

# Shimadzu Medical Equipment 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"> <li>● General x-ray system Acrylic table top (transparent resin part)</li> <li>● Collimator (front transparent resin part)</li> <li>● Touch screen for mobile equipment</li> <li>● dosimeter</li> </ul>
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	PDI	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.