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Artis one

Maintenance Instructions – System
AX System Checkup and Maintenance

SIEMENS Healthineers

Standards

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Document Version

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3 Full Maintenance

Type of Maintenance:	Maintenance Interval:	Required time:
Full Maintenance (includes partial maintenance)	Every 24 months	Approx. 17.75 hours

Full maintenance is divided into four partial maintenances. These do not have to be performed in sequence.

Partial Maintenance 1:

Component	Full Maintenance (Work Time/Maintenance Interval)
General Visual Check	0.25 hr. / 24 months
Image system	1 hr. / 24 months
User Interfaces	0.75 hr. / 24 months
Wireless footswitch	0.2 hrs. / 24 months
IOB/CCOM, formerly the RTC	0.5 hr. / 24 months
MCI	0.2 hours/24 months
Examination Room Display	0.5 hr. / 24 months
21" Display	0.5 hr. / 24 months
Final Work Steps	0.75 hr. / 24 months
Total Work Time, Partial Maintenance 1:	Approx. **5 hours/24 months**

Partial Maintenance 2:

Component	Full Maintenance (Work Time/Maintenance Interval)
X-ray Generator	2 hrs. / 24 months
Upper Body Protection (optional)	0.25 hr. / 24 months
DCS	0.75 hr. / 24 months
Final Work Steps	0.75 hr. / 24 months
Total Work Time, Partial Maintenance 2:	**3.75 hrs. / 24 months**

Partial Maintenance 3:

Component	Full Maintenance (Work Time/Maintenance Interval)
Floor Stand	3.5 hours / 24 months
Final Work Steps	0.75 hour / 24 months
Total Work Time, Partial Maintenance 3:	**4.25 hours / 24 months**

Partial Maintenance 4:

Component	Full Maintenance (Work Time/Maintenance Interval)
Patient Table	3.5 hours / 24 months
Uninterruptible Power Supply (optional)	0.5 hour / 24 months
Final Work Steps	0.75 hour / 24 months
Total Work Time, Partial Maintenance 4:	**4.75 hours / 24 months**

3.1 Part 1 AXIS Smart/User Interfaces/IOB/Displays

3.1.1 Special Requirements

3.1.1.1 Required Documents

- Angiography CB-DOC DVD, AXAN-000.801.01....

3.1.1.2 Required Tools, Measuring Equipment and Aids

• Protective ground wire test meter. This test meter must meet the specifications of IEC 61557/EN 61557/VDE 0413/ IEC 62353/, for example the SECUTEST® SIII general-purpose test meter or PROFITEST® 0100S-II.	Order directly
• ESD equipment	97 02 606 RE999
• Lint-free cleaning cloths	n.a.
• Alcohol	n.a.
• Cleaning agent for plastic, glass and painted parts such as Hakapur concentrated cleaner (500 g),	96 60 648 RH999
• Brush to remove dust	n.a.
• Anti-static vacuum cleaner	n.a.
• Luminous density meter, such as SMfit ACT (luminous density meter)	77 52 848

All tools, test equipment, and aids, with the exception of the "standard installation tool kit" and the general-purpose test meter, are listed and specified in the Service Parts Catalogue (SPC).

3.1.1.3 Required materials

• 1 lithium battery for the imaging system, type CR2032	30 82 146
• NCU fan/battery module (last replacement > 3 years)	10 96 1600

5 Procedures

5.1 Protective ground wire test meter

5.1.1 Order directly

Info:

- The ground wire test meter (test meter) must meet the specifications of IEC 61557 / EN 61557 / VDE 0413 / IEC 62353,

  for example the SECUTEST® SIII general-purpose test meter or PROFITEST® 0100S-II; **order directly from:**

  GMC-I Messtechnik GmbH

  Südwestpark 15

  90449 Nuremberg

  Germany

  Telephone +49 911 8602-0

  Fax +49 911 8602-669

  e-mail: info@gossenmetrawatt.com

  http://www.gossenmetrawatt.com

5.2 Cleaning the TFT Displays

5.2.1 Cleaning Information

Information for cleaning agents/disinfectants apply only to the display to which this document refers and not the entire system.

Information about cleaning agents must be observed. If agents other than those listed are used, the display surface can be irreversibly damaged.

Cleaning agents may not remain on the surface for an extended period.

If this is not observed, the warranty is invalidated.

Equipment care, cleaning and disinfection:

- The front of the display is very sensitive to mechanical damage; absolutely avoid scratches, shocks, etc.
- Promptly remove any drops of liquid that fall on it; extended contact with liquids may cause, for example, discoloration or calcium outlines on the surface.

- If there is dirt on the front of the display, clean it with a microfiber cloth and if necessary with a cleaning agent. Clean housing components only with the recommended cleaning agents.
- If a cleaning agent is sprayed directly on the display surface, make sure that any droplets that run down are wiped off with a microfiber cloth before they reach the edge of the panel.

Active Ingredient Class	Tested Cleaning Agents and Disinfectants	Additional examples
Alcohol	Ethyl alcohol, 96%	Hospiset cloth Microzoid liquid
Aldehyde	Melsitt Cidex	Aldasan 2000 Kohsolin Gigasept FF
Chloride derivative	Terralin	Quartamon Med
Disinfectants	Taski DS5001 (Diverseylever Labs) Morning Mist Surfanios Fraicheur Citron (Anios Labs)	
Guanidine derivatives	Lysoformin	
Quaternary compounds	Incidur spray, full strength	
Commercially available dishwashing liquid	Tempo	Fairy Ultra, Pril, Palmolive
Benzene	Petroleum ether	
Pyridine derivatives	Activ Spray, full strength	
Water	Tap water Distilled water	

Tab. 10: General cleaning agents

Effective time:

The maximum time between applying the cleaning / disinfectant liquid and removal (dry wiping, for example)

If the effective time is exceeded, damage to the surfaces can occur; with the panel, this can be permanent screen damage.

Name	Effective time
Terralin protect; 2%	15 min.
Meliseptol rapid, direct	60 min.
Microbac tissues, direct	30 min.
Incidin Plus, 8% volume	15 min.

Name	Effective time
Melsitt, 10% volume	60 min.
Incidur spray, full strength	60 min.
Perform, 3% weight	60 min.
Lysoformin, 2% volume	60 min.
Activ Spray, full strength	60 min.
Terralin, 0.5%	60 min.
Ethyl alcohol, 96%	90 min.
Commercially available dish washing liquid: Tempo	60 min.
Boiling range - benzene, full strength	**Must not be used!**
Spray disinfection Disinfectant: Nocolyse Quantity: manufacturer's recommendation	Information from manufacturer

Tab. 11: Directly applied cleaning agents

6 Changes versus the Previous Version

Chapter	Section	Changes
Full Maintenance	Panoramic Display	Title changed from Cockpit to Panoramic Display.
Full Maintenance	MCI	A reminder added to keep F2 switched on before replacement of fan/battery module
Full Maintenance	Checking the Operating Values	Step sequences changed.
Full Maintenance	DCS	Added torque required for DCS installation
Full Maintenance	Floor Stand	Replaced Tube Cover Force Sensor Adjustment with Perform Stand Test
Partial Maintenance	Floor Stand	Replaced Tube Cover Force Sensor Adjustment with Perform Stand Test
System Checkup	DCS	Added a reminder to check the DCS tube covers about buckle fastening and its replacement solution
System Checkup	Final Work Steps	Updated the reminder to check the DCS tube covers about buckle fastening and its replacement solution
General Information	Product-specific Safety information	Service key updated
Full Maintenance	Cockpit (option)	Deleted the reference to the Monitor Replacement Document
Full Maintenance	TFT Color Monitor (Examination Room)	Deleted the reference to the Monitor Replacement Document
Partial Maintenance	TFT Color Monitor (Examination Room)	Deleted the reference to the Monitor Replacement Document
Full Maintenance	X-ray generator	UG-related update added for tube adjustment and service switch
Full Maintenance	Tube Cooling Unit	Updated the signal connector for One4all SMC cooling unit
Partial Maintenance	Tube Cooling Unit	Updated the signal connector for One4all SMC cooling unit

Tab. 12: Artis one - Maintenance Instructions

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