

Shimadzu Medical Equipment Cleaning Instructions

To avoid secondary infection

Outline

This document is Shimadzu's voluntary cleaning and disinfection instructions for the equipment proposed to minimize the risk of secondary infection. Each country's regulations must be met. Standards required for specific clinical use differs according to each facility and region.

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 1. When restrictions on where disinfectant can be used are described in the operation manual of each equipment, these instructions should be given priority.

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
Belt of back side of C-arms of MH series/IVS series, Metal parts without paint	Alcohol disinfectant only.	Possibility of deterioration if chlorine disinfectant is used.
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 Soft vinyl chloride resin parts <ul style="list-style-type: none"> ● mattress (accessories for fluoroscopy system and PET system), shoulder pad


Warning

- Please do not pour or spray disinfectant directly on the equipment. When cloth moistened with disinfectant is used, wring the cloth well so that disinfectant does not drip. If disinfectant enters the device through gaps, 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 danger of ignition, smoke, explosion, or electric shock when turning on the system.


Caution

Please keep use of disinfectant agent to a minimum. Due to long-term disinfection, fading and cracking may occur in the exterior(especially resin parts). 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.

Examples of agents that can be used

This list does not guarantee the efficacy of disinfection.

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).

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

Other

Type	Product name	company	Active ingredient	registration
Alcohol type	Mikrozid universal wipes premium	Schukle	Ethanol, Propan-2-ol	VAH certificate, IHO listed

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