

## **Cautions on Cleaning and Disinfection**

<b>WARNING</b>	
Be sure to turn the equipment power OFF before cleaning and disinfecting the equipment.	
Otherwise, a malfunction may occur in the equipment, or the equipme operate in an unintended way.	nt may
Thoroughly ventilate the room before turning ON the power after disint work is complete.	fection



## Be sure to clean and disinfect the equipment periodically.

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



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

While doing so, do NOT directly apply or spray any disinfectant, cleaner, or water onto the equipment. Wipe down all contact surfaces using a cloth moistened 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.



Observe the following precautions when cleaning and disinfecting the touch panel:

- · Do NOT rub or hit the panel surface because it tends to scar easily.
- Wipe gently with moistened soft close to remove the dust from the panel • surface.



Wipe the surface of the equipment with a cloth moistened with the following disinfectants or cleaner.

- Rubbing alcohol
- Glass cleaner (Only onto the touch panel)



Disinfectants that may enter the equipment

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## Use disinfectants at a minimum.

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



#### 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.



## When disinfecting acrylic tabletop and reticule of the collimator, do NOT use rubbing alcohol.

Rubbing alcohol may lead to deformation or crack of acrylic tabletop and reticule of the collimator. Wipe it off immediately when they are spilled on the tabletop and the reticule of the collimator.



When cleaning acrylic tabletop and reticule of the collimator, use cloth lightly dampened 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 acrylic tabletop and reticule of the collimator. Wipe it

off immediately when they are spilled on the tabletop and the reticule of the collimator.

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

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



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 on the System and Software**

CAUTION Observe the following precautions about the system software. Do NOT attempt to alter any system software. Doing so could disrupt the functioning of the system and result in loss of images. Do NOT attempt to alter any system hardware components. Doing so could disrupt the functioning of the system and result in loss of images. Use of any hardware components not provided by Shimadzu is strictly prohibited. This includes peripherals (mouse, keyboard, monitor, etc.). Pay careful attention to other high frequency-generating equipment in the room. The DR-ID 900 console PC cabinet should be as far as possible from any such device to prevent noise from affecting the image video signal. Do NOT disconnect the cables connected to this system. Otherwise the image may not be displayed, the data may be damaged and the system may not be started up. Do NOT move any system component. If necessary, move it carefully to avoid damaging. Do NOT apply any shocks to the system components. Do NOT place anything which may generate magnetic fields near the system components. Do NOT alter the system setting. Do NOT install any software to the system other than that provided by Shimadzu for this system. Otherwise, the system may not be started up.

## 9.1.3 Cleaning and Disinfecting



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

Otherwise, a malfunction may occur in the equipment, or the equipment 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 equipment periodically.

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



**Be sure to clean the equipment frequently and after each patient use.** While doing so, do NOT directly apply or spray any disinfectant, cleaner, or water onto the equipment. Wipe down all contact surfaces using a cloth moistened 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.



## Observe the following precautions when cleaning and disinfecting the touch panel:

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



Use the following disinfectants and cleaner:

- Rubbing alcohol
- Glass cleaner (Only onto the touch panel)



#### Do NOT use the following disinfectants:

If any of the following disinfectants are applied, the equipment 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 equipment



#### Use disinfectants at a minimum.

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



## Do NOT use an organic solvent.

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

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

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



## 6.2.1 Cleaning and Disinfection



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

Otherwise, a malfunction may occur in the equipment, or the equipment 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 equipment.

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



# **Be sure to clean the equipment frequently and after each patient use.** While doing so, do NOT directly apply or spray any disinfectant, cleaner, or water onto the equipment. Wipe down all contact surfaces using a cloth moistened 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.



## Use the following disinfectants and cleaner:

- Rubbing alcohol
- Glass cleaner<sup>\*</sup>
- \* Only onto the touch panel



#### Do NOT use the following disinfectants:

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



#### Use disinfectants at a minimum.

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



 Wipe gently with moistened soft close to remove the dust from the panel surface. On completing the work, check the following points before switching the power ON again.

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

## "3.1 Power ON/OFF"



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.

## 6.2.2 Inspection for Warning and Caution Labels

Periodically (once a year) inspect the labels attached on the equipment.

If any label is peeled or unreadable by stain or scratch, contact your service representative for replacement of a new one.

"Warning and Caution Labels" P. Introduction-23

Check Points	Procedure
☐ Is the FPD wired connection status changed by inserting or pulling the tray? <sup>*2</sup>	<ul> <li>Install the FPD correctly.</li> <li>Insert the tray securely.</li> <li>If not improved, contact your service representative.</li> </ul>

\*1: Applicable when the BR-120/BR-120T and CH-200 are combined

\*2: Applicable to the HC tray

**3** Turn ON the power supply and check the following points. Perform the appropriate procedure in case of any problems.

Check Points	Procedure	
□ Does the unit make any noise when moving ?		
□ Does the interlock switch operate correctly?	Contact your service	
The brake can be released at up/down movement of Bucky?	representative	

## 5.2.2 Inspection for Warning and Caution Labels

Periodically (once a year) inspect the labels attached on the equipment.

If any label is peeled or unreadable by stain or scratch, contact your service representative for replacement of a new one.

"Warning and Caution Labels" P. xxii

## 5.2.3 Cleaning and Disinfection



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



## Be sure to clean and disinfect the equipment periodically.

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



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

While doing so, do NOT directly apply or spray any disinfectant, cleaner, or water onto the equipment. Wipe down all contact surfaces using a cloth moistened 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.



#### Use the following disinfectant:

Rubbing alcohol





## Use disinfectants at a minimum.

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



## 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.

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

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

"3.1 Prior to Operation" P.16



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.

## 4.2.5 Cleaning and Disinfection



Wipe the surface of the equipment with a cloth soaked with the following disinfectant. The surface may be discolored or deformed depending on the type of material and paint used. Apply the disinfectant in an inconspicuous area first. Be sure to read the instructions for the disinfectant.

Rubbing alcohol



## Do NOT use the following disinfectants:

If any of the following disinfectants are applied, the equipment 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 equipment



## Use disinfectants at a minimum.

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



## 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.



## When disinfecting acrylic tabletop, do NOT use rubbing alcohol.

Rubbing alcohol may lead to deformation or crack of acrylic tabletop. Wipe it off immediately when they are spilled on the tabletop .



When cleaning acrylic tabletop, use cloth lightly dampened 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 acrylic tabletop. Wipe it off immediately when they are spilled on the tabletop.

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

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

"3.1 Power ON/OFF" P14



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.

# 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)

Parts	Usable disinfectant	Risk	
Plastic parts	Chlorine disinfectant only.	<ul> <li>Possibility of deterioration if alcohol disinfectant is used.</li> <li>Especially acrylic resin parts</li> <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 dosimeter</li> </ul>	
Metal parts without paint	Alcohol disinfectant only.	Possibility of deterioration if chlorine disinfectant is used.	

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



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.



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	DPI	Sodium hypochlorite	9480-8
Disposable Wipe			
PURELL Professional Surface	GOJO Industries	Ethanol	84150-1
Disinfectant Wipes			
Micro-kill Bleach Germicidal	Medline Industries	Sodium hypochlorite	37549-1
Bleach Wipes			
Clorox Healthcare <sup>®</sup> Bleach	Clorox Professional Products	Sodium hypochlorite	67619-12
Germicidal Wipes	Company		

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