

SOMATOM

Instructions for Use – Cleaning and disinfection

SOMATOM

Instructions for Use – Cleaning and disinfection

Legend



Indicates a hint

Is used to provide information on how to avoid operating errors or information emphasizing important details



Indicates the solution of a problem

Is used to provide troubleshooting information or answers to frequently asked questions



Indicates a list item



Indicates a prerequisite

Is used for a condition that has to be fulfilled before starting a particular operation



Indicates a one-step operation



Indicates steps within operating sequences

Italic

Is used for references and for table or figure titles



Is used to identify a link to related information as well as previous or next steps

Bold

Is used to identify window titles, menu items, function names, buttons, and keys, for example, the Save button

Orange

Is used to emphasize **particularly** important sections of the text

Courier

Is used for on-screen output of the system including code-related elements or commands

Courier

Is used to identify inputs you need to provide

Menu > Menu Item

Is used for the navigation to a certain submenu entry

<variable>

Is used to identify variables or parameters, for example, within a string



CAUTION

Used with the safety alert symbol, indicates a hazardous situation which, if not avoided, could result in minor or moderate injury or material damage.

CAUTION consists of the following elements:

- Information about the nature of a hazardous situation
- Consequences of not avoiding a hazardous situation
- Methods of avoiding a hazardous situation

WARNING

Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

WARNING consists of the following elements:

- Information about the nature of a hazardous situation
 - Consequences of not avoiding a hazardous situation
 - Methods of avoiding a hazardous situation
-





Legend

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1 Introduction

This Instructions for Use document provides detailed information about cleaning and disinfecting your CT system, system components and accessories.



Components that may not be part of your system configuration are nevertheless described in the present instructions for use. The availability of these components depends on your purchase contract.

1.1 Scope of the Instructions for Use

This Instruction for Use document applies to the following CT systems:

- SOMATOM Emotion
- SOMATOM Perspective
- SOMATOM Scope
- SOMATOM Spirit



1 Introduction

2 Safety information

Follow the safety information in this document.



To ensure the safe use of your product and the safety of people, you must adhere to the safety information provided in the Instructions for use documents. In addition, also observe your country-specific regulations and guidelines.

Safety information is located in the safety section and repeated within context where a hazardous situation may occur. To make sure safety information is understood, always read it in context of the situation.

WARNING and CAUTION are highlighted in the text:

WARNING	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
CAUTION	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

WARNING and CAUTION have the same structure. The following example CAUTION instructs you how to read a WARNING or a CAUTION:

CAUTION

This text describes the hazardous situation: Images with lossy compression are used for diagnosis!

This text describes the hazard: Wrong diagnosis.

- ◆ **This text describes how to avoid the hazardous situation:** Always verify your evaluation results with the original DICOM images (first reader duty).
- ◆ Never use lossy ...

2 Safety information

2.1 General safety information

For the secure operation of your medical device, it is the responsibility of the system owner to ensure that each person who operates the system reads and understands the provided Instructions for Use.

WARNING

Not observing the Instructions for Use and the safety information of the medical device and the equipment!

Injury to the patient or personnel, and damage to the equipment.

- ◆ Always observe the Instructions for Use of the particular units used. This includes the labels applied on the equipment as well as the Instructions for Use documents.
- ◆ Always use this Instructions for Use document in conjunction with all Instructions for Use documents provided.
- ◆ Follow the safety instructions and safety signs.
- ◆ For references purposes, store the Instructions for Use near your workplace.

Electronic Instructions for Use are provided on your CT system and on the workplace.

3 Approved cleaning agents and disinfectants

The table below lists the suitable cleaning agents and disinfectants tested and approved by Siemens Healthineers.

3 Approved cleaning agents and disinfectants

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Gantry														
Gantry cover		◆	◆	◆ ¹⁾	◆	◆	◆	◆	◆	◆	◆		◆	◆
Gantry operator panel		◆	◆	◆ ¹⁾	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Gantry touch panel	◆	◆	◆	◆ ¹⁾	◆									
Patient table														
Patient table		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Surgical rail		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			◆
Mattress		◆					◆		◆		◆			
Monitor														
Monitor housing		◆		◆ ¹⁾	◆	◆	◆		◆	◆	◆		◆	◆
Monitor screen	◆													
Other system components														
Foam material (for example, positioning aids)		◆					◆		◆		◆			
Monitor ceiling system		◆	◆	◆	◆	◆	◆		◆		◆		◆	◆
Computers (ICS, IRS, IES)		◆			◆	◆	◆	◆	◆	◆	◆		◆	◆
Body straps		◆			◆		◆		◆		◆			◆
ECG cables				◆ ¹⁾										
Foot switch		◆			◆	◆	◆		◆		◆		◆	◆

¹⁾ ≤ 70 Vol% alcohol



Other cleaning agents and disinfectants than those tested and approved may impact the material surface of the system component or the accessory.

It is at your own risk to use other cleaning agents and disinfectants than those tested and approved by Siemens Healthineers.

3 Approved cleaning agents and disinfectants

4 Improper cleaning and disinfecting

CAUTION

Using improper cleaning solvents!

Injury to the cleaning personnel (allergic reaction or allergic shock) and damage to the equipment.

- ◆ Follow the cleaning and disinfecting instructions of the Instructions for Use.
- ◆ Do not use unsuitable cleaning agents.
- ◆ Always use cleaning media also approved for humans.
- ◆ Follow the instructions of the disinfectant manufacturer and observe the dosage instructions.

CAUTION

Insufficient cleaning or disinfection of the equipment!

Injury to the patient or the personnel (bio hazard).

- ◆ Always clean or disinfect the equipment after use.
- ◆ Always observe the instructions for cleaning and disinfecting.
- ◆ Make sure that the table and the accessories are clean and covered with paper, if possible.

4 Improper cleaning and disinfecting

CAUTION

Not observing the instructions of the disinfectant manufacturer!

Injury to the cleaning personnel.

- ◆ Follow the cleaning instructions of the Instructions for Use.
- ◆ Follow the instructions of the disinfectant manufacturer.

Cleaning agents and disinfectants containing or releasing the following substances may cause damage to the equipment and must not be used:

- Abrasive cleaning liquids
- Organic solvents such as acetone, stain remover, or cleaner's naphtha
- Agents that release ammonia when they are dissolved or decomposed

Ammonia has a corrosive effect.

- Agents that contain silicone

Silicone decays over time and can form sticky deposits that interfere with electrical contacts.



Do not use cleaning agents and disinfectants in spray form:

- Sprays can enter the equipment and damage electrical components.
- Sprays can corrode various plastics, and can form flammable mixtures with air and solvent vapors.



Do not use hard or pointed objects to remove dirt.

5 Cleaning and disinfection for veterinary usage

Veterinary use of the CT system requires that you sufficiently clean the table and positioning aids. In case of mixed operation for both animal and human patients, the cleaning media used should also be approved for humans.

 **CAUTION**

Using of cleaning media not approved for humans!

Allergic reaction or allergic shock.

◆ Always use cleaning media also approved for humans.

5 Cleaning and disinfection for veterinary usage

6 Cleaning and disinfecting the CT system and system components

To avoid personal injury and damage to the equipment, carefully follow the cleaning and disinfection instructions provided.

WARNING

Cleaning of parts of the system while the system is connected to the power supply!

Electric shock due to possible contact with line voltage.

- ◆ Always switch the system off at the main power switch before cleaning or disinfecting.

CAUTION

Using improper cleaning solvents!

Injury to the cleaning personnel (allergic reaction or allergic shock) and damage to the equipment.

- ◆ Follow the cleaning and disinfecting instructions of the Instructions for Use.
- ◆ Do not use unsuitable cleaning agents.
- ◆ Always use cleaning media also approved for humans.
- ◆ Follow the instructions of the disinfectant manufacturer and observe the dosage instructions.

6 Cleaning and disinfecting the CT system and system components

CAUTION

Insufficient cleaning or disinfection of the equipment!

Injury to the patient or the personnel (bio hazard).

- ◆ Always clean or disinfect the equipment after use.
- ◆ Always observe the instructions for cleaning and disinfecting.
- ◆ Make sure that the table and the accessories are clean and covered with paper, if possible.

CAUTION

Not observing the instructions of the disinfectant manufacturer!

Injury to the cleaning personnel.

- ◆ Follow the cleaning instructions of the Instructions for Use.
- ◆ Follow the instructions of the disinfectant manufacturer.



For hygiene reasons, Siemens Healthineers recommends, for example, to always cover both the mattress and positioning aids with crepe paper.

6.1 Cleaning and disinfecting the gantry

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Gantry cover		◆	◆	◆ ¹⁾	◆	◆	◆	◆	◆	◆	◆		◆	◆
Gantry operator panel		◆	◆	◆ ¹⁾	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆

¹⁾ ≤ 70 Vol% alcohol

✓ The system is switched off.

- 1 Remove all impurities immediately with a damp but not wet cloth.
 - Remove blood spots with cold water.
 - Remove contrast medium spots with warm water.
- 2 Clean using a pH-neutral cleaning agent.
- 3 Disinfect using an approved disinfectant.
- 4 After disinfection with alcohol, clean the corresponding parts with hot water that contains a pH-neutral cleaning agent.



Cleaning agents and disinfectants that contain more than 70 Vol% alcohol can tarnish the surface.

6 Cleaning and disinfecting the CT system and system components

6.2 Cleaning and disinfecting the gantry touch panel

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Gantry touch panel	◆	◆	◆	◆ ¹⁾	◆									

¹⁾ ≤ 70 Vol% alcohol

✓ The system is switched off.

1 Use a soft damp cloth, for example, a microfiber cleaning cloth or a static-free cloth without oil to clean the touch panel.



Do not use fibrous materials, such as paper towels, that can scratch the screen. Over time, dirt particles and cleaning agents can get trapped into the scratches.

2 Clean the touch panel using the approved cleaning agent.



Do not use corrosive agents to clean the touch panel to avoid damage to the surface coating.

3 Disinfect the touch panel using the approved disinfectant.

6.3 Cleaning and disinfecting the patient table

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Patient table		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆	◆
Surgical rail		◆	◆	◆	◆	◆	◆	◆	◆	◆	◆			◆



Remove the mattress or RTP overlay from the patient table, if applicable.

- 1 Remove all impurities immediately with a damp but not wet cloth.
 - Remove blood spots with cold water.
 - Remove contrast medium spots with warm water.
- 2 Clean using a pH-neutral cleaning agent.
- 3 Disinfect using an approved disinfectant .



Do not use cleaning agents that contain organic acids for the surgical rail. This can cause a mottled surface.

6 Cleaning and disinfecting the CT system and system components

6.4 Cleaning and disinfecting the mattress

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Mattress		◆					◆		◆		◆			

Although the mattress is water-proof, blood, or colored disinfectants may leave stains that cannot be removed.



Siemens Healthineers recommends covering the mattress with crepe paper for hygiene reasons.

- 1 Clean thoroughly using a pH-neutral cleaning agent and a soft brush.
- 2 Disinfect using an approved disinfectant.
- 3 Rinse well after disinfecting.
- 4 Store only after complete drying.



Do not use surgical spirit for cleaning. The surface material could become wrinkled.



Do not use disinfectants containing alcohols, quaternary compounds, aldehyde, or aldehyde decompositors. These substances discolor the surface material.

6.5 Cleaning and disinfecting accessories made from foam material

“◆” indicates tested and approved cleaning agents or disinfectants.

Cleaning agents and disinfectants (MFR 890/009 - 2017)	
System component / accessory	Antistatic cleaner pH-neutral cleaning agent Surgical spirit Alcohols Aldehyde Quaternary compounds Guanidin derivatives Pyridin derivatives Chlorine derivatives Benzene Alkylamines Phenol derivatives Organic acids Peroxide compounds
Foam material (for example, positioning aids)	◆

A number of accessories, such as positioning aids, is made from foam material.



Siemens Healthineers recommends covering positioning aids with crepe paper for hygiene reasons.

- 1 Clean thoroughly using a pH-neutral cleaning agent and a soft brush.
- 2 Disinfect using an approved disinfectant.
- 3 Rinse well after disinfecting.
- 4 Store only after complete drying.



Do not use surgical spirit for cleaning. The surface material could become wrinkled.



Do not use disinfectants containing alcohols, quaternary compounds, aldehyde, or aldehyde decompositors. These substances discolor the surface material.

6 Cleaning and disinfecting the CT system and system components

6.6 Cleaning the monitor

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Monitor housing	◆	◆		◆ ¹⁾	◆	◆	◆		◆	◆	◆		◆	◆
Monitor screen	◆													

¹⁾ ≤ 70 Vol% alcohol

The monitor screen has a sensitive anti-reflective coating which has to be treated with care.

- Always clean the housing with a damp but not wet cloth. Do not use cleaning solutions.
- Use a soft cloth to clean the screen. If necessary, dampen it with a domestic glass cleaner.
- Remove water drops immediately; extended contact with water discolors the surface.
- In order to avoid damage to the surface coating, never use corrosive agents to clean the screen surface.
- Grease stains can also be removed from the monitor screen with water.



Using an anti-static cleaner will give you the best results when cleaning the screen surface.

WARNING

Cleaning of the monitor housing during operation!

Electric shock

- ◆ Only clean the housing when the monitor is switched off.

WARNING

Cleaning of parts of the system while the system is connected to the power supply!

Electric shock due to possible contact with line voltage.

- ◆ Always switch the system off at the main power switch before cleaning or disinfecting.

✓ The monitor is switched off.

- 1 Clean the monitor housing with a damp but not wet cloth.
- 2 Clean the housing components only with approved cleaning agents.
- 3 Wipe off any droplets of liquid from the monitor screen immediately.

Extended contact with water discolors the surface of the monitor screen.

- 4 For protecting the sensitive anti-reflective coating of the monitor screen, use a microfiber cloth and, if necessary, an antistatic cleaner for cleaning.

6 Cleaning and disinfecting the CT system and system components

6.7 Cleaning the monitor ceiling system

“◆” indicates tested and approved cleaning agents or disinfectants.

Cleaning agents and disinfectants (MFR 890/009 - 2017)	
System component / accessory	Antistatic cleaner pH-neutral cleaning agent Surgical spirit Alcohols Aldehyde Quaternary compounds Guanidin derivatives Pyridin derivatives Chlorine derivatives Benzene Alkylamines Phenol derivatives Organic acids Peroxide compounds
Monitor ceiling system	◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆ ◆

WARNING

Liquids in the monitor ceiling system, power supply cables are laid inside!

Electric shock

- ◆ Make sure that no liquids, for example cleaning fluids, can get into the interior of the monitor ceiling system.

CAUTION

Dirt and liquid in the monitor arm of the ceiling mounted monitor!

Infection possible

- ◆ Clean the monitor and monitor arm after use.

- 1 Clean after use.
- 2 Clean with a damp but not wet cloth.
- 3 Wipe off any droplets of liquid immediately to avoid that fluids infiltrate the interior of the monitor ceiling system.

6.8 Cleaning and disinfecting the computer

“◆” indicates tested and approved cleaning agents or disinfectants.

		Cleaning agents and disinfectants (MFR 890/009 - 2017)												
System component / accessory	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Computers (ICS, IRS, IES)		◆			◆	◆	◆	◆	◆	◆	◆		◆	◆

✓ The computer is switched off.

◆ Clean the housing of the computer with a damp but not wet cloth.



Do not use alcohol or phenol derivatives for disinfecting the housing of the computer.

6.9 Cleaning and disinfecting body straps

“◆” indicates tested and approved cleaning agents or disinfectants.

		Cleaning agents and disinfectants (MFR 890/009 - 2017)												
System component / accessory	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
Body straps		◆			◆		◆		◆		◆			◆

6 Cleaning and disinfecting the CT system and system components

Body straps can be machine-washed at temperatures up to 35° C. Washing may lead to minor surface changes, for example, softening the straps. The flame-retardance is not affected.

- 1 Remove contaminations with a wet cloth and a pH-neutral cleaning agent.
- 2 For on-site cleaning and disinfection, use sodium hypochlorite (max. 0.1 % active chlorine) or branded disinfectants.

– or –

Before machine-washing or dry-cleaning, close the body straps in order to protect the Velcro parts.

- 3 Store only after complete drying.

6.10 Cleaning and disinfecting ECG cables

“◆” indicates tested and approved cleaning agents or disinfectants.

System component / accessory	Cleaning agents and disinfectants (MFR 890/009 - 2017)													
	Antistatic cleaner	pH-neutral cleaning agent	Surgical spirit	Alcohols	Aldehyde	Quaternary compounds	Guanidin derivatives	Pyridin derivatives	Chlorine derivatives	Benzene	Alkylamines	Phenol derivatives	Organic acids	Peroxide compounds
ECG cables				◆ ¹⁾										

¹⁾ ≤ 70 Vol% alcohol

- ◆ Clean and disinfect ECG cables with isopropyl alcohol (less than 70 Vol%) or another mild disinfectant only.



Do not use substances that contain acetone. Acetone can affect the cable material.



Do not steam sterilize ECG cables. Damp can infiltrate the interior of ECG cables.

6 Cleaning and disinfecting the CT system and system components

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Caution: Federal law restricts this device to sale by or on the order of a physician, dentist, or veterinarian (21 CFR 801.109(b) (1)).

The original language of this document is English.

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