

Cautions on Cleaning and Disinfection



Be sure to turn the system power OFF before cleaning and disinfecting the system.

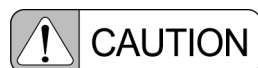
Otherwise, a malfunction may occur in the system, or the system may operate in an unintended way.

Also, thoroughly ventilate the room before turning ON the power after disinfection work is complete.



Be sure to clean and disinfect the system periodically.

Cleaning and disinfection is very important to ensure that the system can be used hygienically and safely. Strictly follow the methods prescribed.



Be sure to clean the system frequently and after each patient use.

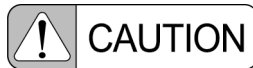
While doing so, do NOT directly apply or spray any disinfectant, cleaner, or water onto the system. Wipe down all contact surfaces using a cloth moistened, not soaked, with an appropriate disinfectant or cleaner. Make sure the cloth is NOT too wet. If it is, liquid may enter into system electronics, causing failure or malfunction.

To clean the dose area product meter (option), wipe the surface with cloth moistened, not soaked, in pH-neutral cleaner and which is thoroughly wrung out.



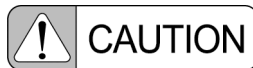
Do NOT use an organic solvent.

Organic solvents may change the surface color. If an organic solvent adheres to the surface, wipe it out immediately.



Pay attention to the following points when cleaning or disinfecting the touch panel monitor.

- Do NOT rub or hit the panel surface because it tends to scar easily.
- Wipe gently with moistened, not soaked soft cloth to remove the dust from the panel surface.



Use the following disinfectant:

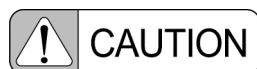
- Rubbing alcohol



Do NOT use the following disinfectants:

If any of the following disinfectants are applied, the system performance and safety cannot be guaranteed.

- Chlorine-based disinfectants
- Disinfectants that corrode metals, plastics, rubber, or paint
- Disinfectants unsuitable for metals, plastics, rubber, or paint
- Spray-gas type disinfectants
- Volatile disinfectants
- Disinfectants that may enter the system

**Use disinfectants at a minimum.**

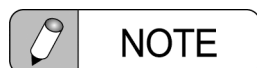
Repeated disinfection over a long time may lead to discoloring and cracking on the system surface, and deterioration of rubber and plastic. If any abnormality is found on the system after disinfection, stop using the system immediately. Contact your service representative for repair.

**When disinfecting reticule of the collimator and the touch panel monitor, do NOT use rubbing alcohol.**

Rubbing alcohol may lead to deformation or crack of reticule of the collimator. Wipe it off immediately if it adheres to the reticule of the collimator.

**When cleaning reticule of the collimator and the touch panel monitor, use cloth lightly moistened, not soaked, with cold or warm water mixed with neutral detergent that does not include organic solvent.**

Rubbing alcohol, organic solvents or non-neutral detergents may lead to deformation or crack of reticule of the collimator. Wipe them off immediately if they adhere to the reticule of the collimator.



- Never use paint thinners or other organic solvents, other than rubbing alcohol for disinfection (only less than 80 %).
- Film-developing or fixing solutions will cause discoloration. Wipe off immediately with a cloth.
- Make sure no moisture enters the dose area product meter (option) during cleaning. After cleaning, dry it thoroughly before use.

On completing the work, check the following points before switching the power ON again.

- There must be no water or disinfectant adhering to the system.
- The tools used in cleaning and disinfecting work must be tidied away.

 **Reference** Reference Guide "Starting and Shutting Down the System"



When turning the power ON after cleaning, make sure the examination room is properly ventilated.

Turning the power ON while any flammable gas remains in the examination room could lead to fire, smoke, explosion or electrocution.

Cautions Relating to Cellular Telephones



Do NOT bring any cellular telephones or related devices into the examination room with their power ON.

Such devices can exceed the EMC standard limitations, and under some conditions this can impair the proper functioning of the system. In the worst case, this can cause serious injuries or clinical errors.

FDR Go PLUS & FDR Visionary Suite

OEM Recommended Cleaning Instructions

To avoid secondary infection

Outline

This document is Shimadzu's voluntary cleaning instructions for the equipment proposed to minimize the risk of secondary infection. Every country must deal with regulations separately. Standards required for specific clinical use differs from place to place.

General Cleaning

Before using disinfectant agents, it is necessary to clean the surface of the equipment in advance. Please remove the dirt on the surface using a cloth without lint, or a soft toothbrush that does not damage the surface. If dirt is difficult to remove, please dilute dishwasher detergent and soap with lukewarm water, and use them.

*Please make sure that the dishwasher detergent and soap used for cleaning is completely wiped off before disinfectant treatment.

Disinfectant Agents (Disinfecting)

The following agents can be used. But there are some restrictions of use according to the target parts as stated in table below. Please make sure that disinfectant agent is wiped off after disinfecting is completed.

(A) Chlorine disinfectants

- Sodium dichloroisocyanurate solution (1% maximum)
- Sodium hypochlorite solution (1% maximum)

(B) Alcohol disinfectants

- Commercially available isopropyl alcohol solution (Up to 99 wt% can be used)
- Rubbing alcohol (76.9-81.4 vol% Ethanol, Isopropyl alcohol as an additive)

Table 1: Restriction of usable disinfectant according to the target parts

Parts	Usable disinfectant	Risk
Plastic parts	Chlorine disinfectant only.	Possibility of deterioration if alcohol disinfectant is used. Especially acrylic resin parts <ul style="list-style-type: none"> ● General x-ray system Acrylic table top (transparent resin part) ● Collimator (front transparent resin part) ● Touch screen for mobile equipment ● dosimeter
Metal parts without paint	Alcohol disinfectant only.	Possibility of deterioration if chlorine disinfectant is used.

 Caution

Please keep use of disinfectant agent to a minimum. Due to long-term disinfection, fading and cracking may occur in the exterior or resins. For example, rubber and plastics may deteriorate. If the product changes due to disinfecting, immediately stop using the product and request repair to your service representative.

 Caution

Please do not spray disinfectant directly on the equipment. If disinfectant penetrates the device, it may cause malfunction or other problems. Please turn off the power during disinfecting. When turning on the power after disinfecting, please thoroughly ventilate the inside of the examination room. If flammable gas remains in the room, there is a potential for danger of ignition, smoke, explosion, or electric shock when turning on the system.

Examples of agents that can be used

List of disinfectant agents are extracted from the US Environmental Protection Agency (EPA) list of approved disinfectants for use against a new coronavirus infection (COVID -19).

This list does not guarantee the efficacy of disinfection.

Product name	company	Active ingredient	EPA registration number
Sani-Cloth Bleach Germicidal Disposable Wipe	DPI	Sodium hypochlorite	9480-8
PURELL Professional Surface Disinfectant Wipes	GOJO Industries	Ethanol	84150-1
Micro-kill Bleach Germicidal Bleach Wipes	Medline Industries	Sodium hypochlorite	37549-1
Clorox Healthcare® Bleach Germicidal Wipes	Clorox Professional Products Company	Sodium hypochlorite	67619-12

This instruction is applicable to the products manufactured by Medical Systems Div., Shimadzu Corporation only.