

6 Maintenance

6.1 Cleaning

All instructions in the operator manual regarding cleaning and, when applicable, regarding disinfecting and sterilization must be always observed.



WARNING

Improper cleaning of the MR system (including coils and accessories)!

Risk of electric shock

Damage to the equipment

- ◆ Only clean the system and the components with a damp cloth (moist wipe, not too wet).
- ◆ Follow the cleaning instructions provided in all relevant manuals, which explicitly explain how the various components should be cleaned and/or disinfected.

- 1 Use commercially available cleaning and disinfectant solutions. Follow the manufacturer's instructions. Refer to the lists of approved detergents provided in the individual subchapters.
- 2 Do *not* use hard or sharp objects (e.g. knives or tweezers) to remove residue.
- 3 Do not pour cleaning fluid onto surfaces and do not spray fluids - always use a damp cloth for cleaning.
- 4 Do not immerse in cleaning or disinfectant liquid. Do not rinse with water.

For information regarding cleaning of RF coils, please refer to the **Operator Manual** of the respective coil.

6.1.1 Cleaning system components



WARNING

Flammable cleaning or disinfection agents may cause fire or explosion!

Injury to patient

- ◆ Disinfect the system components with commercial disinfecting materials. However, do not use flammable solvents such as undiluted alcohol, benzene, or acetone. Follow the manufacturer's instructions.

The following table lists classes of active agents that have been tested and are approved. The detergents listed under "not approved" must not be used.

Approved	Not approved
<ul style="list-style-type: none"> • Aldehydes • Quaternary compounds • Guanidine derivatives • Peroxide compounds • Pyridine derivatives • Alcohol solution (for example, 70% isopropyl alcohol and 30% water) • Chloro derivatives • Commercially available cleaning agents, detergent substances • Alkylamine • Organic acids 	<ul style="list-style-type: none"> • Benzene undiluted • Acetone • Phenols

- ◆ Clean the system and its components with a damp cloth, if not specified otherwise in the individual subchapters.

Cleaning the patient table, the control unit, the interface box, the straps, the plugs, and connectors

The following table lists classes of active agents that have been tested and are approved. The detergents listed under “not approved” must not be used.

Approved	Not approved
<ul style="list-style-type: none"> • Aldehydes • Quaternary compounds • Guanidine derivatives • Peroxide compounds • Pyridine derivatives • Chloro derivatives • Commercially available cleaning agents, detergent substances • Alkylamine • Organic acids 	<ul style="list-style-type: none"> • Benzine undiluted • Acetone • Alcohol solution (for example, 70% isopropyl alcohol and 30% water) • Phenols

1 Carefully wipe the plugs and connectors with the cloth. Do *not* touch the contacts.

2 Wash the straps of the patient table at a temperature of 60°C.

Cleaning the LCD monitor/video display

The LCD monitor of the *syngo* Acquisition Workplace and the video display are cleaned in the same way.

1 Clean the LCD monitor/video display at least every two months.

2 Prior to cleaning, switch off the LCD monitor/video display and disconnect the main power plug. But if the monitor/display is under hot running conditions, please wait till the monitor/display is chilled (this can take up to one hour).

3 Clean the monitor/video display using a microfiber cloth.

4 If the LCD monitor/video display cannot be effectively cleaned with the microfiber cloth: use window cleaner. Do *not* use window cleaner on the monitor housing.

5 Immediately remove any water drops from the LCD monitor/video display.

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6 Avoid scratching the surface area of the LCD monitor/video display.

7 Avoid impacts to the LCD monitor/video display.



The LCD monitor/video display are highly sensitive to mechanical damage.

Cleaning the camera lens

- ◆ Carefully clean the camera lens with a lint-free cloth and lens cleaner.

6.1.2 Cleaning accessories

Cleaning the PMU

The following table lists classes of active agents that have been tested and are approved. The detergents listed under “not approved” must not be used.

Approved	Not approved
<ul style="list-style-type: none">• Aldehydes• Quaternary compounds• Guanidine derivatives• Peroxide compounds• Pyridine derivatives• Chloro derivatives• Commercially available cleaning agents, detergent substances	<ul style="list-style-type: none">• Benzine undiluted• Acetone• Phenols• Alcohol solution (for example, 70% isopropyl alcohol and 30% water)• Alkylamine• Organic acids

- ◆ Clean the PMU and its components (except for the charging station) with a damp cloth. To clean the charging station, carefully wipe with a dry cloth.

Cleaning and disinfecting the receptors

- ◆ Do *not* use cleaners or disinfectants containing alcohol or ether.

Cleaning the headphone, squeeze bulb with tubes, and the MagnaCoil Headset System

The following table lists classes of active agents that have been tested and are approved. The detergents listed under “not approved” must not be used.

Approved	Not approved
<ul style="list-style-type: none">AldehydesGuanidine derivativesPeroxide compoundsPyridine derivativesChloro derivativesCommercially available cleaning agents, detergent substancesAlkylamineOrganic acids	<ul style="list-style-type: none">Benzine undilutedAcetonePhenolsAlcohol solution (for example, 70% isopropyl alcohol and 30% water)Quaternary compounds

- 1 Use a dampened cloth for cleaning. Do not immerse the component in any liquid.
- 2 For the MagnaCoil Headset System: Be careful not to place too much pressure on the joint where the tubing connects to the ear piece.

Cleaning the data carrier

- 1 Clean contaminated data carriers with a clean cloth (cotton or microfiber).
- 2 Follow the manufacturer's notes when cleaning CD/DVD data carriers.

6.1.3 Care and cleaning of floors

Do *not* use the following cleaning or care products:

- Sprays
- Silicone-based cleaning or care products

- Cleaning or care products with substances that release ammonia
- Cleaning or care products that destroy the anti-static properties of the floor covering
- ◆ Use commercially available cleaning or care products for the floor. Follow manufacturer's instructions.

6.2 Return and disposal

6.2.1 MR System

WARNING

Explosion hazard during improper disassembly!

Injury of persons

- ◆ Ensure that only trained personnel disassemble the MR system because the system includes a pressurized container and cryogenic helium.

- 1 Contact Siemens Service in case of questions about returning and disposing the MR system and/or its components and accessories.
- 2 Observe national regulations.

6.2.2 Packaging



Siemens is obligated to accept the return of packaging material.

- 1 Contact Siemens Service regarding questions with respect to the return as well as subsequent disposal of packaging material.
- 2 Observe national regulations.