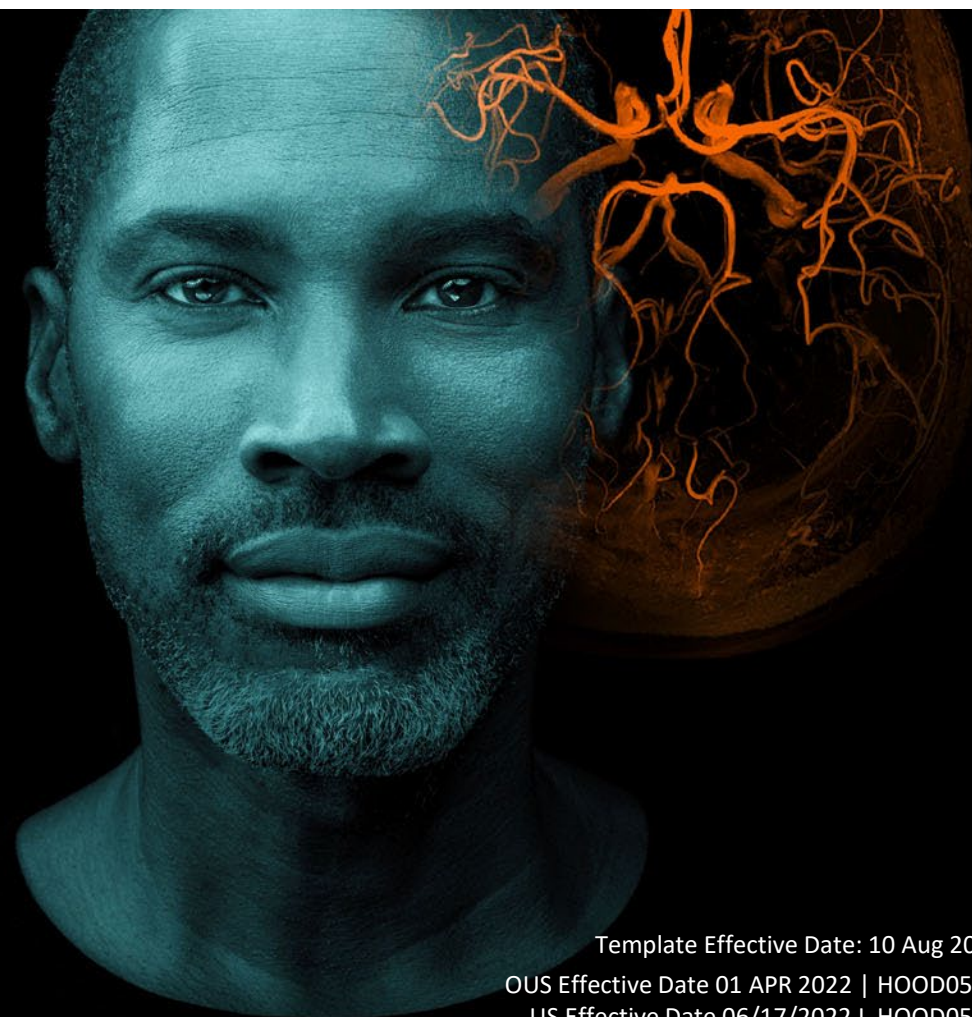
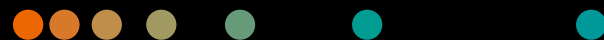


System Operation Job Aid

ARTIS one VA1x



System Operation

Table of Contents (1/2)

Control Room System Overview	4
Exam Room System Overview	5
Large Display* in the Exam Room	6
Handswitch	7
Footswitch	8
Switching the System On/Off	9
System Restart	10
Control Modules Overview	11
Control Modules: Table Control Module (TCM)	12
Control Modules: Stand Control Module (SCM)	14
Control Modules: Collimator Control Module (CCM)	17
Control Modules: Table-side Control Module (TSC)	18
Onscreen Menu	20
Layout Gallery	22



*The Large Display is an option.

System Operation

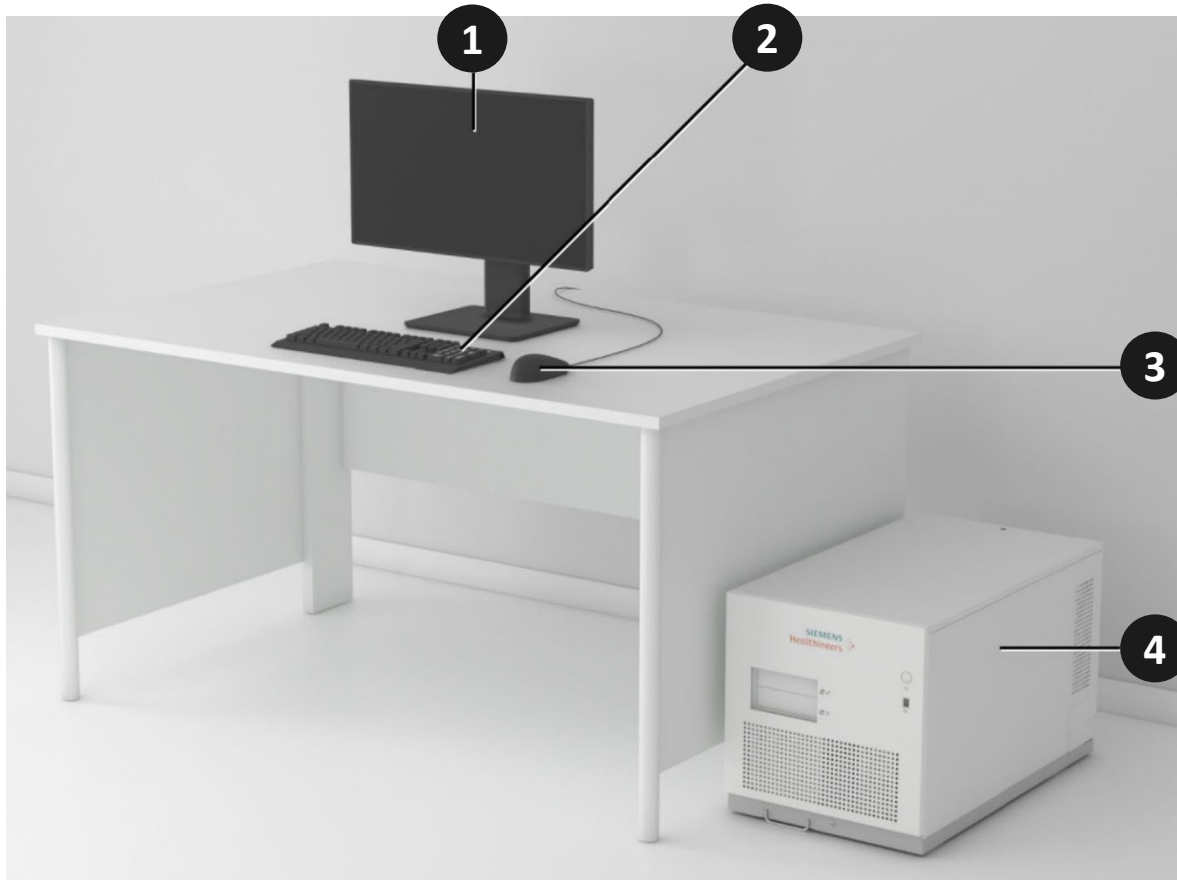
Table of Contents (2/2)

Layout Gallery: Display Layout Configurator	24
System and Anatomical Positions	26
System and Anatomical Positions: Store Programmed Positions	28
System and Anatomical Positions: Organize/Edit Stored Positions	30



System Operation

Control Room System Overview



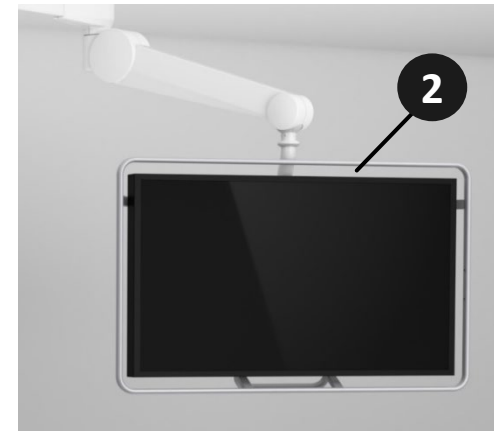
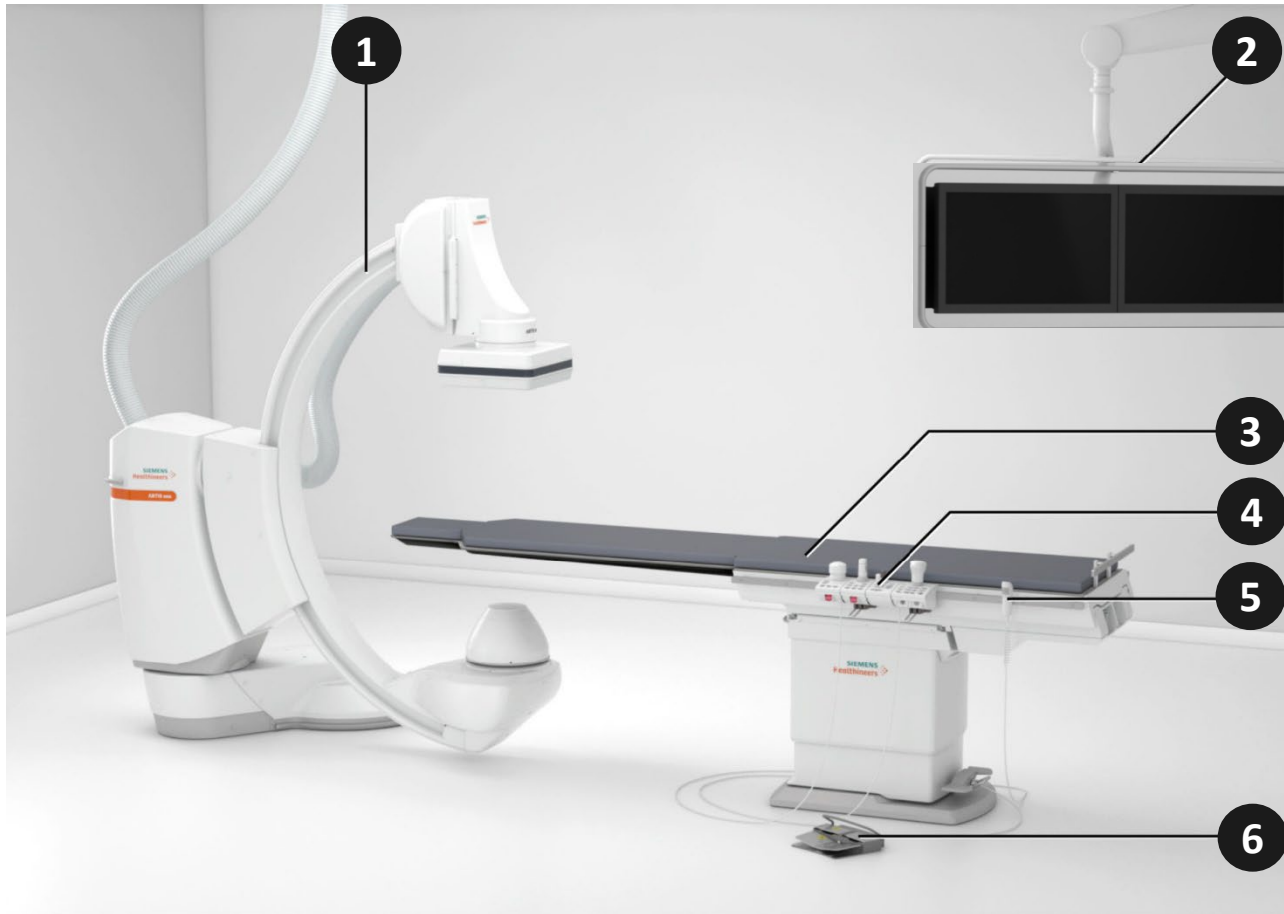
- (1) Display
- (2) Keyboard
- (3) Mouse
- (4) Imaging system box
- (5) Control module in control room*



* Second control module in control room is an option.

System Operation

Exam Room System Overview

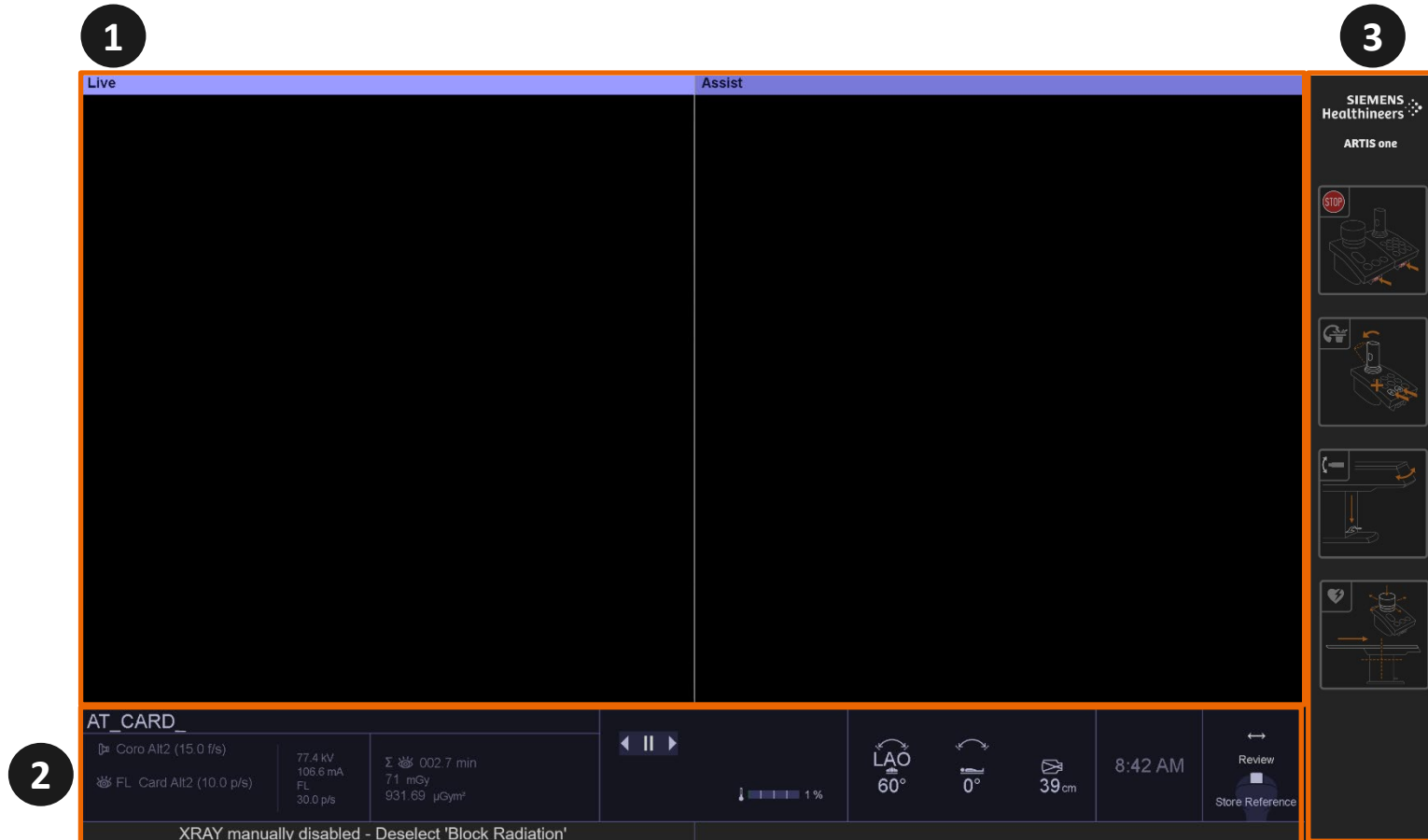


- (1) Floor stand with C-arm, X-ray tube assembly, and FD
- (2) Exam room display/Large Display*
- (3) Patient table
- (4) Control console for controlling the stand, patient table, and imaging system
- (5) Handswitch
- (6) Footswitch

*The Large Display is an option.

System Operation

Large Display* in the Exam Room



- (1) Image segments area
- (2) Info area
- (3) Fixed area of the Large Display

Please note:

The fixed area is **always** positioned in this location and **cannot** be removed from the display layout.

Please check the **Display Layout Configurator** to configure other areas.

*The Large Display is an option.

System Operation

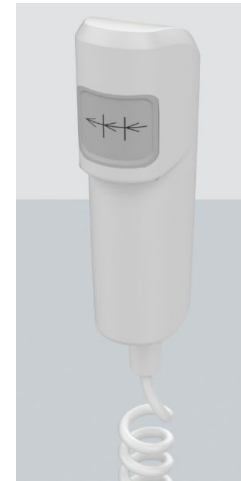
Handswitch

The handswitch has two operating elements.



Acquisition Button

With the acquisition button on top of the handswitch, you can release acquisition series and single acquisitions as preselected in the acquisition program.



Multifunctional button

With the multifunctional button on the rear of the handswitch, you can progress in the examination. Depending on the acquisition program selected, the multifunctional button has different functions:

- In a program with a manual variable frame rate, it is used to switch from one phase to the next.
- In a PERIVISION* or PERISTEPPING* acquisition program, it is used to move from one position to another.
- In a DR-DYNAVISION*, DYNAVISION* or 3D* acquisition program, it is used to start the next phase.

*These acquisition programs are options.

System Operation

Footswitch

The footswitch is available as a cabled version and a wireless version. It is constructed with four pedals that provide the ability to release fluoroscopy and acquisition plus other configurable functions (for example: table brake release, room lights).

The wireless footswitch has an active range of approximately 5m (16ft) around the table/stand where the receiver is installed. If the footswitch is used out of this range, it may lose contact with the receiver and will then go into an inactive mode.

Standard Footswitch (Cabled)



Wireless Footswitch*



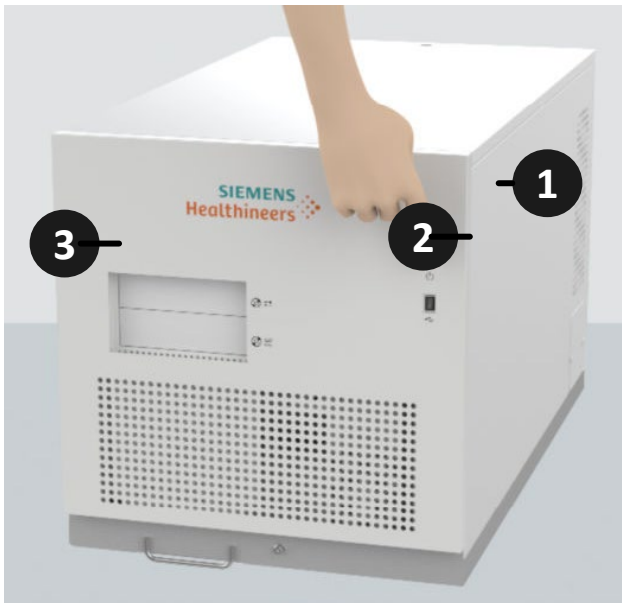
*The wireless footswitch is an option.

System Operation

Switching the System On/Off

Switching the System ON

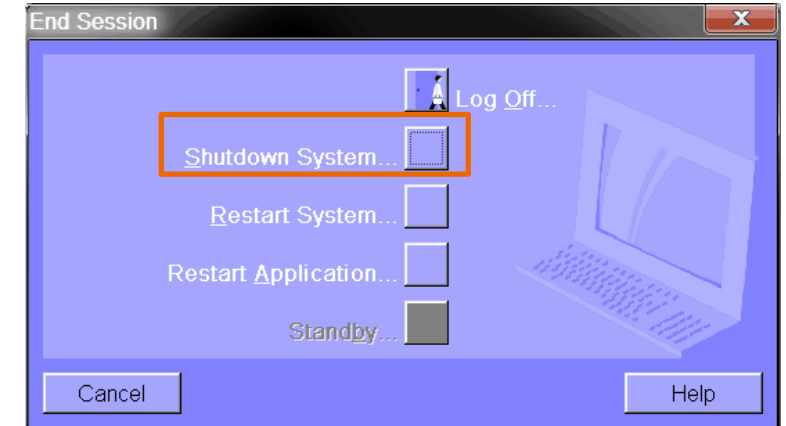
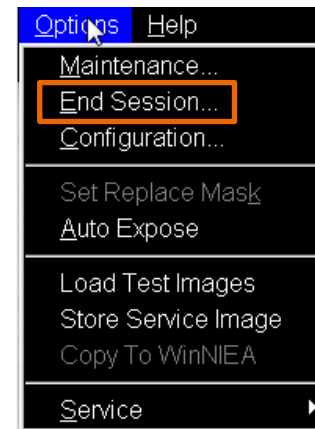
Prior to switching on the system, please ensure that the on-site main switch is switched on and the **emergency SHUTDOWN** button is inactive. To switch the system on, press the power-on button (1) on the system console. Keep the power-on button pressed for more than 0.5s.



- (1) Power-on button
- (2) USB drive
- (3) CD/DVD drive

Switching the System OFF

1. Select **Options > End Session...** in the main menu.
2. The **End Session** dialog box is displayed.
3. Select **Shutdown System...** and select **Yes**.



System Operation

System Restart

When a problem with the imaging system occurs, it may be necessary to restart the imaging system (**Restart Application**) or the entire system (**Restart System**).

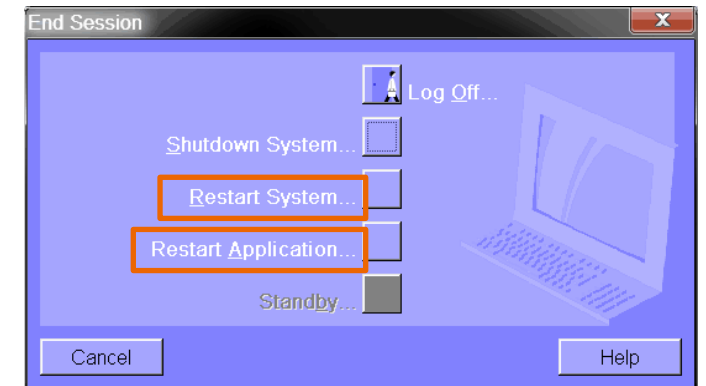
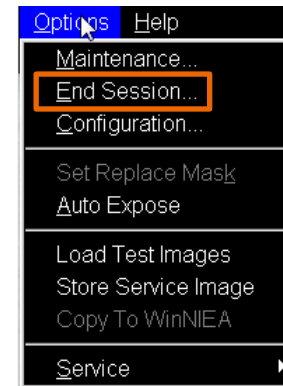
If a message **Restart imaging system** appears, you must terminate the imaging system application and then restart it.

Restart Application

1. Select **Options > End Session...** in the main menu.
The **End Session** dialog box is displayed.
2. Select **Restart Application...**
Another dialog box appears.
3. Select **Yes**.
4. The software of the imaging system is terminated and restarted.

Restart System

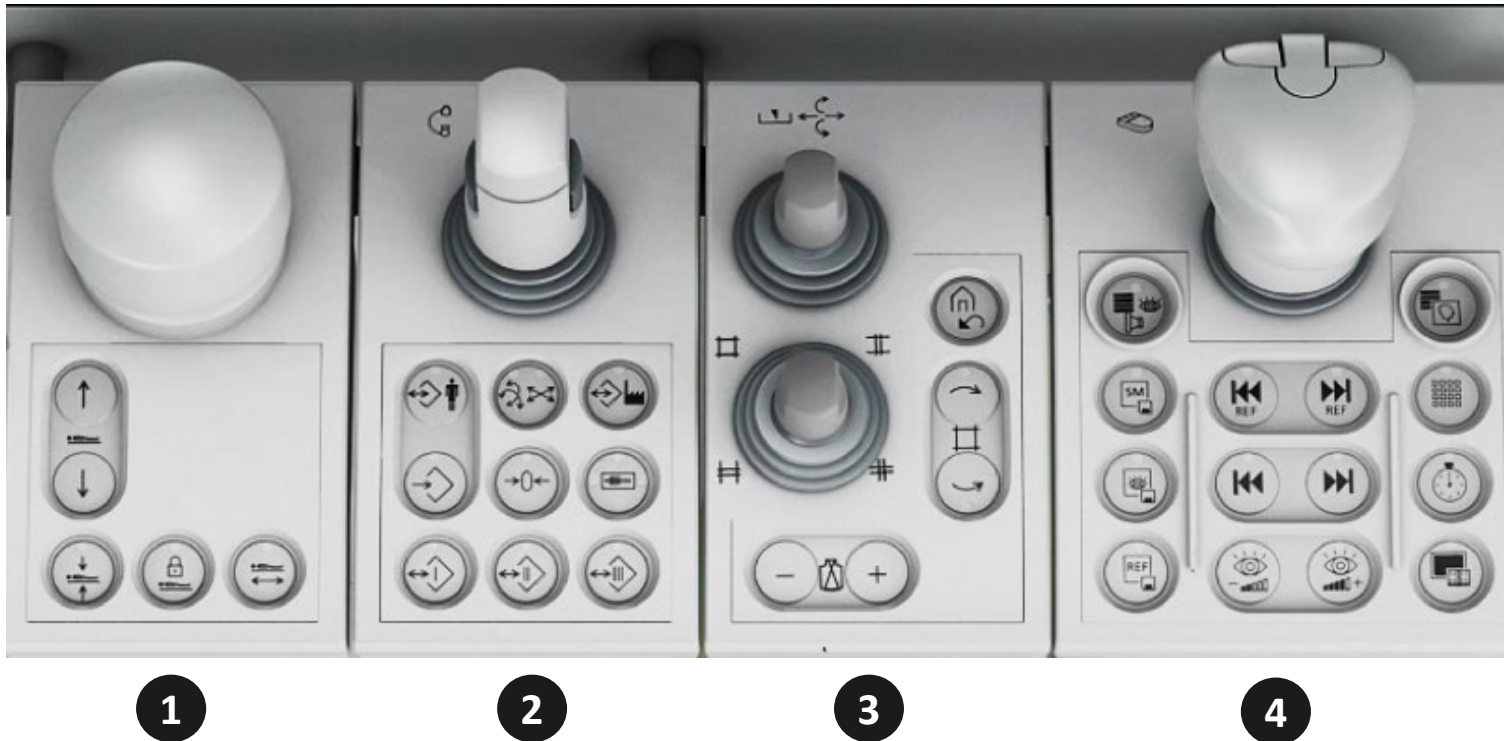
1. Select **Options > End Session...** in the main menu.
The **End Session** dialog box is displayed.
2. Select **Restart System...**
Another dialog box appears.
3. Select **Yes**.
4. The imaging system is shut down and restarted.



System Operation

Control Modules Overview

System control modules allow you to operate the stand, the patient table, and the imaging system.



- (1) Table Control Module (TCM)
- (2) Stand Control Module (SCM)
- (3) Collimator Control Module (CCM)
- (4) Table-side Control (TSC)

Control Modules: Table Control Module (TCM)

Overview of TCM



Table Panning Knob

Adjust the tabletop position.



Perform Table Lift



Set Isocenter

LED is on or flashes while this function is active.



Lock Tabletop Movement

LED is on while this function is active.

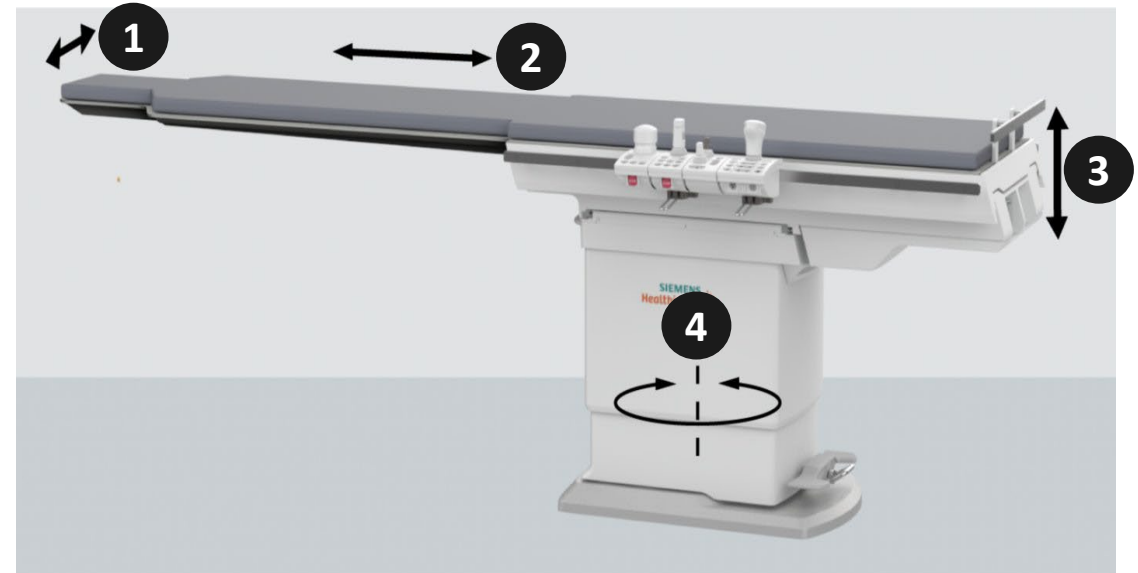


Lock Lateral Tabletop Movement

LED is on while this function is active.

Movement of the Patient Table

- (1) Tabletop transverse movement (manual)
- (2) Tabletop longitudinal movement (manual)
- (3) Table lift (motorized)
- (4) Table rotation (manual)



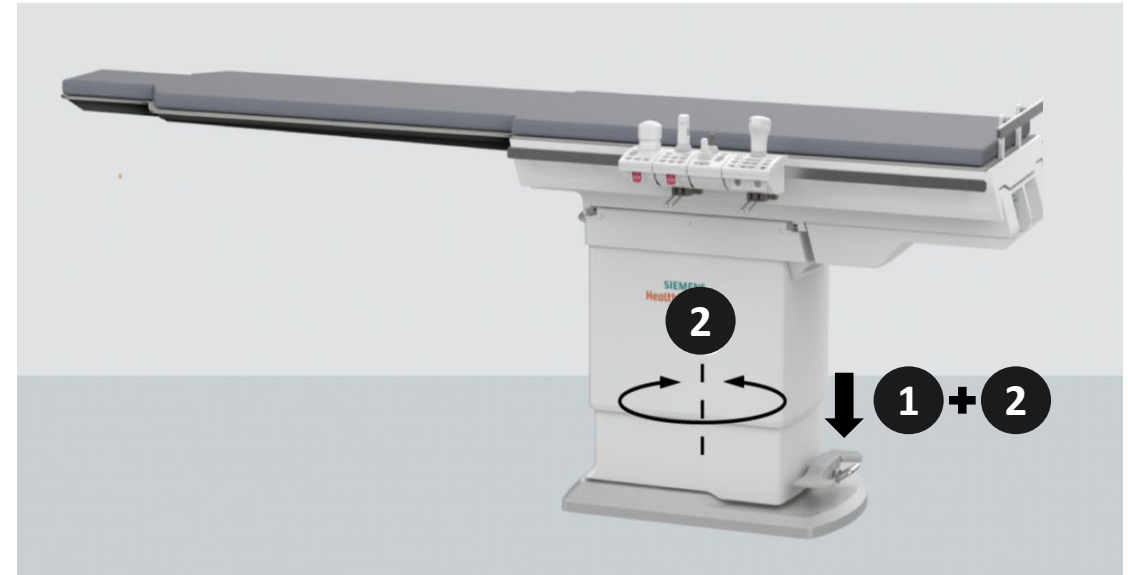
Control Modules: Table Control Module (TCM)

Table Rotation

- The table rotation is performed manually
- The table rotation is **only** possible via the pedal, mounted on the base of the table column
- The table locks every 3°

To rotate the patient table, perform the following:

1. Press the table unlocking pedal.
2. Keep pressing the pedal and rotate the patient table.
3. Release the pedal. Rotate the patient table back and forth slightly until you feel it engage.

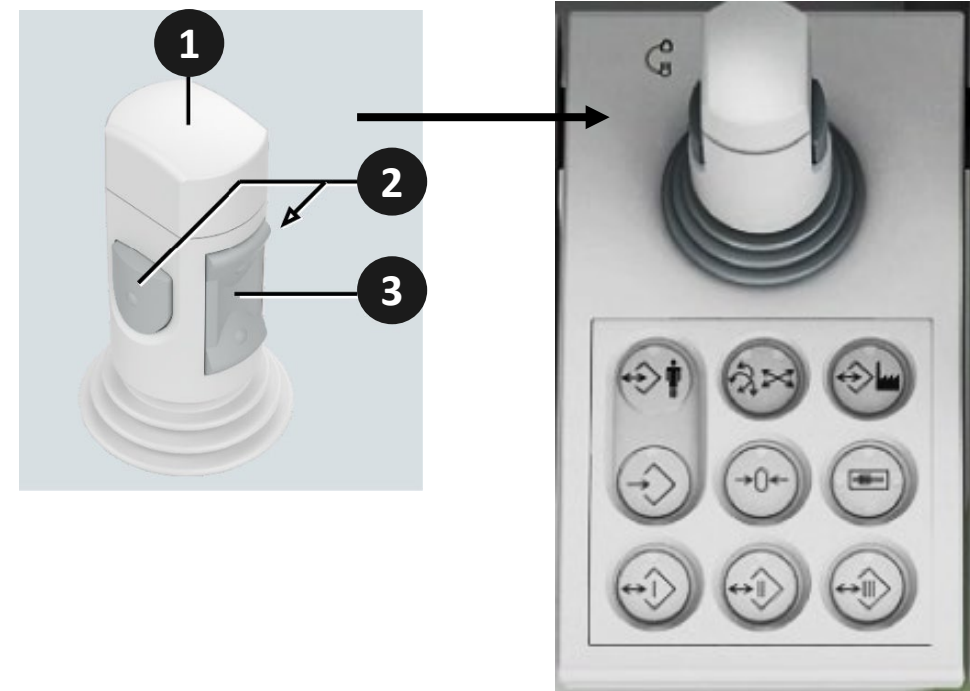


System Operation

Control Modules: Stand Control Module (SCM)

With the Stand/C-arm multifunction joystick the stand and C-arm positions can be adjusted by deflecting the joystick in the required direction:

- (1) The dead man's switch/dead man's grip (DMG) enables movements by pressing it down.
- (2) The buttons on the left and the right side enable switching over from C-arm angulation to stand swivel or C-arm longitudinal movement.
- (3) The rocker key on the back enables lifting and lowering of the flat detector (setting the SID).



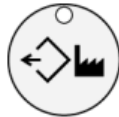
Control Modules: Stand Control Module (SCM)



Anatomical positions



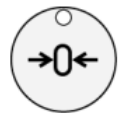
Angulations or
linear movements



System positions



Store position



Set zero stop



Orientation key



Direct positions I



Direct positions II

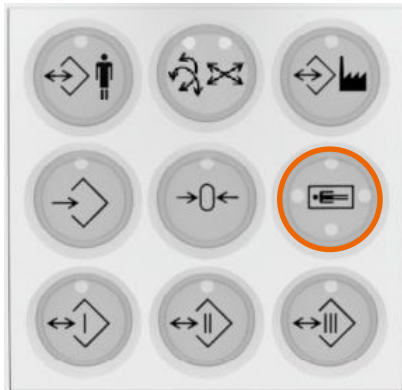


Direct positions III

Control Modules: Stand Control Module (SCM)

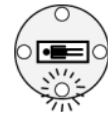
Orientation Key

As the joystick of the respective control console is deflected, the orientation key causes movements to be made in the same direction. By pressing the key for **more than 3s**, you can change the orientation of the control console.

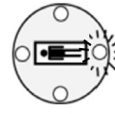


The illuminated LED indicates the active position.

Assignment of the illuminated LEDs to the current position of the control console with respect to the patient table:



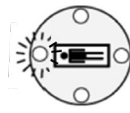
Control console to the right of the tabletop (default position)



Control console at the foot end of the tabletop



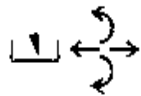
Control console to the left of the tabletop



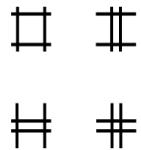
Control console at the head end of the tabletop

System Operation

Control Modules: Collimator Control Module (CCM)



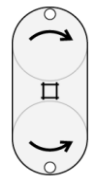
The upper joystick controls the **wedge filter**.



The lower joystick controls the **rectangular diaphragm**.



Reset collimator leaves and filters diaphragms.



Collimator/FD rotation (Multispace)



Change image input format/zoom stage

System Operation

Control Modules: Table-side Control Module (TSC)

With the TSC, the imaging system can be operated in the examination room.

Mouse Joystick

Middle Button

- Store a 2D reference image when assigned to 2D postprocessing
- Windowing button when assigned to 3D postprocessing

Left Button

Select and manipulate objects.

Right Button

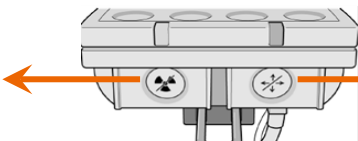
Finish steps or exit functions.



Top View



Block
Radiation



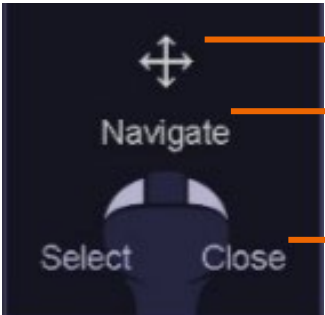
Front View

Block



Movement

Display of the Mouse Joystick Functions on the Exam Room Screen



Possible directions of joystick deflection

Joystick function without button pressed

Joystick function with a button pressed

System Operation

Control Modules: Table-side Control Module (TSC)

Factory Default Button Configuration



The diagram shows the physical TSC unit with a red rectangular box highlighting the button array. An arrow points from this box to the 'Please note' text below.

			
Store the current image (Store monitor)	Scroll to the previous and the next reference image	Scene directory	Postprocessing Onscreen menu
			
Store fluoroscopy image	Scroll to the previous and the next scene	Dilatation timer	Examination Onscreen menu
			
Store reference image	Increase and decrease fluoroscopy pulse rate	Layout Gallery	

Please note: This area can be configured.
Please contact your Siemens Healthineers Customer Service for further
information.

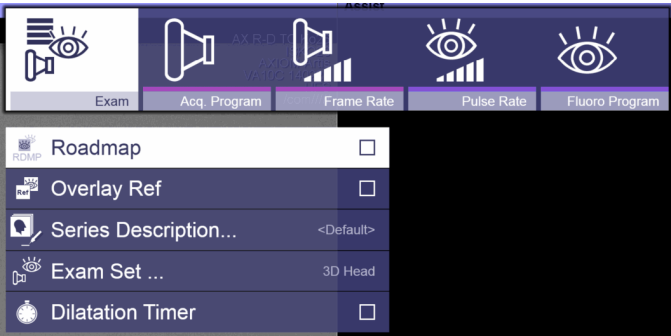
System Operation

Onscreen Menu

When you press one of these keys on the TSC, the corresponding menu will appear on the display in the examination room.



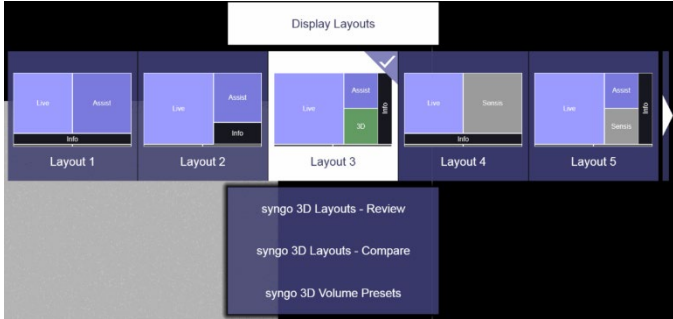
Examination Onscreen menu



Postprocessing Onscreen menu



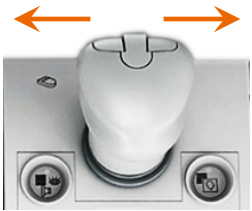
Layout Gallery



System Operation

Onscreen Menu

To navigate within the **Onscreen menu**, deflect the mouse joystick.



Move the joystick left or right to navigate between pages.



Move the joystick up/down to navigate between items.



To select an item on the **Onscreen menu**, press the left mouse joystick button.



To close the **Onscreen menu**, press the menu key again.

– or –

Press the right mouse joystick button (within a submenu, only the submenu is closed).

System Operation

Layout Gallery

Examination Room

1. To select a layout, press the **Layout Gallery** key on the TSC*.

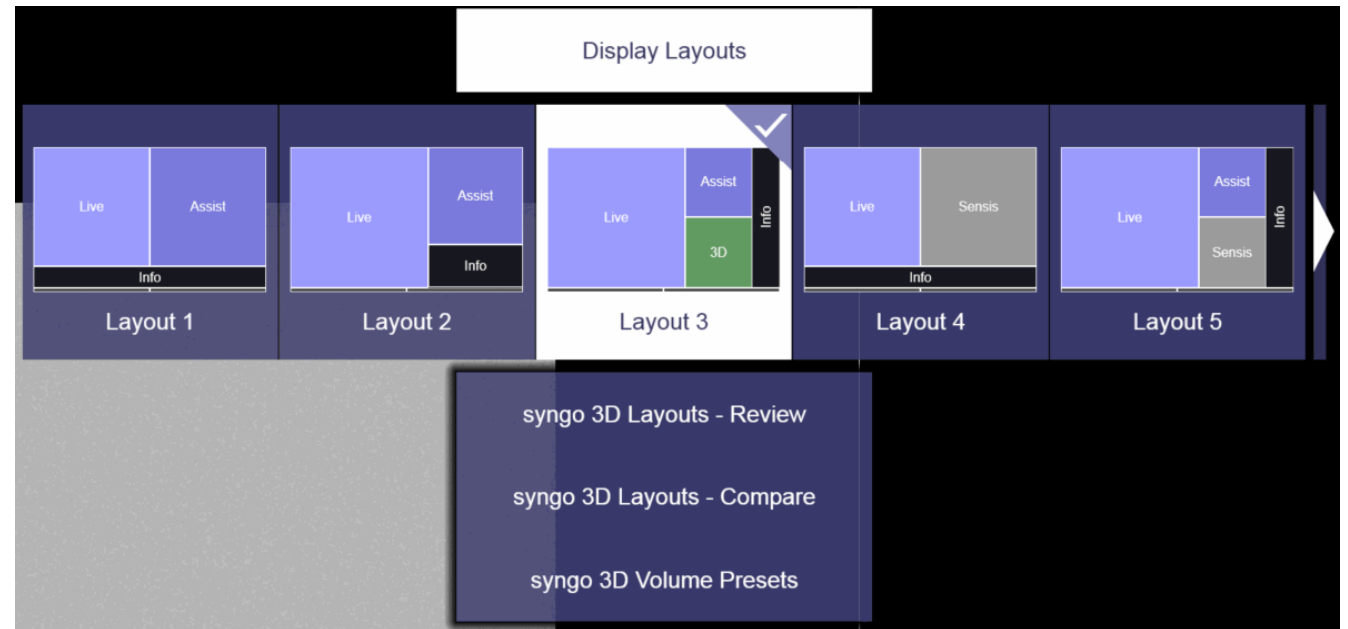


Layout Gallery Key

— or —

Select **Layout Gallery** in the **General** menu.

2. Deflect the mouse joystick to select a layout.
3. Press the **left** button of the mouse joystick to activate the layout.



*If configured

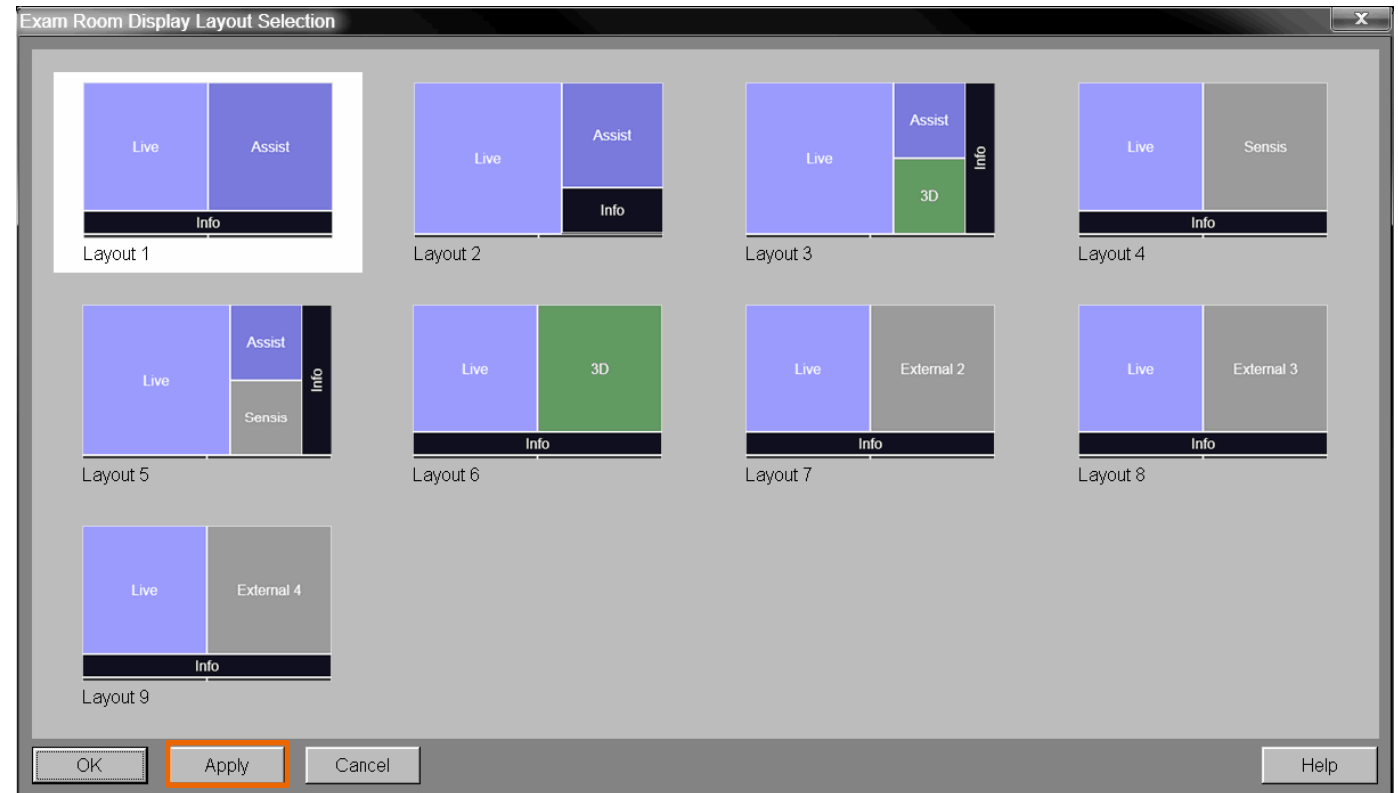
System Operation Layout Gallery

Examination Task Card (Control Room)

1. Click this icon.



2. Select the desired layout and click **Apply**.



System Operation

Layout Gallery: Display Layout Configurator

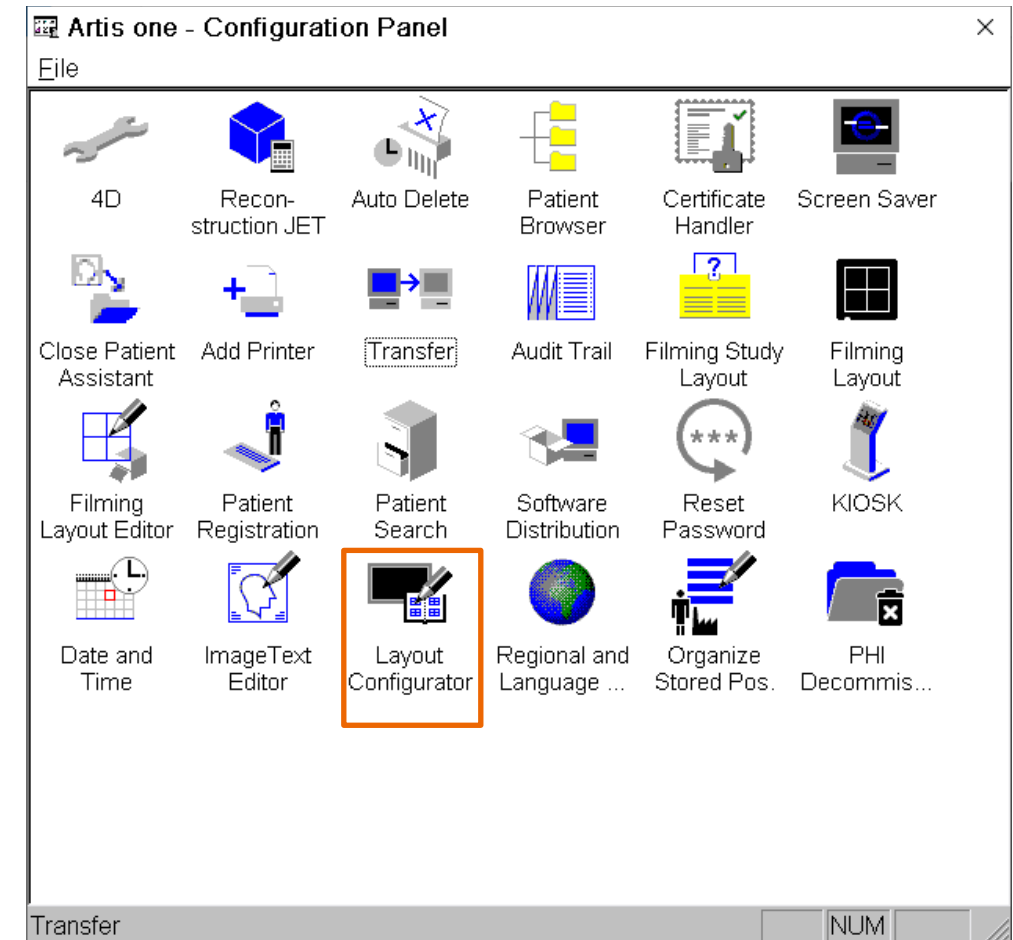
Examination Task Card (Control Room)

The **Display Layout Configurator** allows you to configure the screen layout on the display in the examination room. You can customize the screen layout to your needs and to your examination.

1. Select **Options > Configuration** in the main menu on the system console.
2. Double-click the **Display Layout Configurator** icon to open the Display Layout Configurator.

Please Note:

- A default layout is mandatory and can be changed but must contain a Live image segment.
- If there is a Live image segment, it is always positioned in the top-left corner.
- The Info segment is mandatory.
- A vertical Info segment on the left side is not allowed.



Layout Gallery: Display Layout Configurator

(1) Menu Bar

New Layout, Duplicate Layout, Save, Undo/Redo.

(2) Layouts

By clicking the arrow icon displayed to the left of the layout name, the default layout can be defined for system startup, for ClearStent Live, and during X-ray. If a layout has been defined as a default, it is marked by a star.

(3) Layout build-up area

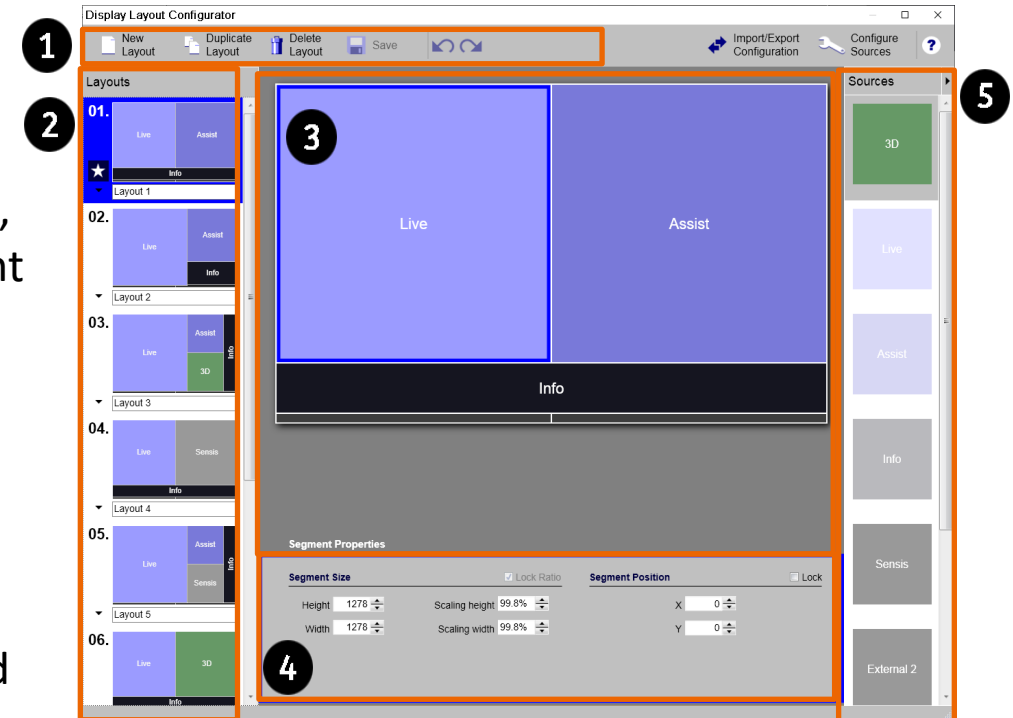
You can drag and drop image segments from the **Source** to the layout build-up area, and select, move, resize, or delete them.

(4) Segment Properties

The size and position of the selected image segment are displayed and can be changed in this area.

(5) Sources

The sources that have been configured are displayed.



Please note: Only the first 12 layouts can be selected/activated in the examination room. The remaining layouts are only displayed in the **Display Layout Configurator**.

System Operation

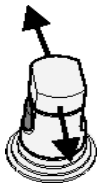
System and Anatomical Positions (1/2)

1. Press the required position icon on the stand control module (SCM):

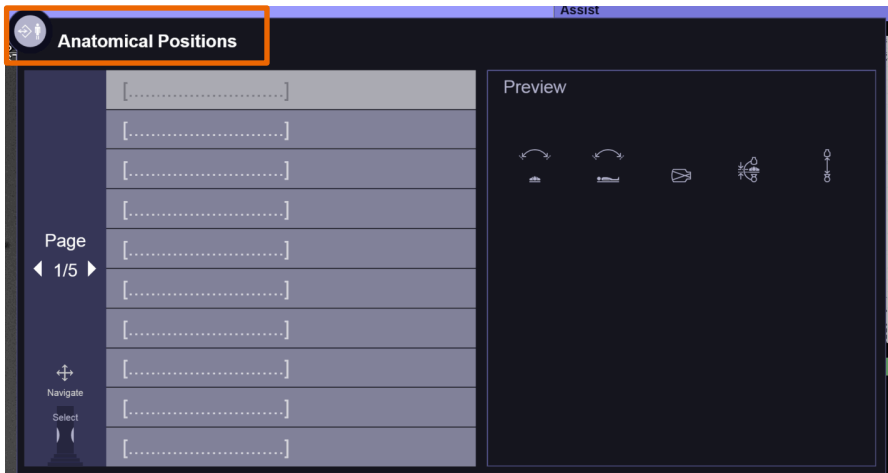
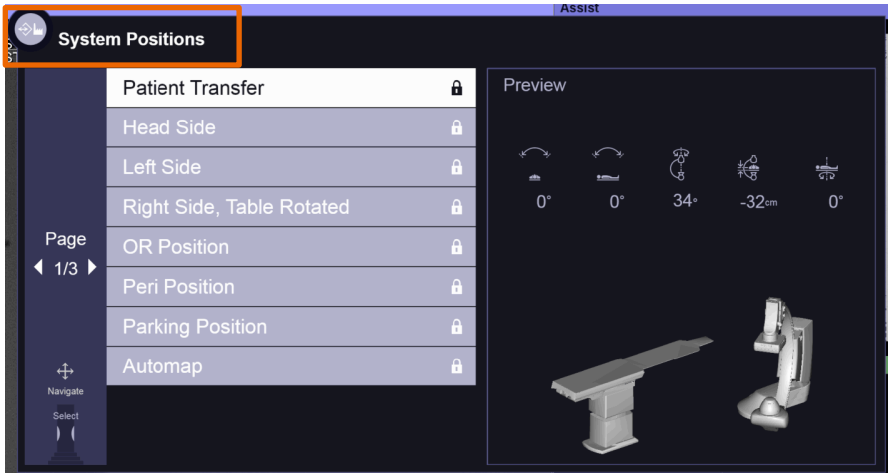
- **System Positions:** A set of basic positions of the stand and table are saved as special system positions. The stand position is related to room coordinates.
- **Anatomical Positions** (Programmed Positions): You can save a number of positions that you require for examinations. The C-arm will be positioned in relation to the patient's position.



2. The corresponding menu appears on the **Onscreen menu** and the LED on the key lights up.

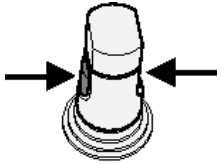


3. Select the required target position by deflecting the stand/C-arm joystick backward or forward repeatedly.



System Operation – System and Anatomical Positions (2/2)

4. Confirm the target position by pressing one (or both) side buttons.



5. Press the stand/C-arm joystick down and deflect it away from you until the target position has been reached.



6. The LED on the program key goes out.
7. The system returns to its original state.

System and Anatomical Positions: Store Programmed Positions (1/2)

1. Move the unit and the table height (configurable by Siemens Healthineers Service) to the required position.
2. Set the SID, zoom stage, primary collimator, and filter diaphragms.
3. Press the **Store position key** from the stand/C-arm control module. The LED on the key lights up.



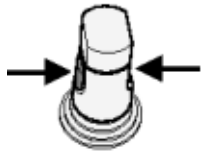
Store position key

4. Select the required memory position (number) by deflecting the stand/C-arm joystick backward or forward repeatedly.



System and Anatomical Positions: Store Programmed Positions (2/2)

5. Press one or both buttons on the side of the stand/C-arm joystick to store the current system position under the selected program number. The previous position is deleted.



– or –

Press the **required position** key to store the three most frequently used system positions with shortcuts (direct positions I, II, III).



Direct Positions Key I, II, III

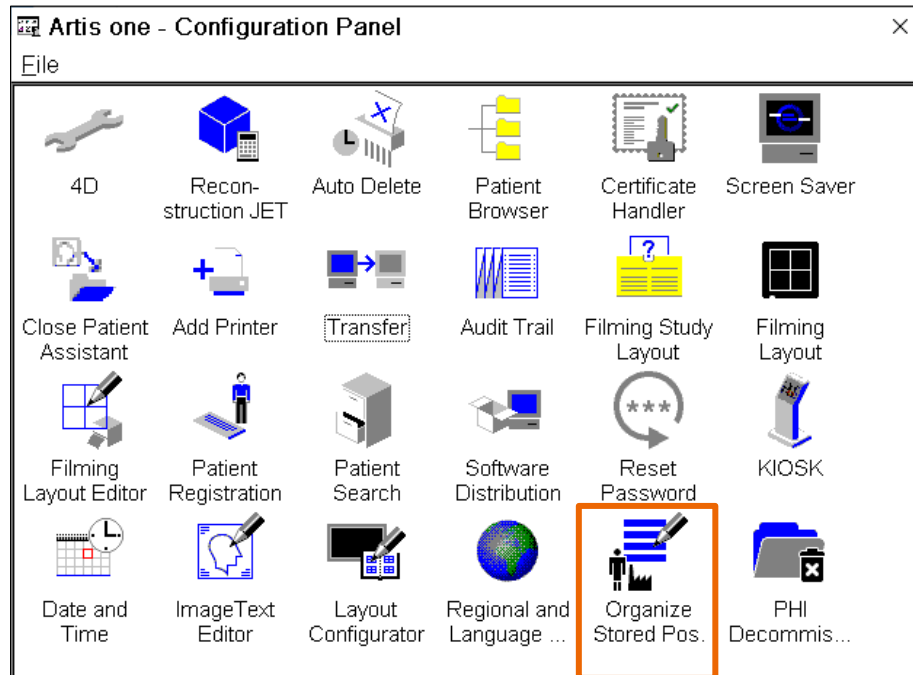
These saved system positions with shortcuts are **not** listed in the system positions and are system position list.



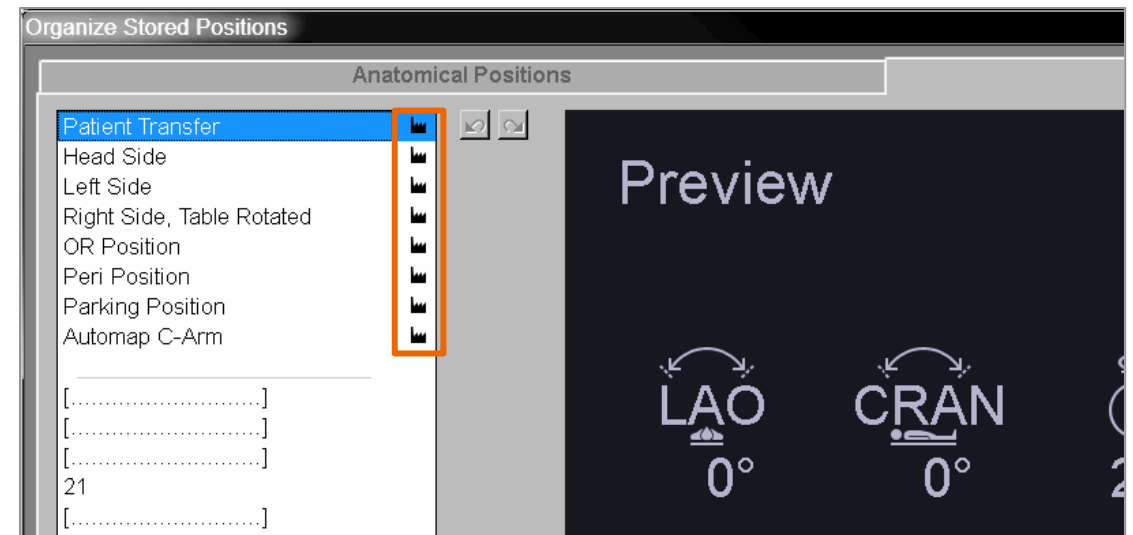
6. The LED on the store key goes out and the system returns to its original state.

System and Anatomical Positions: Organize/Edit Stored Positions (1/2)

1. Select **Options > Configuration...** in the main menu.
2. Double-click the **Organize Stored Positions** icon.



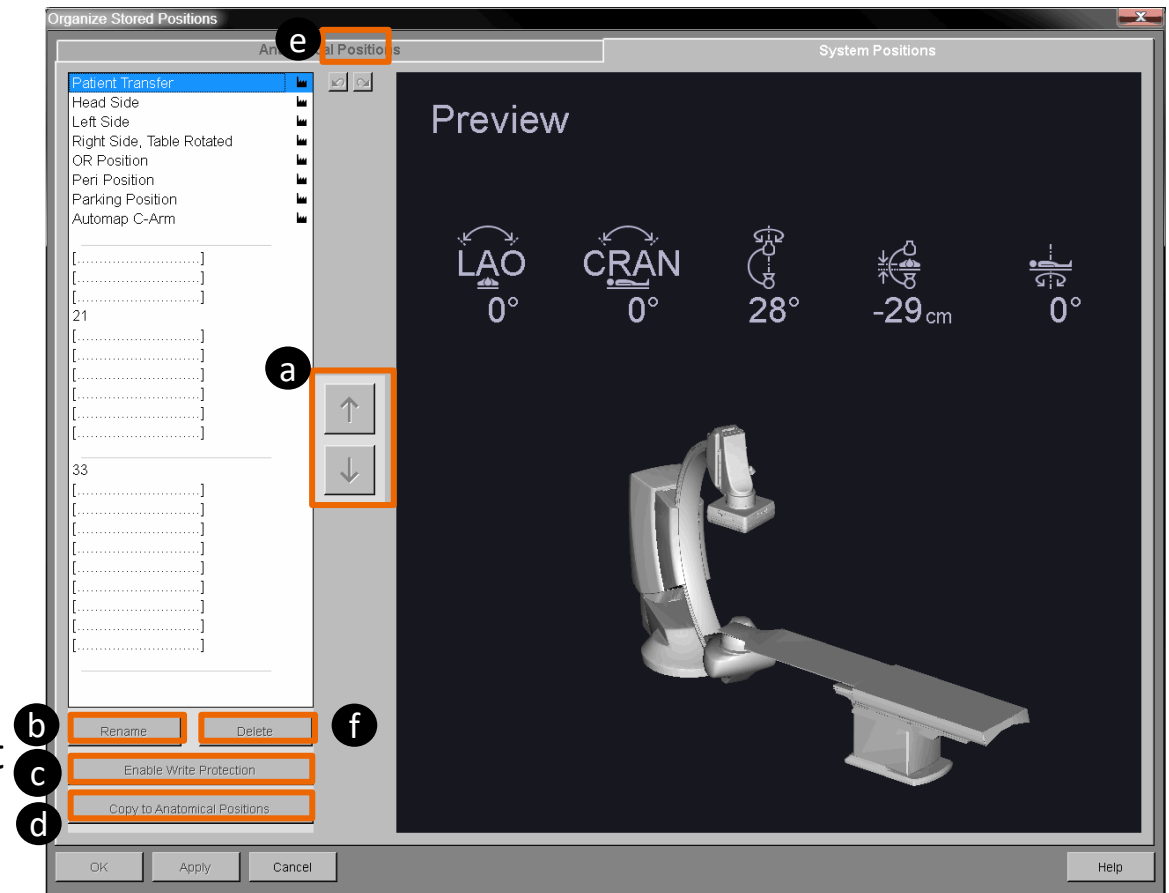
3. A list of the stored positions and a preview of the selected position will open. Positions may be marked by a:
 - 🔒 Factory position (**cannot** be edited)
 - 🏰 Protected position (**cannot** be deleted or overwritten)



System Operation –

System and Anatomical Positions: Organize/Edit Stored Positions (2/2)

4. To edit and arrange the positions to your needs and to your examination practice:
 - a) Select a position and click the **up or down arrow** to change the sort order.
 - b) Select the position and click **Rename** to rename a position (which is not protected).
 - c) Select the position and click **Enable Write Protection** or **Disable Write Protection** to determine whether a protection can be written or not.
 - d) Select the position and click **Copy to System Positions** or **Copy to Anatomical Positions** to copy a position to the other list.
 - e) Click the **Undo** or **Redo** icon to undo or redo the last action.
 - f) Select the position and click **Delete** to delete a position (which is not protected).
5. You can also apply write protection to selected positions.



Please note that the learning material is for training purposes only.

For the proper use of the software or hardware, please always use the Operator Manual or Instructions for Use (hereinafter collectively “Operator Manual”) issued by Siemens Healthineers. This material is to be used as training material only and shall by no means substitute the Operator Manual. Any material used in this training will not be updated on a regular basis and does not necessarily reflect the latest version of the software and hardware available at the time of the training.

The Operator Manual shall be used as your main reference, in particular for relevant safety information like warnings and cautions.

Please note: Some functions shown in this material are optional and might not be part of your system.

Certain products, product related claims or functionalities (hereinafter collectively “Functionality”) may not (yet) be commercially available in your country. Due to regulatory requirements, the future availability of said Functionalities in any specific country is not guaranteed. Please contact your local Siemens Healthineers sales representative for the most current information.

The reproduction, transmission or distribution of this training or its contents is not permitted without express written authority. Offenders will be liable for damages.

All names and data of patients, parameters and configuration dependent designations are fictional and examples only.

All rights, including rights created by patent grant or registration of a utility model or design, are reserved.

© Siemens Healthcare GmbH 2022

Siemens Healthineers Headquarters
Siemens Healthcare GmbH
Henkestr. 127
91052 Erlangen, Germany
Telephone: +49 9131 84-0
siemens-healthineers.com