of the control you want to search for. This field supports a wildcard (*) search.
Assay	Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Reagent lot	Allows you to search by the reagent lot number. This field supports a wildcard (*) search.
Results with option	Allows you to search for results with flags.
Date from / to	Allows you to enter a date range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Time from / to	Allows you to enter a time range you want to search for. **NOTE:** Do not enter multiple dates when searching for a specific time interval.
Operator ID	Allows you to search for the operator ID logged on to the system at the time the control order was placed. This field supports a wildcard (*) search.
Status	Allows you to search by result status. See *Descriptions of test statuses*, page 5-224.

Details for QC result (Stored QC results) window - Data view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample ID.
C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Control name	Displays the name of the control.

Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the name of the level for the control result.
Cuvette	Displays the number of the cuvette used to process results.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Result	Displays the value and units of the control result.
Absorbance	Displays the response value used in calculating the result. • mV (ICT only) • absorbance (photometric assays only) **NOTE:** This field does not display for sample interference index assays.
Control range	Displays the control range configured when you created the control during QC configuration. If a control range is not configured, the control range displayed is calculated based on the configured expected mean and 1SD.
Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer).
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Time completed	Displays the date and time the control completed.

Operator ID	Displays the ID of the operator logged on when the last calibration was performed.
Time of cal	Displays the date and time the reagent lot calibration was completed.
Released by	Displays the ID of the operator logged on when the result was released.
Reagent lot	Displays the reagent lot used to process the control and generate the result.
Reagent S / N	Displays the serial number of the reagent used to obtain the QC result.
Comment	Displays the comment entered for the QC result.

Details for QC result (Stored QC results) window - Photometric - graph view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample ID.
C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Control name	Displays the name of the control.
Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the name of the level for the control result.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
POINT (table)	**NOTE:** If no absorbance data is available, no information displays in this table. • POINT - Displays the read points 1 through 33. • PRIMARY- Displays the absorbance readings for each read point at the primary wavelength.

- SECONDARY - Displays the absorbance readings for each read point at the secondary wavelength.
- PRIM - SEC - Displays the difference of the primary wavelength minus the secondary wavelength absorbance.

Wavelength Displays the wavelength and reaction type.

Graph Indicates the type of absorbance data that displays on the graph.

Y axis scale Allows you to specify the absorbance axis range to view on the graph. When you edit these fields, the Rescale button becomes available.

Assay Displays the name of the assay that processed.

Flags Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.

Result Displays the value and units of the control result.

Cuvette Displays the number of the cuvette used to process results.

Details for QC result (Stored QC results) window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID Displays the sample ID.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

Control name Displays the name of the control.

Lot expiration Displays the expiration date of the control lot number.

Control level Displays the name of the level for the control result.

Control lot Displays the lot number for the control.

Bay / Section Displays the bay / section in which you loaded the sample. (RSH)

Assay	Displays the name of the assay that was processed.
Assay number	Displays the number defined for the assay.
Result	Displays the value and units of the control result.
RLU	Displays the response value in RLUs (relative light units) used to calculate the result.
Control range	Displays the control range configured when you created the control during QC configuration. If a control range is not configured, the control range displayed is calculated based on the configured expected mean and 1SD.
Dilution	Displays the dilution used for this test.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer).
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Time completed	Displays the date and time the control was processed.
Operator ID	Displays the ID of the operator logged on when the control completed.
Time of cal	Displays the date and time the reagent lot calibration completed.
Released by	Displays the ID of the operator logged on when the result was released.
Reagent lot	Displays the reagent lot used to process the control and generate the result.
Reagent S / N	Displays the serial number of the reagent used to obtain the result.
Comment	Displays the comment entered for the QC result.

Details for QC result (Stored QC results) window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

SID	Displays the sample ID.
C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Control name	Displays the name of the control.
Lot expiration	Displays the expiration date of the control lot number.
Control level	Displays the level that was run for the control.
Module / Serial No.	Displays the module number and the serial number on which the assay was run.
Control lot	Displays the lot number for the control.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Constituent assays (table)	Displays the following information for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags
Assay number	Displays the number defined for the assay.
Result	Displays the value and unit of the result.

Control range	Displays the control range configured when you created the control during QC configuration. If a control range is not configured, the control range displayed is calculated based on the configured expected mean and 1SD.
Flags	Displays the flags associated with the result. See *Descriptions of patient result flags*, page 5-299.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Status	Displays the status of the result as follows: • Complete - Results have completed and are not pending transmission to the host (when connected to a host computer). • Pending transmission - Results have completed and are pending transmission to the host (when connected to a host computer).
Time completed	Displays the date and time the control was processed.
Operator ID	Displays the ID of the operator logged on when the control completed.
Released by	Displays the ID of the operator logged on when the result was released.
Comment	Displays the comment entered for the QC result.

Archive QC results window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box)	Displays the step-by-step instructions you must perform.
Archive name	Displays the name the system uses to archive the file. You cannot change the name. The naming convention displays in the format xxxxx\yyyyyyyy.Qzz, where: • xxxxx represents the ARCHITECT System number • yyyyyyyy represents that day's date • Qzz represents the archive number The QC archive identifier (.Qzz) starts at 01 and increments for each QC archive created on each new day.
Number of results selected	Displays the number of results you selected for the archive from the *Stored results screen*, page 5-336.

Space required	Displays the approximate amount of space needed on the CD to perform the archive.
Space available	Displays the amount of space available on the CD currently in the CD drive. If the correct CD is not recognized, an information message displays in this field. See *Descriptions of archive messages*, page 5-343.
Delete records after archive	Allows you to delete the result records after you archive them. Default: Delete records after archive.

QC reports screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select a processing module to be used for the report. **NOTE:** Calculated assay results are assigned to module 5.
Date from / to	Allows you to enter the date range to be used for the report.
Controls	Allows you to select the control(s) to include in the report.

QC summary review screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Date range	Displays the date range used for the calculation.
M	Displays the number of the module that processed the control. **NOTE:** Calculated assay results are assigned to module 5.
Assay	Displays the name of the assay.
CONTROL NAME/LOT	Displays the name and lot number of the control.
Level	Displays the name of the control level.
N	Displays the number of control points within the specified date range.

ACTUAL MEAN	Displays the calculated mean of the QC data.
ACTUAL SD	Displays the calculated standard deviation of the QC data.
% CV	Displays the calculated percent coefficient of variation of the QC data.
EXPECTED MEAN	Displays the expected mean configured for the control level.
EXPECTED SD	Displays the expected standard deviation configured for the control level.

Find options (QC summary review) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control name	Allows you to enter the control name you want to search for. This field supports a wildcard (*) search.
Control lot	Allows you to enter the lot number of the control you want to search for. This field supports a wildcard (*) search.
Level	Allows you to search for a specific control.
SID	Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search.
Assay	Allows you to search for a specific assay ordered. This field supports a wildcard (*) search.
Results with	Allows you to search for results with Flags.

Details for QC summary window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay	Displays the name of the assay.
Control lot	Displays the lot number of the control.

Control name	Displays the name of the control.
Control level	Displays the name of the control level.
Date range	Displays the date range entered for the QC summary.
Module/Serial No.	Displays the module number and the serial number on which the assay was run.
Expected	Displays the expected mean and standard deviation configured.
Manufacturer	Displays the manufacturer's mean and standard deviation configured.
Actual data for date range	Displays the data calculated for the specified module and date range.
System data for date range	Displays the data calculated for the specified date range for all processing modules in a multi-module *i* System. This data is the same as the actual data for date range for other system configurations.
Module cumulative	Displays the cumulative data calculated for the specified module.
System cumulative	Displays the cumulative data calculated for all processing modules in a multi-module *i* System. This data is the same as the module cumulative data for other system configurations.

Exceptions icon screens and windows

The Exceptions icon allows you to access the menu items Exception status, Stored exceptions, and Rerun status.

Exceptions icon screens and windows topics include:

- *Rerun status screen field descriptions*, page E-114
- *Stored exceptions screen field descriptions*, page E-115

Exception status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P

Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

SID

Displays the sample ID, which can be one of the following:

- The bar code number or ID assigned to the patient sample
- The control name and level for control orders
- The calibrator name and level for calibration orders

NAME

Displays the name or PID, which can be one of the following:

- The patient's name for patient samples
- The control name and level for control orders
- The calibrator name and level for calibration orders

ASSAY

Displays the name of the assay requested for processing.

M

Displays the number of the module that generated the exception. This field is blank when the test cannot be assigned to or processed on a module.

NOTE: Calculated assay results are assigned to module 5.

ERROR CODE

Displays the numeric error code for the exception and the error code text that describes the error that occurred.

Find options (Exception status/Stored exceptions) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module in a multi-module system to search on.
Name	Allows you to enter the patient, control, or calibrator name you want to search for. This field supports a wildcard (*) search.
C	Allows you to enter one of the following: • Carrier ID (RSH/SSH) • CRSL (*c* System sample carousel) • LAS for samples aspirated from the LAS track • LAS carousel ID (*i*2000) This field supports a wildcard (*) search. This field is not displayed on an *i*2000SR LAS.
P	Allows you to enter the position number you want to search on. This field is not displayed on an *i*2000SR LAS.
Bay or Section	Allows you to enter the bay or section number you want to search for. (RSH)
SID	Allows you to enter the sample ID you want to search for. You can enter up to 20 alphanumeric characters. This field supports a wildcard (*) search
Assay	Allows you to search for a specific assay. This field supports a wildcard (*) search.
Error code	Allows you to enter the error code you want to search for.
Status	Allows you to search by the following statuses: • Pending transmission • Pending collation See *Descriptions of test statuses*, page 5-224.

Details for exceptions window - Data view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Module / Serial No.	Displays the module number and the serial number of the module that processed the exception.
Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host. (For patient samples only)
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Dilution	Displays the dilution used for the test.
Absorbance	Displays the response value used in calculating the result. • mV (ICT only) • absorbance (photometric assays only) **NOTE:** This field does not display for sample interference index assays.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Cuvette	Displays the number of the cuvette used to process the exception. **NOTE:** The cuvette number does not display if the test was not dispensed.
Error code	Displays the exception error code number and text.
Time completed	Displays the date and time the test exception occurred.

Operator ID	Displays the ID of the operator logged on when the exception was generated.
Reagent lot	Displays the reagent lot used to process the test and generate the exception.
Transmitted by	Displays the ID of the operator logged on when the exception was transmitted.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used when the exception occurred.
Location	Displays the location associated with the patient.
Time of cal	Displays the date and time the reagent lot calibration completed.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for exceptions window - Photometric - graph view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system)
Module / Serial No.	Displays the module number and the serial number of the module that processed the exception.
Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the patient ID.

Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
POINT (table)	**NOTE:** If no absorbance data is available, no information displays in this table. Displays the following information: • Point - Displays the read points 1 through 33. • Primary - Displays the absorbance readings for each read point at the primary wavelength. • Secondary - Displays the absorbance readings for each read point at the secondary wavelength. • PRIM - SEC - Displays the difference of the primary wavelength minus the secondary wavelength absorbance.
Wavelength	Displays the wavelength and reaction type.
Graph	Indicates the type of absorbance data that displays on the graph.
Y axis scale	Allows you to specify the absorbance axis range to view on the graph. When you edit these fields, the Rescale button becomes available.
Assay	Displays the name of the assay that processed.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Cuvette	Displays the number of the cuvette used to process the exception. **NOTE:** The cuvette number does not display if the test was not dispensed.

Details for exceptions window (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and the serial number of the module that processed the exception.

Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host. (For patient samples only)
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Dilution	Displays the dilution used for the test.
RLU	Displays the response value in RLUs (relative light units) used to calculate the result.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Error code	Displays the exception error code number and text.
Time completed	Displays the date and time the test was ordered.
Operator ID	Displays the ID of the operator logged on when the exception was generated.
Reagent lot	Displays the reagent lot used to process the test and generate the exception
Transmitted by	Displays the ID of the operator logged on when the exception was transmitted.
Doctor	Displays the name of the patient's doctor.
Reagent S / N	Displays the serial number of the reagent used when the exception occurred.
Location	Displays the location associated with the patient.
Time of cal	Displays the date and time the reagent lot calibration completed.
Draw date / time	Displays the date and time the sample was drawn.

Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for exceptions window - Calculated view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and the system serial number.
Name	Displays the name of the patient.
Gender	Displays the gender of the patient.
SID	Displays the sample ID.
Date of birth	Displays the date of birth for the patient.
PID	Displays the assigned patient ID, if entered on the *Details for sample window*, page 5-205 or sent by the host. (For patient samples only)
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Constituent assays (table)	Displays the following for the constituent assays used to determine the calculated result. • Module (M) • Assay • Result • Flags
Assay	Displays the name of the assay that processed.

Assay number	Displays the number defined for the assay.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Error code	Displays the exception error code number and text.
Time completed	Displays the date and time the test exception occurred.
Operator ID	Displays the ID of the operator logged on when the exception was generated.
Transmitted by	Displays the ID of the operator logged on when the exception was transmitted.
Doctor	Displays the name of the patient's doctor.
Location	Displays the location associated with the patient.
Draw date / time	Displays the date and time the sample was drawn.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for exceptions window - Control view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS (laboratory automation system) • LAS carousel ID (C) and position (P) (*i*2000)
Module / Serial No.	Displays the module number and the serial number of the module that processed the exception.
Name	Displays the name of the patient.
Lot	Displays the control lot run.
SID	Displays the sample ID.

Level	Displays the name of the control level.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Dilution	Displays the dilution used for the test.
RLU	Displays the response value used in calculating the result: • RLU (*i* System) • Absorbance (photometric) • mV - (ICT) **NOTE:** This field does not display for sample interference index assays.
Codes	Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.
Error code	Displays the exception error code number and text.
Time completed	Displays the date and time the test exception occurred.
Operator ID	Displays the ID of the operator logged on when the exception was generated.
Reagent lot	Displays the reagent lot used to process the control and generate the exception
Transmitted by	Displays the ID of the operator logged on when the exception was transmitted.
Doctor	This field is blank for control exceptions.
Reagent S / N	Displays the serial number of the reagent used when the exception occurred.
Location	This field is blank for control exceptions.
Time of cal	Displays the date and time the reagent lot calibration completed.
Draw date / time	This field is blank for control exceptions.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for exceptions window - Calculated control view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

Module / Serial No. Displays the module number and the system serial number that processed the exception.

Name Displays the name of the patient.

Lot Displays the control lot run.

SID Displays the sample ID.

Level Displays the name of the control level.

Bay / Section Displays the bay / section in which you loaded the sample. (RSH)

Constituent assays (table) Displays the following for the constituent assays used to determine the calculated result.

- Module (M)
- Assay
- Result
- Flags

Assay Displays the name of the assay that processed.

Assay number Displays the number defined for the assay.

Codes Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Error code Displays the exception error code number and text.

Time completed	Displays the date and time the test exception occurred.
Operator ID	Displays the ID of the operator logged on when the exception was generated.
Transmitted by	Displays the ID of the operator logged on when the exception was transmitted.
Comment	Allows you to enter a comment for the result. You can enter up to 50 characters.

Details for exceptions window - Calibrator view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P	Displays one of the following sample locations: • Carrier ID (C) and position (P) (RSH/SSH) • CRSL (*c* System sample carousel) • LAS carousel ID (C) and position (P) (*i*2000) • LAS (laboratory automation system)
Module / Serial No.	Displays the module number and the serial number of the module that processed the exception.
Name	Displays the name and level of the calibrator.
Lot	This field is blank for calibrator exceptions.
SID	Displays the sample ID.
Type	Displays the type of calibration run.
Bay / Section	Displays the bay / section in which you loaded the sample. (RSH)
Assay	Displays the name of the assay that processed.
Assay number	Displays the number defined for the assay.
Dilution	Displays the dilution used for the test.
RLU	Displays the response value used in calculating the result: • RLU (*i* System)

- Absorbance (photometric)
- mV - (ICT)

NOTE: This field does not display for sample interference index assays.

Codes Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Error code Displays the exception error code number and text.

Time completed Displays the date and time the test exception occurred.

Operator ID Displays the ID of the operator logged on when the exception was generated.

Transmitted by Calibrations are not transmitted to the host. This field will be left blank.

Reagent lot Displays the reagent lot used to process the test and generate the exception

Reagent S / N Displays the serial number of the reagent used when the exception occurred.

Time of cal Displays the date and time the reagent lot calibration was completed.

Comment Allows you to enter a comment for the result. You can enter up to approximately 50 characters.

Rerun status screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

NOTE: For pending orders when you have not manually assigned a carrier or carousel position, this field is blank

SID Displays the sample ID, which can be one of the following:

- The bar code number or ID assigned to the patient sample

- The control name and level for control orders

NAME Displays the name or PID, which can be one of the following:

- The patient's name for patient samples
- The control name and level for control orders

ASSAY Displays the name of the assay.

STATUS Displays the current status of the assay you ordered. See *Descriptions of test statuses*, page 5-224.

TIME Displays the time the order will complete (in 24 hour format). Time information displays for all samples with a status of Running.

CODE Displays up to four single character codes to indicate a processing condition(s). See *Descriptions of processing codes*, page 5-225.

Stored exceptions screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

C / P Displays one of the following sample locations:

- Carrier ID (C) and position (P) (RSH/SSH)
- CRSL (*c* System sample carousel)
- LAS (laboratory automation system)
- LAS carousel ID (C) and position (P) (*i*2000)

SID Displays the sample ID, which can be one of the following:

- The bar code number or ID assigned to the patient sample
- The control name and level for control orders

NAME Displays the name or PID, which can be one of the following:

- The patient's name for patient samples
- The control name and level for control orders

ASSAY Displays the name of the assay requested for processing.

M	Displays the number of the module that generated the exception. This field is blank when the test cannot be assigned to or processed on a module. **NOTE:** Calculated assay results are assigned to module 5.
ERROR CODE	Displays the numeric error code for the exception and the error code text that describes the error that occurred.

Reagents icon screens and windows

The Reagents icon allows you to access the menu items Reagent status and Reagent history.

Reagents icon screens and windows topics include:

Reagent status screen - *c*4000 field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select an individual module or all modules to view reagent status information.
R1, R2 carousel graphic	Displays the Reagent supply center segments and positions. Positions may be colored as follows: • White - No reagent is loaded in the position • Teal - Reagent with an OK status loaded in the position • Gold - Reagent with a Low Alert or Overridden status loaded in the position

- Red - Reagent with an error condition that requires your attention loaded in the position

R1, R2 Displays the reagent supply center position of a specific R1 and R2 reagent.

ASSAY Displays the name of the assay using the reagent kit.

CAL STATUS Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-18.

REMAINING TESTS Displays an estimated number of tests remaining in the reagent kit.

For reagents kits with two cartridges, the number reflects the lowest value of the two. The estimated number of tests reflects the reagent volume that has not been committed to an order and is calculated as:

(Physical reagent volume) - (Committed reagent volume)

The physical reagent volume is updated when the probe aspirates reagent (liquid level sense).

The committed reagent volume is the allocation to scheduled tests which have not been aspirated.

NOTE: When you load a new bar coded reagent and it is scanned, the system calculates the number of remaining tests in the cartridge using the maximum cartridge capacity instead of the actual fill volume. The remaining tests number updates when the system aspirates the reagent and a liquid level sense occurs.

REAGENT STATUS Displays the status of the reagent kit. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

For statuses other than OK, Overridden, and Low Alert text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the Reagent status button on the processing module graphic on the *Snapshot screen*, page 1-22. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

Reagent status screen - *c*8000/*c*16000 field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select an individual module or all modules to view reagent status information.

R1 carousel graphic Displays the R1 supply center segments and positions. Positions may be colored as follows:

- White - No reagent is loaded in the position
- Teal - Reagent with an OK status loaded in the position
- Gold - Reagent with a Low Alert or Overridden status loaded in the position
- Red - Reagent with an error condition that requires your attention loaded in the position

R2 carousel graphic Displays the R2 supply center segments and positions. Positions may be colored as follows:

- White - No reagent is loaded in the position
- Teal - Reagent with an OK status loaded in the position
- Gold - Reagent with a Low Alert or Overridden status loaded in the position
- Red - Reagent with an error condition that requires your attention loaded in the position

R1, R2 Displays the reagent supply center position of a specific R1 and R2 reagent.

ASSAY Displays the name of the assay using the reagent kit.

CAL STATUS Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-18.

REMAINING TESTS Displays an estimated number of tests remaining in the reagent kit.

For reagents kits with two cartridges, the number reflects the lowest value of the two. The estimated number of tests reflects the reagent volume that has not been committed to an order and is calculated as:

(Physical reagent volume) - (Committed reagent volume)

The physical reagent volume is updated when the probe aspirates reagent (liquid level sense).

The committed reagent volume is the allocation to scheduled tests which have not been aspirated.

NOTE: When you load a new bar coded reagent and it is scanned, the system calculates the number of remaining tests in the cartridge using the maximum cartridge capacity instead of the actual fill volume. The remaining tests number updates when the system aspirates the reagent and a liquid level sense occurs.

REAGENT STATUS Displays the status of the reagent kit. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

For statuses other than OK, Overridden, and Low Alert text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the Reagent status button on the processing module graphic on the *Snapshot screen*, page 1-22. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

Reagent status screen - *i*2000/*i*2000SR field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module

Allows you to select an individual module or all modules to view reagent status information.

Reagent carousel graphic

Displays the reagent carousel positions. Positions may be colored as follows:

- White - No reagent is loaded in the position
- Teal - Reagent with an OK status loaded in the position
- Gold - Reagent with a Low Alert, Overridden, or Disabled status loaded in the position
- Red - Reagent with an error condition that requires your attention loaded in the position

P

Displays the carousel position of a specific reagent. Some assays require two adjacent carousel positions.

ASSAY

Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-18.

CAL STATUS

Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-18.

REMAINING TESTS

Displays the number of tests remaining in the reagent kit.

REAGENT STATUS

Displays the status of the reagent kit.

For statuses other than OK, Overridden, and Low Alert text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the Reagent status button on the processing module graphic on the *Snapshot screen*, page 1-22. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

Reagent status screen - *i*1000SR field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select an individual module or all modules to view reagent status information.

Reagent carousel graphic Displays the reagent carousel positions. Positions may be colored as follows:

- White - No reagent is loaded in the position
- Teal - Reagent with an OK status loaded in the position
- Gold - Reagent with a Low Alert, Overridden, or Disabled status loaded in the position
- Red - Reagent with an error condition that requires your attention loaded in the position
- Cross hatch - Reagent is being loaded or unloaded from the position

P Displays the carousel position or RSH position of a specific reagent. Some assays require two carousel positions.

ASSAY Displays the name of the assay using the reagent kit.

CAL STATUS Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-18.

REMAINING TESTS Displays the number of tests remaining in the reagent kit.

REAGENT STATUS Displays the status of the reagent kit.

For statuses other than OK, Overridden, and Low Alert, text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the Reagent status button on the processing module graphic on the *Snapshot screen*, page 1-22. See *Descriptions of reagent statuses (i1000SR)*, page 5-118.

CARRIER STATUS Displays the status of loading or unloading of the reagent carrier.

SCHEDULED TESTS Displays the number of scheduled tests for the reagent kit.

READY TO UNLOAD Displays the time the reagent kit is ready to unload.

Reagent status screen - View all view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select an individual module or all modules to view reagent status information.

M / P Displays the module and position of a specific reagent kit.

ASSAY Displays the name of the assay using the reagent kit.

CAL STATUS Displays the calibration status for the assay using the reagent kit.

REAGENT LOT Displays the reagent lot number.

REMAINING TESTS Displays an estimated number of tests remaining in the reagent kit (*c* System).

NOTE: When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System)

Displays the number of tests remaining in the reagent kit (*i* System).

REAGENT STATUS Displays the status of the reagent kit.

For statuses other than OK, Mixing (*i* System), and Overridden, text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the reagent status button on the processing module graphic on the *Snapshot screen*, page 1-22.

See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

See *Descriptions of reagent statuses (i1000SR)*, page 5-118.

EXP. DATE Displays the date the reagent expires. If you override the expiration, Overridden displays.

STABILITY Displays the number of onboard stability days remaining for the reagent kit. If the time remaining is less than 24 hours, <1 displays. (*c* System)

Details for reagent (Reagent status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagent lot number Displays the lot number for the reagent kit.

Reagent status Displays the status for each reagent kit.

See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

See *Descriptions of reagent statuses (i1000SR)*, page 5-118.

Expiration date Displays the expiration date of the reagent kit.

Remaining tests Displays an estimated number of tests remaining in the reagent kit (*c* System).

NOTE: When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System)

Displays the number of tests remaining in the reagent kit (*i* System).

Onboard stability: Displays the number of hours remaining for stability tracking.

Assay info (table) Displays the following information for each assay using the selected reagent kit:

- Module
- Assay / Number
- Assay Version
- Cal Status

Component info (table) Displays the following information for each bottle / cartridge in the reagent kit:

- Position
- S / N
- Remaining Tests (*c* System)
- Control No. (*i* System)

Patient disabled Allows you to select the check box to disable the reagent kit from running patient tests.

Assign location window - *c*4000 field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagent kits (table) Displays non-bar coded reagent and sample diluent kits currently configured on the system and their locations if they have already been assigned a location.

- R1 / R2 - Displays the location of the reagent kit
- Reagent - Displays the name of the reagent kit

Lot number Displays the lot number for the reagent kit.

Serial number Displays the serial number for the reagent kit.

Expiration date Displays the expiration date for the reagent kit.

R1 / R2 cartridge size Displays the size of the cartridge the reagent kit is using for R1 and R2.

NOTE: If the kit is an R1 cartridge only, R2 cartridge size does not display.

Select location - R1 Cartridge / R2 Cartridge Allows you to select the segment and position in which you will load the cartridge.

Assign location window - *c*8000/*c*16000 field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagent kits (table) Displays non-bar coded reagent and sample diluent kits currently configured on the system and their locations if they have already been assigned a location.

- R1 / R2 - Displays the location of the reagent kit
- Reagent - Displays the name of the reagent kit

Lot number Displays the lot number for the reagent kit.

Serial number Displays the serial number for the reagent kit.

Expiration date Displays the expiration date for the reagent kit.

R1 / R2 cartridge size Displays the size of the cartridge the reagent kit is using for R1 and R2.

NOTE: If the kit is an R1 cartridge only, R2 cartridge size does not display.

Select location	Allows you to select the segment and position in which you will load the cartridge in reagent supply center 1 or 2.

Find options (Reagent status) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

P	Allows you to search on the position in which the reagent is loaded. **NOTE:** For *c* System processing modules, if a carousel position is not selected the search includes the R1 and R2 reagent carousels.
Assay	Allows you to search by assay name.
Carousel (*c* System)	Allows you to search for the reagent kit by its specific carousel location. **NOTE:** You must enter a position before the R1 and R2 checkboxes become available.
Reagent status	Allows you to search for the reagent kit by its status, with the exception of disabled. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117. See *Descriptions of reagent statuses (i1000SR)*, page 5-118.
Cal status	Allows you to search for the reagent kit by its calibration status. See *Descriptions of calibration statuses*, page 6-18.

Find options (Reagent status - View all) window field descriptions

NOTE: The same Find options window displays from both the Reagent status screen - View all view and the Reagent history screen.

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to search by module to locate the reagent kit.
P	Allows you to search on the position in which the reagent is loaded. **NOTE:** For *c* System processing modules, if a carousel position is not selected the search includes the R1 and R2 reagent carousels.

Assay	Allows you to search by assay name.
Carousel (*c* System)	Allows you to search for the reagent kit by its specific carousel location. **NOTE:** You must enter a position before the R1 and R2 checkboxes become available.
S / N	Allows you to search by the serial number of the reagent kit.
Control no. (*i* System)	Allows you to search by the control number of the reagent kit.
Reagent lot	Allows you to search by the reagent lot number for the reagent kit.
Reagent status	Allows you to search for the reagent kit by its status, with the exception of disabled. See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117. See *Descriptions of reagent statuses (i1000SR)*, page 5-118.
Cal status	Allows you to search for the reagent kit by its calibration status. See *Descriptions of calibration statuses*, page 6-18.

Reagent history screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

M / P	Displays the module and position of a specific reagent kit.
ASSAY	Displays the name of the assay using the reagent kit.
CAL STATUS	Displays the calibration status for the assay using the reagent kit. See *Descriptions of calibration statuses*, page 6-18.
REAGENT LOT	Displays the reagent lot number.
REMAINING TESTS	Displays an estimated number of tests remaining in the reagent kit (*c* System). **NOTE:** When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System) Displays the number of tests remaining in the reagent kit (*i* System).

REAGENT STATUS Displays the status of the reagent kit.

For statuses other than OK, Mixing (*i* System), and Overridden, text in the list associated with the reagent kit displays red. In addition, the caution symbol displays on the reagent status button on the processing module graphic on the *Snapshot screen*, page 1-22.

See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

See *Descriptions of reagent statuses (i1000SR)*, page 5-118.

EXP. DATE Displays the date the reagent expires. If the user overrides the expiration, Overridden displays.

STABILITY Displays the number of onboard stability days remaining for the reagent kit. If the time remaining is less than 24 hours, <1 displays (*c* System).

Details for reagent (history) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagent lot number Displays the lot number for the reagent kit.

Reagent status Displays the status for each reagent kit.

See *Descriptions of reagent statuses (except for i1000SR)*, page 5-117.

See *Descriptions of reagent statuses (i1000SR)*, page 5-118.

Expiration date Displays the expiration date of the reagent kit.

Remaining tests Displays an estimated number of tests remaining in the reagent kit (*c* System).

NOTE: When you load a new bar coded reagent and it is scanned, the system calculates an estimated number of tests remaining in the cartridge using the maximum cartridge capacity instead of the actual fill volume. This number updates when the system aspirates the reagent and a liquid level sense occurs. (*c* System)

Displays the number of tests remaining in the reagent kit (*i* System).

Onboard stability Displays the number of hours remaining for stability tracking. (*c* System)

Displays the number of days remaining for stability tracking. (*i* System)

Assay info (table) Displays the following information for each assay using the selected reagent kit:

- Module
- Assay / Number
- Assay version
- Cal status

Component info (table)

Displays following information for each bottle / cartridge in the reagent kit:

- Position
- S / N
- Remaining Tests (*c* System)
- Control no. (*i* System)

Supplies icon screens and windows

The Supplies status icon allows you to access the menu item Supply status.

Supplies icon screens and windows topics include:

Supply status screen - *c*4000 view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module

Allows you to select a module to view supply status information.

ICT reference

Displays the volume remaining in mL and % for the supply of ICT (integrated chip technology) reference solution onboard. The arrow changes from gray to

red when approximately 400 mL (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

NOTE: If the system is configured with no ICT module installed, the ICT reference solutions icon is grayed out.

Alkaline wash

Displays the volume remaining in mL and % for the supply of alkaline wash solution onboard. The arrow changes from gray to red when approximately 100 mL (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

Acid wash

Displays the volume remaining in mL and % for the supply of acid wash solution onboard. The arrow changes from gray to red when approximately 100 mL (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

Reagent supply center

Displays the position, volume remaining in mL and %, onboard stability days remaining, and the onboard solution name as configured for the reagent supply center.

The arrow changes from gray to red when 20% remains or the configured low alert (premium feature) is reached.

The EXPIRED flag displays when the onboard stability reaches 0 days and onboard stability override is configured Off.

The OVERRIDDEN flag displays when onboard stability override is configured On.

Because Detergent A can be used onboard until the expiration date, the onboard stability days remaining and the EXPIRED flag do not display for this solution.

If premium features are activated, the configured lot expiration date displays. Additionally, one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date for onboard stability and/or expiration dating has been reached.

The LLS ERROR status message displays when three consecutive liquid level sense errors occur, regardless if premium features are activated.

Sample wash solutions

Displays the sample wash solution carrier position for the wash solutions and the onboard status.

Cup/tube icon status:

- Gray arrow - OK
- Red arrow - Empty

The LLS ERROR status message displays when a liquid level sense error occurs.

If premium features are activated, one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured expiration date has been reached. In this status, the arrow displays gray.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached. In this status, the arrow displays gray.

ICT module icon

Displays the module serial number, status, and warranty tracking in Sample count and Days on board. The module is warranteed for 3 months or 20,000 samples whichever comes first.

ICT module statuses are:

- EXPIRED - the module has reached the serial number expiration date and the ICT Module expiration override is configured to Off. This status text displays red.
- EXCEEDED - the module has exceeded the warranty. This status text displays red.
- OK - This status text displays black.

- OVERRIDDEN - the module has reached the serial number expiration date and the ICT Module expiration overrride is configured to On. This status text displays red.

NOTE: If the system is configured with no ICT Module installed, the ICT Module icon and the text below it are grayed out.

Waste icon Displays the high-concentration waste bottle status.

NOTE: If the system is configured with no high-concentration waste bottle installed, the waste icon is grayed out.

Supply status screen - *c*8000/*c*16000 view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a module to view supply status information.

ICT reference Displays the volume remaining in mL and % for the supply of ICT (integrated chip technology) reference solution onboard. The arrow changes from gray to red when approximately 400 mL (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

NOTE: If the system is configured with no ICT module installed, the ICT reference solutions icon is grayed out.

Alkaline wash Displays the volume remaining in mL and % for the supply of alkaline wash solution onboard. The arrow changes from gray to red when approximately 100 mL (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.

- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

Acid wash

Displays the volume remaining in mL and % for the supply of acid wash solution onboard. The arrow changes from gray to red when approximately 100 mL (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

Reagent supply center 1

Displays the position, volume remaining in mL and %, onboard stability days remaining, and the onboard solution name as configured for the reagent supply center 1.

The arrow changes from gray to red when 20% remains or the configured low alert (premium feature) is reached.

The EXPIRED flag displays when the onboard stability reaches 0 days and onboard stability override is configured Off.

The OVERRIDDEN flag displays if onboard stability override is configured On.

NOTE: Because Detergent A can be used onboard until the expiration date, the onboard stability days remaining and the EXPIRED flag do not display for this solution.

If premium features are activated, the configured lot expiration date displays. Additionally, one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date for onboard stability and/or expiration dating has been reached.

The LLS ERROR status message displays when three consecutive liquid level sense errors occur, regardless if premium features are activated.

Reagent supply center 2

Displays the position, volume remaining in mL and %, onboard stability days remaining, and the onboard solution name as configured for the reagent supply center 2.

The arrow changes from gray to red when 20% remains or the configured low alert (premium feature) is reached.

The EXPIRED flag displays when the onboard stability reaches 0 days and onboard stability override is configured Off.

The OVERRIDDEN flag displays if onboard stability override is configured On.

NOTE: Because Detergent A can be used onboard until the expiration date, the onboard stability days remaining and the EXPIRED flag do not display for this solution.

If premium features are activated, the configured lot expiration date displays. Additionally, one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date for onboard stability and/or expiration dating has been reached.

The LLS ERROR status message displays when three consecutive liquid level sense errors occur, regardless if premium features are activated.

Sample carousel

Displays the sample carousel position for the wash solutions and the onboard status.

Cup icon status:

- Clear cup - OK
- Red cup - Empty

The LLS ERROR status message displays when a liquid level sense error occurs.

If premium features are activated, one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured expiration date has been reached. In this status, the cup icon is clear.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached. In this status, the cup icon is clear.

ICT module icon

Displays the module serial number, status, and warranty tracking in Sample count and Days on board. The module is warranteed for 3 months or 20,000 samples whichever comes first.

ICT module statuses are:

- EXPIRED - the module has reached the serial number expiration date and the ICT Module expiration override is configured to Off. This status text displays red.
- EXCEEDED - the module has exceeded the warranty. This status text displays red.

- OK - This status text displays black.
- OVERRIDDEN - the module has reached the serial number expiration date and the ICT Module expiration overrride is configured to On. This status text displays red.

NOTE: If the system is configured with no ICT Module installed, the ICT Module icon and the text below it are grayed out.

Waste icon Displays the high-concentration waste bottle status.

NOTE: If the system is configured with no high-concentration waste bottle installed, the waste icon is grayed out.

Supply status screen - *i*2000/*i*2000SR view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a module to view supply status information.

Solid waste Displays the amount of available space in the container measured in number of RVs (reaction vessels) and % remaining. When approximately 20% remains the arrow changes from gray to red.

RVs remaining Displays the approximate number of RVs remaining on the system. Each icon represents 50 RVs. When approximately 20% (240 RVs) remains the arrow changes from gray to red.

Wash buffer Displays the amount of wash buffer remaining on the system measured in liters. The arrow changes from gray to red when approximately 5 L (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

Trigger Displays the amount of trigger remaining on the system measured in milliliters and the configured lot expiration date (premium feature). The arrow changes from gray to red when approximately 195 mL (20%) remains or when the configured low alert (premium feature) is reached.

NOTE: Stability displays the number of days remaining for onboard stability of the trigger solution. When the stability reaches zero days, EXPIRED displays next to the name. If trigger solution is configured for expiration override, OVERRIDDEN displays next to the name. LOT EXPIRED displays when the premium features are activated, the configured expiration date is reached, and Lot expiration override is configured Off.

Pre-Trigger Displays the amount of pre-trigger remaining on the system measured in milliliters and the configured lot expiration date (premium feature). The arrow changes from gray to red when approximately 195 mL (20%) remains or when the configured low alert (premium feature) is reached.

NOTE: Stability displays the number of days remaining for onboard stability of the pre-trigger solution. When the stability reaches zero days, EXPIRED displays next to the name. If pre-trigger solution is configured for expiration override, OVERRIDDEN displays next to the name. LOT EXPIRED displays when the premium features are activated, the configured expiration date is reached, and Lot expiration override is configured Off.

Supply status screen - *i*1000SR view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select a module to view supply status information.

Solid waste Displays the amount of available space in the container measured in number of RVs (reaction vessels) and % remaining. When approximately 20% remains the arrow changes from gray to red.

Liquid waste Displays the amount of liquid waste remaining on the system measured in liters. When approximately 20% (2 liters) remains, the arrow changes from gray to red.

RVs remaining Displays the approximate number of RVs remaining on the system. When approximately 20% remains the arrow changes from gray to red.

Wash buffer Displays the amount of wash buffer remaining on the system measured in liters. The arrow changes from gray to red when approximately 2.4 L (20%) remains or when the configured low alert (premium feature) is reached.

If premium features are activated, the configured lot expiration date is shown and one of the following flags may display:

- LOT EXPIRED - Lot expiration override is configured Off and the configured lot expiration date has been reached.
- OVERRIDDEN - Lot expiration override is configured On and the configured expiration date has been reached.

Trigger

Displays the amount of trigger remaining on the system measured in milliliters and the configured lot expiration date (premium feature). The arrow changes from gray to red when approximately 195 mL (20%) remains or when the configured low alert (premium feature) is reached.

NOTE: Stability displays the number of days remaining for onboard stability of the trigger solution. When the stability reaches zero days, EXPIRED displays next to the name. If trigger solution is configured for expiration override, OVERRIDDEN displays next to the name. LOT EXPIRED displays when the premium features are activated, the configured expiration date is reached, and Lot expiration override is configured Off.

Pre-Trigger

Displays the amount of pre-trigger remaining on the system measured in milliliters and the configured lot expiration date (premium feature). The arrow changes from gray to red when approximately 195 mL (20%) remains or when the configured low alert (premium feature) is reached.

NOTE: Stability displays the number of days remaining for onboard stability of the pre-trigger solution. When the stability reaches zero days, EXPIRED displays next to the name. If pre-trigger solution is configured for expiration override, OVERRIDDEN displays next to the name. LOT EXPIRED displays when the premium features are activated, the configured expiration date is reached, and Lot expiration override is configured Off.

Update supplies window - *c*4000 view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Bulk solutions

Select the following bulk solution to indicate that you loaded a new bottle in the supply center.

Allows you to enter and track the lot number and expiration date of the bulk solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

- ICT reference
- Alkaline wash
- Acid wash

Reagent supply center Select the following onboard solutions to indicate that you loaded a new cartridge in the reagent supply center.

Allows you to enter and track the lot number and expiration date of the onboard solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

- Detergent A
- 10% Detergent B
- 0.5% Acid wash

Sample wash solution area Select the following wash solutions to indicate that you loaded a new sample cup/tube with wash solution.

Allows you to enter and track the lot number and expiration date of the sample wash solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

- 0.5% Acid wash
- Detergent A

Update supplies window - *c*8000/*c*16000 view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Bulk solutions Select the following bulk solution to indicate that you loaded a new bottle in the supply center.

Allows you to enter and track the lot number and expiration date of the bulk solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

- ICT reference
- Alkaline wash
- Acid wash

Reagent supply centers (R1 / R2)

Select the following onboard solutions to indicate that you loaded a new cartridge in reagent supply centers R1 and R2.

Allows you to enter and track the lot number and expiration date of the onboard solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

- 0.5% Acid wash
- Detergent A
- 10% Detergent B

Sample carousel

Select the following wash solutions to indicate that you loaded a new sample cup/tube with wash solution.

Allows you to enter and track the lot number and expiration date of the sample wash solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

- 0.5% Acid wash
- Detergent A

Update supplies window - *i*2000/*i*2000SR view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Wash buffer

Select to load buffer into the 25 L wash buffer reservoir.

Allows you to enter and track the lot number and expiration date of the wash buffer. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

Trigger Select to indicate you loaded a new bottle of trigger solution.

Allows you to enter and track the lot number and expiration date of the trigger solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

Pre-Trigger Select to indicate you loaded a new bottle of pre-trigger solution.

Allows you to enter and track the lot number and expiration date of the pre-trigger solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

RVs added Allows you to enter the number of RVs (reaction vessels) you added. Select 500 (one bag), 1000 (two bags), or Other (partial bag) as appropriate. If you added a partial bag, you must also enter the estimated number of RVs you added.

Allows you to enter and track the lot number of RVs. (premium feature)

NOTE: If a bar code label is present use the bar code scanner to enter the lot number.

Solid waste Select the check box to indicate that you emptied the solid waste container.

Update supplies window - *i*1000SR view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Wash buffer Select to load buffer into the 12 L wash buffer reservoir.

Allows you to enter and track the lot number and expiration date of the wash buffer. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

Trigger Select to indicate you loaded a new bottle of trigger solution.

Allows you to enter and track the lot number and expiration date of the trigger solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

Pre-Trigger Select to indicate you loaded a new bottle of pre-trigger solution.

Allows you to enter and track the lot number and expiration date of the pre-trigger solution. (premium feature)

NOTE: The expiration date must be entered in the same format as it appears on the label. If a bar code label is present use the bar code scanner to enter the lot number and expiration date. If the expiration date is not provided, expiration tracking is not performed.

RVs added Select the check box to indicate that you filled the hopper.

Allows you to enter and track the lot number of RVs. (premium feature)

NOTE: If a bar code label is present use the bar code scanner to enter the lot number.

Solid waste Select the check box to indicate that you emptied the solid waste container.

Liquid waste Select the check box to indicate that you emptied the liquid waste container.

Adjust inventory level - *c* System view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

ICT reference Allows you to enter the % remaining for the ICT reference solution.

Alkaline Wash Allows you to enter the % remaining for the Alkaline Wash solution.

Acid Wash	Allows you to enter the % remaining for the Acid Wash solution.

Adjust inventory level - *i* System view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Wash buffer	Allows you to enter the % remaining for the Wash buffer solution.

Replace ICT window - *c* System view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

New ICT module	Displays the serial number and expiration date of the ICT module.
Serial number	Allows you to enter the serial number of the ICT module.
Expiration date	Allows you to enter the expiration date of the ICT module. **NOTE:** If the expiration date is not provided, expiration tracking is not performed.
Instructions to replace the ICT module	Provides instructions to replace the ICT module.

System icon screens and windows

The System icon allows you to access the menu items Maintenance, Diagnostics, System logs, Configuration, Utilities, and Abbott mail.

System icon screens and windows topics include:

Maintenance screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module Allows you to select the module on which you want to perform maintenance.

MAINTENANCE PROCEDURES (box) Displays a list of procedures you can perform for the selected module and category.

Categories Displays the following categories for maintenance procedures that can be performed on a selected module:

- To do
- Daily
- Weekly
- Monthly
- Quarterly
- As needed
- In process

See *Maintenance categories and procedure descriptions*, page 9-19.

Maintenance Perform window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Category Displays the category of the maintenance procedure you selected.

Procedure	Displays the name of the maintenance procedure you selected.
Operator ID	Displays the name of the operator who is currently logged on to the system.
Module	Displays the module on which the maintenance procedure will be performed on.
Status	Displays the status of the maintenance procedure. See *Maintenance statuses*, page 9-18.
INSTRUCTIONS (box)	Displays the instructions for each step of the maintenance procedure.
User Input	Allows you to select the Proceed button to continue the procedure. **NOTE:** Input field buttons change depending on the procedure.
Keypad	Displays buttons specific to the procedure. These buttons correspond to the L1 - L4 keys on the processing module keypad. You can select the keys on the SCC (system control center) or the processing module keypad.
Result	Displays the results of the procedure.
Activity	Displays the activity of the module while performing the procedure. When you select Activity, the Results window toggles to the Activity window.

Version details for procedure (maintenance) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name	Displays the name of the procedure.
Current version	Displays the current version of the maintenance procedure you selected.
Category	Displays the category of the maintenance procedure.
Status to perform procedure	Displays the status the module must be in for you to perform the procedure. See *Maintenance statuses*, page 9-18.
User access level	Displays the user access level required to perform the procedure.

Details for maintenance item window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name	Displays the name of the maintenance procedure you performed.
Performed with version	Displays the version of the maintenance procedure when last performed. If the procedure has not been performed, this field is blank.
Date	Displays the date and time on which you last performed the procedure. If the procedure has not been performed, this field is blank.
Operator ID	Displays the ID of the operator logged on when the procedure was performed. If the procedure has not been performed, this field is blank.
Status	Displays the last status of the selected maintenance procedure. If the procedure has not been performed, this field is blank. See *Maintenance statuses*, page 9-18.

Maintenance log screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module for which you want to view the log.
Status	Displays the approval status of the log you selected. Statuses are: • Approved • Unapproved
Operator ID	Displays the ID of the system administrator who approved the log.
Date / time	Displays the date and time the log was approved. If the maintenance log has not been approved, this field is blank.
MAINTENANCE PROCEDURES (box)	Displays the maintenance procedures that have been performed.

Approve maintenance log window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Operator ID	Displays the ID of the operator logged on when the log was approved.
Maintenance log month	Displays the month of the maintenance log to be approved.
Approve log option	Allows the system administrator to approve the maintenance log for the displayed month.

Details for maintenance log screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name	Displays the name of the maintenance procedure.
Category	Displays the maintenance category of the procedure you selected.
Performed with version	Displays the version of the maintenance procedure performed on the displayed date and time.
Operator ID	Displays the ID of the operator who was logged on when the maintenance procedure was performed.
Completion Date and Time	Displays the date and time when the procedure was performed.
Status	Displays the status of the maintenance procedure. See *Maintenance statuses*, page 9-18.
Comment	Allows you to enter a comment for the maintenance procedure selected. You can enter up to approximately 200 characters. **NOTE:** The comment window is not available for a procedure with a status of Pending or Scheduled.

Diagnostics screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module on which you want to perform the diagnostic procedure.
DIAGNOSTIC PROCEDURES	Displays the list of diagnostic procedures available for the selected module and category.
Categories	Displays the following categories for diagnostic procedures that can be performed on a module: • Reaction Mechanisms • Pipettors • Fluidics / Wash • Syringes / Pumps • Bar code Readers • Modules • Solenoids / Sensors • Fuses / Motors • Optics / Temperature • Carousels • Precision • ICT • Utilities • Other See *Diagnostic categories and procedure descriptions*, page 10-628.

Diagnostic perform window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Category	Displays the category for the diagnostic procedure you selected.
Procedure	Displays the name of the diagnostic procedure you selected.
Operator ID	Displays the name of the operator who is currently logged on to the system.
Module	Displays the module you selected to perform the diagnostic procedure on.

Status	Displays the status of the selected diagnostic procedure. See *Maintenance statuses*, page 9-18 for a description of the statuses.
INSTRUCTIONS (box)	Displays the instructions for each step of the diagnostic procedure.
User Input	Allows you to select the Proceed button to continue the procedure. **NOTE:** Input field buttons change depending on the procedure.
Keypad	Displays buttons specific to the procedure. These buttons correspond to the L1 - L4 keys on the processing module keypad. You can select the keys on the SCC (system control center) or the processing module keypad.
Result	Displays the results of the procedure.
Activity	Displays the activity of the module while performing the procedure. When you select Activity, the Results window toggles to the Activity window.

Version details for procedure (diagnostics) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Procedure name	Displays the name of the selected procedure.
Current version	Displays the version of the diagnostic procedure currently on the system.
Category	Displays the category of the diagnostic procedure.
Status to perform procedure	Displays the status the module must be in for you to perform the procedure. See *Maintenance statuses*, page 9-18 for descriptions of statuses.
User access level	Displays the log on level required to perform the procedure.

System logs screen - Error message logs field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module on which you want to view the Temporary Message log or the Message History log.

Log selection (list)	Allows you to select the following logs: • Temporary Message log • Message History log • Software Update log • Inventory log
DATE / TIME	Displays the date and time the error occurred on the module.
M	Displays the module on which the error occurred.
ERROR CODE - TEXT	Displays the numeric error code and text that describes the error that occurred.

System logs screen - Software update log field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module on which you want to view the Software updates installation log.
Log selection (list)	• Temporary Message log • Message History log • Software Update log • Inventory log
DATE/TIME	Displays the date and time the software update occurred on the module.
TSB	Displays the unique identifier for the TSB (Technical Service Bulletin).
Serial #	Displays the serial number for the module on which the update was installed.
TSB Subject	Displays the title of the software update.

System logs screen - Inventory log (premium feature) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module on which you want to view the Inventory log.
Log selection (list)	Allows you to select the following logs: • Temporary Message log • Message History log • Software Update log • Inventory log
DATE/TIME	Displays the date and time the error occurred on the module.
M	Displays the module on which the error occurred.
ERROR CODE - MESSAGE TEXT	Displays the numeric error code and text that describes the error that occurred.

Find options (System logs - Error message logs) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module to search on
Date from / to	Allows you to enter a date range you want to search on.
Time from / to	Allows you to enter a time range you want to search on.
Error code	Allows you to enter an error code to search on.
Error category	Allows you to select error categories to search on.
Error level	Allows you to select an error level to search on (Message History log, only).

Find options (System logs - Software update log) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module to search on.
Date from to:	Allows you to enter a date range you want to search on.

TSB	Allows you to enter a TSB (Technical Service Bulletin) number to search on.
Serial #	Allows you to enter the serial number of the module on which the software update was installed.
Operator ID	Allows you to search for the operator ID logged on to the system at the time the software update was installed.

Find options (System logs - Inventory log) (premium feature) window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Module	Allows you to select the module to search on.
Date from / to:	Allows you to enter a date range to search on.
Time from / to:	Allows you to enter a time range to search on.
Error code	Allows you to enter an error code to search on.
Inventory type	Allows you to select the name of the supply to search on.

Details for TSB window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

TSB	Displays the unique identifier for the TSB (Technical Service Bulletin).
Date / Time	Displays the date and time the software update occurred on the module.
Serial no.	Displays the serial number for the module on which the update was installed.
Operator	Displays the name of the operator who was logged on when the TSB was installed.
TSB subject	Displays the title of the software update.
Reboot required	Displays if the SCC was rebooted after the TSB is installed.
Backup required	Displays if a backup was performed during installation of the TSB.

Comment	Allows you to enter a comment for the TSB. You can enter up to 50 characters.

Configuration screen - System settings view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure

Allows you to select one of the following categories for configuration:

- System settings
- Assay settings
- QC-Cal settings

System categories (list)

Allows you to select the following system configuration items:

- Sample ordering
- Host - Release mode
- Reports - Printing
- Reagents - Supplies
- Inventory low alert
- Password
- System control center
- Modules
- Sample handler
- Sample bar code reader
- Serial ports
- TCP/IP ports
- Premium features
- ARCHITECT Advisor

Configure sample ordering window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Batch ordering

Allows you to select the sample identification type used when ordering samples in a batch.

Options are:

- Bar coded - Only bar coded samples are used in the batch run. (Default)
- Non-bar coded - Only non-bar coded samples are used in the batch run.

NOTE: If a batch order is pending, you cannot change the options. This option is not available for systems configured with a LAS (laboratory automation system).

Calibration options

Calibration curve expiration override:

Allows you to select whether the calibration curve can be overridden.

Options are:

- On
- Off (Default)

Calibrator lot expiration overrride (premium feature):

Allows you to select whether the calibrator expiration can be overridden.

Options are:

- On
- Off (Default)

Control options (premium feature)

Control lot expiration override:

Allows you to select whether the control lot expiration can be overridden.

Options are:

- On
- Off (Default)

Disable reagent kit on control failure:

Allows you to select whether the reagent kit should be disabled after a control failure.

Options are:

- On
- Off (Default)

Control required after calibration:

Allows you to select whether a control must be run after a calibration before patient tests are processed.

Options are:

- On
- Off (Default)

Calibration and control options (premium feature)

Lot no./Expiration date entry required:

Allows you to select whether the entry of control and calibrator lot number and expiration date are required.

Options are:

- On
- Off (Default)

IA Sample options

Allows you to enter the average number of tests ordered per sample. This setting is used for multi-module systems to optimize the scheduling of tests per module.

Range: 1.0 - 25.0 (Default: 1.4)

Configure host - release mode window (Options - Communication view) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Host communication:

- Host type:

  Allows the general operator to select the type of host communication protocol, to allow the system to receive orders from and transmit results to a host computer.

  Options are:

  - ASTM/Serial
  - HL7-TCP/IP
  - None (Default)

  NOTE: Selecting the Host type **None** allows you to clear all results waiting to be sent to the host.

- Query mode:

  Allows the general operator to enable the query mode, so the system will query the host for orders.

Options are:

- On
- Off (Default)

- Host query timeout:

  Allows the general operator to enter the maximum time period (in seconds) that the system waits for the host computer to respond to a query.

  Range: 5 - 60 seconds

  (Default: 10 seconds)

  NOTE: System throughput may degrade if this timeout period is greater than ten seconds.

- Transmit data rich messages:

  Allows the general operator to enable data-rich messages (message data beyond host communication messages) to be transmitted to a designated IP address when HL7 is selected as the host type.

  Options are:

  - On
  - Off (Default)

This field is not shown in the example provided.

ASTM communication

- Error code number and text:

  Allows the general operator to define the information transmitted to the host for error messages.

  Options are:

  - Both - Allows both the numeric error code and the message text to be sent to the host computer.
  - Number only - Allows only the numeric error code to be sent to the host computer.

- Transmission code page:

  Options are:

  - Abbott Standard Interface - Uses a subset of Windows OEM code page 850 (Multilingual Latin 1) for LIS transmission. This option is currently used by ARCHITECT and AxSYM Systems.
  - Language default - Uses the language default code page 1252 - Latin 1 for German, English, Spanish, French, and Italian, and code page 932 for Japanese, for LIS transmission.

  - Unicode (UTF-8) - Uses code page 65001 (Wide Character to Multi-Byte API) with the code page parameter set to CP_UTF8. This option allows transmission of, and keyboard support for, Unicode characters.

- Doctor, Location, and Draw Date/Time (patient results only):

  Allows the general operator to enable the release of doctor, location, and draw date/time to the host computer.

  Options are:

  - On - Allows doctor, location, and draw/date time to be sent to the host.
  - Off (Default) - Does not allow doctor, location, draw date/time to be sent to the host computer in result messages, even if the data is available.

HL7 communication

Secondary HL7 interface:

Allows the general operator to enable the secondary HL7 connection to transmit messages to a designated IP address when ASTM/Serial is selected as the host type.

Options are:

- On
- Off (Default)

Configure host - release mode window (Options - Release/Transmit view) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Patient results and QC results

Release mode:

Allows the general operator to select the release mode for results.

Options are:

- Manual - All results must be manually released. (Default)
- Hold - All results with flags must be manually released.
- Automatic - Results are released automatically.
- Automatic with exceptions - Results and exceptions are automatically released.

Transmit approved results:

Allows the general operator to define the method for transmitting approved results to the host computer.

Options are:

- Collated (Default) - Allows for results for multiple orders for a single sample ID to be sent within a message.
- Collated by module (patient results only) - Allows for results for multiple orders for a single sample ID on a processing module to be sent within a message.

NOTE: Results (both completed results and exceptions) are collated. Released results are held in Pending collation status until all completed results for a sample ID are released and all exceptions for the sample ID have been reported. All test orders and reruns for the sample ID must produce an outcome, either a completed result or an exception, before any released results for the sample ID are sent to the host computer.

- Single - Allows for a single result for a single sample ID to be sent within a message.
- Off (QC results only) - Approved QC results are not sent to the host computer.

Configure reports printing window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Print flags on reports

Allows you to enable the printing of flags on sample and patient reports.

Options are:

- On (default)
- Off

NOTE: The control (CNTL), expired (EXP), expired calibration curve or calibrators (EXPC), and EDIT (*c* System only) flags print on the sample and patient reports whether the feature is turned on or off.

Automatic report printing

Allows you to enable automatic printing of the Procedure (Maintenance), Sample, Sample laboratory, Results List, and Cal Curve Details (Calibration curve results) reports.

Options are:

- On
- Off (Default)

NOTE: The *Results List Report*, page A-91 prints after 24 results have been generated and released or ten minutes have elapsed.

Header for sample and patient reports

Allows you to enter up to five lines (approximately 50 characters per line) of text which print on each sample and patient report. Each field on the screen represents one line of the report header.

Configure reagents - supplies window (*ci*4100) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Default reagent low alert

Allows you to specify a low alert level for reagent kits for CC tests and IA tests. The notification displays when the number of tests remaining on all on-board kits for a given reagent falls below the defined value.

Default:

CC tests - 100

IA tests - 0

Reagent expiration override

Indicates that the system allows you to override a reagent's expiration.

Options are:

- On
- Off (Default)

Reagent stability override

Indicates that the system allows you to override a reagent's onboard stability.

Options are:

- On
- Off (Default)

Run controls for onboard reagents by

Allows you to specify which reagent kits you want to run for QC.

Options are:

- Lot: Run QC on only one kit per lot (Default)
- Kit: Run QC for every kit in lot

NOTE: Controls for constituents of calculated assays are automatically run on one kit on one module (selected by the system software) regardless of the option selected.

Wash buffer transfer Allows you to select the current setting for wash buffer transfer.

Options are:

- Manual (Default)
- Automatic

NOTE: Automatic option should be selected when the ARCHITECT ARM (Automatic Reconstitution Module) is installed.

Pre-Trigger / Trigger stability override Allows you to specify whether the pre-trigger and trigger stability dates can be overridden.

Options are:

- On
- Off (Default)

Lot expiration override (IA) (premium feature) Allows you to override pre-trigger and trigger solution lot expiration.

Options are:

- On
- Off (Default)

On-board solution stability override Allows you to override the 10% Detergent B, and 0.5% Acid wash solution onboard stability.

NOTE: Onboard stability is not tracked for Detergent A. The solution can be used until the expiration date.

Options are:

- On
- Off (Default)

Lot expiration override (CC) (premium feature) Allows you to override the Detergent A, 10% Detergent B, and 0.5% Acid wash solution lot expiration.

Options are:

- On
- Off (Default)

ICT Module expiration override

Allows you to override the ICT module expiration.

Options are:

- On
- Off (Default)

Detergent A - Segment (list)

Allows you to select the segment in the reagent supply center for loading the Detergent A solution.

Default: A

Detergent A - Position (list)

Allows you to select the segment position in the reagent supply center for loading the Detergent A solution.

Default: 1

Detergent A - Size (list)

Allows you to select the cartridge size for the Detergent A solution.

Options are:

- Large (90 mL cartridge) (Default)
- Small (55 mL cartridge)
- 20 mL (cartridge)
- 20 mL (bottle)
- 70 mL (cartridge) - for use with *c*8000 and *c*16000 only
- 100 mL (cartridge)

10% Detergent B - Segment (list)

Allows you to select the segment in the reagent supply center for loading the 10% Detergent B solution.

Default: A

10% Detergent B - Position (list)

Allows you to select the segment position in the reagent supply center for loading the 10% Detergent B solution.

Default: 2

10% Detergent B - Size (list)

Allows you to select the cartridge size for the 10% Detergent B solution.

Options are:

- Large (90 mL cartridge) (Default)
- Small (55 mL cartridge)
- 20 mL (cartridge)
- 20 mL (bottle)
- 70 mL (cartridge) - for use with *c*8000 and *c*16000 only

- 100 mL (cartridge)

0.5% Acid Wash - Segment (list)

Allows you to select the segment in the reagent supply center for loading the 0.5% Acid Wash solution.

Default: A

0.5% Acid Wash - Position (list)

Allows you to select the segment position in the reagent supply center for loading the 0.5% Acid Wash solution.

Default: 3

0.5% Acid Wash - Size (list)

Allows you to select the cartridge size for the 0.5% Acid Wash solution.

Options are:

- Large (90 mL cartridge) (Default)
- Small (55 mL cartridge)
- 20 mL (cartridge)
- 20 mL (bottle)
- 70 mL (cartridge) - for use with *c*8000 and *c*16000 only
- 100 mL (cartridge)

Configure reagents - supplies window (*c*8000/*c*16000/*i*2000/*i*2000SR) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Default reagent low alert

Allows you to specify a low alert level for reagent kits for CC tests and IA tests. The notification displays when the number of tests remaining on all on-board kits for a given reagent falls below the defined value.

Default:

CC tests - 100

IA tests - 0

Reagent expiration override

Indicates that the system allows you to override a reagent's expiration.

Options are:

- On

- Off (Default)

Reagent stability override

Indicates that the system allows you to override a reagent's onboard stability.

Options are:

- On
- Off (Default)

Run controls for onboard reagents by

Allows you to specify which reagent kits you want to run for QC.

Options are:

- Lot: Run QC on only one kit per lot (Default)
- Kit: Run QC for every kit in lot

NOTE: Controls for constituents of calculated assays are automatically run on one kit on one module (selected by the system software) regardless of the option selected.

Wash buffer transfer

Allows you to select the current setting for wash buffer transfer.

Options are:

- Manual (Default)
- Automatic

NOTE: Automatic option should be selected when the ARCHITECT ARM (Automatic Reconstitution Module) is installed.

Pre-Trigger / Trigger stability override

Allows you to specify whether the pre-trigger and trigger stability dates can be overridden.

Options are:

- On
- Off (Default)

Lot expiration override (IA) (premium feature)

Allows you to override pre-trigger and trigger solution lot expiration.

Options are:

- On
- Off (Default)

On-board solution stability override

Allows you to override the 10% Detergent B, and 0.5% Acid wash solution onboard stability.

NOTE: Onboard stability is not tracked for Detergent A. The solution can be used until the expiration date.

Options are:

- On
- Off (Default)

Lot expiration override (CC) (premium feature)

Allows you to override the Detergent A, 10% Detergent B, and 0.5% Acid wash solution lot expiration.

Options are:

- On
- Off (Default)

ICT Module expiration override

Allows you to override the ICT module expiration.

Options are:

- On
- Off (Default)

***c*8000**

Position (R1 & R2) E1 (list)

Allows you to select the onboard solution for position E1 in the (R1 & R2) onboard solution area.

Default: Detergent A

***c*8000**

Position (R1 & R2) E2 (list)

Allows you to select the onboard solution for position E2 in the (R1 & R2) onboard solution area.

Default: 10% Detergent B

***c*8000**

Position (R1) D1 (list)

Allows you to select the onboard solution and cartridge size in the (R1) D1 reagent carousel segment.

NOTE: The onboard solution selected here is automatically configured for position (R2) D1 too.

Default: 0.5% Acid Wash

***c*8000**

Position (R2) D1 (list)

Allows you to select the cartridge size for the onboard solution in the (R2) D1 reagent carousel segment.

NOTE: The solution displayed for this position is the solution configured for position (R1) D1.

***c*16000** **Position (R1 & R2) C1,D1 (list)**

Allows you to select the onboard solution for positions C1 and D1 in the (R1 & R2) reagent carousel segments and the cartridge size.

Default: Detergent A

***c*16000** **Position (R1 & R2) C2,D2 (list)**

Allows you to select the onboard solution for positions C2 and D2 in the (R1 & R2) reagent carousel segments and the cartridge size.

Default: 10% Detergent B

***c*16000** **Position (R1 & R2) C3 (list)**

Allows you to select the onboard solution for positions C3 in the (R1 & R2) reagent carousel segments and the cartridge size.

Default: 0.5% Acid Wash

***c*16000** **Position (R1 & R2) D3 (list)**

Allows you to select the onboard solution for positions D3 in the (R1 & R2) reagent carousel segments and the cartridge size.

Default: 0.5% Acid Wash

Configure inventory low alert window (premium feature) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

ICT reference Allows you to enter the inventory low alert level for ICT reference solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

Alkaline Wash Allows you to enter the inventory low alert level for alkaline wash solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

Acid Wash

Allows you to enter the inventory low alert level for acid wash solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*4000, *c*8000**

Detergent A

Allows you to enter the inventory low alert level for Detergent A solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*4000, *c*8000**

10% Detergent B

Allows you to enter the inventory low alert level for 10% Detergent B solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*4000, *c*8000**

0.5% Acid Wash

Allows you to enter the inventory low alert level for 0.5% acid wash solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*16000**

(R1) Detergent A, C1 and D1

Allows you to enter the inventory low alert level for Detergent A solution in the C1 and D1 positions of the reagent supply center. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*16000**

(R2) Detergent A, C1 and D1

Allows you to enter the inventory low alert level for Detergent A solution in the C1 and D1 positions of the reagent supply center. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*16000** **(R1) 10% Detergent B, C2 and D2**

Allows you to enter the inventory low alert level for 10% Detergent B solution in the C2 and D2 positions of the reagent supply center. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*16000** **(R2) 10% Detergent B, C2 and D2**

Allows you to enter the inventory low alert level for 10% Detergent B solution in the C2 and D2 positions of the reagent supply center. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*16000** **(R1) 0.5% Acid Wash, C3 and C3**

Allows you to enter the inventory low alert level for 0.5% acid wash solution in the C3 positions of the reagent supply center. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

***c*16000** **(R2) 0.5% Acid Wash, D3 and D3**

Allows you to enter the inventory low alert level for 0.5% acid wash solution in the D3 positions of the reagent supply center. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

Wash buffer Allows you to enter the inventory low alert level for Wash buffer. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

Trigger Allows you to enter the inventory low alert level for Trigger solution. The notification displays when the volume falls below the defined value.

Range: 1-50%

Default: 20%

Pre-Trigger	Allows you to enter the inventory low alert level for Pre-Trigger solution. The notification displays when the volume falls below the defined value. Range: 1-50% Default: 20%

Configure password window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

System administrator password	Allows you to enter a password of up to 20 alphanumeric characters. The password you enter is case sensitive. Default - ADM
System administrator password confirm	Requires that the password be entered a second time to confirm the original entry. The password you enter displays as asterisks.

Configure user window (premium feature) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

User names	The list of configured operator IDs.
User level	Allows you to select either general operator or system administrator for each user name. Default: General operator
User name	Allows you to enter a user name of up to 12 alphanumeric characters. The user name you enter is case-sensitive.
Password	Allows you to enter a password of up to 20 alphanumeric characters. The password you enter is case sensitive.
Re-enter password	Requires that the password be entered a second time to confirm the original entry. The password you enter displays as asterisks.

System inactivity timeout	Allows you to edit the setting for system inactivity timeout. Range: 0 to 60 minutes Default: 0

Configure system control center window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

System date	Allows you to edit the system date.
System time	Allows you to edit the system time.
Date format	Allows you to edit the date format setting. Options are: • MM.DD.YYYY (Default) • DD.MM.YYYY • YYYY.MM.DD
Time zone (list)	Allows you to select the area-specific time zone used to automatically adjust for daylight savings time.
Automatically adjust clock for daylight savings time	Allows you to select the check box to automatically adjust the clock for daylight savings. Default: checked
Thousands separator	Allows you to select the number format for the thousands separator. Options are: • Comma • None (Default) **NOTE:** Previously generated results are not updated to the new format.
System no.	Allows the Abbott service representative to enter the ARCHITECT serial number.
SCC serial no.	Allows the Abbott service representative to enter the SCC serial number.
System language (list)	Allows the general operator to select the system language.

Options are:

- English
- Chinese
- Czech
- French
- German
- Greek
- Italian
- Japanese
- Portuguese
- Russian
- Spanish

Unicode input

Allows you to select the desired unicode input option:

- Enabled

  NOTE: The Transmission code page selection on the Configure host - release mode window cannot be defined as Abbott Standard Interface as this option does not support Unicode characters.

- Disabled (Default)

Screen timeout

Allows you to edit the setting for screen timeout.

Range: 0 - 60 minutes

Default: 0

NOTE: System generated information or information messages do not remove the screen saver. To restore the screen, press Enter on the keyboard.

Require password controlled logon

Allows you to require a password-controlled log on. This is a premium feature option.

QC run definition - Start time

Allows you to enter the run definition start time. This information is used during *Westgard rule application*, page 5-383.

Default: Start time - 6:00

QC run definition - No. of hours per run

Allows you to enter the run definition number of hours per run. This information is used during Westgard rule analysis.

Default: Hours per run - 12

Beep volume

Allows you to enter a value for the beep volume for the following audible tones:

- Alert (occurs when an information message displays)
- Invalid key (occurs when you press an invalid keyboard key)

Range: 0 - 10

Default: 5

NOTE: This setting is only available if your system is configured with speakers.

Configure modules window (*c*4000) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Module (list)

Allows you to select the desired module.

Type

Displays the current settings for a module.

NOTE: Only an Abbott service representative can edit this information.

Serial No.

Displays the module serial number

NOTE: Only an Abbott service representative can edit this information.

Sample saving mode

Allows you to enable or disable the sample saving mode. When this mode is enabled, the system aspirates an over-aspiration volume once per sample rather than each time it aspirates a test.

Options are:

- Enabled - Yes (Default)
- Enabled - No

ICT Module

Allows you to define whether or not the ICT module is installed.

Options are:

- Installed - Yes (Default)
- Installed - No

High concentration waste container

Allows you to indicate whether or not the high-concentration waste container is used.

Options are:

- Installed - Yes
- Installed - No (Default)

Configure modules window (*c*8000/*c*16000) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Module (list) Allows you to select the desired module.

Type Displays the current settings for a module.

NOTE: Only an Abbott service representative can edit this information.

Serial No. Displays the module serial number

NOTE: Only an Abbott service representative can edit this information.

Sample saving mode Allows you to enable or disable the sample saving mode. When this mode is enabled, the system aspirates an over-aspiration volume once per sample rather than each time it aspirates a test.

Options are:

- Enabled - Yes (Default)
- Enabled - No

ICT Module Allows you to define whether or not the ICT module is installed.

Options are:

- Installed - Yes (Default)
- Installed - No

High concentration waste container Allows you to indicate whether or not the high-concentration waste container is used.

Options are:

- Installed - Yes
- Installed - No (Default)

Sample carousel auto scan Allows you to turn on or off the automatic scanning of the sample carousel.

Options are:

- Off (Default)
- On

When set to On enter a time, in minutes, when the automatic scan will occur.

Range: 30 - 120 minutes (Default: 60)

Number of RSH Extension Priority sections

Allows the Abbott service representative to define the number of RSH priority sections reserved for the RSH Extension.

Range: 0-7

Default: 4

Number of user accessible priority sections

Displays the number of RSH priority sections not used by the RSH Extension.

NOTE: This field is not editable.

Configure modules window (*i*2000) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Module (list)

Allows you to select the desired module.

Type

Displays the current settings for a module.

NOTE: Only an Abbott service representative can edit this information.

Serial number

Displays the module serial number.

NOTE: Only an Abbott service representative can edit this information.

Optics values - Normalization

Allows you to edit the optics normalization value.

Optics values - Linearity

Allows you to edit the optics linearity value.

Configure modules window (*i*2000SR) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Module (list) Allows you to select the desired module.

Type Displays the current settings for a module.

NOTE: Only an Abbott service representative can edit this information.

Serial number Displays the module serial number.

NOTE: Only an Abbott service representative can edit this information.

Optics values - Normalization Allows you to edit the optics normalization value.

Optics values - Linearity Allows you to edit the optics linearity value.

STAT protocol percentage Allows you to select the percentage of STAT protocol tests to be performed, which defines the number of reaction vessel positions allocated for STAT assay protocols.

Options are:

- Low 25% (Default)
- Medium 50%
- High 75%
- None

NOTE: If this percentage does not reflect the actual number of STAT protocols run, throughput may be decreased.

Induction heating Displays Induction heating when installed.

Options are:

- Yes
- No (Default)

NOTE: Only an Abbott service representative can edit this information.

Configure modules window (*i*1000SR) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Module (list)	Allows you to select the desired module.
Type	Displays the current settings for a module. **NOTE:** Only an Abbott service representative can edit this information.
Serial number	Displays the module serial number. **NOTE:** Only an Abbott service representative can edit this information.
Optics values - Normalization	Allows you to edit the optics normalization value.
Optics values - Linearity	Allows you to edit the optics linearity value.
Liquid waste container	Allows you to indicate whether or not the liquid waste container is used. Options are: • Installed - Yes (Default) • Installed - No

Configure sample handler window (RSH - except for *c*4000/*i*1000SR/*ci*4100) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Type (list)	Allows the Abbott service representative to select the sample handler type. **NOTE:** Only an Abbott service representative can edit this information.
Serial No.	Allows you to enter the serial number for the module. **NOTE:** Only an Abbott service representative can edit this information.
Retest options	Allows you to enable or disable automatically repositioning samples for retest. Options are: • Yes (Default) • No

Configure sample handler window (RSH - *c*4000/*i*1000SR/*ci*4100) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Type (list) Allows the Abbott service representative to select the sample handler type.

NOTE: Only an Abbott service representative can edit this information.

Serial No. Allows you to enter the serial number for the module.

NOTE: Only an Abbott service representative can edit this information.

Retest options Allows you to enable or disable, automatically repositioning samples for retest.

Options are:

- Yes (Default)
- No

Priority sections Allows you to enter the number of priority sections.

Range (*c*4000 or *i*1000SR): 0 - 7 (Default: 4)

Range (*ci*4100): 0 - 10 (Default: 7)

Configure sample handler window (SSH - FSE logon) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Type (list) Allows the Abbott service representative to select the sample handler type.

Options are:

- No lane
- Single lane (stand alone *i*2000 modules only)
- Double lane

Serial No. Allows the Abbott service representative to enter the sample handler serial number.

Details for sample handler window (SSH) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Type Displays the option configured for the sample handler type.

Serial No. Displays the sample handler serial number

Configure sample handler window (LAS - standard) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Type (list) Allows the Abbott service representative to select the sample handler type.

Options are:

- No lane
- LAS

Carousel serial No. Allows the Abbott service representative to enter the serial number of the LAS carousel sample handler (*i*2000).

Interface Allows the Abbott service representative to select the LAS interface type.

Options are:

- Standard
- Hitachi

Initialization timeout Allows the general operator to edit the value for initialization timeout.

Range: 1 - 99 seconds

Default: 1

Response timeout Allows the general operator to edit the value for response timeout.

Range: 500 - 9000 milliseconds

Default: 500

Pipettor bypass Allows the Abbott service representative to configure the LAS to bypass the STAT pipettor. Refer to the ARCHITECT System Laboratory Automation System Standard Interface Manual for LAS requirements.

Options are:

- On
- Off (Default)

Send communication message to LAS Allows the general operator to send a communication message to the LAS to re-initialize communication.

Default: unchecked

Configure sample handler window (LAS - Hitachi - FSE logon) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Type (list) Allows the Abbott service representative to select the sample handler type.

Options are:

- No lane
- LAS

Carousel serial No. Allows the Abbott service representative to enter the serial number of the LAS carousel sample handler.

Interface Allows the Abbott service representative to select the LAS interface type.

Options are:

- Standard
- Hitachi

Details for sample handler window (LAS - Hitachi) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Type Displays the option configured for the sample handler type.

NOTE: Only an Abbott service representative can edit this information.

Carousel serial No. Displays the serial number of the LAS carousel sample handler.

NOTE: Only an Abbott service representative can edit this information.

Interface Displays the LAS interface type.

NOTE: Only an Abbott service representative can edit this information.

Configure bar codes window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Bar code type (list) Allows you to select the bar code type. Select the list button to view all the bar code types from which to choose.

Options are:

- Code 128
- Code 39
- Codabar
- I 2 of 5

NOTE: Code 128 includes ISBT 128.

See *Bar code configuration options*, page E-180.

Bar code type Allows you to enable or disable a bar code type.

Options are:

- Enabled (Default)
- Disabled

See *Bar code configuration options*, page E-180.

Checksums Allows you to enable checksums if the selected bar code type supports checksums.

See *Bar code configuration options*, page E-180.

Send checksum digits to the SCC Allows you to specify whether or not checksums are sent to the SCC (system control center) if the selected bar code supports it.

See *Bar code configuration options*, page E-180.

Send the start/stop characters to the SCC Allows you to specify whether or not start/stop characters are sent to the SCC if the selected bar code type supports it.

See *Bar code configuration options*, page E-180.

Code length #1 Allows you to specify the length for the primary bar code. The range is 2 to 20 with an incremental value of 2.

See *Bar code configuration options*, page E-180.

Code length #2 Allows you to specify the length for the secondary bar code. The range is 2 to 20 with an incremental value of 2.

See *Bar code configuration options*, page E-180.

Table A.1: Bar code configuration options

Bar code type	Default option	Checksums	Start/stop characters	Code length
Code 39	Enabled	Select **Enabled** if a checksum is used. Select the check box if the checksum is to be sent to the SCC (system control center).	N/A	N/A
Codabar	Enabled	Select **Enabled** if a checksum is used. Select the check box if the checksum is to be sent to the SCC.	Default setting is **Disabled**.	N/A
Code 128	Enabled	N/A	N/A	N/A
I 2 of 5	Enabled	Select **Enabled** if a checksum is used. Select the check box if the checksum is to be sent to the SCC.	N/A	Code length #1: Enter an even number between 2 and 20. (Default is 10.) Code length #2: (Optional) If a second code length is required, enter an even number between 2 and

Bar code type	Default option	Checksums	Start/stop characters	Code length
				20. (Default is 8.)

Configure serial ports window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Port type (list)

Allows you to select the list button to view the port types supported by the system, and then select the desired port type(s).

Options are:

- LIS (Default)
- ARM
- LAS
- AAT

Port ID

Displays the unique ID for the port.

Baud rate (list)

Allows you to select the baud rate for the selected port.

Options are:

- 1200
- 2400
- 4800
- 9600 (Default)
- 14400
- 19200
- 28800
- 38400
- 57600
- 115200

NOTE: You cannot edit the baud rate for the ARCHITECT ARM serial port or the ARCHITECT Advisor alert tower (AAT).

Parity Allows you to select from the following parity options:

- None (Default)
- Even
- Odd

NOTE: You cannot edit the parity option for the ARCHITECT ARM serial port or the ARCHITECT Advisor alert tower (AAT).

Data bits Allows you to select from the following options:

- 7
- 8 (Default)

NOTE: You cannot edit data bits for the ARCHITECT ARM serial port or the ARCHITECT Advisor alert tower (AAT).

Stop bits Allows you to select from the following options:

- 1 (Default)
- 2

NOTE: You cannot edit stop bits for the ARCHITECT ARM serial port or the ARCHITECT Advisor alert tower (AAT).

Configure TCP/IP ports window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

MSH-3 sending application Allows the system administrator to enter the value for the MSH-3 sending application. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Default: ARCHITECT

MSH-4 sending facility Allows the system administrator to enter the value for the MSH-4 sending facility. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Default: System serial number

MSH-5 receiving application

Allows the system administrator to enter the value for the MSH-5 receiving application. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Default: Blank

MSH-6 receiving facility

Allows the system administrator to enter the value for the MSH-6 receiving facility. You can enter up to 20 alphanumeric characters, which are defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.

Default: Blank

HL7 channel (sender) and HL7 channel (receiver)

- Port connection

  Allows the system administrator to specify the type of sender and receiver channels.

  Options are:

  - Active (Default)
  - Passive

- Port number

  Allows the system administrator to enter the number for the sender and receiver ports.

  Range: 0 - 65535

- IP address

  Allows the system administrator to enter the unique IP address for the sender and receiver ports.

  Range: 0 - 255

  Example: 192.168.093.128

Test connection window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Channel

Displays the type of communication channel. When testing TCP/IP ports both sender and receiver channels can be tested.

IP address

Displays the unique IP address.

Port	Displays the unique ID for the port.
Test	Allows you to select the channels to be tested.

Configure premium features window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Activation key	Allows you to enter the activation key to activate the premium features. Additional fields display on the Details window.
Status	Displays the activation status.
Date of activation	Displays the temporary activation date for the premium features. Otherwise this field is blank.

Configure ARCHITECT Advisor window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

ARCHITECT Advisor	Allows you to configure your system to support an ARCHITECT Advisor alert tower. Options are: • On • Off (Default)
Exceptions notification	Allows you to configure the ARCHITECT Advisor alert tower to indicate the ARCHITECT System software has generated an exception. Options are: • On • Off (Default)

Configuration screen - Assay settings - Assay parameters view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure Allows you to select the configuration category.

Categories include:

- System settings
- Assay settings
- QC-Cal settings

Assay categories (list) Displays the configuration items in the Assay settings category.

- Assay parameters
- Reagent settings
- New assay
- Result units
- Panel definitions
- Retest rules
- Assay display order

Assays (list) Allows you to select the assays to configure.

Configuration screen - Assay settings - New assay view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure Allows you to select the configuration category.

Categories include:

- System settings
- Assay settings
- QC-Cal settings

Assay categories (list) Displays the configuration items in the Assay settings category.

- Assay parameters
- Reagent settings
- New assay

- Result units
- Panel definitions
- Retest rules

Select assay type Allows you to select the type of user-defined assay to configure.

Options are:

- Calculated (default)
- Photometric

Import assay window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays step-by-step instructions for importing assay file(s) to another ARCHITECT *c* System.

ASSAY / NUMBER Displays the assay name and number of the exported ARCHITECT *c* System assays on the export media.

ASSAY VERSION Displays the version of the exported ARCHITECT *c* System assay(s) on the export media.

DRIVE Displays the drive that contains the media source of the exported ARCHITECT *c* System assay(s) on the export media.

IMPORT STATUS Displays the status of import for each assay file. See *Descriptions of import status messages*, page E-186.

Descriptions of import status messages

The following table lists the import status messages and their meanings.

Table A.2: Descriptions of import status messages

Message	Description
Media error	A general media hardware error occurred.
Assay already installed	The assay has already been installed on your system.
No disk in drive	You did not place a floppy disk in the drive.
File was not found	You removed the media from the drive.

Message	Description
Sample diluent / reagent name exists	The sample diluent or reagent name exists for another diluent or reagent. Delete the reagent or diluent before importing the assay.
Reference assay not installed	The selected assay requires a reference assay that is not installed on your system.
Module not in correct state	The module(s) must not be in Running or Scheduled pause.
OK	No errors reported.
OK - Multiple parameters converted, review Message History.	The following assay parameters were changed: • **Sample wash protocol** for sample probe changed from Optimized throughput (*c*8000 only) to Maximum wash (*c*8000 and *c*16000). See *Add / edit SmartWash window - Sample probe view (c System) field descriptions*, page E-210. • **Primary wavelength** and/or **Secondary wavelength**. See *Configure assay parameters window - General - Reaction definition view (photometric - c System) field descriptions*, page E-191.
OK - Sample wash protocol for sample probe converted to Maximum wash.	• **Sample wash protocol** for sample probe changed from Optimized throughput (*c*8000 only) to Maximum wash (*c*8000 and *c*16000). See *Add / edit SmartWash window - Sample probe view (c System) field descriptions*, page E-210.
OK - One or more wavelengths were changed.	• **Primary wavelength** and/or **Secondary wavelength**. See *Configure assay parameters window - General - Reaction definition view (photometric - c System) field descriptions*, page E-191.
File syntax error	The imported assay file has a file format error.
Assay version incompatible	The assay version is incompatible with the system.
OK - Reagent/Diluent dispense mode changed	The reagent and/or diluent dispense Type was changed from Type 3 or Type 4 to Type 1. See *Configure assay parameters window - General - Reagent / Sample view (photometric - c System) field descriptions*, page E-195.

Export assay window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

INSTRUCTIONS (box) Displays step-by-step instructions for exporting assay file(s).

Export drive: Allows you to select the drive or port that contains the media source to which the assay file is copied.

Options are:

- USB flash
- Floppy disk (if drive is available)

Space required: Displays the amount of space that must be available on the media source for the assay file to be copied.

Space available: Displays the amount of space available on the media source before the assay file is exported.

ASSAY / NUMBER Displays the assay name and identifier.

ASSAY VERSION Displays the assay definition revision number.

EXPORT STATUS Displays the status of export for each assay file. See *Descriptions of export status messages*, page E-188.

Descriptions of export status messages

The following table lists the export status messages and their meanings.

Table A.3: Descriptions of export status messages

Message	Description
Media error	A general media hardware error occurred or the assay file contains one of the following characters: \ / : * ? "< > |
Media full	The media does not have enough space for the assays selected for export.
No disk in drive	You did not place a floppy disk in the drive.
Media write protected	You inserted a floppy disk or USB flash drive that is write protected.

Message	Description
Module not in correct state	The module(s) must not be in Running or Scheduled pause.
Non-English character used	Assay contains a non-English or non-alphanumeric character.
OK	No errors reported.
OK - Reagent/Diluent dispense mode changed	The reagent and/or diluent dispense Type was changed from Type 3 or Type 4 to Type 1. See *Configure assay parameters window - General - Reagent / Sample view (photometric - c System) field descriptions*, page E-195.

Configure assay parameters window - General view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Date Displays the date the assay was last edited.

Assay name Allows you to edit the name of the assay. You can enter up to ten characters.

NOTE: You must use a unique name for each assay.

Time Displays the time the assay was last edited.

Assay number Displays the number defined for the assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Operator Displays the ID of the operator logged on when the assay was last edited.

Assay availability (list) Allows you to enable an assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen.

Options are:

- Enabled (Default)
- Disabled

- Patient Disabled

Run controls for onboard reagents by	Allows you to specify which reagent kits you want to run for QC. Options are: • Lot: Run QC on only one kit per lot (Default) • Kit: Run QC for every kit in lot
General assay parameters (list)	Allows you to view assay-specific parameters used in assay formulas for some *i* System assays. This general assay parameters list is not available for all assays and you cannot edit the list. This field is not shown in the example provided.
Current value	Allows you to edit the current value for the selected general assay parameter. This field is not shown in the example provided.
Range	Allows you to edit the current range for the selected general assay parameter. This field is not shown in the example provided.
	Additional fields display on the Details window
Assay type	Displays the assay protocol types.
Pretreatment option	Displays the pretreatment option the system uses in the assay protocol.
Assay version	Displays the version number of the assay.
Cal version	Displays the calibration version of the assay.
Current value / Range	Displays the current value and allowable range for the general assay parameter. This field is not shown in the example provided.
Assay status	Displays the assay status defined for the assay.

Configure assay parameters window - General view (calculated) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Allows you to enter the name for the calculated assay. You can enter up to ten characters. **NOTE:** You must use a unique name for each assay.
Type	Displays calculated as the type of assay.
Operator	Displays the ID of the operator logged on when the calculated assay was created.
Date	Displays the date the calculated assay was created.
Number	Allows you to enter the number for the user-defined assay. A calculated assay automatically created during assay installation has an assay number ranging from 3000-3999. This number cannot be edited.
Assay availability (list)	Allows you to enable the user-defined assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen. Options are: • Enabled (Default) • Disabled • Patient Disabled
Time	Displays the time the calculated assay was created.
Formula	Allows you to enter a calculated formula by using the keypad keys. **NOTE:** The keypad does not display for assays with assay numbers from 3000 - 3999. The calculated assay formula is automatically created during assay installation and cannot be edited.
Selected assays	Allows you to enter the minimum and maximum value for each constituent assay selected for the calculated formula. The minimum and maximum values define the valid range for each constituent assay. You can select up to four constituent assays for each calculated formula.

Configure assay parameters window - General - Reaction definition view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Allows you to enter or edit the name for the assay. You can enter up to ten characters.

NOTE: You must use a unique name for each assay.

Type Displays the type of assay.

Version Displays the version of the ARCHITECT *c* System assay. This field is blank for user-defined assays.

Number Displays the number defined for the ARCHITECT *c* System assay and allows you to enter a number for a user-defined assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Assay availability (list) Allows you to enable the assay so that it displays on the Patient order screen, Calibration order screen, or Control order screen.

Options are:

- Enabled (Default)
- Disabled
- Patient Disabled

Date Displays the date the assay was last edited.

Time Displays the time the assay was last edited.

Run controls for onboard reagents by Allows you to specify which reagent kits you want to run for QC.

Options are:

- Lot: Run QC on only one kit per lot (Default)
- Kit: Run QC for every kit in lot

Operator Displays the ID of the operator logged on when the assay was last edited.

Reaction mode (list) Allows you to select the type of reaction that occurs for the assay.

Options are:

- End Up (default)
- End Down
- Rate Up
- Rate Down

Primary wavelength (list)

Allows you to select the primary wavelength used to measure the assay concentration.

Options are:

- 340 (default)
- 380
- 404
- 412 (*c*8000) or 416 (*c*4000/*c*16000)
- 444 (*c*8000) or 450 (*c*4000/*c*16000)
- 476
- 500
- 524
- 548
- 572
- 604
- 628
- 660
- 700
- 748
- 804

Secondary wavelength (list)

Allows you to select the secondary wavelength used to measure the assay concentration.

Options are:

- None (default)
- 340
- 380
- 404
- 412 (*c*8000) or 416 (*c*4000/*c*16000)
- 444 (*c*8000) or 450 (*c*4000/*c*16000)

- 476
- 500
- 524
- 548
- 572
- 604
- 628
- 660
- 700
- 748
- 804

Main read time Allows you to enter the starting (1 - 33) and ending (1 - 33) photometric points for the main read time.

Last required read Allows you to specify the last read (1 - 33) required for test calculation so the result can be calculated sooner than the entire ten minute protocol.

Default is 33

Flex read time Allows you to enter the starting (1 - 33) and ending (1 - 33) photometric points for the flex read time used for rate assays if all main read times are outside the absorbance range.

Absorbance range Allows you to define the upper and lower limit of absorbance within which all reads for a sample should measure. If any read is outside the absorbance limits during main or flex time reads, the data is not used to calculate the result.

Color corrections read time Allows you to enter the starting (1 - 33) and ending (1 - 33) photometric points to specify a read time for color correction. The color correction is used to adjust the absorbance range limits based on measured sample color.

Sample blank type (list) Allows you to select the type of sample blank.

Options are:

- None
- Self Blank

Blank read time Allows you to enter the starting (1 - 33) and ending (1 - 33) photometric reads for the blank read time.

Configure assay parameters window - General - Reagent / Sample view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay

Allows you to enter/edit the name of the assay. You can enter up to ten characters.

NOTE: You must use a unique name for each assay.

Type

Displays the type of assay.

Version

Displays the version of the ARCHITECT *c* System assay. This field is blank for user-defined assays.

Number

Displays the number defined for the ARCHITECT *c* System assay and allows you to enter a number for a user-defined assay.

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Assay availability (list)

Allows you to enable the assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen.

Options are:

- Enabled (Default)
- Disabled
- Patient Disabled

Date

Displays the date the assay was last edited.

Time

Displays the time the assay was last edited.

Run controls for onboard reagents by

Allows you to specify which reagent kits you want to run for QC.

Options are:

- Lot: Run QC on only one kit per lot (Default)

- Kit: Run QC for every kit in lot

Operator Displays the ID of the operator logged on when the assay was last edited.

Reagent (list) Allows you to select the reagent to use for the assay. You must scan bar coded reagents for them to display in the list. You must configure non-bar coded reagents in the Configure reagents window for them to display in this list.

NOTE: Reagents for whole blood assays can only be installed from the Abbott assay disk.

R1 & R2 Reagent volumes Allows you to enter the R1 and R2 reagent volume that is dispensed into the cuvette. The R2 volume is set to zero for the secondary assay in indirect assay processing methods and is not editable.

Diluent (list) Allows you to select the sample diluent that is used.

R1 & R2 Water volumes Allows you to enter the volume of water the system dispenses along with the R1 and R2 reagent when you use concentrated reagents.

Diluent dispense mode (list) Allows you to select the reagent pipetting profile the system uses to aspirate and dispense diluent(s).

Options are:

- Type 0
- Type 1
- Type 2
- Type 6

R1 & R2 Dispense mode (list) Allows you to select the reagent pipetting profile the system uses to aspirate and dispense reagent(s).

Options are:

- Type 0
- Type 1
- Type 2
- Type 5 (R2 only)
- Type 6 (R1 only)

Dilution name Allows you to enter the names of up to three dilutions to be defined.

Sample Allows you to enter the sample volume to be aspirated from the sample cup or tube for each of up to three dilutions.

Diluted sample	Allows you to enter the diluted sample volume to be aspirated from the cuvette used for each dilution for each of up to three dilutions.
Diluent	Allows you to enter the diluent volume to be dispensed in the cuvette used for each dilution for each of up to three dilutions.
Water	Allows you to enter the water volume to be dispensed along with the diluent, if you are using concentrated diluent(s), for each of up to three dilutions.
Dilution factor	Displays the sample dilution factor the system calculated based on the volumes you specified.
Default dilution	Allows you to select the default dilution performed for patient samples when you do not select a dilution option when ordering the test.

Configure assay parameters window - General - Validity checks view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Allows you to enter or edit the name for the assay. You can enter up to ten characters. **NOTE:** You must use a unique name for each assay.
Type	Displays the type of assay.
Version	Displays the version of the ARCHITECT *c* System assay. This field is blank for user-defined assays.
Number	Displays the number defined for the ARCHITECT *c* System assay and allows you to enter a number for a user-defined assay. **NOTE:** If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.
Assay availability (list)	Allows you to enable the assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen. Options are:

- Enabled (Default)
- Disabled
- Patient Disabled

Date Displays the date the assay was last edited.

Time Displays the time the assay was last edited.

Run controls for onboard reagents by Allows you to specify which reagent kits you want to run for QC.

Options are:

- Lot: Run QC on only one kit per lot (Default)
- Kit: Run QC for every kit in lot

Operator Displays the ID of the operator logged on when the assay was last edited.

Reaction check (list) Allows you to select the reaction check type used to evaluate unexpected reaction performance.

Options are:

- End subtraction - Difference between the absorbance measured during read time A and read time B (A-B)
- End ratio - Ratio of the absorbance measured during read time A and read time B (A/B)
- Rate subtraction - Differences between the rate per minute measured during read time A and read time B (A-B)
- Rate ratio - Ratio of the rate per minute measured during read time A and read time B (A/B)
- None - No check (default)

NOTE: The absorbances for this check are measured at the primary wavelength only.

A and B Read time Allows you to enter the starting (1 - 33) and ending (1 - 33) photometric points for the A and B read times used for the reaction check.

Calculation limits Allows you to enter the lower and upper limits for the acceptable range for the calculated results of the comparison of the data from the two read times.

Maximum absorbance variation / Rate linearity % Displays if you select a reaction mode option of:

- End up or End down - The maximum absorbance variation data entry box displays allowing you to enter the acceptable absorbance variation (0 - 3.2) allowed for absorbance readings within the main read time. When the absorbance variation exceeds the defined limit, the assay becomes an exception and is not processed.
- Rate up or Rate down - The rate linearity % data entry box displays allowing you to enter the allowable percent variation change in absorbance measured during the first three reads, and then compared to the last three reads for the main and flex read time.

Minimum Allows you to enter a minimum absorbance change acceptable for read time B if the reaction check type is End ratio or Rate ratio.

Configure assay parameters window - General - ICT view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Allows you to edit the name of the assay. You can enter up to ten characters.

NOTE: You must use a unique name for each assay.

Type Displays the type of assay.

Version Displays the version of the ARCHITECT *c* System assay.

Number Displays the number defined for the ARCHITECT *c* System assay.

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Assay availability (list) Allows you to enable the assay so that it can be selected on the Patient order screen, Calibration order screen, or Control order screen.

Options are:

- Enabled (Default)
- Disabled
- Patient Disabled

Date Displays the date the assay was last edited.

Time	Displays the time the assay was last edited.
Run controls for onboard reagents by	Allows you to specify which reagent kits you want to run for QC. Options are: • Lot: Run QC on only one kit per lot (Default) • Kit: Run QC for every kit in lot
Operator	Displays the ID of the operator logged on when the assay was last edited.
Reagent 1	Displays the name of the reagent associated with the assay selected.

Configure assay parameters window - Calibration view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Displays the name of the selected assay.
Date	Displays the date the assay was last edited.
Assay number	Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.
Time	Displays the time the assay was last edited.
Operator	Displays the ID of the operator logged on when the assay was last edited.
Calibration replicates	Allows you to edit the number of replicates for the calibrator. The assay-specific minimum number of replicates allowed displays as the default as well as the allowable range. Additional fields display on the Details window.
Calibration method	Displays the data reduction used in the calibration math model.

Calibration interval	Allows you to view the amount of time, in hours, that the calibration curve is valid. This assay parameter is only available for assays with a defined calibration interval. Refer to the *i* System assay package insert for more information. This field is not shown in the example.
Use Calibration From:	Shows the assay referenced for calibration information and used for result calculation. This field only displays if the calibration method is Reference. This field is not shown in the example provided.
Adjustment method	Displays the type of adjustment used in the calibration mode. For information on calibration adjustment methods, see *i System data reduction methods*, page C-13 and *i System adjustment methods*, page C-19.
Replicates	Displays the number of replicates of the calibrator used in the calculation of the calibration curve.
Standard concentrations / Adjustors	Displays the concentrations of the standard calibrators (Calibrators A - F) and calibrator adjustors (Calibrator 1 / Calibrator 2) used for the assay selected.
Type	Displays the calibration type Adjust, Full, 1-point Index, or 2-point Index.

Configure assay parameters window - Calibration - Calibrators view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Displays the name of the assay selected.
Assay number	Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Date	Displays the date the assay was last edited.
Calibration method (list)	Allows you to select the calibration method. Options are: • Abs • Factor • Linear (default) • Logit-4 • Spline • Use Cal factor/Blank
Time	Displays the time the assay was last edited.
Operator	Displays the ID of the operator logged on when the assay was last edited.
Calibrator (list)	Allows you to select the name of the calibrator set.
Calibrator level (list)	Allows you to select a level name from the levels defined for the selected calibrator set. The list also includes the Water option.
Replicates	Allows you to enter the number of replicates for the Blank and all calibrator levels defined.
Concentration	Allows you to enter the concentration value for the Blank.

Configure assay parameters window - Calibration - Volumes view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Displays the name of the assay selected.
Assay number	Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Date Displays the date the assay was last edited.

Calibration method Displays the calibration method.

Options are:

- Abs
- Factor
- Linear
- Logit-4
- Spline
- Use Cal factor/Blank

Time Displays the time the assay was last edited.

Operator Displays the ID of the operator logged on when the assay was last edited.

Calibrator Displays the name of the calibrator set.

Calibrator level Displays the level names defined for the calibrators.

Sample Allows you to enter the sample volume for the Blank and each defined calibrator level.

Diluted sample Allows you to enter the diluted sample volume for the Blank and each calibrator level.

Diluent Allows you to enter the diluent volume for the Blank and each defined calibrator level.

Water Allows you to enter the water volume for diluting concentrated diluent for the Blank and each defined calibrator level.

Configure assay parameters window - Calibration - Intervals view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the name of the assay selected.

Assay number Displays the number defined for the assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Date Displays the date the assay was last edited.

Calibration method Displays the calibration method.

Options are:

- Abs
- Factor
- Linear
- Logit-4
- Spline
- Use Cal factor/Blank

Time Displays the time the assay was last edited.

Operator Displays the ID of the operator logged on when the assay was last edited.

Full interval Allows you to enter the amount of time, in hours, that the full calibration curve is valid.

Adjust interval Allows you to enter the amount of time, in hours, that the adjust calibration is valid. This field displays when an adjust type is defined. This field is not shown in the example provided.

Adjust type (list) Allows you to select the type of adjust calibration to be performed for the assay.

Options are:

- None
- Blank adjust

- 1-point adjust
- 2-point adjust

Adjust level Allows you to select the calibrator level to be used for 1-point or 2-point adjust. This field is not shown in the example provided.

Default ordering type Allows you to select the full or adjust ordering type as the default type selected in the *Assay options (Calibration order) window*, page 6-14. This field is not shown in the example provided.

Configure assay parameters window - Calibration - Validity checks view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the name of the assay selected.

Assay number Displays the number defined for the assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Date Displays the date the assay was last edited.

Calibration method Displays the calibration method.

Options are:

- Abs
- Factor
- Linear
- Logit-4
- Spline
- Use Cal factor/Blank

Time	Displays the time the assay was last edited.
Operator	Displays the ID of the operator logged on when the assay was last edited.
Blank absorbance range	Allows you to specify the upper and lower limits for the acceptable blank absorbance range if a data check is desired.
Span (list)	Allows you to select the calibrator level used to perform the calibration data check.
Span absorbance range	Allows you to specify the upper and lower limits for the acceptable absorbance range if a span check is desired.
Expected cal factor	Allows you to enter the expected target value for the cal factor that you expect when the calibration curve is calculated.
Expected cal factor tolerance %	Allows you to enter the percent tolerance from the expected cal factor target value that is allowed when the calibration curve is calculated.
Maximum curve fit	Allows you to enter the maximum acceptable calibrator differences to check the curve fit and accuracy.

Configure assay parameters window - Calibration - ICT view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Displays the name of the assay selected.
Date	Displays the date the assay was last edited.
Assay number	Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.
Time	Displays the time the assay was last edited.
Operator	Displays the ID of the operator logged on when the assay was last edited.

Full interval	Allows you to enter the amount of time, in hours, that the full calibration is valid. Refer to the ARCHITECT *c* System assay specific-package insert for calibration interval.
Slope limit (%)	Allows you to specify the upper and lower limits for the acceptable slope limits for the ICT (integrated chip technology) calibration curve. The slope cannot be defined below 45% or above 120%.
Calibrator low	Displays the name of the low calibrator.
Low concentration	Allows you to enter the concentration for the low calibrator.
Calibrator high	Displays the name of the high calibrator.
High concentration	Allows you to enter the concentration for the high calibrator.
Replicates	Allows you to enter the number of replicates for the low and high calibrators and for the index, if defined. Default: 3
Index used	Allows you to select whether or not to use an index solution during a calibration. Options are: • Yes • No (default)
Index concentration	Allows you to enter the concentration for the index solution.
Index range	Allows you to specify the upper and lower limits for acceptable range for the index concentration calculated during the ICT calibration.

Configure assay parameters window - Dilution view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Displays the name of the selected assay.
Date	Displays the date the assay was last edited.
Assay number	Displays the number defined for the assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Time Displays the time the assay was last edited.

Operator Displays the ID of the operator logged on when the assay was last edited.

Default dilution Allows you to select the default dilution performed for patient samples when you do not select a dilution option when ordering the test. Each assay has up to six dilutions. Dilution options valid for the assay display.

Refer to the ARCHITECT *i* System assay-specific package insert for dilution information.

Additional fields display on the Details window.

Manual dilution Indicates whether the selected assay uses the manual dilution option selected from the Patient order screen or Control order screen.

Result units Displays the result concentration units selected for the assay.

Dilution ranges (table) Displays the minimum and maximum concentrations allowable for the dilution options.

- Dilution name
- Low
- High

Configure assay parameters window - SmartWash view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

For additional information see the ARCHITECT *c* System Assay Application Guide.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the name of the assay selected.

Date Displays the date the assay was last edited.

Assay number

Displays the number defined for the assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Time

Displays the time the assay was last edited.

Operator

Displays the ID of the operator logged on when the assay was last edited.

Volume

Displays the amount of wash solution to use for the selected SmartWash definition.

- For reagent probes, you can define the volume to any volume from 20 to 345 µL.
- For cuvettes, the volume is fixed at 345 µL.

Replicates

Displays the number of times the reagent probe wash protocol is performed for the selected SmartWash definition.

Sample wash protocol

Displays the type of sample probe wash to be performed for the selected SmartWash definition.

Options are:

- Optimized throughput (*c*8000) - The system uses the Smart Sampling feature to try and change the order in which the tests aspirate to avoid a wash cycle.

  NOTE: This option may be displayed on a *c*4000 whole blood assay but cannot be selected on the screen.
- Maximum wash (*c* System) - The system always performs the defined wash before each sample regardless of the order in which tests aspirate.

SmartWash parameters (table)

Displays the following parameters defined for SmartWash for the assay selected:

- Components - Displays the hardware components related to SmartWash. (R1, R2, Sample probe, or Cuvette)
- Reagent/Assay - Displays the reagent for Rgt 1 probe and Rgt 2 probe reagent prewash option, the assay for cuvettes, and a blank field for sample probes.
- Wash - Displays the wash solution to be used.

Add / edit SmartWash window - Rgt 1 and Rgt 2 probe view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Reagents (list) Allows you to select the name of the reagent that interferes with the reagent used for the assay you are configuring. List items are dependent on the reagent probe option selected.

- For the Rgt 1 probe the list includes an All option and the name of each configured reagent and sample diluent.
- For the Rgt 2 probe the list includes an All option and the name of each reagent defined as type R1 and R2.

NOTE: If you select the All option, the system always performs the defined wash before aspirating the reagent(s) for this assay unless the previous aspiration was the same reagent. The system does not perform the wash between aspirations of the same reagent unless you configure a separate wash protocol to define this wash.

Assay Displays the name of the assay selected.

Wash (list) Allows you to select a solution to wash the Rgt 1 and Rgt 2 probes.

Options are:

- Water
- Reagent
- 0.5% Acid Wash
- Detergent A
- 10% Detergent B

Volume Allows you to define the amount of wash solution to use. For reagent probes, you can define the volume to any volume from 20 to 345 µL.

Replicates Allows you to specify the number of times the defined wash protocol is performed.

Add / edit SmartWash window - Sample probe view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay selected.

Wash (list) Allows you to select a solution to wash the sample probe.

Options are:

- Water
- 0.5% Acid Wash
- Detergent A

Sample wash protocol Allows you to select the type of sample probe wash to be performed.

Options are:

- Optimized throughput (*c*8000) - The system uses the Smart Sampling feature to try and change the order in which the tests aspirate to avoid a wash cycle.

  NOTE: This option may be displayed on a *c*4000 whole blood assay but cannot be selected on the screen.

- Maximum wash (*c* System) - The system always performs the defined wash before each sample regardless of the order in which tests aspirate.

Add / edit SmartWash window - Cuvette view (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assays (list) Allows you to select one of the *c* System assays to be used for washing the cuvettes.

Assay Displays the name of the assay selected.

Wash (list) Allows you to select a solution to wash the cuvettes.

Options are:

- 0.5% Acid Wash
- Detergent A
- 10% Detergent B

Volume	Displays the amount of wash solution to use. For cuvettes, the volume is fixed at 345 µL.

Configure assay parameters window - Results view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay	Displays the assay selected on the *Configuration screen - Assay settings view*, page 2-67.
Date	Displays the date the assay was last edited.
Assay number	Displays the number defined for the assay. The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system). **NOTE:** If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.
Time	Displays the time the assay was last edited.
Operator	Displays the ID of the operator logged on when the assay was last edited.
Result units	Displays the result concentration units selected for the assay.
Low-Linearity	Allows you to edit the low limit value for the linearity range of the assay. For *i* System assays this field can only be edited when the first default dilution option is configured. This value cannot be edited below zero. For *c* System assays the system adjusts the entered linearity value by the sample dilution factor. For assays with a standard sample dilution ensure the entered value is adjusted accordingly.
High-Linearity	Allows you to edit the high limit value for the linearity range of the assay. For *i* System assays this field can only be edited when the first default dilution option is configured. This value cannot be edited above the assay default high linearity.

For *c* System assays the system adjusts the entered linearity value by the sample dilution factor. For assays with a standard sample dilution ensure the entered value is adjusted accordingly.

Gender and age specific ranges (table)

Displays the following information for the selected assay.

- Gender
- Age (Units)
- Normal range
- Extreme range

Configure results parameters window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay

Displays the name of the assay.

Flag range specifications

Allows you to define a flag range, which includes the following parameters:

- Gender (Male, Female, or Either)
- Age units (Days, Months, Years) and age range
- Normal range for the defined gender and age range
- Extreme range for the defined gender and age range (optional)

Configure assay parameters window - Interpretation view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay

Displays the name of the assay.

Date

Displays the date the assay was last edited.

Assay number

Displays the number defined for the assay.

The assay number must be the same number used for a LIS (laboratory information system) and a LAS (laboratory automation system).

NOTE: If you modify an assay parameter in an assay that affects result measurement, calculation, or validity checks an asterisk displays next to the assay number to indicate the assay was modified.

Time	Displays the time the assay was last edited.
Operator	Displays the ID of the operator logged on when the assay was last edited.
Name (list)	Allows you to select the interpretation name from the list (assay-specific).
Range	Allows you to enter the range for interpretations for the assay.
Results review required	Allows you to select the settings at which results are held until they are manually reviewed and released.

Configure reagent (Reagent settings) window - Abbott assay view (*i* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Reagent name	Displays the assay(s) name of the reagent you selected.
Reagent low alert	Allows you to define a reagent low alert. The notification displays when the number of tests remaining in all on-board reagent kits falls below the defined value.

Configure reagent (Reagent settings) window - Abbott assay view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Reagent name	Displays the name of the reagent you selected.
Reagent type	Displays the type of reagent or diluent cartridge.
Run calibrations for reagents by	Allows you to calibrate by lot number or by a specific reagent kit.

Reagent low alert Allows you to define a reagent low alert. The notification displays when the number of tests remaining in all on-board kits for a given reagent falls below the defined value.

Configure reagent (Reagent settings) window - User-defined assay view (photometric - *c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Reagent name Allows you to enter the name for the new user-defined reagent.

Reagent low alert Allows you to define a reagent low alert notification. The notification displays when the number of tests remaining in all on-board reagent kits falls below the defined value.

Reagent type (list) Allows you to select the reagent type for the new user-defined assay.

Options are:

- R1 only
- R1 and R2
- Sample diluent

Onboard stability Allows you to enter the onboard stability time, in hours, for the new user-defined reagent.

Lot number (list) Allows you to enter the lot number for new reagent kits. It also displays previously configured lot numbers.

Configured kits (table) Displays the following configuration information for the selected reagent kit:

- Lot number
- Serial number
- Expiration date
- R1 cartridge size
- R2 cartridge size

Serial number Allows you to enter the serial number for the new user-defined reagent kit.

Expiration date Allows you to enter the expiration date for the new user-defined reagent kit.

R1 cartridge size (list) Allows you to select the cartridge size for the R1 reagent.

Options are:

- Large (90 mL cartridge)
- Small (55 mL cartridge)
- 20 mL (cartridge)
- 20 mL (bottle)
- 100 mL (cartridge)
- 70 mL (cartridge) - for use with *c*8000 and *c*16000 only

R2 cartridge size (list) Allows you to select the cartridge size for the R2 reagent.

Options are:

- Large (90 mL cartridge)
- Small (55 mL cartridge)
- 20 mL (cartridge)
- 20 mL (bottle)
- 100 mL (cartridge)
- 70 mL (cartridge) - for use with *c*8000 and *c*16000 only

Configure result units window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the name of the assay.

Version Displays the version of the assay.

Result units Allows you to change the concentration units reported for the assay.

IMPORTANT: If you edit the result concentration unit, all previous Levey-Jennings and QC summary information is deleted. For *c* System assays, the system changes the result unit name displayed but does not automatically adjust any values. To ensure the appropriate parameters are adjusted, see *Change the result units setting*, page 2-115.

Decimal places

Allows you to edit the number of decimal places currently configured for the assay.

Range: 0 - 4 (*c* System)

Range: assay-specific (*i* System)

Default: assay-specific

Correlation factor

Allows you to enter a factor for *c* System assays if results require a calculation to match another system.

Intercept

Allows you to enter an intercept for *c* System assays if results require a calculation to match another system.

NOTE: When values are entered in the correlation factor and intercept fields the system calculates results using the following equations.

Samples with no dilution factor applied:

(original result x correlation factor) + intercept

Samples with either a manual or automated dilution factore applied:

[(original result x correlation factor) + intercept] x dilution factor

Configure panel definitions window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

New panel name

Allows you to enter the name for the panel.

Panel type

Allows you to select the panel type. The type indicates whether the panels display on the Patient order screen, Control order screen, or the Calibration order screen.

Options are:

- Patient
- QC
- Calibration

Panels (list)

Lists the configured panels. When you select a panel, all assays in that panel are displayed.

Assays (list)

Lists available assays that may be configured for the panel.

NOTE: You must select at least two assays before you can add the panel.

Configure assay retest rules window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the name of the assay you selected from the *Configuration screen - Assay settings view*, page 2-67.

Units Displays the result units for the assay selected.

Assay retest rules List that displays the current name and settings for each rule. See *Assay retest rule settings*, page E-218.

Original dilution Displays the dilution run on the original test. The original test must be run at this dilution to be considered for a retest.

Retest indicator Allows you to enter minimum and maximum limits that the original test must fall within to be considered for an auto retest.

NOTE: An entry in both fields is not required. You can enter either a minimum or maximum limit.

Replicates Displays the number of replicates to be run for the retest assay(s).

NOTE: The number of replicates entered is run for all retest assays.

Retest assays (table) Displays the assay(s) and the dilution that is run if the original assay result falls within the defined limits.

- Assay
- Dilution

NOTE: You can define any number of assays to be retested for a given rule.

Table A.4: Assay retest rule settings

Original dilution	The dilution run on the original test. The original test must be run at this dilution to be considered for a retest.
Result range	Displays the minimum and maximum limits for the result at the original dilution in order to be considered for a retest.

Replicates	The number of replicates to be run for the retest assay(s). **NOTE:** The number of replicates entered is run for all retest assays.
Retest assays	The assay(s) and the dilution that are run if the original assay result falls within the defined limits. **NOTE:** You can define any number of assays to be retested for a given rule.

Add / edit assay retest rules window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assay Displays the name of the assay you selected from the *Configuration screen - Assay settings view*, page 2-67.

Units Displays the result units for the assay selected.

Rule name Allows you to enter the retest rule name. You can enter up to 18 characters.

Replicates Allows you to enter the number of replicates to be run for the retest assay(s).

NOTE: The number of replicates you enter runs for all retest assays for that rule.

Retest indicator Allows you to specify whether the retest rule is based on a result range or an error with result.

NOTE: If you have selected the error code option and one of the following error codes occur, the result is retested.

- 1005 - Result cannot be calculated, final RLU read is outside the specification of the lowest calibrator.
- 1007 - Unable to process test, activated read failure.
- 1008 - Unable to process test, final read failure.
- 1051 - Unable to calculate result, absorbance exceeded optical limits.
- 1053 - Unable to calculate result, rate reaction linearity failure.
- 1054 - Unable to calculate result, Reaction check failure.
- 1232 - Result cannot be calculated, final RLU read is outside the specification of the highest calibrator.

- 1350 - Unable to calculate result, no absorbance reads within absorbance range.
- 1351 - Unable to calculate result, insufficient absorbance reads within absorbance range.
- 1603 - Unable to calculate result, ICT reference solution voltage drift exceeds 3 mV.
- 1700 - Unable to process test, due to interference from Assay number (x).

Result range Allows you to enter minimum and maximum limits that the original test must fall within to be considered for an auto retest.

NOTE: An entry in both fields is not required. You can enter either a minimum or maximum limit.

Original dilution Allows you to select the dilution for running the original test in order to be considered for an auto retest. You must run the original test at this dilution to be considered for a retest.

Selected retest assays Displays the selected retest assay(s) to be run.

NOTE: You can define any number of assays to be retested for a given rule.

Retest dilution Allows you to select the dilution protocol for each of the selected assays to use for the auto retest.

Select assay window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Assays (list) Allows you to select or deselect the assay(s) you want to retest.

NOTE: You can define any number of assays to be retested for a given rule.

Configure assay display order window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Display order applies to: Allows you to select where the configured assay display order is applied.

Options are:

- Reports only (default)
- Displays and reports

Assays Allows you to select the assay(s) you want to move to the Display order list.

Display order Shows the configured assay display order for screens and reports.

Configuration screen - QC-Cal settings view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Configure Allows you to select one of the following categories for configuration:

- System settings
- Assay settings
- QC-Cal settings

QC-Cal categories (list) Allows you to select the following QC-Cal configuration items:

- QC - Single analyte
- QC - Multiconstituent
- Multiconstituent bar code SID
- Westgard rules
- Calibrator set

Assays (list) Allows you to select the assay to configure.

Configure single analyte window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the assay you selected on the *Configuration screen - QC - Cal settings view*, page 2-147.

Lot number (list) Allows you to enter the lot number for the control. You can enter up to 20 different lot numbers.

	You can also select the New Lot - Copy Data option which allows you to use the same data configured for the default lot.
Default	Allows you to select the default lot number for the control.
Exp. date	Allows you to enter the expiration date for the control.
Level name	Allows you to enter a name for the specific control level. You can enter up to 10 alphanumeric characters for the level name and 6 different levels per lot number.
Manufacturer mean	Allows you to enter the manufacturer mean for the control level.
Manufacturer 1 SD	Allows you to enter the manufacturer value that represents one standard deviation for the control level.
Expected mean	Allows you to enter the expected mean for the control level.
Expected 1 SD	Allows you to enter the expected value that represents one standard deviation for the control level.
Control Range	Allows you to enter the minimum and maximum limits for the control level. **NOTE:** An entry in both fields is not required. You can enter either a minimum or maximum limit.
Default dilution (list)	Allows you to select a dilution option other than the default.
Bar code SID	Allows you to enter a specific bar code SID, up to 20 characters, to identify a sample as a control.
Display order (list)	Allows you to select a display order position on the Control order screen.
QC time interval	Allows you to enter the amount of time, in hours, that the next automated QC will be processed for an analyte.
QC test count interval	Allows you to enter the number of tests to be completed for an analyte before the next automated QC will be processed.

Configure multiconstituent control window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Control Displays the name of the multiconstituent control you selected. If you select New, you may enter a name for the multiconstituent control.

Lot number Allows you to enter a lot number for the multiconstituent control. You can enter up to 20 different lot numbers.

Default Allows you to select the default lot number for the control.

Level (list) Allows you to select a multiconstituent control level.

Options are:

- Level 1 (default)
- Level 2
- Level 3

Expiration date Allows you to enter the expiration date for the multiconstituent control.

ASSAY (table) Displays the following information:

- Assay - Displays the name of the assays configured for the multiconstituent control level.
- Default Dilution - Displays the default dilution for the assays configured for the multiconstituent control level.
- Expected Mean - Displays the expected mean for the assays for the multiconstituent control level.
- Expected 1 SD - Displays the expected value that represents one standard deviation for the assays for the multiconstituent control level.
- QC Time Interval - Displays the amount of time, in hours, that the next automated QC will be processed for an analyte.
- QC Test Interval - Displays the number of tests to be completed for an analyte before the next automated QC will be processed.

Assign assays for multiconstituent control window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control Displays the name of the multiconstituent control to be imported.

Lot number Displays the lot number.

Expiration date	Displays the expiration date.
Assay assignment (table)	Displays the following information: **NOTE:** A version number is not included if the data applies to all assay file versions. • File assay / number / version - Displays the assay name, number, and version from the imported file. • System assay / number / version - Displays the assay name, number, and version of the assigned assay on the system. • Status - Displays the status of the system assay assignment. The following statuses may be displayed: – Version Mismatch – Assigned - System (*c* System) – Assigned - User (*c* System) – No Assay – OK – Previously Defined – Units Mismatch (*c* System) • System units - Displays the units of the system assay. • File units - Displays the available units in the imported file.

Define control data window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Control name	Displays the name of the multiconstituent control.
Level	Displays the name of the multiconstituent control level.
Assay	Displays the name of the assay you selected on the *Configure multiconstituent control window*, page 2-185.
Lot number	Displays the lot number for the assay you selected on the *Configure multiconstituent control window*, page 2-185.
Manufacturer mean	Allows you to enter the manufacturer mean value for the multiconstituent control level.

Manufacturer 1 SD	Allows you to enter the manufacturer value that represents one standard deviation for the multiconstituent control level.
Expected mean	Allows you to enter the expected mean value for the multiconstituent control level.
Expected 1 SD	Allows you to enter the expected value that represents one standard deviation for the multiconstituent control level.
Control Range	Allows you to enter the minimum and maximum limits for the control level. **NOTE:** An entry in both fields is not required. You can enter either a minimum or maximum limit.
Default dilution (list)	Allows you to select a dilution for the assay.
QC time interval	Allows you to enter the amount of time, in hours, that the next automated QC will be processed for an analyte.
QC test count interval	Allows you to enter the number of tests to be completed for an analyte before the next automated QC will be processed.

Configure multiconstituent bar code SID window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Bar codes	Displays the configured multiconstituent bar code SIDs.
New bar code SID	Allows you to enter a specific bar code SID, up to 20 characters, to identify a sample as a control.
Control	Allows you to select the multiconstituent control for the bar code SID.
Lot	Allows you to select the control lot number.
Level	Allows you to select the control level.
Assays	Allows you to select the assays for the multiconstituent bar code SID.

Configure Westgard window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Assay Displays the assay you selected.

Rules (list) Allows you to select each Westgard rule.

NOTE: The default configuration setting for all assays is:

- 1 - 2s Enabled, Warning
- 1 - 3s Enabled, Failure

Status Allows you to select the status for the rule.

Options are:

- Enabled
- Disabled

Flag type Allows you to select the type of Westgard flag for the rule.

Options are:

- Warning
- Failure

Configure calibrator set window (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

NOTE: The Details window displays the current settings.

Calibrator set Displays the name of the calibrator set you selected.

If you select NEW, you may enter a name for the calibrator.

Lot number Allows you to enter a new lot number or import a lot number.

Default Allows you to select the default lot number for the calibrator set.

Number of levels Allows you to enter the number of levels that the calibrator set contains.

Expiration date Allows you to enter the expiration date for the calibrator set.

Assay (table)	Displays the calibrator values configured for each assay in the calibrator set.

Define calibrator data window (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Calibrator set	Displays the name of the calibrator set.
Lot number	Displays the lot number for the calibrator set.
Assay	Displays the name of the assay you selected on the Configure calibrator set window.
Units	Displays the result units for the assay selected.
Assay number	Displays the number defined for the assay.
Concentration	Allows you to enter the concentration values for each calibrator level defined.

Assign assays for calibrator set window (*c* System) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Calibrator set	Displays the name of the calibrator set to be imported.
Lot number	Displays the lot number.
Number of levels	Displays the number of levels.
Expiration date	Displays the expiration date.
Assay assignment (table)	Displays the following information: • File assay / number - Displays the assay name and number from the imported file. • System assay / number - Displays the assay name and number of the assigned assay on the system. • Status - Displays the status of the system assay assignment. The following statuses may be displayed:

  - Assigned - System
  - Assigned - User
  - Cal Set Mismatch
  - No Assay
  - OK
  - Previously Defined
  - Units Mismatch
- System units - Displays the units of the system assay.
- File units - Displays the available units in the imported file.

Import lot file selection window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

File name	Displays the name of the files available to import.
Drive	Displays the drive location (CD-ROM, Hard drive, or USB Flash) of the files.

Utilities screen - Software install view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Software install (option)	Displays the software install options.
System updates (option)	Displays the system software update options.
Current software version	Displays the current system software version.
Backup software (option)	Displays the backup options.

Utilities screen - System updates view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Software install (option)	Displays the software install options.
System updates (option)	Displays the system software update options.
Backup software (option)	Displays the backup options.
System date / time	Displays the current date and time.
Available updates (list)	Displays a list of available software updates to be installed.
Update instructions	Displays instructions for procedures to be performed before installing the TSB.

Utilities screen - Backup software view field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Software install (option)	Displays the software install options.
System updates (option)	Displays the system software update options.
Backup software (option)	Displays the backup options.
Date / Time	Displays the date and time of the selected backup.
Available backups (list)	Displays a list of the backup files that have been created.
Comment	Displays any comments that were entered when the selected backup was created.

Create backup window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Backup name Displays the file name for the backup you are creating.

Comment Allows you to enter a comment, You can enter up to approximately 50 characters.

Restore backup window (CSC logon) field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Restoring backup Displays the name of the backup to be restored.

Date / time Displays the date and time the selected backup was created.

Comment Displays any comments that were entered when the selected backup was created.

Restore option Allows you to select the data to be restored.

Options are:

- Module calibrations
- System configuration
- Database

NOTE: The default is all boxes checked. For a description of each, see the following table.

Table A.5: Restore option descriptions

Restore Options	Definitions
Module calibration	• System calibration for all modules • System calibrations for the sample handler
System configuration	• Default host parameters • Default system parameters
Database	• Orders • Patient demographics • Results (patient and control, unreleased and released) • Exceptions • Calibration curves • Reagent lot information • Reagent kit volume remaining and stability • Installed assays

Restore Options	Definitions
	• Installed maintenance and diagnostic procedures • System logs • Host configurations • Serial port configuration • Sample bar code configuration • Reports configuration • Control configuration • Number of modules configured for the system • Type of each module configured • System serial number • Module serial number • Type of sample handler configured • Sample handler serial number

Abbott mail screen field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Inbox (open envelope icon) Displays the files available for review.

Assay disks Displays reviewed assay disk information. When a new version is received, it replaces any previously downloaded version of the same disk.

Assay inserts Displays reviewed assay inserts. A downloaded insert is deleted when the last reagent lot linked to the insert is deleted from the system.

Value assignments Displays reviewed *c* System calibrator value assignment information. Assignments are deleted after the system date exceeds the defined lot expiration date.

DATE/TIME Displays the date and time the file was downloaded via AbbottLink.

TYPE Displays the type of file that is available.

SUBJECT Displays the name of the file that is available.

Download options window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Download selection Select the following download file option to indicate which files you want to receive from AbbottLink.

- Assay disks
- Assay inserts
- Value assignments

Download language Allows the system administrator to select the language for the downloaded PDF.

NOTE: PDF files are downloaded from abbottdiagnostics.com. All languages may not be available.

Options are:

- English
- French
- German
- Italian
- Spanish
- Japanese
- Chinese
- Danish
- Swedish
- Portuguese
- Hungarian
- Turkish
- Greek
- Czech
- Polish
- Russian
- Norwegian
- Slovakian
- Vietnamese
- Thai
- Croatian
- Serbian
- Korean

Print options window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Printer name Displays the name of the printer.

Printer status Displays the current status of the printer.

NOTE: Printer status is specific to the type of printer you are using.

Print selection Allows you to select one or more items/categories to print.

Reports available (list) Lists the names of the reports available to print. For a complete list of available reports, see *Print a report*, page 5-403.

Number of copies Allows you to enter the number of copies you want to print.

Default: 1

Printer window field descriptions

To see a description of all buttons on this screen or window, see *Buttons*, page E-5.

Field descriptions are listed from left to right, top to bottom of the screen or window.

Printer status Displays the current status of the printer.

NOTE: Printer status is specific to the type of printer you are using.

Printer queue (list) Displays a list of the reports you requested, including printing status and the time you requested the report.

Printing statuses include:

- Failed
- Pending
- Printing
- Downloading records
- Deleting

NOTE: If more than one report is in the queue and the first report has a status of Failed, you must delete this report before the other reports in the queue will print.

Introduction

The *i*ARM (Automatic Reconstitution Module) is an optional ARCHITECT *i* System accessory that automatically dilutes ARCHITECT Concentrated Wash Buffer and delivers it to the ARCHITECT System wash buffer reservoir.

ARCHITECT *i*ARM topics include:

Components

The ARCHITECT *i*ARM accessory is shipped with the following components:

- Two 10' (3.0 m)-length power cords
  - 120 VAC (U.S.)
  - 230 VAC (Europe)
- One 10' (3.0 m)-length water inlet tubing assembly
- One 10' (3.0 m)-length pressurized waste tubing assembly
- One 10' (3.0 m)-length flood-to-floor drain tubing assembly
- Two concentrated wash buffer straw assemblies
- Additional components are required for each instrument connected to the ARCHITECT *i*ARM:
  - One 25' (7.6 m)-length RS-232 cable
  - One 25' (7.6 m)-length tubing
  - Two fittings
  - Two hose clamps
- One ARCHITECT *i*ARM User's Guide, on CD-ROM

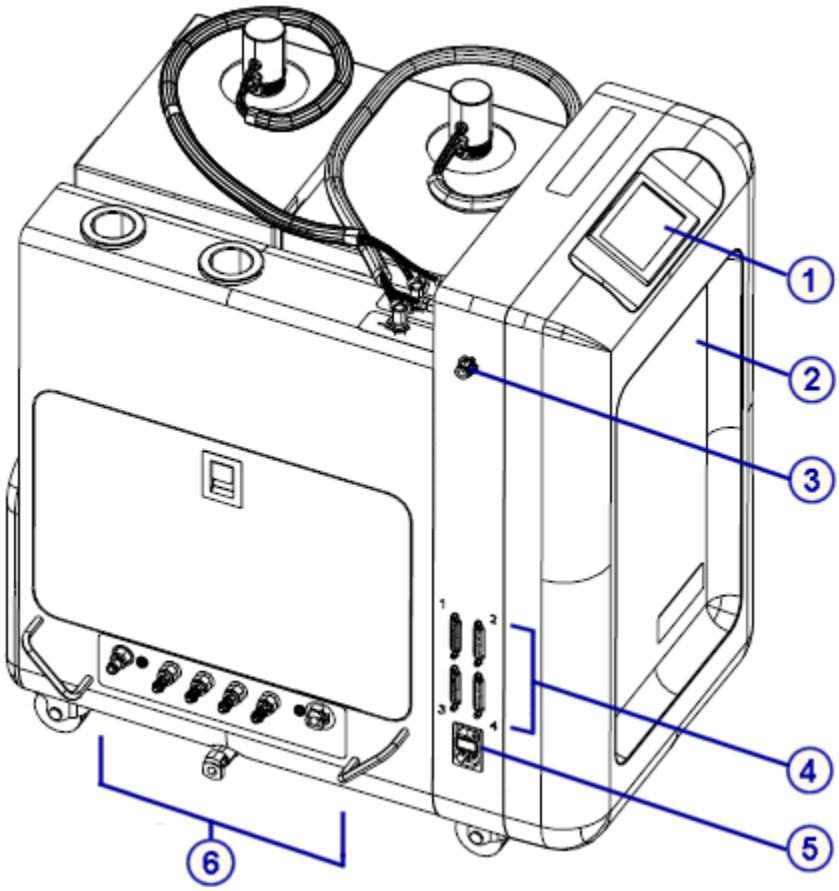
The following components may be purchased separately:

- ARCHITECT *i*ARM Filling Station kit
  - *i*ARM Filling Station tubing assembly
  - *i*ARM Filling Station cable assembly
- ARCHITECT *i*ARM Concentrated wash buffer straw assembly

Primary parts and connections

Primary parts and connections on the *i*ARM are shown below.

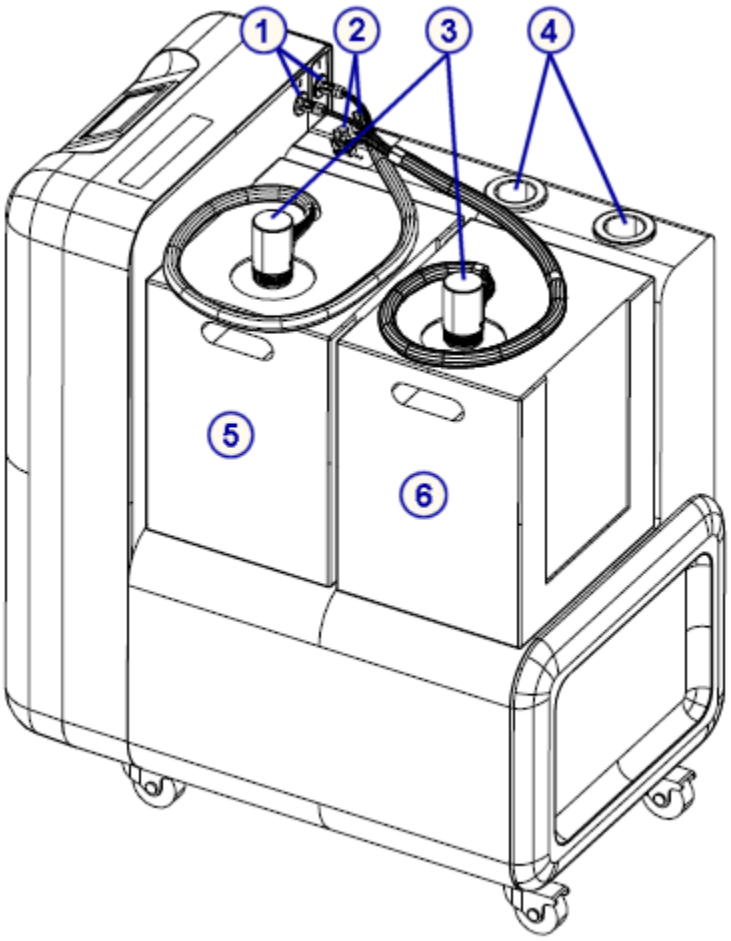
Figure A.1: Front and left side view of iARM



Legend:

1. Touchscreen display - Displays status information and is an input device used to operate the *i*ARM and to perform maintenance and diagnostics. When the touchscreen is idle for ten minutes, the display backlight shuts off. To turn on the backlight, touch the screen. The touchscreen display is located on the front of the *i*ARM.
2. Electronics bay - Houses the circuit boards.
3. Filling Station electrical connection - Allows communication between the *i*ARM and the wash buffer level sensor.
4. RS-232 ports - Provide communication between the *i*ARM and SCCs.
5. Power entry module - Provides the connection from the *i*ARM to electrical utility service.
6. Fluid ports - Provide fluid connections to processing modules and access to water supply and waste drains.

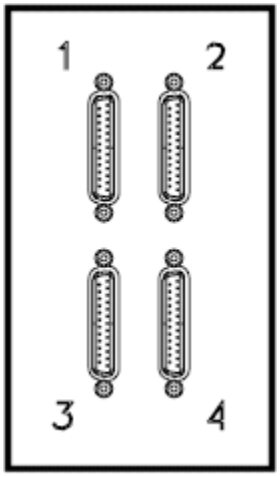
Figure A.2: Top and right side view of iARM



Legend:

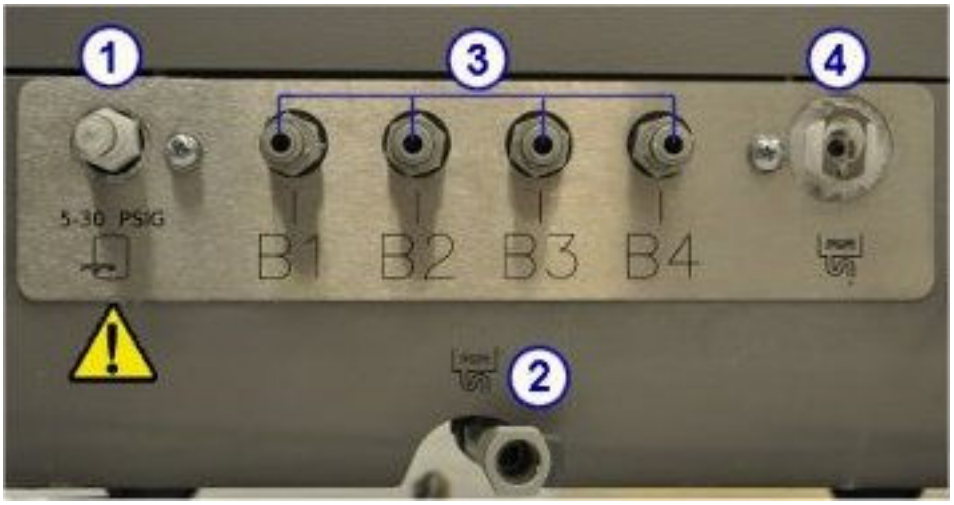
1. Concentrated wash buffer straw sensor connection - Electronic connection of the concentrated wash buffer straw assembly to the *i*ARM.
2. Concentrated wash buffer fluid inlet port - Provides the connection that allows concentrated wash buffer to be transferred to the fluidic chamber of the *i*ARM.
3. Concentrated wash buffer straw assembly - Includes the concentrated wash buffer straw, level sensor, and connections to the *i*ARM.
4. Concentrated wash buffer straw holder - Stores the concentrated wash buffer straw when it is not inserted into a cubitainer (for example, while loading cubitainers).
5. Concentrated wash buffer cubitainer 1 - Container nearest the touchscreen display that holds the concentrated wash buffer.
6. Concentrated wash buffer cubitainer 2 - Container farthest from the touchscreen display that holds the concentrated wash buffer.

Figure A.3: RS-232 ports



The RS-232 ports are labeled on the *i*ARM, 1-4.

Figure A.4: Fluid ports



Legend:

1. Water inlet port - Provides the connection from the water supply to the *i*ARM. See *Water source requirements*, page F-10.

   CAUTION: Water inlet pressure is not to exceed 30 psig.

2. Flood-to-floor drain outlet port - Provides a gravity waste drain from the internal drip pan located inside the *i*ARM to the external waste pump or floor drain.
3. Reconstituted buffer to processing module outlet ports (B1-B4) - The processing module outlet ports provide the connections that allow reconstituted wash buffer to be transferred to the ARCHITECT processing modules or wash buffer reservoir.
4. Pressurized waste fluid port - Provides pressurized waste removal from the mixing block to the external waste pump or floor drain.

Touchscreen display

The touchscreen displays status information and is an input device used to operate the *i*ARM and to perform maintenance and diagnostics. When the touchscreen is idle for ten minutes, the display backlight shuts off. To turn on the backlight, touch the screen.

NOTE: The display may be sensitive to static electricity. If exposed to a high level of static electricity the *i*ARM display may become unresponsive. If the display is unresponsive, cycle power to the *i*ARM.

The touchscreen is continuously illuminated when any of these conditions exist:

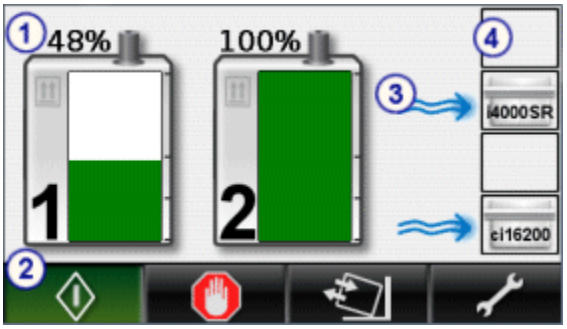
- the *i*ARM is making buffer;
- an Error code is displayed; or
- a cubitainer is empty and ready to be replaced.

Touchscreen display topics include:

- *Home screen*, page F-6
  Describes the Home screen and menus.
- *Toolbar - Main menu*, page F-7
  Describes the Main menu.
- *Toolbar - Maintenance and diagnostics menu*, page F-7
  Describes the Maintenance and diagnostics menu.

Home screen

The Home screen displays information about the *i*ARM and loaded cubitainers of concentrated wash buffer.



Legend:

1. Cubitainer icons - Display percentages of concentrated wash buffer in the cubitainers. The left icon corresponds with cubitainer 1, located closest to the touchscreen display. The right icon corresponds with cubitainer 2.
2. Toolbar - Provides operational control of the *i*ARM.
3. Flow indicator - Indicates which processing modules are receiving buffer.

4. Port indicators - Identify the processing modules to which the *i*ARM is connected, through the *i*ARM RS-232 ports (1-4). The top indicator corresponds with port 1, and the bottom indicator corresponds with port 4.

Toolbar - Main menu

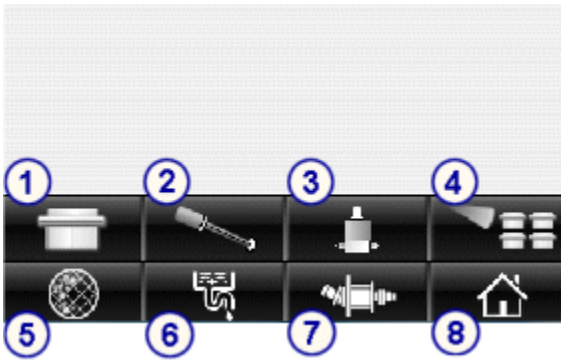
The Home screen toolbar displays the Main menu and includes the following icons:

Legend:

1. **Start** - Changes the *i*ARM status to Ready and sends a message to the SCC that it is ready to deliver wash buffer.
2. **Stop** - Changes the *i*ARM status to Stopped and sends a message to the SCC that it is not ready to deliver wash buffer.
3. **Load cubitainer** - Checks the concentrated wash buffer sensors for fluid levels and updates the *i*ARM display with the percentage of volume remaining in each cubitainer.
4. **Maintenance and diagnostics** - Opens the Maintenance and diagnostics menu.

Toolbar - Maintenance and diagnostics menu

The Maintenance and diagnostics menu includes the following icons:



Legend:

1. **Instrument port configuration** - Allows you to identify the processing modules connected to the *i*ARM.
2. **Buffer straw calibration** - Calibrates the cubitainer straw level sensors.
3. **Valve test** (FSR only) - Tests the *i*ARM valves. This procedure is performed by an Abbott field service representative (FSR) and requires appropriate training, tools, and materials available to the FSR.
4. **Instrument check** - Checks the communication port connections and displays connected processing modules. To be detected, a processing module must be configured at the ARCHITECT SCC for automatic buffer transfer. Up to four processing modules can be connected to one *i*ARM.

5. **Decontamination** (FSR only) - Runs the internal decontamination procedure. This procedure is performed by an Abbott field service representative (FSR) and requires appropriate training, tools, and materials available to the FSR.
6. **Flush** - Flushes purified water and concentrated wash buffer through the *i*ARM to the pressurized waste outlet.
7. **Pump motor test** (FSR only) - Tests the pump motor speeds. This procedure is performed by an Abbott field service representative (FSR) and requires appropriate training, tools, and materials available to the FSR.
8. **Home** - Displays the Home screen and Main menu.

Specifications and requirements

The *i*ARM specifications and requirements are related to proper installation and operation of the *i*ARM and ensure optimal safety and performance requirements are met.

Specifications and requirements topics include:

Physical specifications

Physical specifications of the *i*ARM accessory are presented in the following table.

Table A.1: Physical specifications

Dimensions: • Height • Width • Depth	 29.00" (73.7 cm) 17.53" (44.5 cm) 25.05" (63.6 cm)
Weight	58 lbs. (26.3 kg)

Clearance requirements

Clearance requirements for the *i*ARM accessory are presented in the following table.

Table A.2: Clearance requirements

Left clearance (for tubing, fittings, and access to power entry module)	7" (17.8 cm), up to a height of 7.5" (19.0 cm) from the floor 3" (7.6 cm) above a height of 7.5" (19.0 cm) from the floor
Right clearance (for loading cubitainers)	36" (91.4 cm)
Rear clearance	No rear clearance required.
Front clearance (for access to touchscreen display)	20" (50.8 cm)

Top clearance	No top clearance required.

Electrical requirements

Electrical requirements for the *i*ARM accessory are presented in the following table.

Table A.3: Electrical requirements

AC power	• Voltage: 100 - 120 or 200 - 240 ± 10% VAC • Frequency: 50 or 60 Hz The *i*ARM accessory ships with power cords for various power systems.
Power cord type	• U.S.: NEMA 5-15P or equivalent • Europe: CE E 7/7 or equivalent
Current rating	3.6 amp maximum

Electrical safety parameters

Electrical safety parameters for the *i*ARM accessory are presented in the following table.

Table A.4: Electrical safety parameters

Installation category	II (Overvoltage category)
Pollution degree	2

NOTE: Electrical safety parameters have no bearing on performance.

Water source requirements

Water source requirements for the *i*ARM accessory are presented in the following table.

Table A.5: Water source requirements

Purity	≤ 1000 colony-forming units/mL 1 Meg Ohm - cm @ 25˚C (77˚F)
Pressure	5 to 30 psig
Flow rate	102 L/hr (1.7 L/minute) or greater
Temperature	4˚C to 37˚C (39.2˚F - 98.6˚F)

CAUTION: Water inlet pressure is not to exceed 30 psig.

Environmental requirements

Environmental requirements for the *i*ARM accessory are presented in the following table.

Table A.6: Environmental requirements

Operating environment:	For indoor use only
• Temperature	15˚C to 30˚C (59˚F to 86˚F)
• Humidity	10% to 85% (non-condensing) RH (relative humidity) at 25˚C (77˚F)
• Altitude	≤ 8500 ft. (2590.7 m)
Storage environment:	
• Temperature	-25˚C to 65˚C (-13˚F to 149˚F)
• Humidity	10% to 85% (non-condensing) RH (relative humidity) at 25˚C (77˚F)
• Altitude	≤ 8500 ft. (2590.7 m)

Operation

CAUTION: Ensure that the wheels are locked before attempting to operate the *i*ARM.

Operation topics include:

Put the *i*ARM into the Ready state

The *i*ARM must be put into the Ready state to enable it to operate and for the operator to perform tasks from the *i*ARM menus.

To put the *i*ARM into the Ready state, press the **Start** icon [1] on the Main menu.

When the *i*ARM is in the Ready state, the **Start** icon displays green. The *i*ARM is in the Ready state when you power on the *i*ARM.

Stop the *i*ARM

Typically, it is not necessary to manually stop the *i*ARM. Stopping the *i*ARM stops buffer delivery to the processing modules. The *i*ARM does not respond to requests for buffer until it is put back into the Ready state.

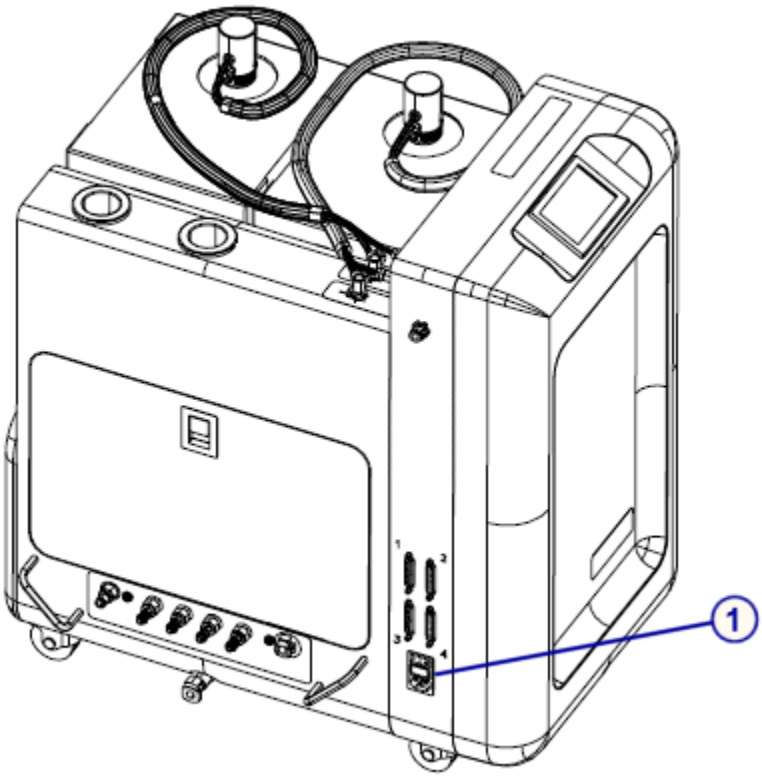
To manually stop the *i*ARM, press the **Stop** icon [1] on the Main menu.

When the *i*ARM is in a Stopped state, the **Stop** icon displays red.

The *i*ARM is in the Stopped state when you power on the *i*ARM in Filling Station mode.

Perform an emergency shutdown

If an unusual circumstance indicates that an emergency may exist, press the toggle switch to the off (O) position at the power entry module [1]. Disconnect the power cord.



CAUTION: Ensure that adequate clearance exists on the left side of the *i*ARM to allow access to the power entry module. See *Clearance requirements*, page F-9.

Initiate wash buffer transfer from the *i*ARM

Perform this procedure at the ARCHITECT SCC to manually start transfer of buffer from the *i*ARM to an *i* System processing module.

To initiate wash buffer transfer from the *i*ARM:

1. Verify the *i*ARM is in the Ready state (green Start icon is illuminated). See *Put the iARM into the Ready state*, page F-12.
2. Select the appropriate Module option on the Supply status screen, and then select **F2 - Update Supplies**.

   The Update supplies window displays.

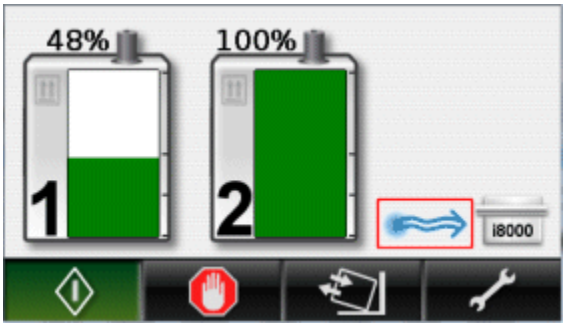
3. Select the **Add buffer** check box.
4. Enter the lot number and expiration date in the same format as they appear on the wash buffer container label, or use the bar code scanner to scan in the data. (premium feature)

   IMPORTANT: When using the bar code scanner, ensure the shift key on the keyboard is not pressed to prevent an incorrect read of the lot number.

   NOTE: If the expiration date is not provided, expiration tracking for the wash buffer is disabled.
5. Select **Done**.

   The updated Supply status screen displays.

When buffer is being transferred to the processing module, a blue flow indicator displays on the *i*ARM Home screen.



NOTE: The following connections are necessary, to transfer buffer from the *i*ARM to an *i* System processing module:

- water supply to the *i*ARM, through the water inlet port
- pressurized waste removal from the *i*ARM to the external waste pump or floor drain, through the pressurized waste fluid port and
- buffer to the processing module through an outlet port.

See *Primary parts and connections*, page F-3.

Replace concentrated wash buffer on the *i*ARM

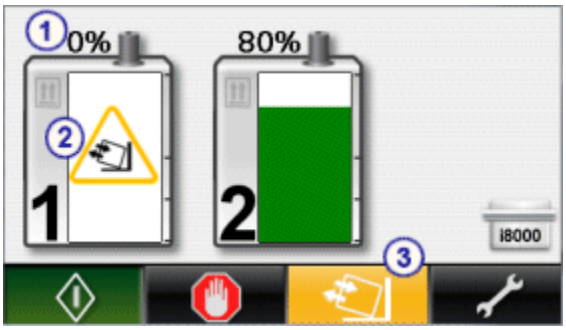
CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to the ARCHITECT System Operations Manual, Section 8, *Chemical hazards*.

CAUTION: Lifting Hazard. The cubitainer is heavy when full. Refer to the ARCHITECT System Operations Manual, Section 8, *Physical hazards*.

CAUTION: Ensure that the *i*ARM is positioned to allow access to load the cubitainer and that the wheels on the bottom of the *i*ARM are in the locked position.

CAUTION: Do not place any object on the *i*ARM except ARCHITECT Concentrated Wash Buffer cubitainers. Do not load more than two cubitainers of concentrated wash buffer at one time.

The *i*ARM Home screen indicates percentages of concentrated wash buffer remaining in the cubitainers [1]. When a cubitainer is empty, the Load cubitainer icon displays on the empty cubitainer [2], and the **Load cubitainer** icon on the toolbar displays yellow [3].

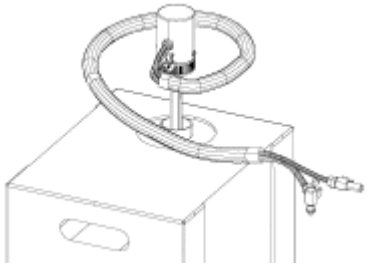


NOTE: Do not replace a cubitainer until the Load cubitainer icon displays. The cubitainer is supplying concentrated wash buffer until the icon displays.

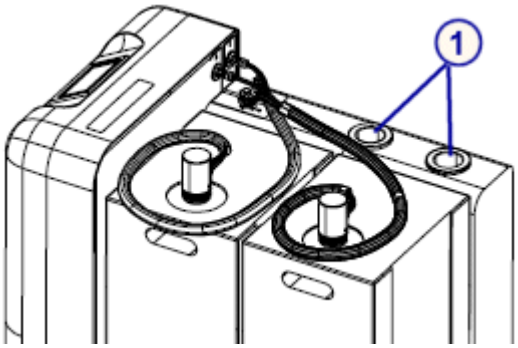
NOTE: The *i*ARM does not have to be stopped when a cubitainer is replaced.

To replace a concentrated wash buffer cubitainer:

1. Remove the concentrated wash buffer straw assembly from the cubitainer.



2. Store the concentrated wash buffer straw in the straw holder [1].



3. Remove the empty cubitainer from the *i*ARM.
4. Lift the new cubitainer into position on the *i*ARM.

   The cardboard cutout handle can be used to lift or position the cubitainer but should never be used to support the full weight of the cubitainer.
5. Remove the cardboard cutout on top of the cubitainer and cubitainer cap, and insert the concentrated wash buffer straw into the full cubitainer. Twist the fitting to tighten.

   On the Home screen, the cubitainer status and percentage of remaining concentrated wash buffer is updated.
6. Discard the empty cubitainer according to applicable local regulations.

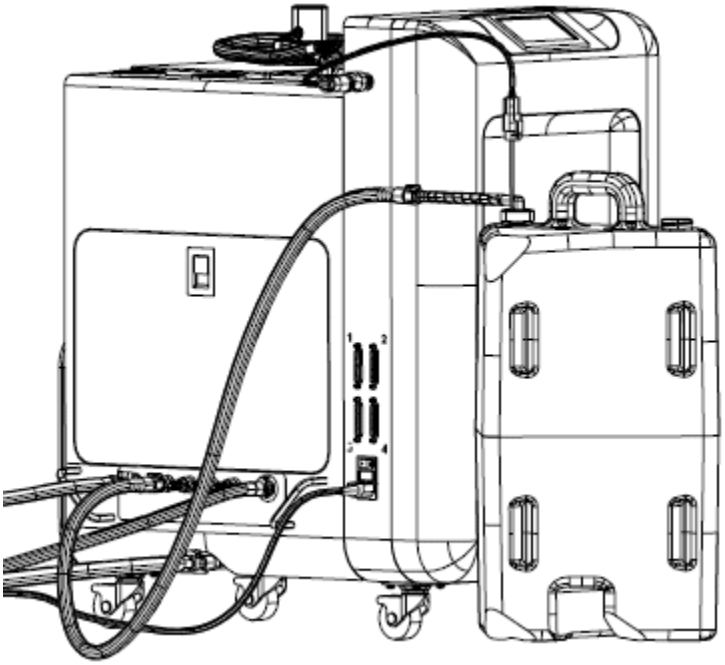
Run in Filling Station mode

The Filling Station mode allows the *i*ARM to fill a standalone wash buffer reservoir container with reconstituted buffer. The reconstituted buffer can be used to manually fill ARCHITECT Systems.

It is highly recommended that you use a standalone *i*ARM rather than an *i*ARM that is connected to a processing module, for the Filling Station mode. It is also recommended that you use a 25 L wash buffer reservoir container rather than a 12 L wash buffer reservoir container.

IMPORTANT: You must completely disconnect both the Filling Station cable and tubing assemblies when the *i*ARM is not running in Filling Station mode. Failure to disconnect cable and tubing assemblies could result in flooding.

Figure A.5: ARCHITECT iARM Filling Station mode



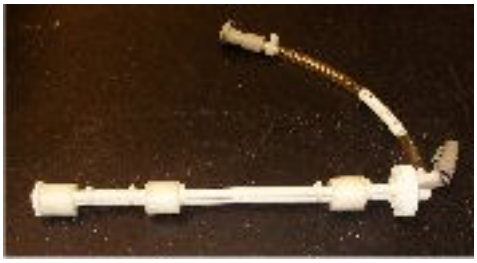
The following components are required. Contact your Abbott representative to order these components:

- *i*ARM Filling Station tubing assembly

- *i*ARM Filling Station cable assembly

- Wash buffer level sensor (use only with 25 L reservoir container)

- Wash buffer level sensor (use only with 12 L reservoir container)



- Wash buffer reservoir container (12 L and 25 L)

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to the ARCHITECT System Operations Manual, Section 8, *Chemical hazards*.

CAUTION: Lifting Hazard. The wash buffer reservoir is heavy when full. Refer to the ARCHITECT System Operations Manual, Section 8, *Physical hazards*.

Required components:

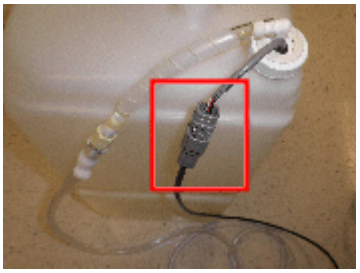
- ARCHITECT wash buffer reservoir container
- Wash buffer level sensor
- *i*ARM Filling Station tubing assembly
- *i*ARM Filling Station cable assembly

To run the *i*ARM in Filling Station mode:

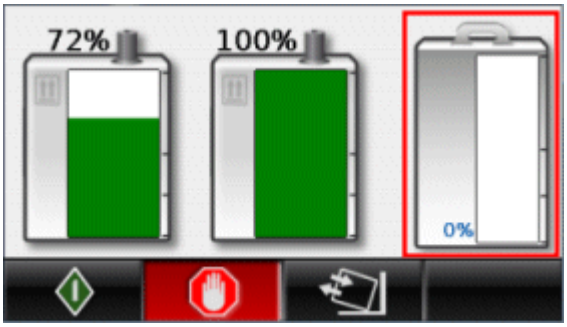
1. Insert the wash buffer level sensor into the wash buffer reservoir container.
2. Disconnect all tubing that is connected to the processing module outlet ports (B1-B4) on the *i*ARM.

3. Identify and label the cables that are connected to the RS-232 ports and then disconnect the RS-232 cable(s) from the *i*ARM. Labeling the cables will allow you to reconnect them in the same configuration after you run the *i*ARM in Filling Station mode.
4. Attach the Filling Station cable to the Filling Station electrical connection on the *i*ARM.

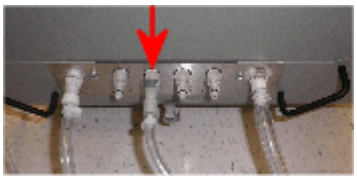
5. Attach the other end of the Filling Station cable to the wash buffer level sensor.



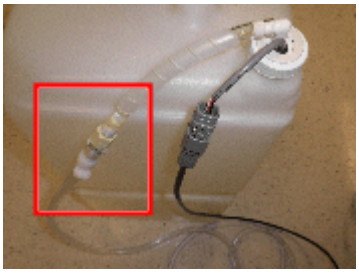
The *i*ARM Filling Station screen displays the external reservoir icon.



6. Connect the Filling Station tubing to one of the outlet ports (B1-B4) on the *i*ARM.

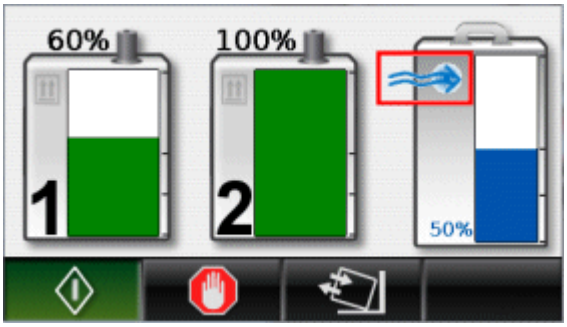


7. Connect the other end of the Filling Station tubing to the wash buffer level sensor.

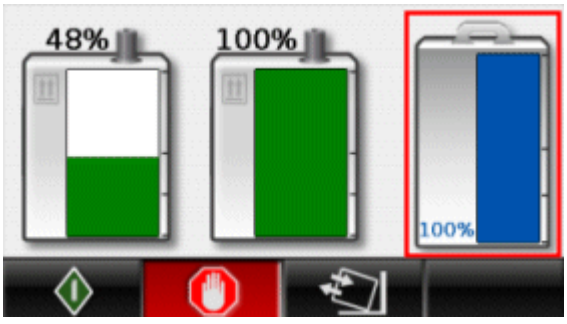


8. Press the **Start** icon.

   The blue flow icon on the *i*ARM display indicates that wash buffer is being transferred to the reservoir container.



   When the reservoir container is full, the *i*ARM stops automatically. The *i*ARM Filling Station screen displays the full (100%) external reservoir icon, if the 25 L reservoir is used.

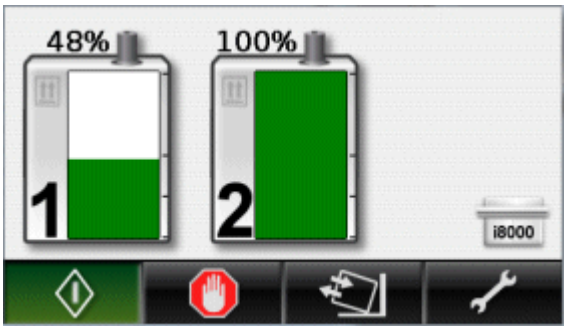


   NOTE: If you need less than 25 L of reconstituted wash buffer, you can press the **Stop** icon to manually stop the fill when the buffer reaches the desired level in the reservoir container. When filling the 12 L *i*1000 wash buffer reservoir, the *i*ARM automatically stops when the fill is complete.

9. Disconnect the Filling Station cable and tubing assemblies from the *i*ARM and then from the wash buffer level sensor.

   IMPORTANT: You must completely disconnect both the Filling Station cable and tubing assemblies when the *i*ARM is not running in Filling Station mode. Failure to disconnect cable and tubing assemblies could result in flooding.

   The Home screen displays.



10. To reconnect the *i*ARM to the processing modules, reconnect the RS-232 cables to the RS-232 electrical port connections as they were originally connected to the *i*ARM.

    NOTE: If you connect an RS-232 cable to a port other than its original port, you must reconfigure the port. See *Configure a port to connect with an ARCHITECT processing module*, page F-22.

11. Verify that both the Filling Station cable and tubing assemblies are completely disconnected from the *i*ARM.

12. Reconnect the tubing to the processing module outlet ports (B1-B4) on the *i*ARM.

    NOTE: If the *i*ARM was in the Ready state before running in Filling Station mode, after cables and tubing from processing modules are reconnected, the *i*ARM moves to the Ready state. If the *i*ARM was in the Stopped state or if an error occurred in Filling Station mode, after cables and tubing from processing modules are reconnected, the *i*ARM moves to the Stopped state.

13. *Put the iARM into the Ready state*, page F-12, if necessary.

14. Verify that the Home screen displays processing module icons that reflect the original configuration of the ports.

    If any processing module icon does not display as expected, check and correct its RS-232 cable connection then *Check instruments*, page F-27. After instruments are checked, the processing module icons display according to RS-232 connections and original configuration of the ports.

15. On the SCC, verify that the *i*ARM icon displays without a caution symbol.

Maintenance and diagnostics

Maintenance and diagnostics topics include:

Configure a port to connect with an ARCHITECT processing module

This procedure allows you to label the types of processing modules that are connected to the *i*ARM.

Port configuration is optional, in some cases. The *i*ARM automatically detects a communication attempt from a port that is not configured and automatically enables that port. Port configuration is necessary when the *i*ARM is connected to multi-module configurations, such as the *i*4000SR. Port configuration allows the *i*ARM to estimate the buffer volume that the processing modules might request.

A port may be configured before it is connected to a processing module, but its processing module icon does not display on the Home screen until the port is connected.

Before configuring ports, ensure that the *i*ARM tubing is connected to the processing modules and that each processing module is configured at the ARCHITECT SCC for automatic buffer transfer. See *Change the wash buffer transfer option to Automatic*, page F-23.

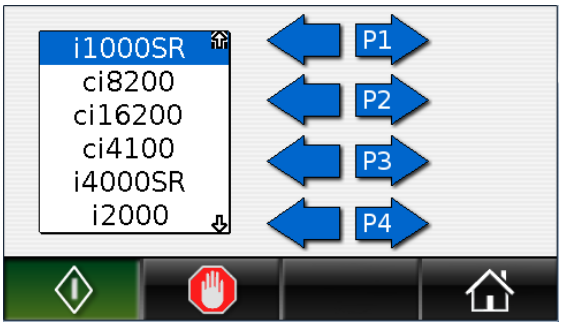
To configure a port of the *i*ARM to connect with an ARCHITECT processing module:

1. On the Maintenance and diagnostics menu, select the **Instrument port configuration** icon.

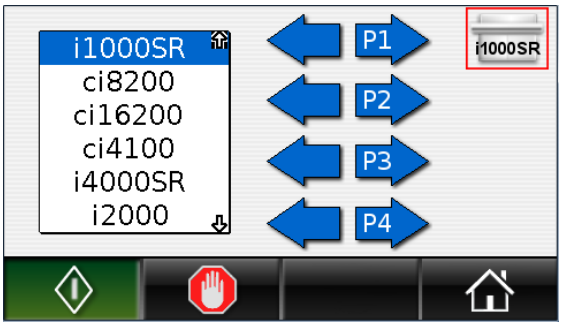
2. Select the appropriate instrument from the list of instrument types. To scroll, touch the up or down arrow to the right of the instrument types.

   NOTE: If neither the up nor the down arrow displays, to display the arrows, touch the instrument list.



3. Select the icon of the port you want to configure. For example, to configure Port 1, select the P1 icon.

   The processing module icon displays to indicate that the *i*ARM is connected to the instrument.



4. Repeat these steps to configure additional ports, as necessary.

   The *i*ARM can support a total of four ARCHITECT processing modules. The total number of wash buffer reservoirs cannot total more than four.

   For example, you can connect the *i*ARM to two ARCHITECT *i*4000SR Systems or four ARCHITECT *i*2000SR or *i*1000SR Systems.

   Configuring too many modules results in an error. You cannot exit the Instrument port configuration screen until four or fewer modules are configured.

5. To return to the Main menu, press the **Home** icon.

Change the wash buffer transfer option to Automatic

Perform this procedure at the ARCHITECT SCC if it is necessary to change the wash buffer transfer option to Automatic. Normally it is not necessary to change this setting. The wash buffer transfer option is set to Automatic during *i*ARM installation. Some troubleshooting actions require changing the wash buffer transfer option to Manual until the problem is resolved.

To change the wash buffer transfer option:

1. Select **Reagents - Supplies** from the **System categories** list on the Configuration screen
2. Select **F6 - Configure**.

   The Configure reagents - supplies window displays.
3. Select the desired **Wash buffer transfer** option.
4. Select **Done** to save your changes.

Calibrate the buffer straw

This procedure calibrates the concentrated wash buffer straw level sensors. This procedure requires calibrating the buffer straw to both a full and an empty cubitainer.

To select the desired buffer straw to calibrate:

1. On the Maintenance and diagnostics menu, select the **Buffer straw calibration** icon.

   
2. Toggle to select the desired straw:
   - select straw 1, or

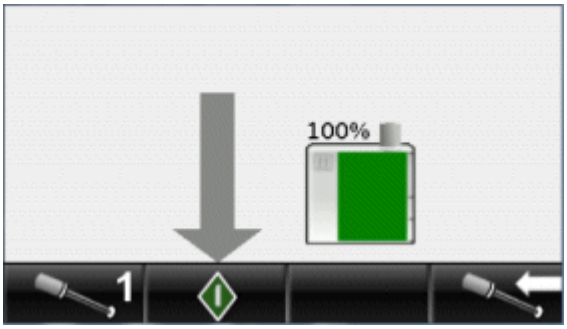
   - select straw 2.

To calibrate to a full cubitainer, follow these steps:

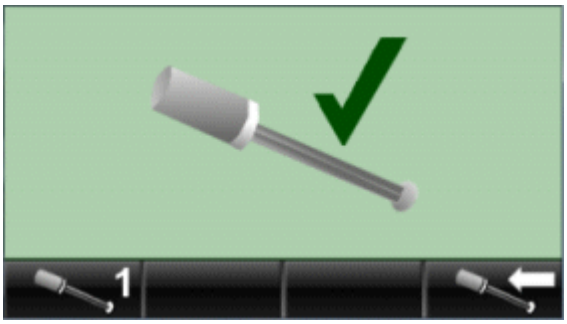
1. Select the full cubitainer icon.

   
2. Insert the buffer straw into the full cubitainer.
3. Press the **Start** icon.

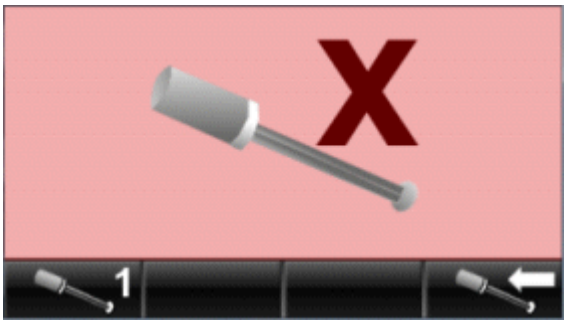
   

4. When calibration is completed, a screen displays to indicate success or failure.

   Calibration passed:

   Calibration failed:

   If calibration fails, an error icon and Error code display on the touchscreen. Touch the error icon to clear the error.

5. To return to the Calibration screen, select the following icon.

6. To return to the Maintenance and diagnostics screen, select the **Maintenance and diagnostics** icon.

7. To return to the Home screen and Main menu, from the Maintenance and diagnostics screen press the **Home** icon.

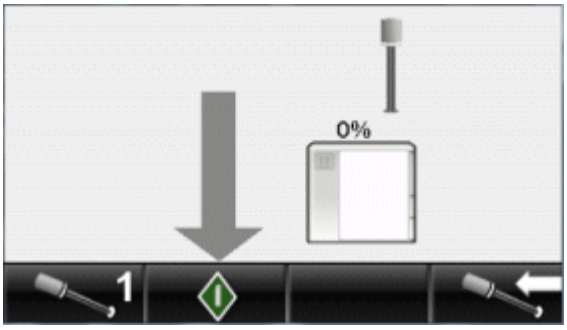
   

To calibrate to an empty cubitainer, follow these steps:

1. Select the empty cubitainer icon.

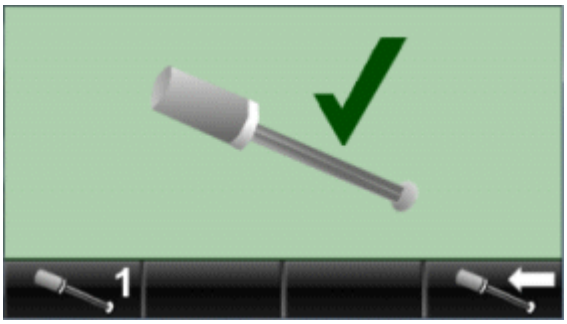
   

2. Remove the buffer straw from the cubitainer.
3. Press the **Start** icon.

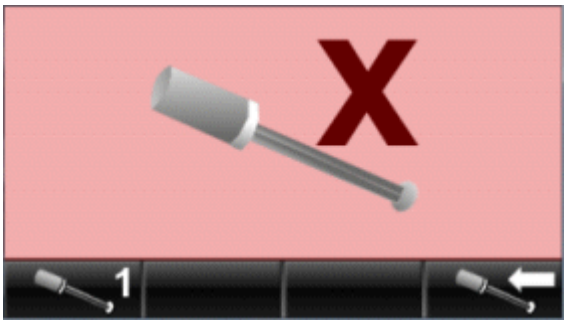


4. When calibration is completed, a screen displays to indicate success or failure.

   Calibration passed:



   Calibration failed:



   If calibration fails, an error icon and Error code display on the touchscreen. Touch the error icon to clear the error.
5. To return to the Calibration screen, select the following icon.

6. To return to the Maintenance and diagnostics screen, select the **Maintenance and diagnostics** icon.

7. To return to the Home screen and Main menu, from the Maintenance and diagnostics screen press the **Home** icon.

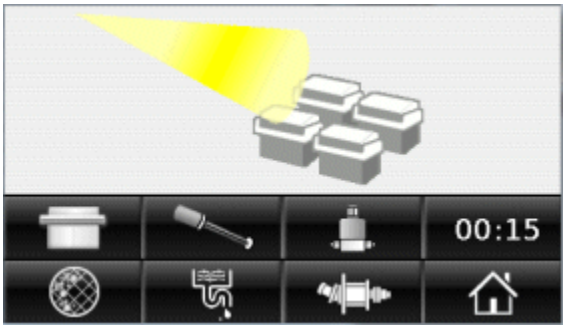
8. When calibration is completed, reinsert the buffer straw into the cubitainer.

Check instruments

This procedure checks the communication port connections and displays connected processing modules. To be detected, a processing module must be configured at the ARCHITECT SCC for automatic buffer transfer. See *Change the wash buffer transfer option to Automatic*, page F-23.

To check instruments, on the Maintenance and diagnostics menu, select the **Instrument check** icon.

A status screen displays. The countdown timer displays the instrument check time remaining.



After the instrument check is complete, the Home screen displays processing modules connected to the *i*ARM.

If a port has been configured to connect with an ARCHITECT System before the instrument check, the processing module icon displays on the Home screen. Checking instruments does not remove existing instrument port configurations for processing modules that are connected to the *i*ARM when instruments are checked.

The *i*ARM stores in memory the types of processing modules that are configured. If a processing module is reconnected to the *i*ARM and configured for automatic buffer delivery, the *i*ARM displays its processing module icon.

Ports that are not configured for processing module type are represented with generic icons.

Flush the *i*ARM

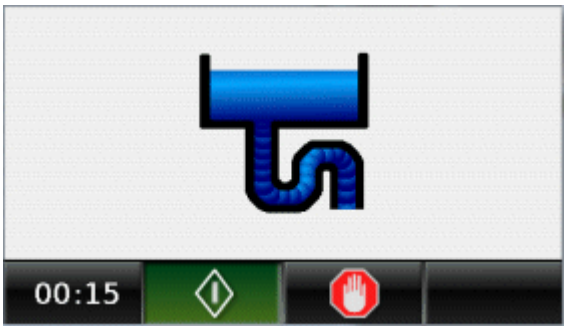
This procedure flushes purified water and concentrated wash buffer through the *i*ARM to the pressurized waste outlet.

To flush the *i*ARM:

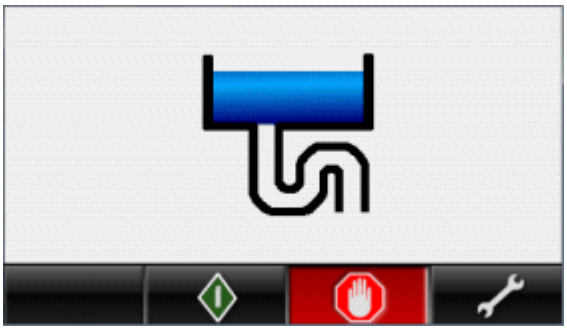
1. On the Maintenance and diagnostics menu, select the **Flush** icon.

2. Press the **Start** icon.

   The flush begins. The countdown timer displays the flush time remaining.



   When the flush is completed, the **Stop** icon displays red, and the Maintenance and diagnostics icon displays.



3. To return to the Maintenance and diagnostics screen, select the **Maintenance and diagnostics** icon.

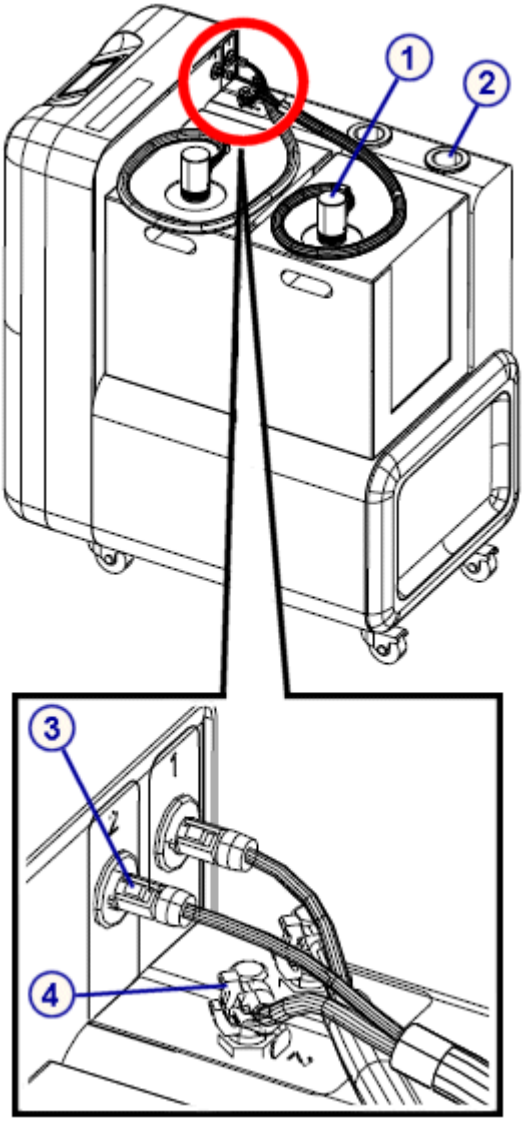
4. To return to the Home screen and Main menu, from the Maintenance and diagnostics screen, press the **Home** icon.

Replace the concentrated wash buffer straw assembly

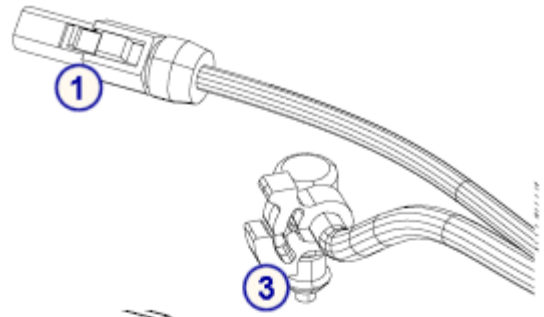
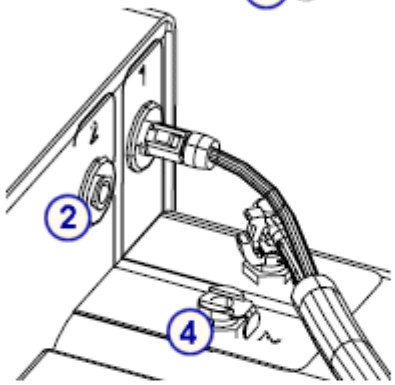
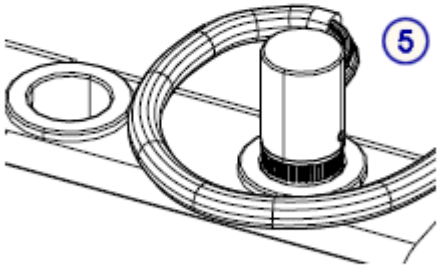
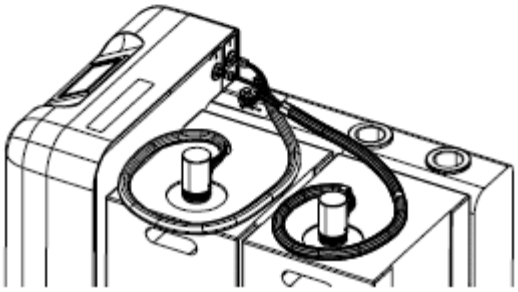
Prerequisite	*i*ARM is in Ready or Stopped state
Estimated time required	5 minutes
Tools/materials required	None
Replacement parts	Concentrated wash buffer straw assembly

CAUTION: Chemical Hazard. This activity presents a chemical-related hazard. Refer to the ARCHITECT System Operations Manual, Section 8, *Chemical hazards*.

Remove the concentrated wash buffer straw assembly

Steps	Graphic / reference
1. Twist the fitting on the cubitainer to loosen and remove the concentrated wash buffer straw from the cubitainer [1]. 2. Store the concentrated wash buffer straw in the straw holder [2]. 3. Detach the concentrated wash buffer straw sensor (electrical) connector [3] from the concentrated wash buffer straw sensor connection. 4. Depress the release tab on the concentrated wash buffer tubing connector [4], and detach the connector from the concentrated wash buffer fluid inlet port. 5. Discard the removed concentrated wash buffer straw assembly according to applicable local regulations.	

Install the concentrated wash buffer straw assembly

Steps	Graphic / reference
NOTE: When you perform the following steps, note the labeling for the electrical connections and inlet ports. Ensure that you insert sensor and tubing connectors into the correct electrical connections and inlet ports, based on these labels. For example, insert cubitainer 1 connectors into the connection and port labeled for cubitainer 1. Cubitainer 1 is located nearer to the touchscreen display. 1. Insert the concentrated wash buffer straw sensor (electrical) connector [1] into the concentrated wash buffer straw sensor connection on the *i*ARM [2]. 2. Insert the concentrated wash buffer tubing connector [3] into the concentrated wash buffer fluid inlet port on the *i*ARM [4]. 3. Store the concentrated wash buffer straw in the straw holder [5]. 4. Remove the cardboard cutout on top of the cubitainer and cubitainer cap, if applicable, and insert the concentrated wash buffer straw into the cubitainer. Twist to tighten the fitting.	   

Clean exterior surfaces of the *i*ARM

When it is necessary to clean exterior surfaces of the *i*ARM, wipe exterior surfaces with a lightly dampened cloth containing a mild soap solution.

Troubleshooting

If an error occurs on the *i*ARM, an error icon and Error code number display on the touchscreen. If the *i*ARM is running when the error occurs, it stops.

Before clearing the error, document the error number. Refer to the troubleshooting information in this section to troubleshoot the error number displayed.

To clear an error and resume operation:

1. Touch the error icon.

   The Home screen displays with the *i*ARM in the Stopped state.

2. *Put the iARM into the Ready state*, page F-12.

   You must put the *i*ARM into the Ready state to allow the *i*ARM to deliver buffer to the processing module or to perform any task from the *i*ARM menus.

For *i*ARM Error codes,

- the *i*ARM icon on the ARCHITECT SCC Snapshot screen displays a Caution symbol;

- the *i*ARM sends a Stop status to the ARCHITECT SCC; and
- the *i*ARM stops transferring buffer to the ARCHITECT processing module.

NOTE: For Error codes 0003 through 0016, an Error code popup may display on the ARCHITECT SCC Snapshot screen. The Error code message is sent to the message history log.

If the corrective actions listed under the error code in question do not resolve the problem, contact your local representative or find country-specific contact information on www.abbottdiagnostics.com.

Error code topics include:

Error code: 0003 Outlet pressure error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• System control center (SCC) or processing module has closed the inlet valve causing the outgoing wash buffer pressure to exceed 15 psi (103 Kpa).	1. Determine if any error codes occurred at the same time as this message. See *Review logs*, page 10-13. 2. View low-level error messages in the SCC, if you do not find Error codes in the logs. See *View low level error messages*, page 10-15. 3. Perform the corrective action for the applicable error code.
• Pressurized waste tubing not properly connected.	Ensure that the pressurized waste tubing is properly connected.

Probable cause	Corrective action
• Outlet tubing to instruments not properly connected.	Ensure that the outlet tubing is properly connected.
• Tubing is kinked or restricted.	Eliminate all restrictions in tubing. Contact your Area Customer Support if tubing needs to be replaced.
• Hardware failure: – Pressure transducer – Controller board – Inlet valve on processing module	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0004 High conductivity error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Water supply is disconnected.	Ensure that external water supply is connected to the *i*ARM.
• Concentrated wash buffer was received frozen and not properly mixed before use.	Perform the following steps to mix the buffer: 1. Clean and dry a 3-inch (8 cm) magnetic stirrer. 2. Open the concentrated wash buffer cubitainer. 3. Place the magnetic stirrer into the concentrated wash buffer cubitainer. 4. Position the cubitainer onto the center of a magnetic stirrer with a top plate dimension of at least 7 inches by 7 inches (17.7 cm by 17.7 cm). 5. Adjust the mixing speed to the highest possible setting, and then mix for a minimum of 20 minutes.

Probable cause	Corrective action
	6. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 7. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 8. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.
• Concentrated wash buffer is contaminated.	*Replace concentrated wash buffer on the iARM*, page F-14.
• Tubing is kinked or restricted.	Eliminate all restrictions in tubing. Contact your Area Customer Support if tubing needs to be replaced.
• Hardware failure: – Pump – Conductivity sensor – Meter board – Water valve	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0005 Low conductivity error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• The concentrated wash buffer cubitainers are empty.	*Replace concentrated wash buffer on the iARM*, page F-14.

Probable cause	Corrective action
• The concentrated wash buffer straw is damaged.	*Replace the concentrated wash buffer straw assembly*, page F-29.
• AxSYM buffer was loaded onto the *i*ARM instead of ARCHITECT Concentrated Wash Buffer. OR ARCHITECT Concentrated Wash Buffer is contaminated.	1. Remove the buffer container. 2. Rinse the concentrated wash buffer straw with deionized water and then dry. 3. *Replace concentrated wash buffer on the iARM*, page F-14.
• ARCHITECT Concentrated Wash Buffer was received frozen and not properly mixed before use.	Perform the following steps to mix the buffer: 1. Clean and dry a 3 inch (8 cm) magnetic stirrer. 2. Open the concentrated wash buffer cubitainer. 3. Place the magnetic stirrer into the concentrated wash buffer cubitainer. 4. Position the cubitainer onto the center of a magnetic stirrer with a top plate dimension of at least 7 inches by 7 inches (17.7 cm by 17.7 cm). 5. Adjust the mixing speed to the highest possible setting, and then mix for a minimum of 20 minutes. 6. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 7. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 8. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.
• Tubing is kinked or restricted.	Eliminate all restrictions in tubing. Contact your Area Customer Support if tubing needs to be replaced.
• Hardware failure: – Pump – Conductivity sensor – Meter board – Water valve – Cubitainer select valve	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish*

Probable cause	Corrective action
	wash buffer manually and update inventory (i1000SR), page 5-88.

Error code: 0006 Flood error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• *i*ARM fluidics system has an internal leak. OR Hardware failure: – Flood detector – Controller board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.
• Liquid is detected in the flood pan located in the bottom of the *i*ARM. The motor stops until the flood condition is corrected.	Contact your Area Customer Support. Please provide information about the operation you were attempting to perform when the error occurred.

Error code: 0007 Concentrated wash buffer empty

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• The concentrated wash buffer cubitainers are empty.	*Replace concentrated wash buffer on the iARM*, page F-14.
• The concentrated wash buffer straw assembly is damaged.	*Replace the concentrated wash buffer straw assembly*, page F-29.

Error code: 0008 Decontamination Abort error (Filling Station mode only)

The following error message displays on the *i*ARM:

Probable cause	Corrective action
Decontamination procedure was stopped in mid-cycle.	The Abbott FSR performs the Decontamination procedure as well as the Corrective actions associated with this Error code. If this error occurs, contact your Area Customer Support.

Error code: 0009 Temperature range error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Temperature of the mixed outlet buffer is not within the range of 4°C to 37°C (39.2°F - 98.6°F).	Perform one of the following actions: • Adjust the temperature of the external water supply to be within the range 4°C to 37°C (39.2°F - 98.6°F). • If the temperature of the external water supply is within the range 4°C to 37°C (39.2°F - 98.6°F), contact your Area Customer Support.
• Hardware failure: – Meter board – Controller board	1. Contact your Area Customer Support to resolve any hardware failure.

Probable cause	Corrective action
– Conductivity sensor	2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0010 Level sense unplugged error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Sensor cable on the concentrated wash buffer straw assembly is not properly connected.	1. Reconnect the sensor cable of the concentrated wash buffer straw assembly to the *i*ARM. 2. *Initiate wash buffer transfer from the iARM*, page F-13.
• Concentrated wash buffer straw assembly is damaged.	*Replace the concentrated wash buffer straw assembly*, page F-29.
• A single cubitainer is loaded on the *i*ARM.	Load a second cubitainer. **NOTE:** To run the *i*ARM with a single cubitainer, touch the icon to clear the error. The error message displays again if power to the *i*ARM is cycled.
• Hardware failure: – Controller board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84.

Probable cause	Corrective action
	4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0012 Meter initialization error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Communication failed between the meter board and controller board.	1. Power off the *i*ARM. 2. Power on the *i*ARM. 3. *Put the iARM into the Ready state*, page F-12. 4. *Initiate wash buffer transfer from the iARM*, page F-13.
• Hardware failure: – Controller board – Meter board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0013 Meter checksum error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Checksum error in data sent from meter board.	1. Power off the *i*ARM. 2. Power on the *i*ARM. 3. *Put the iARM into the Ready state*, page F-12. 4. *Initiate wash buffer transfer from the iARM*, page F-13.
• Hardware failure: – Meter board – Controller board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0014 ASTM 1381 timeout error (communication error)

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• The *i*ARM did not receive a response from the SCC when the SCC requested buffer.	1. Reseat the RS-232 cables to the SCC and to the *i*ARM. See *Reseat cables to the SCC*, page 10-721.

Probable cause	Corrective action
	NOTE: FILL IN PROGRESS displays on the Supplies status screen until *Check instruments*, page F-27 is performed. 2. *Check instruments*, page F-27. If all connected instruments display on the Home screen after the instrument check, the *i*ARM can be put back into the Ready state to deliver buffer. 3. *Put the iARM into the Ready state*, page F-12. 4. *Initiate wash buffer transfer from the iARM*, page F-13. 5. If the error continues, cycle power to the SCC. See *Cycle power to the SCC*, page 5-5.
• Electromagnetic fields (EMF) interference is affecting the RS-232 data cable because it is too close to the power cord.	Move the RS-232 cable so it is not near the power cord.
• Hardware failure: – Controller board – RS-232 cable failure – Internal *i*ARM RS-232 cable failure	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0016 Motor stall error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• External water supply was turned off.	1. Turn on the external water supply.

Probable cause	Corrective action
	2. Disconnect the water inlet tubing. 3. Hold the end of the tubing over a sink or container, and then press the connector at the end of the tubing until water flows out. 4. Release the connector at the end of the tubing, and then reconnect the tubing to the *i*ARM. 5. Flush the tubing for 2 to 3 minutes to ensure all air is cleared from the water system. 6. *Put the iARM into the Ready state*, page F-12. 7. *Initiate wash buffer transfer from the iARM*, page F-13.
• External water supply is restricted.	1. Correct pinch in tubing or replace tubing from external water supply to the *i*ARM. 2. *Put the iARM into the Ready state*, page F-12. 3. *Initiate wash buffer transfer from the iARM*, page F-13.
• Hardware failure: – Pump – Controller board – Meter board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0017 Too many modules

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Attempted to configure more than four ARCHITECT processing modules on the *i*ARM.	Reduce the number to no more than four ARCHITECT processing modules configured on the *i*ARM.

Error code: 0018 Reservoir straw status error (Filling Station mode only)

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• A float sensor on the wash buffer level sensor did not detect the appropriate liquid levels.	Replace the wash buffer level sensor. Refer to one of the following: • See *Replace the buffer level sensor (i2000/ i2000SR)*, page 9-353. • See *Replace the buffer level sensor (i1000SR)*, page 9-380.

Error code: 0019 Reservoir straw unplugged error (Filling Station mode only)

The following error message displays on the *i*ARM:

Probable cause	Corrective action
The Filling Station cable is not properly connected while filling the reservoir.	Reconnect the Filling Station cable.

Error code: 0020 Reservoir full error (Filling Station mode only)

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Reservoir is full and a request to fill the reservoir from the *i*ARM was initiated.	Fill an empty reservoir.
• The wash buffer level sensor float is not working properly.	Replace the wash buffer level sensor. Refer to one of the following: • See *Replace the buffer level sensor (i2000/ i2000SR)*, page 9-353. • See *Replace the buffer level sensor (i1000SR)*, page 9-380.

Error code: 0021 Straw calibration error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Wrong icon was pressed during the straw calibration diagnostic procedure on the *i*ARM. For example, selected to calibrate an empty cubitainer while the buffer straw was inserted into a full cubitainer. OR Selected to calibrate a full cubitainer while the buffer straw was removed from the cubitainer.	*Calibrate the buffer straw*, page F-24. Press the correct icon to calibrate the straw to the desired cubitainer volume.
• Concentrated wash buffer straw assembly is damaged.	*Replace the concentrated wash buffer straw assembly*, page F-29.
• Hardware failure: – Controller board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer.

Probable cause	Corrective action
	See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0024 Motor overcurrent error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Cable – Motor	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0025 Valve overcurrent error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Valves – Cable	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0026 Motor fuse blown error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Motor fuse on controller board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84.

Probable cause	Corrective action
	4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0027 Valve fuse blown error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Valve fuse on controller board	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0030 Conductivity sensor unplugged error

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Conductivity sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0031 FSR procedure

The following error message displays on the *i*ARM:

Probable cause	Corrective action
A diagnostic procedure was selected that is an FSR-only procedure. The procedure is performed by an Abbott FSR and requires appropriate training, tools, and materials available to the FSR.	Touch the error icon to exit the procedure and return to the Maintenance and diagnostics menu.

Error code: 0032 Flood sensor unplugged

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Flood sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

Error code: 0033 Pressure sensor unplugged

The following error message displays on the *i*ARM:

Probable cause	Corrective action
• Hardware failure: – Pressure sensor	1. Contact your Area Customer Support to resolve any hardware failure. 2. Change the wash buffer transfer option to Manual, while waiting for service assistance. See *Change the wash buffer transfer option*, page 10-722. 3. Prepare wash buffer. See *Prepare wash buffer (i System)*, page 5-84. 4. Replenish wash buffer manually and update inventory. See *Replenish wash buffer manually and update inventory (i2000/i2000SR)*, page 5-85 or *Replenish wash buffer manually and update inventory (i1000SR)*, page 5-88.

NOTES

Glossary

AbbottLink — A data-sharing software between laboratory instrumentation and Abbott internal systems for the transfer of instrument data.

Abbott mail — A data-sharing mechanism for receiving downloaded information from AbbottLink.

absorbance limit — *c* System; Configured range of absorbance values that are considered acceptable for measurement purposes. Values outside this range are not used for calculation.

absorbance limit check — *c* System; Calibration data check that evaluates the absorbance or change in absorbance obtained during sample measurement. If the absorbance or change in absorbance is outside the specified range an error message is generated.

absorbance mode — *c* System; Calibration mode in which results are based on the absorbance of water and are represented as absorbance for an end-point assay or as absorbance change (rate of absorbance change per minute) for a rate assay.

accessory — Item that is used repeatedly such as a sample carrier, carrier tray, and reagent segment.

Acid Wash — *c* System; Acidic wash solution used by the cuvette washer to clean the cuvettes after sample analysis. A dilution of the acid wash solution may also be used for probe washing.

active curve — Calibration curve that has passed all instrument verifications and is stored in memory (processing module-specific) for a specific reagent lot. The ARCHITECT System can store active calibration curves for four (4) reagent lots for each assay per processing module.

active screen — Screen that is currently displayed.

active window — Window that is currently displayed.

adjustment calibration — *c* System; Adjustment method that allows you to run a reagent blank or fewer calibrator levels to adjust a calibration curve. See also *one-point adjust*, page Glossary-11, and *two-point adjust*, page Glossary-20.
i System; Adjustment method that allows you to run two calibrator levels instead of six to calibrate an assay. The two calibrator levels (adjusters) are used to adjust the master calibration curve stored in the reagent bar code on the microparticle bottle. See also *curve shape method*, page Glossary-5, *linear transformation method*, page Glossary-9, *parameter method*, page Glossary-12, and *ratio technique method*, page Glossary-14.

administrator logon — SCC (system control center) access level (user ID and password) required to perform administrator functions such as configuring settings, performing specific diagnostic procedures, and approving the maintenance log.

aliquot tube — Tube (75 mm - 100 mm in height) that contains an aliquot of sample. Aliquot tubes may be used in conjunction with sample cups. If used alone, you must use the sample gauge to verify adequate sample is present.

Alkaline Wash — *c* System; Alkaline wash solution used by the cuvette washer to clean the cuvettes after sample analysis.

alphanumeric characters	Characters defined by Abbott Laboratories as A - Z, a - z, 0 - 9 and the special characters , / > < ? ; :] [\ } { ' - = ~ ! @ # $ % ^ & *) (_ + and <space>.
ARCHITECT	Refers to a *c* System and/or *i* System.
ARM accessory	*i*2000/*i*2000SR; Automatic Reconstitution Module, optional component that automatically dilutes Concentrated Wash Buffer to the proper concentration and delivers it to the wash buffer reservoir.
assay	Analysis to determine the presence, absence, or quantity of one or more analytes.
assay calibration	Method of analyzing samples of known concentrations, recording the instrument response value(s), and plotting the measured value(s) against the known concentration to create a curve.
assay file	File containing assay-specific parameters.
assay parameters	Values that define specific characteristics or verify the performance of an assay.
assay settings	Settings within each assay configuration category that the system administrator configures to meet site-specific requirements.
assay software	Software used to install assay files.
assay-specific package insert	Assay-specific information included with each reagent kit.
ASTM	American Society for Testing and Materials; Organization that defines the specifications for the transfer of information between laboratory instruments and computer systems.
auto retest	Process the system uses to automatically generate rerun orders for patient samples.
AWDS	Alternate Wash Delivery System (*i*1000SR) is optional hardware which incorporates heated Trigger solution to wash the sample/reagent probe.
bar code label	Unique identifier comprised of black bars that represent patient information.
bar code reader window	Glass window that prevents debris and liquid from collecting on the bar code reader components.
bar code scanner	Optional component used to scan sample bar codes to allow positive sample identification.
batch processing	Type of sample processing where each sample has the same assay(s) ordered.
biological hazard	Activity or area where you may be exposed to potentially infectious material.
blank adjust	*c* System; Calibration type that uses the absorbance data for the reagent blank to adjust the calibration curve.
boards	Printed circuit board.
bulk solutions	Liquid solutions provided in large quantities that are used in sample processing.

bulk solution supply center	*c* System; Onboard storage area for *Acid Wash*, page Glossary-1, *Alkaline Wash*, page Glossary-1, and *ICT Reference Solution*, page Glossary-8.
C/P	Carrier/position; Identifier that indicates the location of a sample, its position within a carrier, and the specific carrier in which it is loaded. For example, a C/P of A001/4 indicates the sample is located in position 4 of sample carrier A001.
C/P (LAS)	Carousel/position; Identifier that indicates the location of a sample, its position within an LAS (laboratory automation system) sample carousel (*i*2000), and the specific carousel it is loaded onto. For example, a C/P of A/4 indicates the sample is located in position 4 of LAS sample carousel A.
***c*16000 processing module**	*c* System; Chemistry analyzer that processes up to 1600 photometric and 600 potentiometric tests per hour.
***c*4000 processing module**	*c* System; Chemistry analyzer that processes up to 400 photometric and 600 potentiometric tests per hour.
***c*8000 processing module**	*c* System; Chemistry analyzer that processes up to 800 photometric and 600 potentiometric tests per hour.
calculated absorbance	*c* System; Rate of absorbance change per minute as calculated using the linear least squares method.
calibration, 6-point	*i* System; Calibration method in which six calibrators (A-F) are measured and a calibration curve is generated using these data points.
calibration, factor	*c* System; Calibration or data reduction method in which only the reagent blank is measured and a user defined factor is used to calculate results.
calibration, index	*i* System; Calibration method used for qualitative (cutoff) assays in which an index calibrator is run to generate the cutoff value for the assay.
calibration, linear mode (1-point method)	*c* System; Calibration or data reduction method in which a reagent blank and one calibrator are measured, and a calibration curve is generated using these two data points.
calibration, linear mode (multi-point method)	*c* System; Calibration or data reduction method in which a reagent blank and two to six calibrators of different concentrations are measured, and a point-to-point calibration curve is generated using these data points.
calibration, logit-4	*c* System; Non-linear calibration or data reduction method that measures a reagent blank and three to six calibrators for which the absorbance or absorbance change increases as the concentration increases.
calibration, spline	*c* System; Non-linear calibration or data reduction method in which a reagent blank and three to six calibrators are measured, and a multiple sectioned calibration curve is generated using a polynomial expression so that the adjoining sections are connected smoothly.
calibration, use factor and blank	*c* System; Calibration method in which the concentration or activity is calculated using the factor and reagent blank from a calibration curve generated for another assay.

calibration verification — *i* System; Method used to determine the reportable range of an assay.

calibrator volume factor (SMax) — A component in the system calculated sample dilution factor.

$$SMax = \frac{\text{Total volume in cuvette of highest calibrator level}}{\text{Sample (or Diluted sample) volume of highest calibrator level}}$$

card cage — Housing that contains the printed circuit boards that provides the power distribution and signal interconnection for the system.

carousel — Rotating mechanism on which samples or reagents are placed.

carrier — Accessory used on the RSH (robotic sample handler) or SSH (standard sample handler) to transport patient samples, calibrators, or controls to the sample pipettor(s).

carrier positioner — Mechanism on the RSH (robotic sample handler) that positions sample carriers at the appropriate processing module sample aspiration position.

carrier transport — Mechanism used to transport sample carriers from a bay on the RSH (robotic sample handler) to the carrier positioner.

carrier tray — Accessory used to hold sample carriers for loading on the RSH (robotic sample handler). Each tray holds up to five sample carriers.

CD-ROM drive — Compact Disc Read Only Memory drive; Read device used for installing system and assay software and online documentation.

CE marking — Symbol that indicates the product is in conformance with the EC (European Community) Directives.

check box — Software interface element that allows you to select one or more items from the displayed choices. A black check mark in the box indicates it is selected.

Chemiflex — *i* System; Assay protocols which incorporate chemiluminescent detection technology with flexible assay pipetting protocols.

chemiluminescence — *i* System; Emission of light produced by a chemical reaction.

ci System — Integrated System; Refers to a *ci*4100, *ci*8200, or *ci*16200 system.

CLSI — Clinical and Laboratory Standards Institute; Nonprofit organization that provides a communication forum for the development, promotion, and use of standards for the world's medical science community.

CMIA — *i* System; Chemiluminescent Microparticle Immunoassay; Detection technology used to perform automated immunoassays.

CMIA optics reader — *i* System; Sub-assembly that houses the PMT (photomultiplier tube) and optics reader and produces the chemiluminescent reads by collecting the emitted photons of light and translates them to yield RLUs, which are then used by the system to calculate results.

color correction — *c* System; Adjustment performed on the absorbance range limits to correct for sample color so that only flags and error messages associated with the absorbance of the analyte are generated. Color correction does not adjust the reported result.

Concentrated Wash Buffer — *i* System; Solution containing phosphate buffered saline that must be diluted prior to use. See also *wash buffer*, page Glossary-21.

configuration — Process you use to define system, assay, and QC-Cal settings to meet your site-specific requirements.

consumables — Replenishable items required to run assays on an ARCHITECT System, such as bulk and onboard solutions, calibrators, controls, reagents, sample cups, and so forth.

context available function bar buttons — Buttons on the function bar that have yellow lettering and are available (green background) or unavailable (gray background) based on selections you make from the screen. For example, from the Order status screen you can only select the F5 - Details function button after you select an order. See also *screen available function bar buttons*, page Glossary-18.

context-sensitive help — Information that displays online and is specific to the screen, window, or error message currently displayed.

control — Material with a known concentration of a specific analyte. Controls are run with patient samples and are used to monitor assay and system performance over time. See also *single constituent control*, page Glossary-18 and *multiconstituent control*, page Glossary-11.

CPU — Central processing unit; Computational and control unit of the SCC (system control center) that interprets and executes instructions.

c System — Refers to a *c*4000, *c*8000 or *c*16000 instrument.

curve shape method — *i* System; Adjustment method that uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration.

cuvette — *c* System; Rectangular glass container that contains the assay reaction components for analysis.

cuvette sample volume factor (S) — A component in the system calculated sample dilution factor.

$$S = \frac{\text{Total volume in cuvette}}{\text{Sample (or Diluted sample) volume}}$$

cuvette segment — *c* System; Segments that sit in the reaction carousel and hold cuvettes. Each cuvette segment holds 15 cuvettes.

cuvette segment alignment tool — *c* System; Accessory placed in the reaction carousel during the sample and reagent pipettor calibration procedures.

cuvette tab — *c* System; Plastic tab on top of the cuvette segment that is used to detect the positioning of the reaction carousel for optical readings.

cuvette washer	*c* System; Device with eight nozzles that washes and dries the cuvettes after each use.
cycle power	Process of removing power and then applying it again.
decontamination	Process that removes contamination.
depressed concentration	Concentration that is less than expected.
diagnostic procedure	Procedure you perform to check the status of assemblies and mechanisms in reaction to certain hardware malfunctions on your ARCHITECT System.
dry tip	*c* System; Absorbent material on the end of the cuvette washer nozzle used to dry the cuvette after it has been washed and before a sample is dispensed.
e-assay file	File containing assay-specific parameters that has been downloaded to the ARCHITECT SCC via AbbottLink.
elevated concentration	Concentration that is greater than expected.
end-point assay	*c* System; Reactions that are allowed to react until all reactant is depleted and the absorbance is stable. When the reaction is complete, the system measures the absorbance readings used for calibration and calculating results.
end ratio	*c* System; Assay validity check that uses a ratio of absorbances (A/B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.
end subtraction	*c* System; Assay validity check that uses the difference between absorbances (A-B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.
erratic results	Results that exceed the expected tolerance limits.
error code	Numeric identifier for an error message.
error message	Displayed message informing the operator of an error condition.
exception	Test order that failed to complete.
external modem	Optional component that connects the ARCHITECT System to a telephone line, which allows communication with Abbott personnel for training and troubleshooting purposes.
extrapolated calculation	*c* System; Calculation used in linear calibration methods to extend the calibration curve for samples with concentrations higher than the calibrators.
factor method	*c* System; Calibration or data reduction method in which only the reagent blank is measured and a user defined factor is used to calculate results.
failed curve	Calibration curve with values that fall outside the predetermined range, that was manually failed, or could not be completed due to a hardware error.

field	Software interface element that displays a specific type of data (for example, alphabetic or numeric).
FlexRate method	*c* System; Method used to extend the linear range of an enzymatic assay. Data points in the flex read time are used for high-activity and high-concentration samples. Results calculated using these data points are identified by the FLEX result flag.
flush	Procedure performed to flush solution through the fluidic system to remove bubbles.
full calibration	*c* System; Measurement of a reagent blank and all data points specified for an assay plotted against known concentrations to create a curve for evaluating unknown samples. *i* System; Measurement of all data points specified for an assay plotted against known concentrations to create a curve for evaluating unknown samples.
function bar buttons	Buttons at the bottom of every software screen that allow you to perform actions or access windows associated with the screen. They correspond to the function keys on the keyboard. See also *screen available function bar buttons*, page Glossary-18 and *context available function bar buttons*, page Glossary-5.
general operator logon	SCC (system control center) identifier that is used to add your operator ID to printouts and reports.
GUI	Graphical user interface; Software display format that allows you to initiate commands or make choices by selecting icons, buttons, items from lists, and so forth. You can use the mouse, touch-screen monitor, and/or keyboard to make your selections.
hazards	Situations that could cause physical harm to a user or damage to the system or laboratory environment.
Help?	Online documentation that provides information on the screen, window, or error message currently displayed.
help button	Button located on every software screen, window, and error message that provides access to Help?.
Help window	Window in which the content of the online operations manual or Help? display. In addition to displaying information, Help windows provide several functional elements to help you find and use the information.
high - concentration waste bottle	*c* System; Optional bottle that collects the high-concentration liquid waste from the cuvettes and the ICT unit.
HL7	Health Level Seven. A standard for exchanging information between medical applications. For more information, see the ARCHITECT System HL7 Interface Manual.
home	Starting position for mechanical components.
host	Auxiliary computer system that can communicate with an ARCHITECT System.
host interface operation	Act of communication between the ARCHITECT System and a host computer.
host query timeout	The length of time the ARCHITECT System waits for a response from the host.

hot spot	Area on an image map that when selected provides access to further information about the area it represents.
hypertext	A text hyperlink (predefined link) to related information that displays as blue, underlined text in the online documentation.
***i*1000SR processing module**	*i*1000SR; Immunoassay analyzer that processes up to 100 CMIA tests per hour when using a one step 11 STAT protocol.
***i*2000 processing module**	*i*2000; Immunoassay analyzer that processes up to 200 CMIA (chemiluminescent microparticle immunoassay) tests per hour.
***i*2000SR processing module**	*i*2000SR; Immunoassay analyzer that processes up to 200 CMIA tests per hour and provides STAT processing.
icon	Navigational element on the menu bar that allows you to display specific screens. Additionally, icons serve as blinking indicators to inform you that a condition requires your attention.
ICT	*c* System; Integrated chip technology; Method for measuring Na+, K+, and Cl- potentiometrically using ion-selective electrodes that are combined into a single electronic device.
ICT aspiration pump	*c* System; Syringe-drive pump that aspirates samples or ICT Reference Solution into the ICT module for measurement. Once measurement is complete, the pump aspirates waste from the ICT unit and moves it into the water bath/waste overflow area.
ICT cleaning fluid	*c* System; Cleaning agent prepared by the operator and used during daily maintenance procedures to clean the ICT module.
ICT diluent	*c* System; Concentrated reagent (ICTD5) used to dilute samples for electrolyte analysis.
ICT module	*c* System; Integrated chip located within the ICT unit that contains the Na+, K+, Cl-, and reference electrodes.
ICT Reference Solution	*c* System; Mid-concentration standard that is aspirated and analyzed by the ICT module before and after each sample to provide a reference potential used to calculate results.
ICT reference solution preheater	*c* System; Metal tube located within the water bath through which the ICT Reference solution flows to preheat the solution before it is used to fill the ICT reference solution cup.
ICT reference solution pump	*c* System; Pump that aspirates ICT Reference Solution through the ICT reference solution pre-heater into the ICT reference solution cup, and then drains the cup.
ICT unit	*c* System; Device that consists of the ICT probe and ICT module that is used to perform indirect potentiometric analysis. The ICT probe aspirates the sample. The ICT module simultaneously measures Na+, K+, and Cl- using integrated chip technology.
image map	Image that contains graphical hyperlinks with selectable areas or "hot spots" that provide access to additional information about the area they represent.

index method	*i* System; Calibration method used for qualitative (cutoff) assays in which an index calibrator is run to generate the cutoff value for the assay.
Induction Heating (IH)	Induction Heating (*i*2000SR) is optional hardware in which the sample probe is heated during flushing with wash buffer for improved cleaning of the probe.
information area	Main area of software screens and windows that displays data and allows you to make selections and/or enter information to perform various functions.
infranatant fluid	Clear fluid that, after the settling out of an insoluble liquid or solid by the action of normal gravity or of centrifugal force, takes up the lower portion of the contents of a vessel.
input device	Hardware (for example mouse, touch-screen monitor, keypad, and so forth) that is used to enter information into the SCC (system control center).
i System	Refers to a single or multi-module *i*2000, *i*2000SR, or *i*1000SR.
keyboard	Computer hardware component used with the mouse and/or touch-screen monitor to enter information. You can use the keyboard as an alternate means of performing most functions.
lamp	*c* System; Tungsten-halogen lamp used to provide the light source for photometric measurement.
LAS carousel sample handler	*i*2000; Transport system used for loading calibrators, controls, and patient samples and presenting them to an i2000 processing module that is integrated with an LAS (Laboratory automation system) track.
LAS sample carousels	*i*2000; Carousels used on the LAS (laboratory automation system) carousel sample handler to transport patient samples, calibrators, or controls to the sample pipettor.
Levey-Jennings graphs	Control graphs that are used to monitor mean and range of control measurement values from run to run.
linearity range	Minimum and maximum reportable values of an assay. For *c* System assays, the system adjusts these values by the sample dilution factor.
linear method	*c* System; Calibration or data reduction method in which a reagent blank and one to six calibrators are measured, and a point-to-point calibration curve is generated using these data points.
linear transformation method	*i* System; Adjustment method that assumes a linear relationship between the calibrator RLU (relative light unit) values generated by the system and the master calibration information stored in the reagent bar code on the microparticle bottle.
liquid level sensing	Detection of liquid level as measured by the change in capacitance.
liquid waste arm	*i*2000/*i*2000SR; Device that removes liquid from RVs (reaction vessels) prior to unloading them to the solid waste container.
list button	Software interface element that displays a list of items from which to choose.

LLS error Liquid level sense error; Error that occurs when there is not enough fluid present, when there are bubbles or extra drops of fluid, or due to incorrect probe positioning.

load diverter *i* System; Mechanism to move RVs from the inner track to the outer track of the process path when RVs are needed for processing.

LoB Limit of Blank is the highest value that is likely to be observed in a series of results on a sample that contains no analyte.

LoD Limit of Detection is the actual concentration at which an observed test result is very likely to exceed the LoB (Limit of Blank) and may therefore be declared as "detectable".

logit-4 method *c* System; Non-linear calibration or data reduction method that measures a reagent blank and three to six calibrators for which the absorbance or absorbance change increases as the concentration increases.

log off Process of signing off the SCC (system control center).

logon SCC identifier that controls access to SCC functionality. See also *administrator logon*, page Glossary-1 and *general operator logon*, page Glossary-7.

log on Process of signing in or gaining access to certain SCC functionality.

LoQ Limit of Quantitation is the lowest actual concentration at which the analyte is reliably detected and at which the uncertainty of the observed test result is less than or equal to the goal of uncertainty.

lot Unique number used by Abbott to distinguish preparations of reagents or commodities. Identified as "Lot" on labels and boxes.

low level error message Detailed error message that can be found in the Message history log and is used for advanced troubleshooting.

maintenance Procedures performed on the ARCHITECT System to ensure continued proper function.

Maintenance log Electronic log updated by the system to track performance of maintenance procedures.

maximum absorbance variation *c* System; The maximum acceptable absorbance variation (0 - 3.2) allowed for absorbance readings within the main read time.

menu Software interface element that displays when you select an icon. Menus list the selection of available screens and when you select an item, the associated screen displays.

menu bar Area at the top of software screens where icons that provide navigational and status indication support are located.

menu item Item on a menu that represents an available screen. When you select a menu item, the associated screen displays.

message Software interface element that provides important information during the course of normal system operation. Messages display in front of the currently displayed screen or window and require an acknowledgement.

Message history log Electronic log that displays and stores a record of error-related messages that you use to troubleshoot problems associated with system performance and/or results reporting. The log holds a capacity of 12,000 messages. When capacity is reached messages are replaced on a first in - first out basis. See also *Temporary message log*, page Glossary-20.

Mils One one-thousandth of an inch.

mixer unit *c* System; Device that houses two mixers (1 and 2) that mix the sample and reagent(s) together.

module status Operational mode of the processing module or sample handler.

MSH Message Header; the first segment of an HL7 message that defines source, destination, and other information about the message. For more information, see the ARCHITECT System HL7 Interface Manual.

multiconstituent control Control material that contains multiple analytes. Up to 3 levels of each control can be configured and analyzed.

multimedia Video clips and animations in the online documentation that illustrate procedures, system functionality, and chemical reactions.

network hub External device that joins communication lines and enables the electronic transfer of information between the SCC (system control center) and processing module(s).

onboard dilution factor (OD) A component in the system calculated sample dilution factor.

$$OD = \frac{\text{Sample volume + Diluent volume + Water volume}}{\text{Sample volume}}$$

onboard solution areas *c* System; Storage locations for probe wash solutions used for the SmartWash function and maintenance procedures.

onboard solutions *c* System; Detergents used to wash the sample and reagent probes, mixers, and reaction cuvettes.

onboard stability Amount of time that a reagent or solution remains stable when it is opened and placed on the system in its designated location.

one-point adjust *c* System; Calibration type that uses the absorbance data for a single calibrator to adjust the calibration curve.

option Software interface element that allows you to select one item from the displayed choices. A black-filled circle indicates it is selected.

o-ring Flexible seal used in many fluidics connections to prevent leakage at the connections.

OSS	*c*8000 processing module; Optimum sampling sequence; Feature that maximizes the processing speed when SmartWash is in use by rearranging the sampling sequence so that the number of empty reaction cuvettes is minimized.
over-aspiration volume	Additional volume of sample aspirated by the system to prevent the water in the sample probe from diluting the sample.
panel	Option that allows you to quickly order multiple tests by selecting one button instead of individual assay buttons.
parameter method	*i* System; Adjustment method that uses the RLU (relative light unit) values stored in the reagent bar code for calibrators A through F to determine the 4PLC (four parameter logistic curve) parameters of the master calibration.
password	String of characters entered during logon that is used in conjuction with your user ID to provide access to SCC (system control center) functionality.
pause	Procedure that changes the status of the processing module or sample handler from Running to Ready without losing tests currently in process. Use when you need to load sample carriers, reagents, and bulk solutions or perform maintenance and diagnostic procedures.
photometer	*c* System; Device that uses a concave diffraction grating capable of taking measurements at 16 different wavelengths to measure luminous intensity, luminous flux, illumination, and brightness.
photometric reads	*c* System; Series of absorbance measurements taken for each reaction cuvette as it passes the photometric read position. These measurements are used to calculate result concentration.
photometric timing	*c* System; Progression of a reaction from the initial sample dispense to the final read phase represented as the elapsed time at each of the 33 photometric points.
photomultiplier tube	*i* System; Detector on the CMIA (chemiluminescent microparticle immunoassay) reader assembly that receives and amplifies light signals from the reaction solution.
pipetting	Process of transferring liquid.
pipettor	Devices that detect, aspirate, transfer, and dispense reagents or samples. See also *reagent pipettor*, page Glossary-15, *sample pipettor*, page Glossary-17, and *STAT pipettor*, page Glossary-19
pipettor calibration	Automated maintenance procedure that optimizes probe positioning.
PMT	See *photomultiplier tube*, page Glossary-12.
pointer	Position indicator that you control with the mouse. Typically, the pointer is an arrow and the text entry position pointer is a blinking underscore or vertical bar. In the online Operations Manual and Help? the pointer turns into a pointing hand when it is pointed to an object that can be selected.
pointing device	Input device (mouse) included with the SCC.
power supply	Device that provides DC and AC voltages to various parts of the module.

premium features Software features only accessible upon activation. These features are activated by entering an activation key. See *Premium features*, page 1-29.

pre-trigger / trigger manifold *i* System; Device that dispenses Pre-Trigger Solution, and then Trigger Solution into RVs.

pre-trigger / trigger storage area *i* System; Location in the supply and waste center that provides onboard storage for the Pre-Trigger Solution and Trigger Solution, which are necessary for test processing.

pre-trigger / trigger tray *i* System; Platform in the supply and waste center that holds the Pre-Trigger Solution and Trigger Solution bottles.

pre-trigger level sensor *i* System; Assembly with a magnetic float sensor that indicates when the liquid level in the pre-trigger bottle is low.

Pre-Trigger Solution *i* System; Hydrogen peroxide solution used to split the acridinium dye off the conjugate bound to the microparticle complex. This process prepares the acridinium dye for the addition of Trigger Solution.

primary tube Tube (75 mm - 100 mm in height) that contains a sample obtained by venipuncture. Primary tubes may be used in conjunction with sample cups. If used alone, you must use the sample gauge to verify there is adequate sample volume.

prime *i* System; System process of dispensing solutions into RVs (reaction vessels) to ensure the fluidics system is primed.

priority bay or section Holding area of the RSH (robotic sample handler) that positions samples for priority processing.

priority loading Procedure used to position a sample carrier(s) for priority processing.

priority processing Sample processing in which samples that were priority loaded are pipetted first.

processing center Main activity area of the processing module where samples and reagents are dispensed and mixed, and where all assay processing is performed.

processing center map *i* System; Label attached to the front and rear processing center covers to assist you in locating components. Each component is labeled with a letter and/or number identifier. The additional components of the i2000SR, which are used when processing STAT assay protocols, are indicated in pink.

processing module Analyzer that performs all sample processing activities from aspiration to final read. The type(s) and number(s) of processing module(s) determines your system configuration. See also *c8000 processing module*, page Glossary-3, *c16000 processing module*, page Glossary-3, *i1000SR processing module*, page Glossary-8, *i2000 processing module*, page Glossary-8, and *i2000SR processing module*, page Glossary-8.

processing module graphic Graphic(s) on the Snapshot screen that indicates the status of the processing module(s) and displays other key system information.

processing module keypad Input device used by the operator to direct processing center activities.

processing module status Operational mode of the processing module. Statuses include Offline, Stopped, Warming (IA modules only), Ready, Scheduled Pause, Running, Initializing, and Scanning.

prompt Software interface element that allows you to continue or cancel the requested operation. Prompts display in front of the currently displayed screen or window and require a response.

pump center *c* System; Area that houses the processing module pumps.

pumps Devices that provide accurate amounts of specific fluids to components in the processing center.

purified water Water with a resistivity of 1.0 megohm/centimeter or greater and a microbiological content of 1000 colony-forming units/mL or less.

QC-Cal settings Settings within each quality control/calibrator configuration category that the system administrator configures to meet site-specific requirements.

quality control analysis Process of monitoring control activity. The ARCHITECT System allows you to monitor control activity using standard Levey-Jennings graphs and Westgard rules along with control range tracking. Control data includes both unreleased and released results.

query message Message sent to a host computer system from the SCC (system control center) to request orders for a sample when a sample bar code is scanned by a system bar code reader.

rate assay *c* System; Reactions that are allowed to reach a stable rate in which the change in absorbance between readings is constant. The system performs several readings during this time, calculates absorbance change per minute (rate), and then uses the rate to calculate results.

rate linearity % *c* System; The allowable percent variation change in absorbance measured during the first three reads, and then compared to the last three reads for the main and flex read time.

rate ratio *c* System; Assay validity check that uses a ratio of rates (A/B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.

rate subtraction *c* System; Assay validity check that uses the difference between rates (A-B) measured at two different times during the reaction to check for prozone effect or other reaction anomalies.

ratio technique method *i* System; Adjustment method compares the RLU (relative light unit) value of the calibrators to the corresponding calibrator values from the master calibration curve.

reaction carousel *c* System; Device that holds the cuvettes and rotates counter-clockwise to position them for sample processing.

reaction cuvette Rectangular glass cuvette.

reaction timing See *photometric timing*, page Glossary-12.

reaction vessel — *i* System; Disposable container in which the CMIA (chemiluminescent microparticle immunoassay) reaction takes place. RVs (reaction vessels) are stored in bulk in the RV hopper and are automatically loaded into the process path as needed. The maximum onboard storage is 1200 RVs. You can add RVs to the hopper at any time.

read time — *c* System; Range (or window) of photometric reads that are defined in the assay parameter file and determine which of the 33 photometric reads measured for each assay reaction are used to calculate result concentration.

reagent bar code reader — Device that reads bar code labels on reagent bottles.

reagent carousel — *c* System; Refrigerated carousels that are part of the reagent supply center(s) and provide cooled, temperature-controlled storage for reagent cartridges.
i System; Refrigerated carousel located in the processing center that provides cooled, temperature-controlled storage for reagent bottles.

reagent cartridge — *c* System; Container used in the reagent supply centers to hold the reagents used during operation.

reagent cartridge adapters — *c* System; Positioners used to ensure correct alignment of the small (55 mL cartridge), 20 mL (cartridge), and 20 mL (bottle) reagent cartridges placed in reagent supply centers 1 and 2.

reagent kit — Consumable that contains all reagent components necessary to run an assay on the ARCHITECT System.
c System; Reagent kits may include only R1 reagent or may include both R1 and R2 reagents,
i System; Reagent kits may include from two to six bottles.

reagent label — Unique identifier on Abbott pre-packaged reagents that contains a 2D (two-dimensional) bar code.

reagent lot — Unique number used by Abbott for tracking purposes.

reagent pipettor — *c* System; Devices that detect, aspirate, transfer, and dispense reagents into the cuvette. Reagent pipettor 1 also transfers sample diluents from reagent supply center 1 into a cuvette to be used for onboard sample dilution.
i System; Devices that detect, aspirate, transfer, and dispense reagents into the RV. Each pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

reagent probe wash cup — *c* System; Active wash station that washes any remaining fluid from the probe exterior, interior, and tip.

reagent scan — Process of rotating the reagent carousels and reading the bar codes on each of the reagents to update reagent inventory after reagents are added or removed.

reagent segment — *c* System; Section of each reagent supply center that hold reagents and diluents. Some segments have a target for pipettor calibration used for aligning sample or reagent pipettors when necessary.

reagent supply center — *c* System; Area of the processing center that includes refrigerated reagent carousels and locations for additional onboard solutions.

reagent syringe — Devices that control the aspiration and dispense of reagents.

reagent wash stations 1 and 2 (R1S/R2S) — *i* System; Active wash stations that wash any remaining fluid from the probe interior and exterior surfaces. A vacuum source dries the exterior of the probe.

reference range — Normal clinical range of an analyte.

refresh — Function that allows you to update the data displayed on the screen.

released result — Control or patient result that was determined to be acceptable. You can view released results from the Stored QC result and Stored results screens. If your system interfaces with a host computer the results transmit to the host.

replacement cap — *i* System; Teal-colored caps used when storing reagents that are temporarily removed from the processing module. The color visually indicates that reagent bottles have been opened.

replicate — Duplicate test measurement on the same sample performed within the same run.

reportable range — See *linearity range*, page Glossary-9.

retest rules — User-specified criteria for each assay that determines whether the system automatically reorders the assay for samples that meet the criteria.

routine bay or section — Holding area of the RSH (robotic sample handler) that positions samples for routine processing.

RSH — Robotic sample handler; Transport system used for loading calibrators, controls, and patient samples and presenting them to a *c*4000, *c*8000, *c*16000, *i*1000SR, *i*2000SR, *ci*4100, *ci*8200, and/or *ci*16200 processing module.

RSH keypad — Input device on the RSH (robotic sample handler) used by the operator to control the sample handler.

RV — *i* System; See *reaction vessel*, page Glossary-15.

RV access door — *i* System; Opening used for diagnostic purposes only that allows access to one RV position on the outer track of the process path. You should always make sure it is closed during system operation.

RV hopper cover — *i* System; Cover that allows you to add RVs to the RV hopper.

RV loader and hopper assembly — *i* System; Device that provides onboard storage for RVs and transports the RVs into the process path.

RV unloader — *i* System; Device that removes used RVs from the process path and discards them into the solid waste container after assay processing.

sample and reagent syringe area — *c* System; Location for the sample and reagent syringes and drives.

sample bar code reader — Device that scans the sample carrier ID, sample position, and sample tube bar code IDs to verify the position of the sample(s).

sample carrier — Accessory used on the RSH (robotic sample handler) or SSH (standard sample handler) to transport patient samples, calibrators, or controls to the sample pipettor(s).

sample carrier ID — Four digit alphanumeric identifier used to indicate where a sample is loaded.

sample cup — Disposable container (1400 µL) that holds patient samples, calibrators, and controls. You can load a sample cup directly into a carrier or into a bar coded tube.

sample dilution factor — System calculated dilution factor based on the sample, diluent and reagent volumes specified in the assay parameters.

$$\text{Sample dilution factor} = \frac{OD \times S}{SMax}$$

OD = Onboard dilution factor
S = Cuvette sample volume factor
SMax = Calibrator volume factor

sample handler — Component that transports samples through an ARCHITECT System. Each system has a single, primary sample handler regardless of the number of processing modules and types. See also *LAS carousel sample handler*, page Glossary-9, *RSH*, page Glossary-16, or *SSH*, page Glossary-19.

sample handler keypad — Input device used by the operator to direct sample handler activities.

sample handler status — Operational mode of the sample handler. Statuses include Offline, Stopped, Ready, Running, and Load queue paused.

sample load queue — *i*2000; Track that transfers sample carriers to the sample processing queue on the standard sample handler.

sample load queue bar code reader — *i*2000; Device that reads the sample carrier ID, position, and sample ID.

sample pipettor — *c* System; Device that detects, aspirates, transfers, and dispenses samples into the cuvettes. The pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.
i System; Device that detects, aspirates, transfers, and dispenses samples into the reaction vessel. The pipettor assembly includes a fluid sense/pressure monitoring system that helps to identify errors in aspiration.

sample probe wash cup — *c* System; Active wash station that washes any remaining fluid from the probe exterior, interior, and tip to eliminate carryover.

sample processing queue — *i*2000; Track that transfers sample carriers to the sample pipettor. Once samples are aspirated, the sample carriers are transferred to another processing module or to the sample unload queue.

sample saving mode — Setting that allows the system to aspirate an over-aspiration volume once per sample rather than each time it aspirates a test.

sample syringe Device that controls the aspiration and dispense of samples.

sample unload queue *i*2000; Track on the right side of the processing module where sample carriers are unloaded.

sample wash solution area *c*4000; Storage location for sample probe wash solutions used for the SmartWash function and maintenance procedures.

sample wash station *i* System; Passive wash station where the sample probe dispenses excess sample and any remaining fluid is washed from the probe exterior, interior, and tip.

SCC System control center; Computer system that provides the software interface to the ARCHITECT System and can provide an interface to a host computer.

screen Software interface element that provides access to all related system information and functions.

screen available function bar buttons Buttons that have white lettering and are always available (green background) when you access the screen. For example, from the Order status screen you can always select F3 - Find. See also *context available function bar buttons*, page Glossary-5.

scroll bar Vertical or horizontal bar at the side or bottom of a Help window that you use to move or "scroll" through topic content.

scroll box Box on a scroll bar that displays the current position in a topic and allows you to drag it to another location.

self blank *c* System; Blank read time used to correct the absorbance for sample coloring due to lipemia, hemolysis, bilirubin, and so forth.

septum *i* System; Membrane with a slit that is used to prevent reagent evaporation and contamination, and to ensure reagent integrity. You place septums on all open reagent bottles prior to loading the bottle into the processing module.

serial port A connection point between the SCC and an external device.

shutdown Procedure used to turn off the power to the processing module and SCC.

single constituent control Assay-specific sample that contains known concentrations of analyte. Single constituent controls are typically labeled L, M, and H, or Pos and Neg.

SmartWash feature *c* System; Additional wash for the reagent probes, sample probe, and cuvette to prevent assay-to-assay interference.

Snapshot screen Main ARCHITECT System software screen that displays key system information and provides quick access to related screens.

software interface Portion of the computer program with which you interact by making selections and entering information. The interface is common among all ARCHITECT Systems. See also *GUI*, page Glossary-7.

solenoid valve *c* System; Valves (six) located at the top of the sample and reagent syringe drives that open or close as required for flushing, aspiration, and dispense.

solid waste storage area — *i* System; Location in the supply and waste center that provides a storage area for the solid waste container that holds used RVs (reaction vessels).

spline method — *c* System; Non-linear calibration or data reduction method in which a reagent blank and three to six calibrators are measured, and a multiple sectioned calibration curve is generated using a polynomial expression so that the adjoining sections are connected smoothly.

SSH — *i*2000; Standard sample handler; Transport system used for loading calibrators, controls, and patient samples and presenting them to an i2000 processing module(s).

SSH keypad — *i*2000; Input device on the SSH (Standard sample handler) used by the operator to control the sample handler.

startup — Procedure used to home motors and initialize the processing module and sample handler. Changes the processing module and sample handler status from Stopped to Ready.

STAT assay protocol — *i*2000SR; Assay protocol with a shorter incubation time than the routine assay protocol and provides faster result completion. The STAT assay protocol does not determine sampling priority. See also *priority processing*, page Glossary-13.

STAT diverter — *i*2000SR; Device that moves RVs from the inner track to the outer track of the process path when the RVs are needed for STAT assay protocols.

STAT pipettor — *i*2000SR; Device that detects, aspirates, transfers, and dispenses samples processed using a STAT assay protocol(s) into the RV.

STAT syringe — *i*2000SR; Device that controls the aspiration and dispense of samples processed using a STAT assay protocol(s).

STAT wash station — *i*2000SR; Passive wash station where the STAT probe dispenses excess sample and any remaining fluid is washed from the probe exterior, interior, and tip.

supernatant fluid — Clear fluid that, after the settling out of an insoluble liquid or solid by the action of normal gravity or of centrifugal force, takes up the upper portion of the contents of a vessel.

supply and pump center — *c* System; Storage area for processing module pumps, bulk solutions, and sample and reagent syringes and drives.

supply and waste center — *i* System; Storage area for bulk solutions and solid waste.

syringe — Device that controls the aspiration and dispense of sample or reagents by moving the piston in the syringe body. See also *reagent syringe*, page Glossary-16 and *sample syringe*, page Glossary-18.

system control center stand — Optional mobile shelf unit which holds the computer, monitor, keyboard, and printer.

system settings — Settings within each system configuration category that the system administrator configures to meet site-specific requirements.

system software	Software application that controls operation of an ARCHITECT System.
system status	Operational modes of the processing module and/or sample handler.
TCP/IP	Transmission Control Protocol/Internet Protocol is a set of communication protocols used for the Internet and other similar networks. For more information, see the ARCHITECT System HL7 Interface Manual.
Technical Service Bulletin (TSB)	A document used to notify Abbott Service and Support personnel how to make a physical change or modification to an instrument that requires implementation by Abbott personnel.
Temporary message log	Electronic log that displays non-critical error-related messages that you can address, and then delete. The log holds a capacity of 200 messages.
timeout	Error that may occur for software communication functions when a defined time limit is exceeded while waiting for a response from a device.
title bar	Area under the menu bar of every screen or at the top of every window that contains the name of the screen or window.
touch-screen monitor	Main interface between the operator and the ARCHITECT System that allows you to make onscreen selections by touching text areas and graphics, icons and menu items, and function bar buttons.
trigger level sensor	*i* System; Assembly with a magnetic float sensor that indicates when the liquid level in the trigger bottle is low.
Trigger Solution	*i* System; Sodium hydroxide solution used to produce the chemiluminescent reaction that provides the final read.
two-point adjust	*c* System; Calibration type that uses the absorbance data for the reagent blank and a calibrator to adjust the calibration curve.
unreleased result	Control or patient result that has not been reviewed and released. You can view unreleased results from the QC result review and Results review screens.
UPS	Uninterruptible power supply; Optional component that provides a temporary, continuous flow of power to the processing module during a power failure.
USB flash drive	A removable flash memory device that plugs into a computer USB port. This drive may be used to import calibrator set or multiconstituent control file data, import and export *c* System assay files, and collect system logs for troubleshooting purposes.
user defined reagent	*c* System; Non-bar coded reagents or reagents not supplied by Abbott, which must be configured and manually assigned to positions in the reagent supply centers.
user ID	String of characters entered during logon that may be used in conjuction with a password to provide access to SCC (system control center) functionality.
vortexer	*i* System; Device that mixes the sample and reagents in an RV (reaction vessel) to suspend the microparticles.

wash buffer	*i* System; Solution containing phosphate buffered saline. Wash buffer is used throughout assay processing and is pumped to the sample and reagent pipetting assemblies and the two wash zones.
wash buffer filter	*i* System; Assembly containing material used to eliminate particulates that might damage the fluidics components of the system.
wash buffer level sensor	*i* System; Assembly containing a tube with three magnetic float sensors that indicate when the wash buffer reservoir is full, needs to be filled by the ARCHITECT ARM (automatic reconstitution module) accessory, or is empty.
wash buffer reservoir	*i* System; Onboard container in the supply and waste center that holds up to 25 liters of wash buffer.
wash buffer storage area	*i* System; Location in the supply and waste center for onboard storage of wash buffer, which is used in test processing.
wash solution pump	*c* System; Syringe drive pump that aspirates and dilutes Alkaline and Acid Wash Solutions to wash cuvettes during daily operation and maintenance procedures.
wash zone diverter	*i* System; Device that directs RVs to one of two paths. One path moves RVs through the wash zone where a wash occurs. The other path moves RVs around the wash zone.
wash zone manifold	*i* System; Device that removes and discards unbound analyte from the reaction mixture in an RV.
waste chute and trap door	*i* System; Device in the supply and waste center that receives used RVs by gravity and directs them into the solid waste container. The trap door holds up to 50 RVs when you remove the solid waste container during processing.
water bath	*c* System; Incubator that surrounds the reaction cuvettes and maintains the reaction temperature.
Water Bath Additive	*c* System; Antimicrobial solution used to minimize bacterial growth in the water bath. During the daily maintenance procedure, the solution is dispensed into the water bath.
Westgard rules	Control rules that use various standard deviation limits to monitor the performance of the system by detecting trends or shifts.
window	Software display that provides additional information or functions related to the active screen. You access windows by selecting a button on the screen. The window displays on top of, or in front of, the screen.

NOTES

Revision History

Document control numbers	Revision date	Content revised
201837-114 96211-118 (Support version)	2017-12-14	Read me first, Sections 1, 2, 3, 4, 5, 8, 9, 10, Appendix D and E, and Glossary.

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