OLYMPUS®

# INSTALLATION MANUAL

# INSTRUCTIONS

**ENDOSCOPE REPROCESSOR**

## OER-Elite™


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For information on how to operate this equipment, please refer to “Instructions - Operation Manual”.

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# Labels and Symbols

The meaning(s) of the symbol(s) shown on the component packaging, the back cover of this instruction manual and/or this equipment are as follows:

| Symbol | Description |
|---|---|
|  | Refer to instructions. |
|  | Endoscope reprocessor |
|  | Manufacturer |
|   | Authorized representative in the European Community |
|   | Lot number |
|   | Serial number |

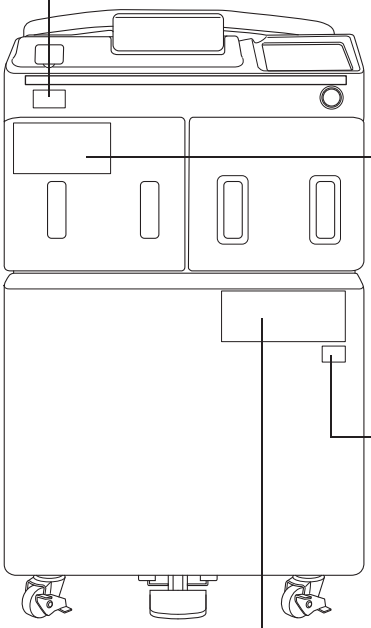
Safety-related labels and symbols are attached to the equipment at the locations shown below. If labels or symbols are missing or illegible, contact Olympus.

## Front panel

**UDI label**

A label required by some countries' regulations regarding identification of medical device also known as Unique Device Identification (UDI).

(01) xxxxxxxxxxxxxx
(11) xxxxxx (21) xxxxxxx



**Service Solutions**
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For technical questions, accessories and parts inquiries please contact

Olympus Technical Assistance Center
1-800-848-9024

Equipment Information

| | |
|---|---|
| Serial Number | |
| Installation Date | |

**RFID marking**

**WARNING**

- This equipment can be set up to use the RFID function. Please be aware that the radio waves emitted from the RFID reader of the equipment may cause medical devices such as pacemakers to malfunction. If any interference with the equipment is suspected, Immediately move away from the RFID reader or set the power switch to off. Call your doctor if you do not begin to feel better.
- Do not expose equipment to open flame, use care in handling of alcohol to prevent ignition and fire hazard.
- Always use OLYMPUS-validated/designated detergent. If no detergent is used or non-validated/designated detergent is used, the endoscopes may not be properly reprocessed.
- Disconnect the connecting tubes and the leak test air tubes from the connectors on the equipment whenever the tubes are not used. Failure to disconnect unused connecting tubes may reduce the efficacy of reprocessing and damage the endoscope.
- Clean the mesh filters of the circulation port and the drain port every day. Otherwise, endoscopes may not be reprocessed sufficiently.
- Be sure to close the water faucet at the end of the day to prevent water from leaking out of the equipment.

**AVERTISSEMENT**

- CET APPAREIL PEUT ÊTRE RÉGLÉ POUR UTILISER LA FONCTION RFID. PRENEZ NOTE QUE LES ONDES RADIO ÉMISES PAR LE LECTEUR RFID DE L' APPAREIL PEUVENT ENTRAÎNER LE DYSFONCTIONNEMENT DE CERTAINS APPAREILS MÉDICAUX TELS QUE LES STIMULATEURS CARDIAQUES.SI VOUS OBSERVEZ UNE INTERFÉRENCE QUELCONQUE AVEC L' APPAREIL, ÉLOIGNEZ-VOUS IMMÉDIATEMENT DU LECTEUR RFID OU RÉGLEZ LE COMMUTATEUR D' ALIMENTATION À OFF. APPELEZ VOTRE MÉDECIN SI VOUS NE COMMENCEZ PAS À VOUS SENTIR MIEUX.
- NE PAS EXPOSER L' APPAREIL À UNE FLAMME NUE; SOYEZ PRUDENT EN MANIPULANT DE L' ALCOOL POUR ÉVITER TOUT RISQUE D' INFLAMMATION ET D' INCENDIE.
- TOUJOURS UTILISER UN DÉTERGENT APPROUVÉ QU DÉSIGNÉ PAR OLYMPUS. SI AUCUN DÉTERGENT N' EST UTILISÉ OU SI UN DÉTERGENT NON APPROUVÉ OU NON DÉSIGNÉ PAR OLYMPUS EST EMPLOYÉ, IL SE PEUT QUE LES ENDOSCOPES NE SOIENT PAS CORRECTEMENT NETTOYÉS.
- LORSQUE LE TUBE D' AIR DE TEST D' ÉTANCHÉITÉ N' EST PAS UTILISÉ POUR LE NETTOYAGE, DÉBRANCHEZ-LE DES CONNECTEURS DE L' APPAREIL. AUTREMENT, LES TUBES QUI RESTENT CONNECTÉS POURRAIENT RÉDUIRE L' EFFICACITÉ DU NETTOYAGE ET ENDOMMAGER L' ENDOSCOPE.
- NETTOYEZ TOUS LES JOURS LES FILTRES À MAILLES DE L' ORIFICE DE CIRCULATION ET DE L' ORIFICE DE VIDANGE. SINON, LE NETTOYAGE DES ENDOSCOPES PEUT NE PAS ÊTRE ADÉQUAT.
- FERMEZ LE ROBINET D' EAU À LA FIN DE LA JOURNÉE POUR EMPÊCHER L' EAU DE S'ÉCOULER DE L' APPAREIL.

## Inner side

CAUTION

DRAIN AIR FROM THE WATER FILTER COMPLETELY.
IF AIR IS LEFT IN THE WATER FILTER, IT COULD BECOME CLOGGED SOONER OR THE WATER SUPPLY MAY BECOME INSUFFICIENT.

ATTENTION

ÉVACUEZ COMPLÈTEMENT L'AIR DU FILTRE À EAU.
S'IL RESTE DE L'AIR DANS LE FILTRE À EAU, CELUI-CI POURRAIT SE BOUCHER RAPIDEMENT, OU L'ALIMENTATION D'EAU POURRAIT ÊTRE INSUFFISANT.

注　意

水フィルターのエアー抜きは確実に行ってください。
エアー抜きが確実に行われていない場合、水フィルターの目詰まりが早まったり、給水量不足の原因になります。

**FRA**

ATTENTION
NE JAMAIS BLOQUER LES OUVERTURES DE VENTILATION SUR LE CÔTÉ GAUCHE.
CELA POURRAIT PROVOQUER UN DYSFONCTIONNEMENT DE L'APPAREIL.

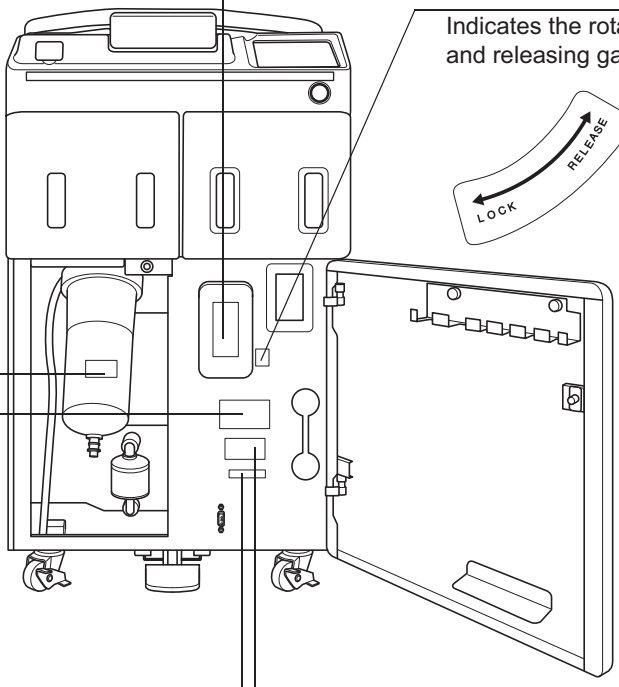
CAUTION（注意）

NEVER BLOCK THE VENTILATION OPENING ON THE LEFT SIDE.
DOING SO COULD CAUSE EQUIPMENT MALFUNCTION.
左側の通気口は絶対にふさがないでください。
装置が正常に作動しないおそれがあります。

POUR DES INSTRUCTIONS EN FRANÇAIS, VEUILLEZ REPORTER AU MANUEL D'INSTRUCTION EN FRANÇAIS.

**Rotation direction indicator label**

Indicates the rotation direction for locking and releasing gas filter case (tank).




WARNING

LEAVE THE RUBBER CAP ATTACHED TO THE DISINFECTANT REMOVAL PORT UNLESS THE DISINFECTANT REMOVAL TUBE OR THE DRAIN CONNECTOR IS CONNECTED.
LEAKING DISINFECTANT SOLUTION POSES A SAFETY RISK TO THE OPERATOR AND MAY DAMAGE THE SURROUNDING EQUIPMENT.

警　告

消毒液ドレーンホースまたはドレーンコネクター接続時以外は、ドレーン口にゴムキャップを取り付けてください。
消毒液漏れにより装置周囲の機器や設備などに損害を与えるおそれがあります。

POUR DES INSTRUCTIONS EN FRANÇAIS, VEUILLEZ REPORTER AU MANUEL D'INSTRUCTION EN FRANÇAIS.

**FRA**

AVERTISSEMENT
LAISSEZ LE CAPUCHON EN CAOUTCHOUC FIXÉ À L'ORIFICE D'ÉVACUATION DE DÉSINFECTANT, SAUF SI LE TUBE D'ÉVACUATION DE DÉSINFECTANT,OU LE RACCORD DE VIDANGE EST BRANCHÉ. UNE FUITE DE SOLUTION DÉSINFECTANTE COMPROMET LA SÉCURITÉ DE L'OPÉRATEUR ET PEUT ENDOMMAGER LES APPAREILS ENVIRONNANTS.

**Rating plate**

Shows the product model, power rating, and serial number.

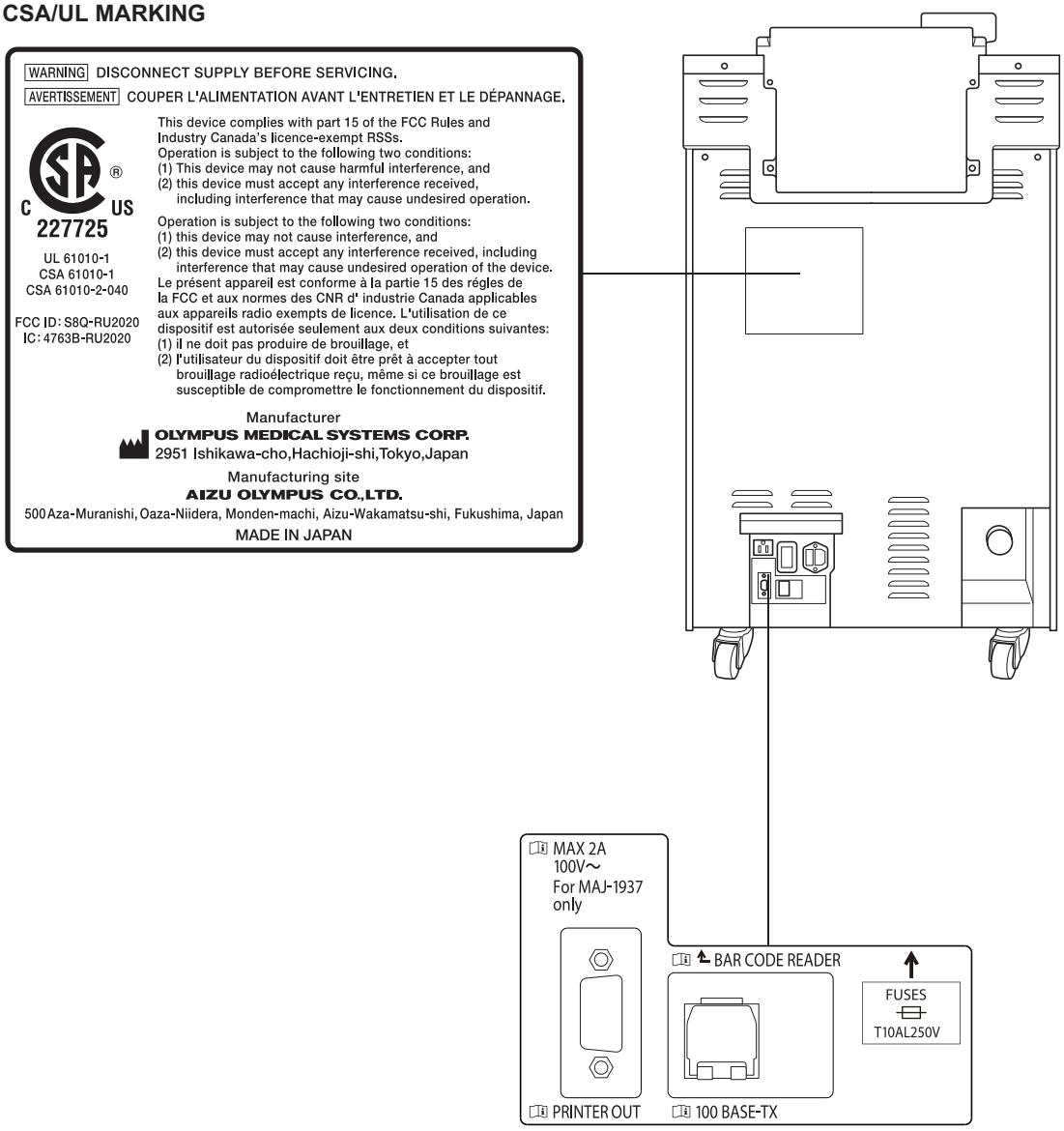
ENDOSCOPE REPROCESSOR
MODEL OER-Elite
POWER INPUT 120V～ 60Hz 660VA
SN
OLYMPUS MEDICAL SYSTEMS CORP.

**Date of manufacture**

XXXX-XX-XX

## Rear panel

**CSA/UL MARKING**



## Top panel

CAUTION (注意)

NEVER BLOCK THE VENTILATION OPENING ON THE LEFT SIDE.
DOING SO COULD CAUSE EQUIPMENT MALFUNCTION.
左側の通気口は絶対にふさがないでください。
装置が正常に作動しないおそれがあります。

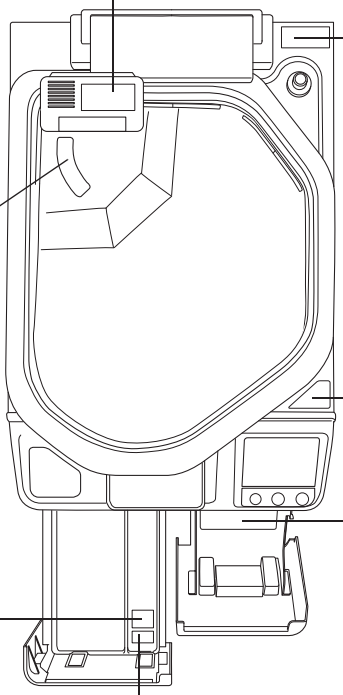
POUR DES INSTRUCTIONS EN FRANÇAIS, VEUILLEZ REPORTER AU MANUEL D'INSTRUCTION EN FRANÇAIS.

**FRA**

ATTENTION
NE JAMAIS BLOQUER LES OUVERTURES DE VENTILATION SUR LE CÔTÉ GAUCHE. CELA POURRAIT PROVOQUER UN DYSFONCTIONNEMENT DE L'APPAREIL.

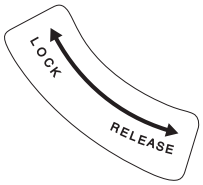
**Water supply**

Pressure : 0.1-0.5 MPa
Temperature : 5-28°C



**Rotation direction indicator label**

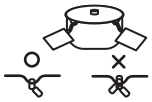
Indicates the rotation directions for locking and releasing gas filter case (lid).




FLAMMABLE
火気厳禁

Alcohol
アルコール

**WARNING**



Do not pile up chains of AW channel cleaning adapter and place it as shown figure above. Otherwise, chain may be locked and effectiveness of the reprocessing may be compromised.

POUR DES INSTRUCTIONS EN FRANÇAIS, VEUILLEZ REPORTER AU MANUEL D'INSTRUCTION EN FRANÇAIS.

**FRA**

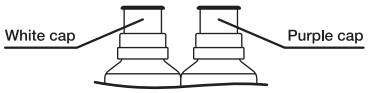
AVERTISSEMENT
Veuillez ne pas empiler les chaines de l'adaptateur de nettoyage du canal d'air et d'eau.
Veuillez le placer comme indique sur la figure ci-dessus, sinon la chaine peut se verrouiller et l'efficacite du retraitement peut etre ainsi compromise.

**WARNING**

Do not put in your hand behind the drawer, Doing so may result in exposure to disinfectant solution or possible injury.

**CAUTION**

Install the cassette bottles as shown in this figure.
If installed inversely, the drawer cannot be closed.
Always use the OLYMPUS-designated disinfectant solution, which is the 1065ml cassette bottles of disinfectant solution.
Otherwise, it may lead to damage to the equipment or bottles.

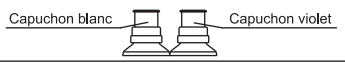



POUR DES INSTRUCTIONS EN FRANÇAIS, VEUILLEZ REPORTER AU MANUEL D'INSTRUCTION EN FRANÇAIS.

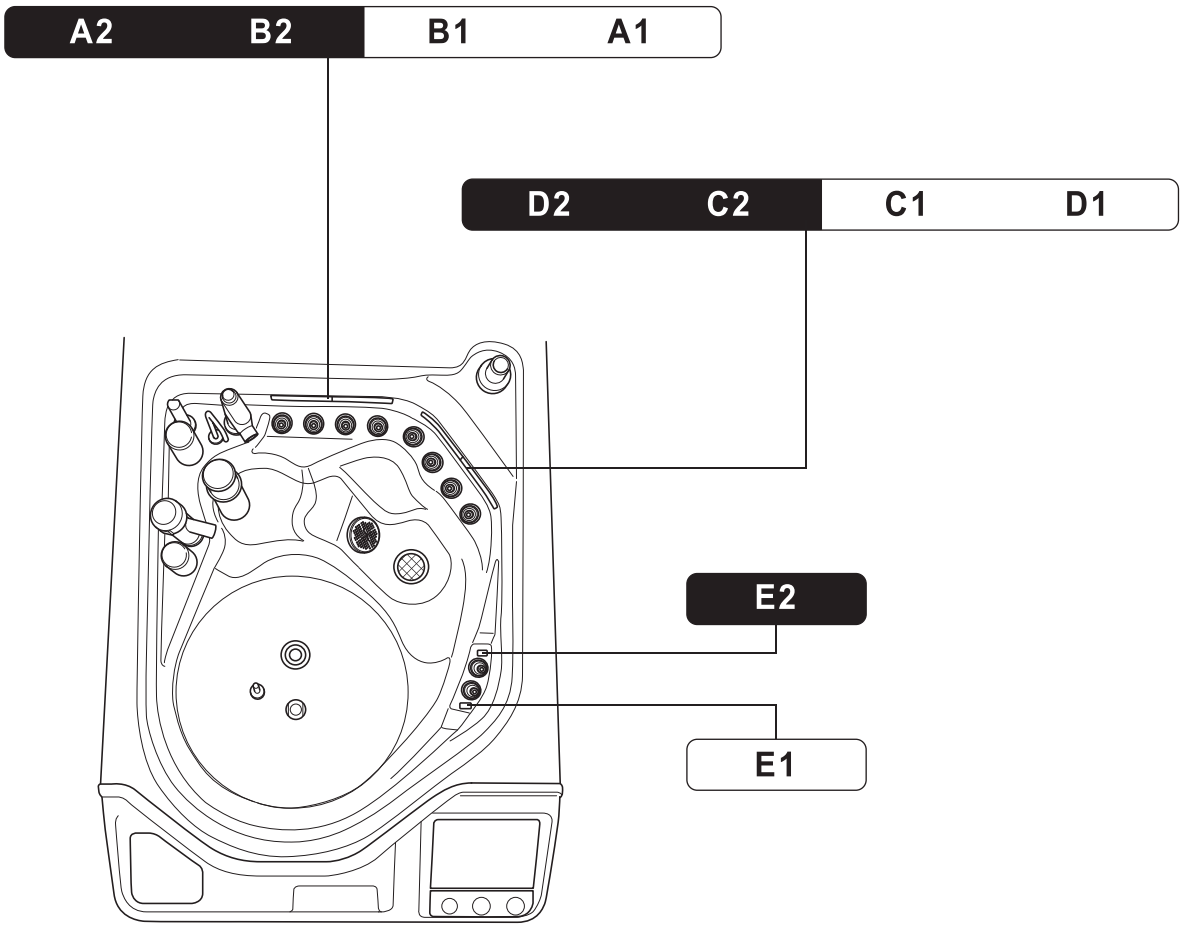
**FRA**

AVERTISSEMENT
■NE PAS METTRE LA MAIN À L'ARRIÈRE DU TIROIR. CELA POURRAIT PROVOQUER DES BLESSURES OU VOUS EXPOSER À LA SOLUTION DÉSINFECTANTE.

ATTENTION
■INSTALLEZ LES FLACONS DE PRODUIT COMME ILLUSTRÉ DANS CETTÉ FIGURE.
SI L'INSTALLATION N'EST PAS EFFECTUÉE CORRECTEMENT, LE TIROIR NE SE FERMERA PAS.
■TOUJOURS UTILISER LA SOLUTION DÉSINFECTANTE DÉSIGNÉE PAR OLYMPUS, À SAVOIR LES FLACONS DE 1065 ML DE SOLUTION DÉSINFECTANTE. AUTREMENT, VOUS RISQUERIEZ D'ENDOMMAGER L'APPAREIL OU LES FLACONS.



## ❍ Reprocessing basin




## ❍ Fonts displayed on the touch screen

Ricoh bitmap fonts designed by RICOH Company, Ltd. are used.

# Important Information — Please Read Before Use

## ■ Intended use

The OER-Elite is intended for use in cleaning and high-level disinfection of heat sensitive Olympus flexible endoscopes, their accessories, and endoscope reprocessor accessories. Safe use requires detergent and an FDA-cleared high-level disinfectant/sterilant that Olympus has validated to be efficacious and compatible with the materials of the OER-Elite and Olympus flexible endoscopes, their accessories, and endoscope reprocessor accessories. Use of a detergent or high-level disinfectant/sterilant that has not been validated by Olympus may be ineffective and can damage the OER-Elite components and the endoscopes being reprocessed. Endoscopes must be subject to cleaning by the user prior to reprocessing; however, use of the OER-Elite enables the user to perform modified manual cleaning of the endoscope prior to automated cleaning and high-level disinfection in the OER-Elite.

## ■ Instruction manuals

The instructions for this equipment are divided into two volumes: “Instructions-Installation Manual”, and “Instructions-Operation Manual”.
Instructions regarding the preparation of endoscopes prior to placing them in the OER-Elite are found in “Instructions-Operation Manual”.
Each of these manuals contains essential information for using this equipment safely and effectively. The “Instructions-Installation Manual” describes how to install the equipment. The “Instructions-Operation Manual” describes how to operate and maintain the equipment and describes modifications to the manual endoscope cleaning process that can save the user time and inconvenience, if the endoscope is going to be subsequently reprocessed using the OER-Elite.
The “List of Compatible Endoscopes/Connecting Tubes <OER-Elite>” identifies all Olympus model endoscopes that are compatible with the OER-Elite, plus the specific connecting tube(s) required for each of these endoscope models.
The descriptions in these manuals assume that all endoscopes are reprocessed in the OER-Elite using both an Olympus-validated detergent and disinfectant. Contact Olympus to obtain the list of both Olympus-validated disinfectant solutions and detergents.
Before using this reprocessor, be sure to review all of the above-mentioned manuals, the safety information provided with Olympus-validated detergents and disinfectants, and the manuals for all other equipment used in the process. Always use this equipment as instructed. It might cause unexpected danger if you do not follow the installation and operation manual. Keep these and all related instruction manuals and documents in a safe and accessible location.
If you have any questions or comments about any information in these manuals, contact Olympus.

## ■ *Terms used in these manuals*

ALT

Stands for Auto Leak Test.

Air purge

In this operation, air is fed into an endoscope channel to blow out residual fluid. This operation is usually performed automatically during a process, but it can also be activated independently. Air purge is also used to drain cleaning fluid or disinfectant solution from inside the equipment when the operation has stopped due to an error code, etc.

Alcohol

70% ethyl alcohol or 70% isopropyl alcohol.

Alcohol flush

To assist in drying the channels after reprocessing, alcohol is flushed through the endoscope channels followed by air. This operation can be performed as the last step of the reprocessing program or as an independent operation.

Automatic processing

When the equipment is stopped by the operator or due to an error, it identifies its status and executes the optimum operation automatically. For example, if the device stops in the middle of the disinfection process, it terminates the disinfection process and removes the disinfectant solution.

Channel blockage monitoring

This function monitors the channel blockage of endoscope's suction channel due to a foreign object, etc., during a reprocessing program.

Channel connectivity monitoring

This function monitors the connection status of the connecting tubes during a reprocessing program.

Channel monitoring

"Channel monitoring" will be used as a generic "Channel connectivity monitoring" and "Channel blockage monitoring".

Cleaning fluid

Refers to filtered water with detergent that is used during the cleaning process.

Cleaning process

A series of operations programmed into the equipment that enable it to perform ultrasonic cleaning and detergent cleaning of endoscopes.

Detergent

Olympus-validated detergent. Refer to Section 2.8, “Consumable accessories (Optional)” for details.

Disinfectant solution

Olympus-validated disinfectant solution. Refer to Section 2.8, “Consumable accessories (Optional)” for details.

Disinfection process

A series of operations programmed into the equipment that enable it to perform disinfection of endoscopes.

Error code

A code consisting of [E] and a three-digit number. This code is displayed on the touch screen if there is a problem with the equipment. When an error code is displayed, check the troubleshooting guide.

LCG

Stands for Liquid Chemical Germicide. It refers to disinfectant solution displayed on GUI.

Leak test

A test to confirm that an endoscope is free of leaks. This equipment is capable of both the auto leak test and the manual leak test.

Manual cleaning

Cleaning of an endoscope by hand.

Modified precleaning and manual cleaning

A precleaning and manual cleaning method that simplified due to subsequent use of the OER-Elite which automates cleaning steps in the process.

MRC

Stands for Minimum Recommended Concentration.

Patient ID

Identify information specific to each patient. It can be recorded in the histories of reprocessing, etc. For the patient ID input method, refer to Section 3.6, “Entering ID” in “Instructions-Operation manual”.

Physician ID

Identity information specific to each endoscopist. It can be recorded in the histories of reprocessing, etc. For the physician ID input method, refer to Section 3.6, “Entering ID” in “Instructions-Operation manual”.

Portable memory

A digital medium for storage.

Precleaning

Cleaning of an endoscope performed after each procedure at the bedside of the endoscopy room.

Procedure ID

Identify information specific to each procedure of the patient. It can be recorded in the histories of reprocessing, etc. For the procedure ID input method, refer to Section 3.6, “Entering ID” in “Instructions-Operation manual”.

Process

Generic term for any operation, including cleaning and disinfection that is performed automatically by this equipment.

Reprocessing process

A series of operations for ultrasonic cleaning, detergent cleaning, disinfection, rinse, air purge, and alcohol flush of the outer surface or channels of endoscopes that run in a specified sequence and for a specified time. Reprocessing programs [1] to [4] can be selected by the user. Programs [1] to [4] have a fixed cleaning process time and disinfection process time. They also have different patterns of auto leak test and channel monitoring respectively.

Scope ID

Identity information specific to each endoscope. It can be recorded in the histories of reprocessing, etc. For the scope ID input method, refer to Section 3.6, “Entering ID” in “Instructions-Operation manual”.

Shelf life

The date of expiration of the effectiveness of a detergent or disinfectant before it is opened.

Test strip

Device used to test if the concentration of disinfectant solution is effective for disinfection. Refer to Section 2.8, “Consumable accessories (Optional)” for details. (i.e., the minimum recommended concentration (MRC) specified by the disinfectant manufacturer)

User ID

Identity information specific to each reprocessing operator. It can be recorded in the histories of reprocessing, etc. For the user ID input method, refer to Section 3.6, “Entering ID” in “Instructions-Operation manual”.

## ■ *Ensuring the safety of reprocessing personnel*

- Disinfectant solution may irritate the mucous membranes in the eyes and respiratory organs. If disinfectant solution contacts directly on the skin, it may cause irritation or damage. Therefore, before handling high-level disinfectant solution, and detergent, carefully read the instructions for use and the material safety data sheet. For further details, contact Olympus.
- During reprocessing, wear appropriate personal protective equipment to prevent contact with or inhalation of infectious substances or disinfectant. Personal protective equipment includes eyewear, face mask, moisture-resistant clothing, and chemical-resistant gloves that fit properly and are long enough so that your skin is not exposed. All personal protective equipment should be inspected before use and replaced periodically before it is damaged.
- When using disinfectant solution and alcohol, Olympus recommends the use of gas filters and running this equipment in well-ventilated areas.
  - Wear a face mask, gloves, and protective clothes to minimize aspiration and skin contact.
  - Wear goggles for eye protection.

  Refer to the following association's guidelines related to ventilation:

  SGNA (Society of Gastroenterology Nurses and Associates)
  ASGE (American Society of Gastroenterological Endoscopy)
  APIC (Association for Professionals of Infection Control and Epidemiology)
  AORN (Association of Preoperative Registered Nurses)
  ASTM (American Society for Testing and Materials)
  OSHA (Occupational Safety and Health Administration)
  ACGIH (American Conference of Governmental Industrial Hygienists)
  NIOSH (National Institute for Occupational Safety and Health)
  AIA (American Institute of Architects)

  If the person performing the inspection or maintenance exhibits an allergic reaction or symptoms no matter how slight they should discontinue the task and vacate the room.
- Before handling the detergent or disinfectant, read the MSDS (material safety data sheets) and learn what measures to take in the event of exposure.
- Operators who exhibit symptoms of an allergic reaction or sensitivity to the reprocessing chemicals should not operate this equipment.
- This equipment can be set up to use the RFID (Radio Frequency Identification) function. Be aware that the radio waves emitted from the RFID reader of the equipment may cause medical devices such as pacemakers to malfunction. If any interference with the equipment is observed, immediately move away from the RFID reader or set the power switch to OFF. Call your doctor if you do not begin to feel better.

## ■ *Equipment compatibility*

Use this equipment in combination with ancillary equipment listed in “System chart” in “Instructions-Operation Manual”. Using incompatible equipment may interfere with the proper operation of this equipment and could lead to personal injury and/or equipment damage.

Olympus has not tested the efficacy of cleaning and high-level disinfection on this equipment in combination with endoscopes that are not listed on the “List of compatible Endoscopes/Connecting Tubes <OER-Elite>”.

## ■ *Signal words*

The following signal words are used throughout these manuals:

| | |
|---|---|
| **WARNING** | Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury. |
| **CAUTION** | Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices or potential equipment damage. |
| **NOTE** | Indicates additional helpful information. |

## ■ *Warnings and cautions*

Follow the warnings and cautions given below when handling this equipment. This information is supplemented by warnings given in each chapter.

**WARNING**

- Do not insert an EndoTherapy accessory or other object through an opening including the air vent of the equipment. Also, do not allow any liquid (including water or disinfectant solution) to flow into an opening. Contact with an electrical part inside the equipment could cause an electric shock or equipment failure.
- Always remove the tank from the detergent/alcohol drawer before putting detergent or alcohol in the tank. If detergent or alcohol is spilled on the detergent/alcohol drawer, it could get inside the equipment and contact an electrical part inside, causing an electric shock or fire hazard.

**WARNING**

- Do not install this equipment in any place where any of the following are present.
  - High oxygen concentration
  - Oxidizing substance such as Nitrous Oxide ($N_2O$)
  - Flammable anesthetic gas

  This equipment is not explosion-proof and may explode or cause a fire under these conditions.
- Always use the power cord provided with this equipment. Otherwise, equipment failure or power cord burnout may result. Also, remember that the provided power cord is for use only with this equipment and should not be used with any other equipment.

**CAUTION**

- Do not press any of the switches on the control panel of this equipment with a pointed or hard object. Otherwise, the switch may be damaged.
- Be sure to turn off the water faucet and the power switch of the equipment at the end of the day to avoid potential water leaks.
- To avoid malfunctions, do not use this equipment in a dusty environment.
- To avoid electromagnetic interference from other equipment, do not install any other electrical devices in close proximity to this equipment (aside from ancillary devices used with this equipment).
- This equipment enables radio communication by RFID and emits RF (radio frequency:13.56MHz) energy to perform the said intended Functions. It may cause electromagnetic interference in nearby electronic equipment, and is labeled with the symbol below. If electromagnetic interference occurs, mitigation measures may be necessary, such as moving the electronic equipment away, reorienting or relocating this instrument, or shielding the location. An electromagnetic interference with other devices may shorten the communications distance of the designated ID tag and cause signals to become unreadable. Try to take mitigation measures such as keeping the affecting device away from this equipment.

# Outline of Functions

Following functions are available in this device.

## Reprocessing

A series of operations that enable the equipment to perform ultrasonic cleaning, detergent cleaning, disinfection, rinse, air purge, and alcohol flush. A series of operations for ultrasonic cleaning, detergent cleaning, disinfection, rinse, air purge, and alcohol flush of the outer surface and channels of endoscopes in a specified sequence and for a specified time. Reprocessing programs [1] to [4] can be selected by the user. Programs [1] to [4] have a fixed cleaning process time and disinfection process time. They also have different patterns of auto leak test and channel monitoring respectively. For details, refer to Chapter 6, “Reprocessing Operations” in “Instructions-Operation manual”.

## Drain LCG

This function drains the disinfectant solution from the disinfectant tank. For details, refer to Section 8.2, “Replacing the disinfectant solution” in “Instructions-Operation manual”.

## Load LCG

This function loads the disinfectant solution by setting a new disinfectant bottle. For details, refer to Section 8.2, “Replacing the disinfectant solution” in “Instructions-Operation manual”.

## Heat LCG

A process for heating disinfectant solution until it reaches the specified temperature. This process is performed automatically during the reprocessing program. It can also be performed as an independent operation. For details, refer to Section 7.2, “Heat LCG” in “Instructions-Operation manual”.

## Heat LCG Timer

The function for heating the disinfectant solution until the specified temperature by the specified time. For details, refer to Section 7.3, “Heat LCG Timer” in “Instructions-Operation manual”.

## Mix LCG

This function is mixing the disinfectant solution to the appropriate concentration concentration and enables accurate concentration check.

## Water line disinfection

This function disinfects the water supply line and other lines inside the equipment. For details, refer to Section 7.7, “Water line disinfection” in “Instructions-Operation manual”.

## Self disinfection and water sampling

This function disinfects the basin and internal piping of the equipment. At the end of the process, sampling of rinse water can be performed for microbiological surveillance. For details, refer to Section 7.8, “Self-disinfection and water sampling” in “Instructions-Operation manual”.

## Detergent/Alcohol line disinfection

This function disinfects the detergent line and alcohol line of the equipment. For details, refer to Section 7.9, “Detergent line disinfection” in “Instructions-Operation manual” and Section 7.10, “Alcohol line disinfection” in “Instructions-Operation manual”.

## Auto leak test

The endoscope leak test can be executed automatically by programming it in a user-configured reprocessing process. It can also be performed as an independent operation. For details, refer to Section 7.12, “Auto leak test” in “Instructions-Operation manual”.

## Manual leak test

Manual inspection for endoscope leakage during immersion of water can be performed as an independent operation. For details, refer to Section 7.11, “Manual leak test” in “Instructions-Operation manual”.

## Alcohol flush

To assist in drying the channel after reprocessing, alcohol is flushed through the endoscope channels followed by air. This function performs alcohol flush into the endoscope channels. The alcohol flush can be executed automatically in a reprocessing process. It can also be performed as an independent operation. For details, refer to Section 7.14, “Alcohol flush” in “Instructions-Operation manual”.

## Air purge

This function drains the remaining fluid from the basin after an irregularity occurs, or if the process is stopped before it completes. Air purge also eliminates residual fluid from the endoscope channels. For details, refer to Section 7.6, “Air purge” in “Instructions-Operation manual”.

## Rinse

This function performs the rinsing process if the fluid remains in the basin or in the endoscopes after an irregularity occurs or the process is stopped midway. For details, refer to Section 7.5, “Rinse” in “Instructions-Operation manual”.

## Leaking scope decontamination

This function decontaminates a leaking endoscope prior to repair. During the decontamination, positive pressure is applied to the leaking endoscope to avoid fluid invasion and damage to the endoscope. For details, refer to Section 7.15, “Leaking scope decontamination” in “Instructions-Operation manual”.

## ALT self-check

This function diagnoses the auto leak test function of the device. It is performed automatically at the end of Load LCG function or as an independent operation. For details, refer to Section 7.13, “Self-check of auto leak test” in “Instructions-Operation manual”.

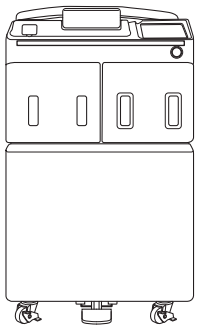
# Chapter 1 Checking the Package Contents

## 1.1 Checking the package contents



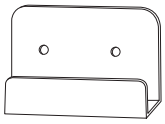
Check that the package contains all the items listed below. Inspect each item for damage. If the device is damaged, a component is missing, or there is any question regarding items, do not use the device and contact Olympus immediately.

### ❍ Endoscope reprocessor

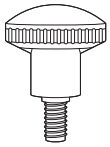


**Endoscope reprocessor OER-Elite**

### ❍ Accessories for use in installation

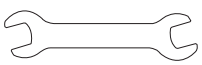


**Buckling guard (GT970400)**

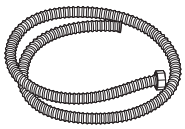


**Buckling guard retaining screw (GC783700, 2 pcs)**

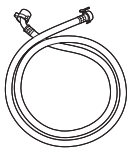
**Grommet (GC784100, 4 pcs)**



**Wrench (GC748400)**

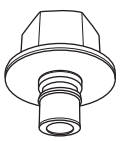


**Drain hose (GJ853400)**



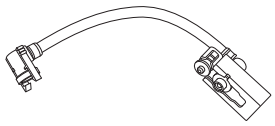
**Water supply hose (GC416500)**

**Power cord (RL545000)**



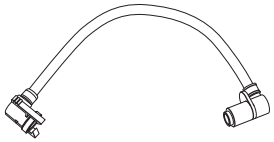
**Water supply plug (GN573800)**

## Accessories for use in reprocessing



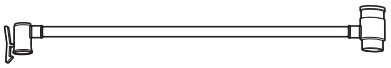
Connecting tube (MAJ-2110, 2 pcs)

Connecting tube (MAJ-2111, 2 pcs)



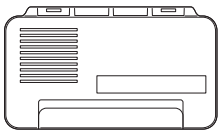
Connecting tube (MAJ-2112, 2 pcs)

Connecting tube (MAJ-2113, 2 pcs)

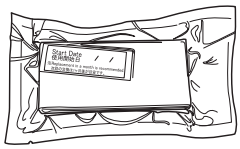


Leak test air tube
(MAJ-2127, 2 pcs)

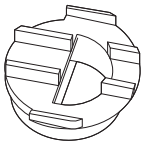
## Accessories to be attached to the equipment



Gas filter case (GJ460700)

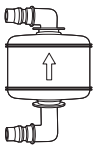


Gas filter (2 pcs) (MAJ-822)



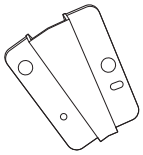
Gas filter adapter (splash guard)
(GC949900)

Washing case (MAJ-2121)



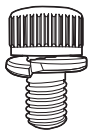
Air filter (MAJ-823)

Water filter (MAJ-824 or MAJ-2318)



Stylus pen holder (RA016500)

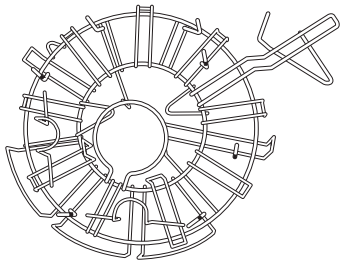
Hex wrench (GT804300)



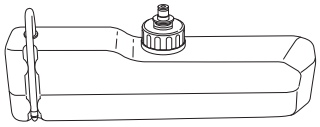
M4 × 10 mm cap bolt (2 pcs)

Stylus pen (GT944200)

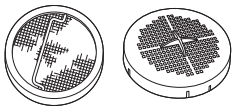
## ❍ Accessories preattached to the equipment



Retaining rack (GT943000)

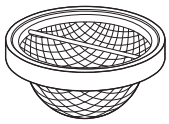


Alcohol tank (RU715000)

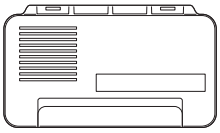


Circulation port mesh filter (GC574000 and GC693900)

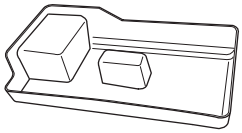
Detergent/alcohol inner tray (GT647800)



Drain port mesh filter (GC220100)

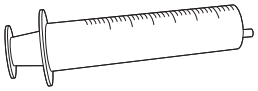


Gas filter case (GJ460700)

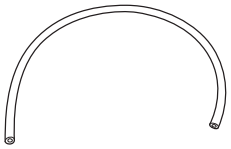


Water tray (GT949200)

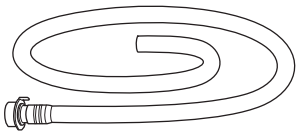
## ❍ Accessories for use in maintenance



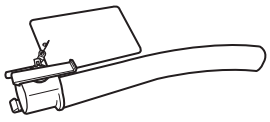
Syringe (GT173600)



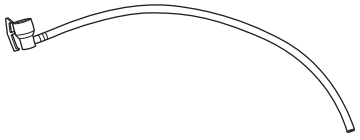
Tube (GC651300)



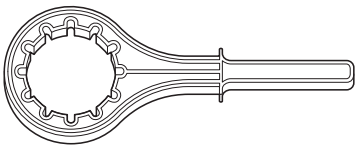
Disinfectant collection hose (GJ668000)



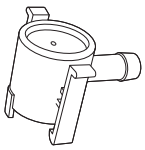
Disinfectant removal tube (GJ460200)



Filter tube (GJ460500, 2 pcs)

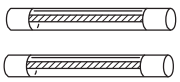


Water filter wrench (GC601300)



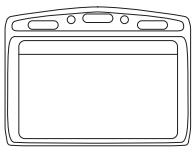
Drain connector (GL366300)

Connector jig (RU726500)

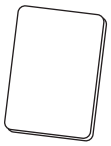


Spare fuse (DB181500, 2 pcs)

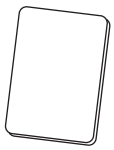
Water supply piping disinfection hose (RU205800)



Card holder (GT271000, 2 pcs)

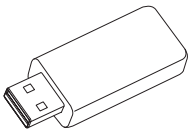


Scope ID master card (GT970700)



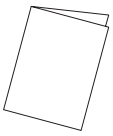
User ID master card (GT970600)

## ❍ Accessory for use in record management

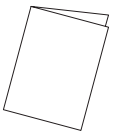


Portable memory (MAJ-1925)

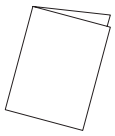
## ❍ Manuals



Instructions-Installation Manual (this manual)



Instructions-Operation Manual



List of Compatible Endoscopes/Connecting Tubes <OER-Elite>

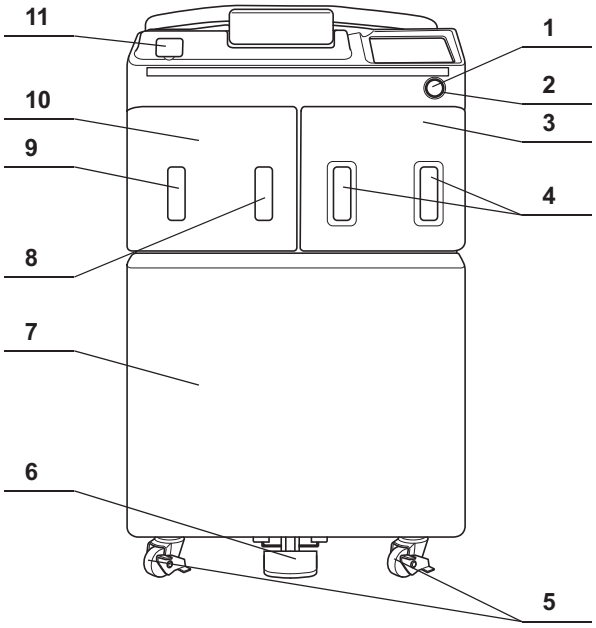
OER-Elite Quick Reference Guide

OER-Elite Operation Guide

# Chapter 2 Nomenclature and Functions

## 2.1 Front panel

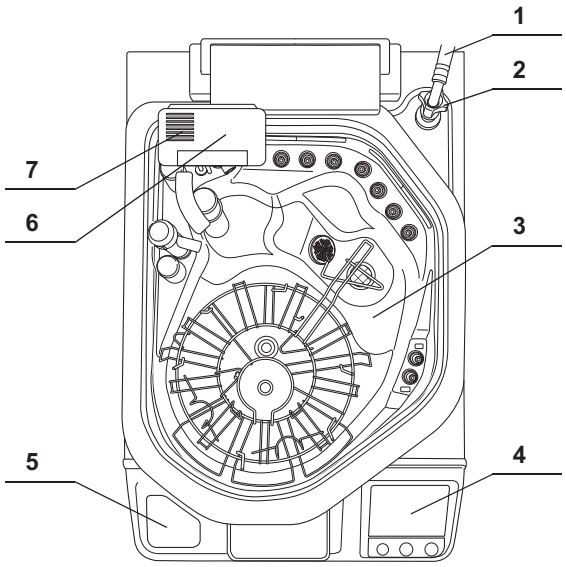





| No. | Nomenclature | Description |
|---|---|---|
| 1 | Power switch | Press to turn the equipment ON or OFF. |
| 2 | Power indicator | Lights up when the equipment is ON. |
| 3 | Disinfectant bottle drawer | Accommodates disinfectant cassette bottles. This door can be opened when the load LCG function is started. |
| 4 | Disinfectant bottle drawer check windows | Check an inside of bottles in the disinfectant bottle drawer. |
| 5 | Casters | The two front casters have lock mechanisms. The caster heights can be adjusted to level the equipment. |
| 6 | Foot pedal | Step to open the lid. It is locked during the reprocessing process. |
| 7 | Front door | Push the area marked “PUSH” to open. |
| 8 | Alcohol tank check window | Checks the amount of alcohol remaining. |
| 9 | Detergent tank check window | Checks the amount of detergent remaining. |
| 10 | Detergent/alcohol drawer | Accommodates the specially designed tanks of detergent for cleaning and alcohol for alcohol flush. |
| 11 | Portable memory port | Insert the portable memory into this port. |

# 2.2 Top panel

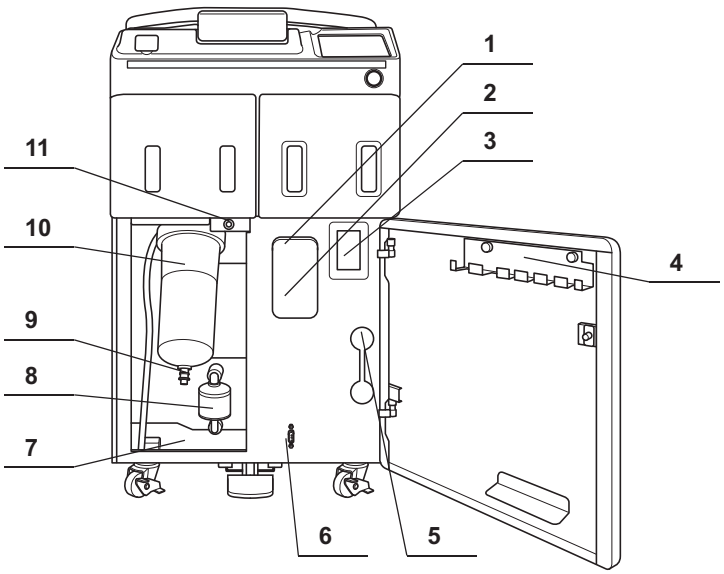





| No. | Nomenclature | Description |
|---|---|---|
| 1 | Water supply hose | Supplies water for use in cleaning. |
| 2 | Water supply hose connector | Connect the water supply hose. A mesh filter is built in this connector. |
| 3 | Lid | Step on the foot pedal to open the lid. |
| 4 | Control panel | Used for various setup and operation. Refer to Section 2.7, “Control panel”. |
| 5 | RFID reader | Reads RFID tag for user ID, scope ID, and physician ID. |
| 6 | Gas filter case (lid) | Accommodates the gas filter for removing the odor and vapor of the disinfectant solution. |
| 7 | Ventilation openings on the gas filter case | This is the hole for taking and exhausting air into/from the reprocessing basin. Do not block the ventilation openings on the gas filter case. |

# 2.3 Inside

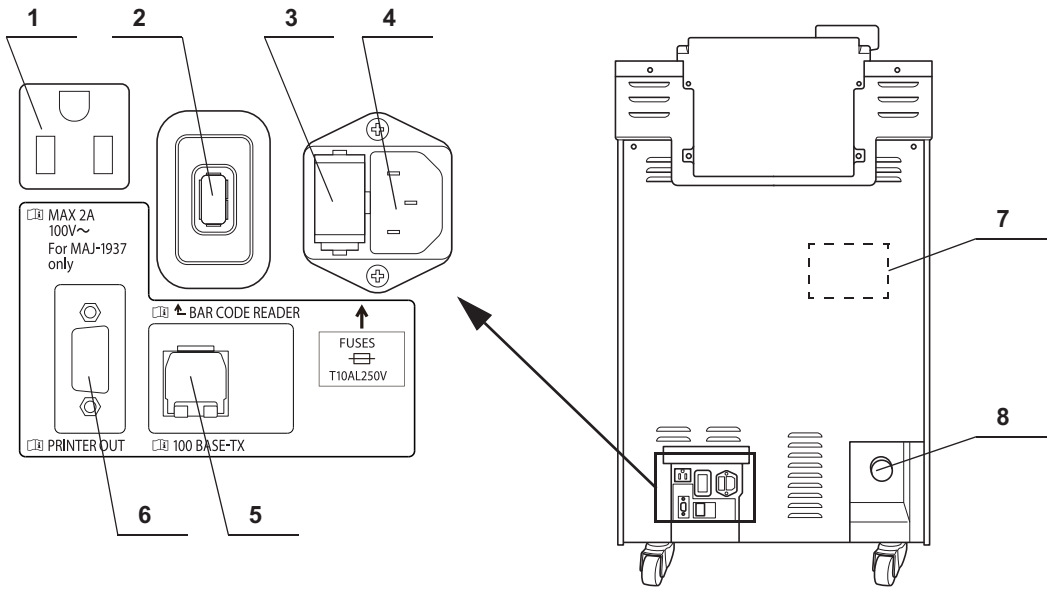





| No. | Nomenclature | Description |
|---|---|---|
| 1 | Gas filter case (tank) | Accommodates the gas filter for removing the odor and vapor of the disinfectant solution. |
| 2 | Ventilation opening on the gas filter case | This is the hole for taking and exhausting air into/from the disinfectant solution tank. Do not block the ventilation openings on the gas filter cases. |
| 3 | Disinfectant solution tank window | Used to check the amount of remaining disinfectant solution. |
| 4 | Accessory holder | Used to store the connecting tubes, etc. |
| 5 | Disinfectant removal port | Used to remove the residual disinfectant solution in the tank by using the disinfectant removal tube.<br>It is also used to withdraw the amount of disinfectant solution by using the drain connector for detergent/alcohol piping disinfection.<br>(Remove the rubber cap and attach the drain connector or the disinfectant removal tube.) |
| 6 | Maintenance terminal | Used for connecting ancillary equipment (for trained service personnel only). |
| 7 | Water tray | Collects water during maintenance such as the water filter replacement. |
| 8 | Air filter | Accommodates the 0.2-micron air filter. |
| 9 | Connector below water filter housing | For use in draining water from the water filter housing. |
| 10 | Water filter (housing) | Accommodates the 0.2-micron internal water filter. |
| 11 | Connector above water filter housing | For use in draining water and air from the water filter housing. |

# 2.4 Rear panel

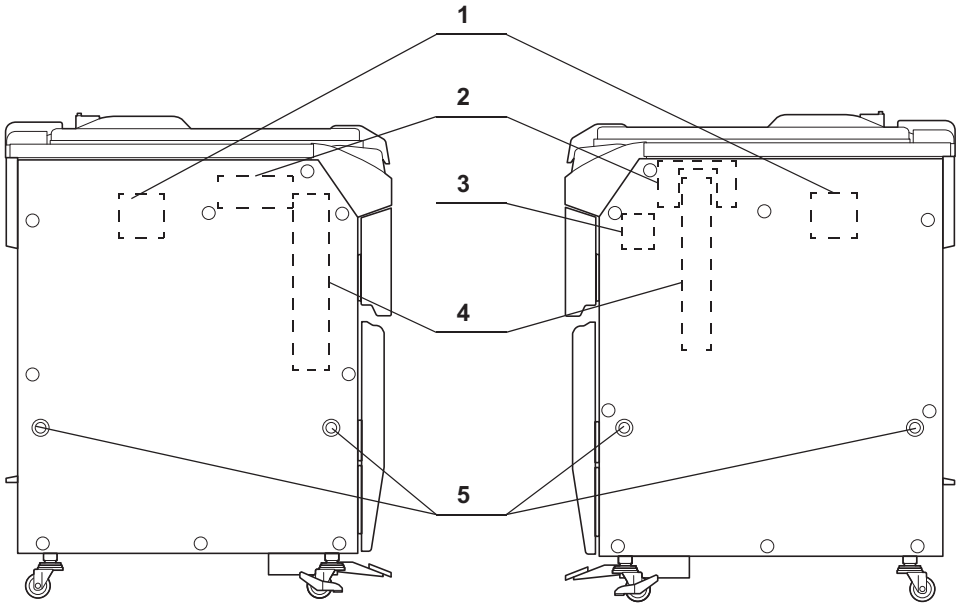





| No. | Nomenclature | Description |
|---|---|---|
| 1 | Printer outlet | Connect the power cord of the printer (MAJ-1937) provided with the optional printer set (MAJ-2144) to feed power to it. Do not connect any devices other than the specified printer. |
| 2 | Bar code reader port | Connect the optional bar code reader (MAJ-2130).<br>Do not connect any devices other than the specified bar code reader. |
| 3 | Fuse (BOX) | Protects the equipment from an over-current. |
| 4 | Power cord receptacle | Connect the power cord. |
| 5 | 100BASE-TX terminal | Used to access the Olympus-designated external devices (for trained service personnel only). |
| 6 | Printer communication port | Connects the printer (MAJ-1937) provided with the optional printer set (MAJ-2144). Do not connect any devices other than the specified printer. |
| 7 | Buckling guard attaching holes | Screw holes used to attach the buckling guard. |
| 8 | Drain hose connector | Connect the drain hose. |

# 2.5 Side panel



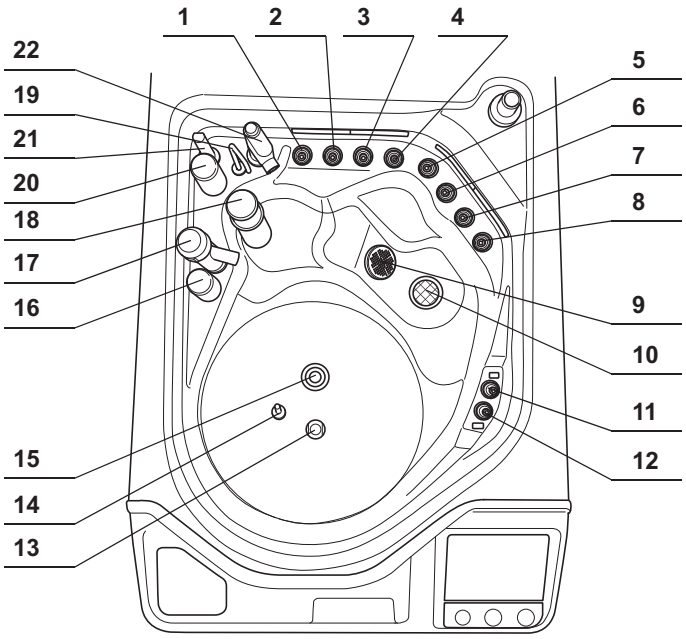


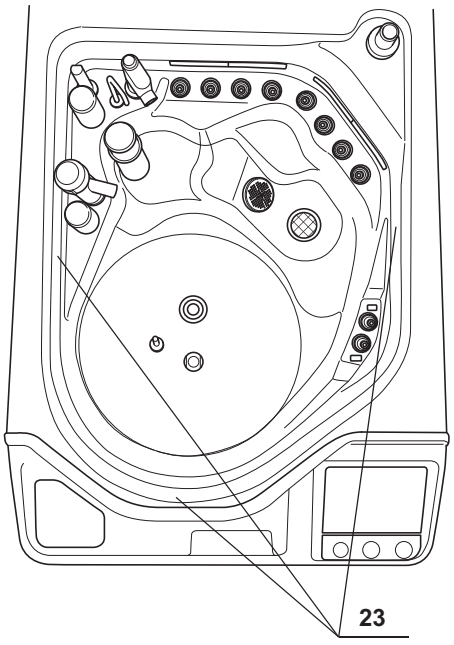

Left Right

| No. | Nomenclature | Description |
|---|---|---|
| 1 | Bar code reader attaching holes | Used to attach the optional bar code reader (MAJ-2130). |
| 2 | Printer set attaching holes | Used to attach the optional printer set (MAJ-2144). The connector hanger cannot be attached if the printer set is already attached. |
| 3 | Stylus pen holder attaching holes | Used to attach the provided stylus pen holder. |
| 4 | Connector hanger attaching holes | Used to attach the optional connector hanger (MAJ-865). The printer set cannot be attached if the connector hanger is already attached. |
| 5 | Grommet attaching holes (×4) | Used to attach the grommets. |

# 2.6 Reprocessing basin



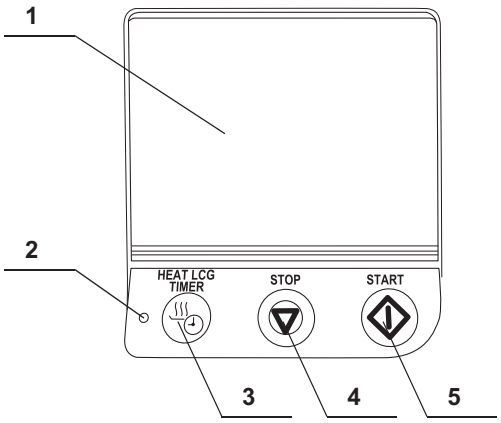


| No. | Nomenclature | Description |
|---|---|---|
| 1 | Connector A2 (Light blue) | Connect a connecting tube colored light blue.<br>This connector is mainly used for second endoscope. |
| 2 | Connector B2 (Blue) | Connect a connecting tube colored blue.<br>This connector is mainly used for second endoscope. |
| 3 | Connector B1 (Blue) | Connect a connecting tube colored blue.<br>This connector is mainly used for first endoscope. |
| 4 | Connector A1 (Light blue) | Connect a connecting tube colored light blue.<br>This connector is mainly used for first endoscope. |
| 5 | Connector D2 (Orange) | Connect a connecting tube colored orange.<br>This connector is mainly used for second endoscope. |
| 6 | Connector C2 (Green) | Connect a connecting tube colored green.<br>This connector is mainly used for second endoscope. |
| 7 | Connector C1 (Green) | Connect a connecting tube colored green.<br>This connector is mainly used for first endoscope. |
| 8 | Connector D1 (Orange) | Connect a connecting tube colored orange.<br>This connector is mainly used for first endoscope. |
| 9 | Circulation port | Aspirates the cleaning fluid or disinfectant solution for circulation during cleaning or disinfection. |
| 10 | Drain port | Drains liquid from the reprocessing basin. |
| 11 | Leak test connector E2 (Purple) | Connect the leak test air tube that is connected to the second endoscope here. |
| 12 | Leak test connector E1 (Purple) | Connect the leak test air tube that is connected to the first endoscope here. |
| 13 | Washing case mount | Mount for the Washing case that is used to hold the endoscope accessories including valves for reprocessing. |
| 14 | Temperature sensor | Monitor the temperature of the fluid in the reprocessing basin. |
| 15 | Water supply piping disinfection connector | Connect the water supply piping disinfection hose here. |
| 16 | Fluid level sensor | Detects abnormal fluid level in the reprocessing basin. |
| 17 | Disinfectant solution nozzle | Supplies disinfectant solution to the reprocessing basin. Also, used to check if the disinfectant concentration meets the recommended level by the disinfectant manufacturer.(Open the cap and insert the chemical indicator (test strip).) |
| 18 | Float switch (long) | Detects the fluid level in the reprocessing basin to control it. |
| 19 | Detergent nozzle | Supplies detergent to the reprocessing basin. |
| 20 | Float switch (short) | Detects the fluid level in the reprocessing basin to control it. |
| 21 | Circulation nozzle | Supplies the cleaning fluid or disinfectant solution aspirated through the circulation port for circulation. |
| 22 | Water supply/circulation nozzle | Supplies water for cleaning. Also, supplies the cleaning fluid or disinfectant solution aspirated through the circulation port for circulation. |
| 23 | Water level scale (× 3) | Marks for confirming that the equipment is level. |

# 2.7 Control panels

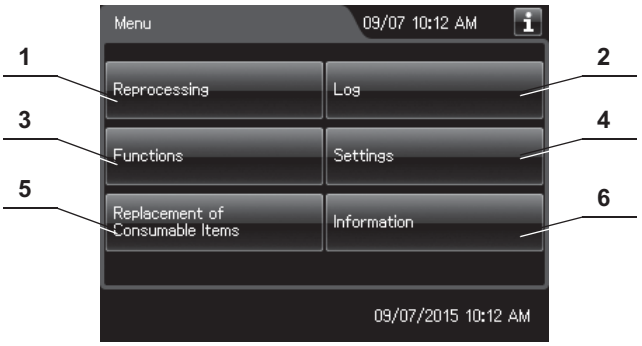





| No. | Nomenclature | Description |
|---|---|---|
| 1 | Touch screen | Used to control and set the equipment. Also, the information and state of the equipment can be displayed. |
| 2 | Heat LCG Timer indicator | The indicator lights when the Heat LCG Timer is in progress. |
| 3 | Heat LCG Timer button | Press this button to active the Heat LCG Timer. |
| 4 | Stop button | Press this button to stop process. |
| 5 | Start button | Press this button to start process. |

## ■ *Touch screen – Menu Screen*

The menu consists of six buttons according to the classification of the equipment's Functions into six categories. Select the desired category here.




| No. | Name | Description |
|---|---|---|
| 1 | Reprocessing | Press this button to display the Reprocessing Standby screen.<br>→Refer to Section 6.5, "Basic operation for reprocessing" in "Instructions-Operation manual". |
| 2 | Log | Press this button to go to Log menu.<br>→Refer to Section 11.1, "Log menu" in "Instructions-Operation manual". |
| 3 | Functions | Press this button to go to Function menu.<br>→Refer to Section 7.1, "Function menu" in "Instructions-Operation manual". |
| 4 | Settings | Press this button to go to Setting menu.<br>→Refer to Section 4.1, "Setting menu" in "Instructions-Operation manual". |
| 5 | Replacement of Consumable Items | Press this button to go to Replacement of Consumable Items menu.<br>→Refer to Section 8.1, "Replacement of consumable items menu" in "Instructions-Operation manual". |
| 6 | Information | Press this button to go to Information menu.<br>→Refer to Chapter 12, "Information Menu Screen" in "Instructions-Operation manual". |

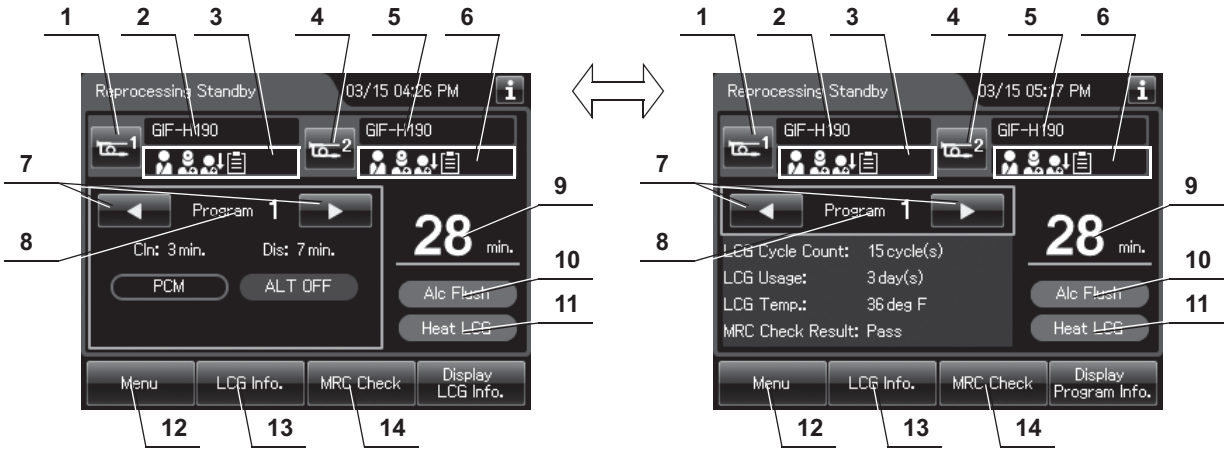
**NOTE**

The operational buttons are expressed by a box with gradation.


Figure 2.1

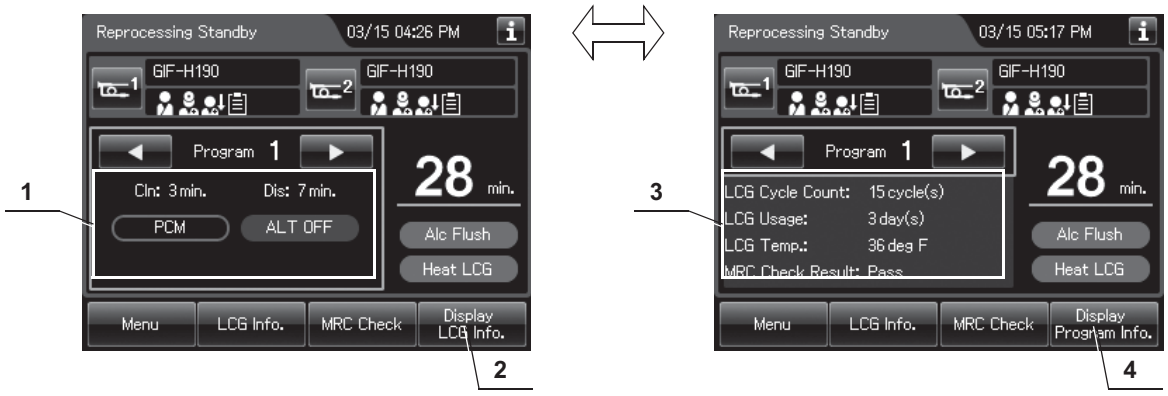
## ■ *Touch screen – Reprocessing standby screen*

Select the program by pressing the program selection buttons.



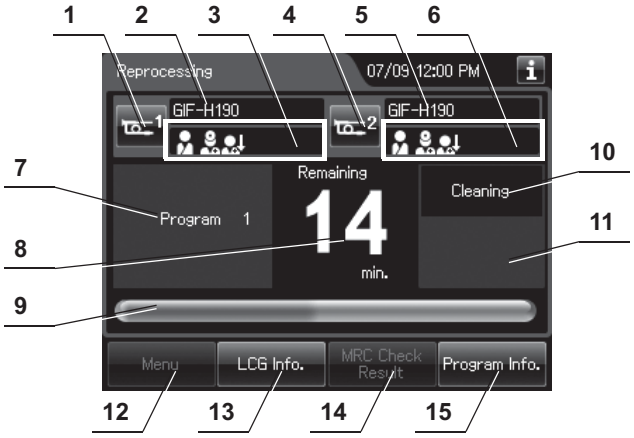

| No. | Nomenclature | Description |
|---|---|---|
| 1 | Scope 1 button | Goes to the ID information screen associated with the first endoscope. |
| 2 | Model number of scope 1 | Displays the model number of the first endoscope. It is blank when the Scope ID is not entered. |
| 3 | ID status of scope 1 | Displays the input status of patient ID, physician ID, user ID, and procedure ID associated with the first scope. |
| 4 | Scope 2 button | Goes to the ID information screen associated with the second endoscope. |
| 5 | Model number of scope 2 | Displays the model number of the second endoscope. It is blank when the Scope ID is not entered. |
| 6 | ID status of scope 2 | Displays the input status of patient ID, physician ID, user ID, and procedure ID associated with the second scope. |
| 7 | Program selection button | Press these buttons to select the reprocessing program. |
| 8 | Program number display | Displays the selected reprocessing program number. For details of the reprocessing program number, refer to “Reprocessing Program” on the next page. |
| 9 | Process time | Displays the process time of the selected reprocessing program.<br>If the scope ID is inputed with one of the following four methods, the reprocessing time of programs extend 3 minutes.<br>– The scope ID of the endoscope with forceps elevator<br>– The scope ID master card<br>– Input from the software keyboard<br>– Recalling the pre-registerd ID |
| 10 | Alcohol flush indicator | Indicate that the Alcohol Flush is incorporated in the reprocessing program. Alcohol flush cannot be eliminated from the reprocessing process. |
| 11 | Heat LCG indicator | Indicate that the Heat LCG is incorporated in the reprocessing program. Heat LCG cannot be eliminated from the reprocessing process. |
| 12 | Menu button | Returns to the Menu screen, |
| 13 | LCG Info. button | Goes to the LCG info. screen. |

| No. | Nomenclature | Description |
|---|---|---|
| 14 | MRC Check Result button | Goes to the MRC Check Result entry screen. |




| No. | Nomenclature | | Description |
|---|---|---|---|
| 1 | Program information | | Displays information about the selected reprocessing program. |
| | | Cln. | Displays the cleaning time |
| | | Dis. | Displays the disinfecting time. |
| | | Channel Monitor indicator | If “PCM” is displayed, channel monitor is executed in the cleaning and disinfection process.<br>If “FCM” is displayed, channel monitor is executed in the cleaning, disinfection and rinsing process. |
| | | Auto Leak Test indicator | If “ALT ON” is displayed, auto leak test is incorporated in the reprocessing process.<br>If “ALT OFF” is displayed, auto leak test is not incorporated in the reprocessing process. |
| 2 | Display LCG Info. Button | | Press to display the disinfectant solution information on the area of No.1.<br>Refer to No.3. |
| 3 | LCG information | | Displays information about the current disinfectant solution. |
| | | LCG Cycle Count | Usage count of the disinfectant solution. |
| | | LCG Usage | Number of days that have elapsed since preparation of the disinfectant solution. |
| | | LCG Temp | Temperature of disinfectant solution during reprocessing process. |
| | | MRC Check Result | Input result of MRC check. |
| 4 | Display Program Info. button | | Press to display the information of the selected reprocessing program on the area of No.3. Refer to No.1. |

## ■ *Touch screen – Reprocessing process screen*




| No. | Nomenclature | Description |
|---|---|---|
| 1 | Scope 1 button | Press this button to display the ID information associated with first endoscope. |
| 2 | Model number of scope 1 type | Displays the model number of the first endoscope. It is blank when the scope ID is not entered. |
| 3 | ID status of scope 1 | Displays the input status of patient ID, physician ID, user ID, and procedure ID associated with the first endoscope. |
| 4 | Scope 2 button | Press this button to display the ID information associated with the second endoscope. |
| 5 | Model number of scope 2 | Displays the model number of the second endoscope. It is blank when the scope ID is not entered. |
| 6 | ID status of scope 2 | Displays the input status of patient ID, physician ID, user ID, and procedure ID associated with the second endoscope. |
| 7 | Program number | Displays the selected reprocessing program number. |
| 8 | Remaining time | Displays the remaining time of a reprocessing process. |
| 9 | Process progress bar | Displays progress of the reprocessing process. |
| 10 | Current process name | Displays the process being executed. |
| 11 | Temperature | Displays the temperature of fluid in the reprocessing basin. |
| 12 | Menu button | During the reprocessing process, it cannot be operated with this button. |
| 13 | LCG Info. button | Press this button to display the LCG Info. screen. |
| 14 | MRC Check Result button | During the reprocessing process, it cannot be operated with this button. |
| 15 | LCG Info./Program information button | Press this button to display the reprocessing program information about the selected reprocessing program. |

# 2.8 Consumable accessories (Optional)

## ❍ Water filter (MAJ-824 or MAJ-2318)

**WARNING**

Before using consumable items, be sure to check its expiration date instructed in the labeling of consumable items. If these items are expired, effectiveness of items may be compromised.



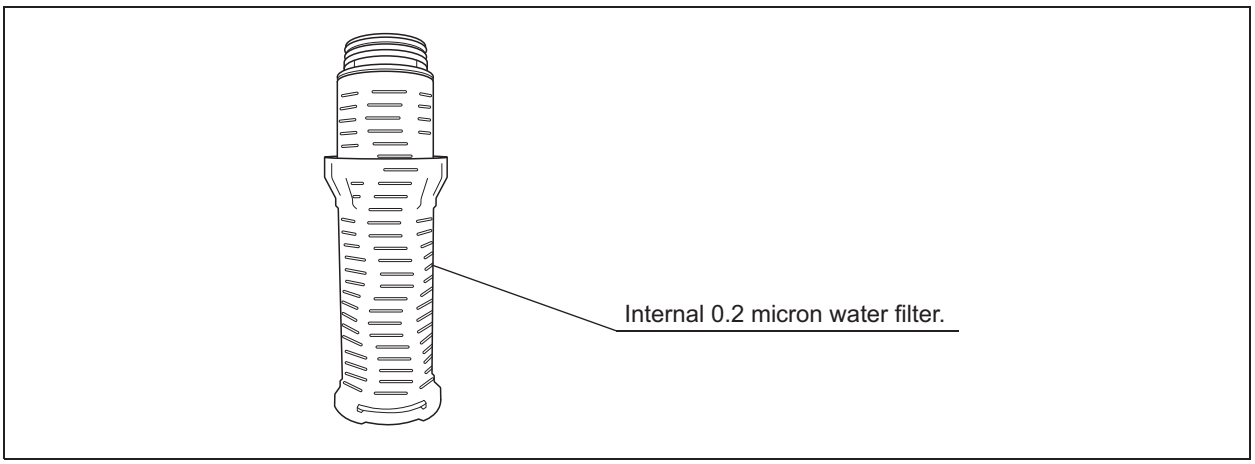



Figure 2.2

## ❍ Gas filters (MAJ-822)

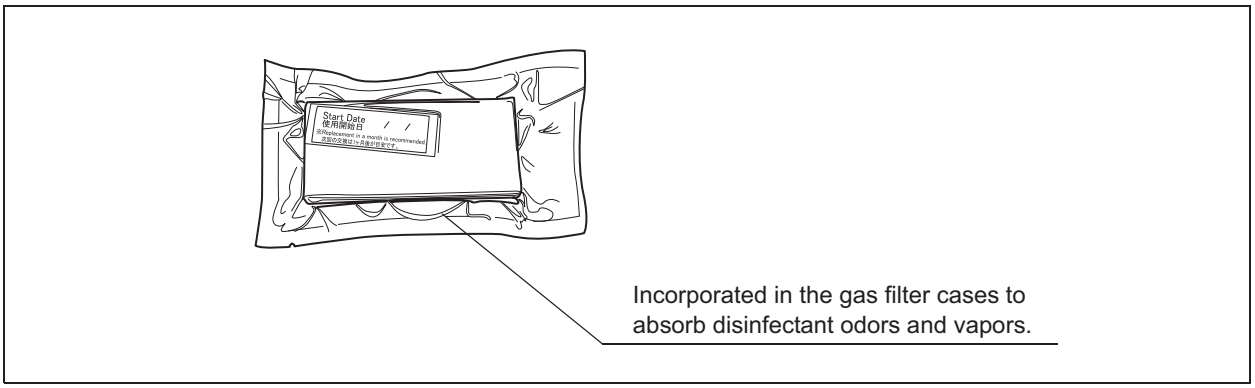



Figure 2.3

## Air filter (MAJ-823)

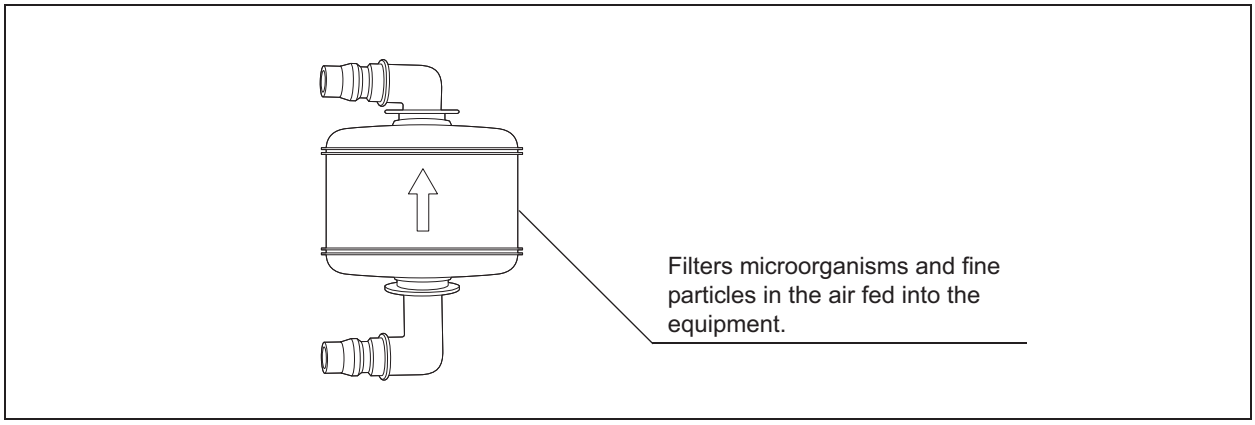



Figure 2.4



## Olympus-validated detergent

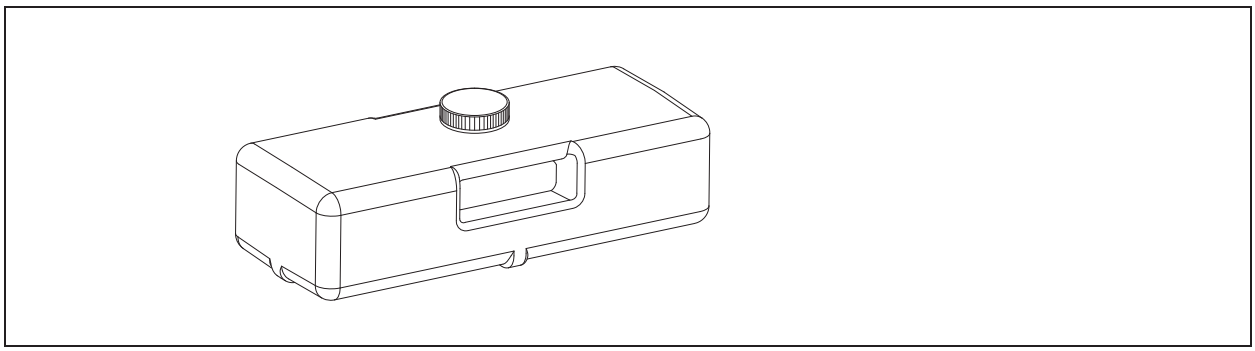


Figure 2.5

| Name | Type | Manufacturer | Remarks |
|---|---|---|---|
| EndoQuick | Alkaline detergent | Best Sanitizers, Inc (154 Mullen Drive, Walton, KY) | 2.8 L disposable tank for use in OER-Elite |

Table 2.1

**NOTE**

EndoQuick is distributed by Olympus America, Inc. To obtain EndoQuick listed above, contact Olympus.

## ❍ Olympus-validated concentrated disinfectant solution (1,065 ml cassette bottles)

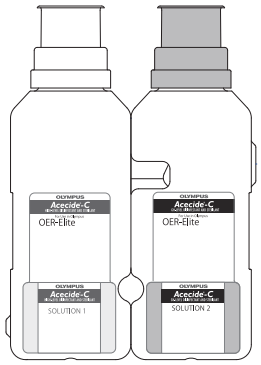



Figure 2.6

| Name | Type | Manufacturer | Remarks | 510(k) number |
|---|---|---|---|---|
| Acecide-C | Peracetic Acid (PAA) | Best Sanitizers, Inc. (154 Mullen Drive, Walton, KY) | 1,065 ml cassette bottles For use in OER-Elite | K091210 |

Table 2.2

**NOTE**

Acecide-C is distributed by Olympus America, Inc. To obtain Acecide-C listed above, contact Olympus.

## ❍ Chemical indicator (test strip)

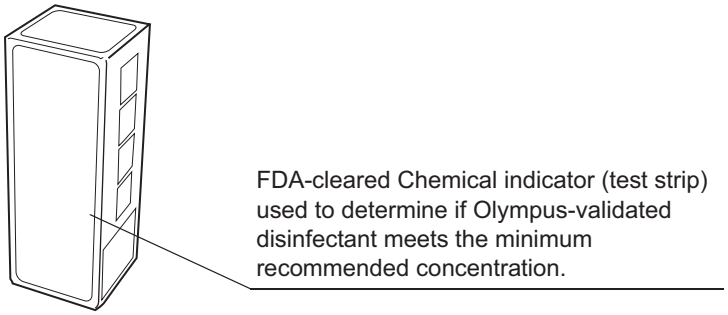



Figure 2.7

| Name | Manufacturer | 510(k) number |
|---|---|---|
| ACECIDE test strips | Best Sanitizers, Inc. (154 Mullen Drive, Walton, KY) | K091210 |

Table 2.3

**NOTE**

ACECIDE test strips is distributed by Olympus America, Inc. To obtain ACECIDE test strips listed above, contact Olympus.

# Chapter 3 Installation of Accessories

Set up the equipment and ancillary equipment as required while referring to the “System chart” in the “Instructions-Operation Manual”. Also, refer to the instruction manual for the ancillary equipment and follow the instructions below to install and connect the equipment and ancillary equipment.

## 3.1 Installation of accessories workflow below



See the installation of accessories workflow below.

1. **Install the grommets.** →Section 3.2 on page 38
2. **Install the bucking guard.** →Section 3.3 on page 39
3. **Inspect the mesh filter.** →Section 3.4 on page 40
4. **Inspect the retaining rack.** →Section 3.5 on page 41
5. **Install the washing case (MAJ-2121).** →Section 3.6 on page 42
6. **Install the stylus pen holder.** →Section 3.7 on page 43
7. **Inspect the accessory holder.** →Section 3.8 on page 44

| | |
|---|---|
| 8 | **Store other accessories.**<br>**→Section 3.9 on page 44** |
| 9 | **Connect the optional accessories.**<br>• Install the optional bar code reader (MAJ-2130)→on page 45<br>• Install the optional printer set (MAJ-2144)→on page 46 |

## 3.2 Installation of the grommets



Insert two grommets into the grommet attaching holes on each sides of the reprocessor (four grommets in total).

**CAUTION**

Be sure to attach the grommets. Otherwise, fluid may penetrate the grommet attaching holes and cause equipment damage.

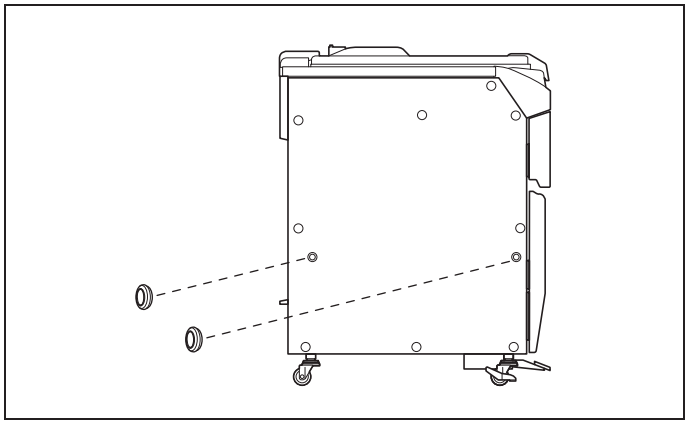


Figure 3.1

# 3.3 Installation of the buckling guard

The buckling guard helps maintain proper drainage by preventing the drain hose from being crushed if the instrument is pushed too close to a wall, etc.

**CAUTION**

Be sure to securely attach the buckling guard using the buckling guard retaining screws. If the screws are not properly attached, the buckling guard may become detached, allowing the drain hose and power cord to be pinched against the wall and causing problems such as water discharge failure.



Align the holes on the buckling guard with the screw holes threaded on the rear panel and attach using the three buckling guard retaining screws.

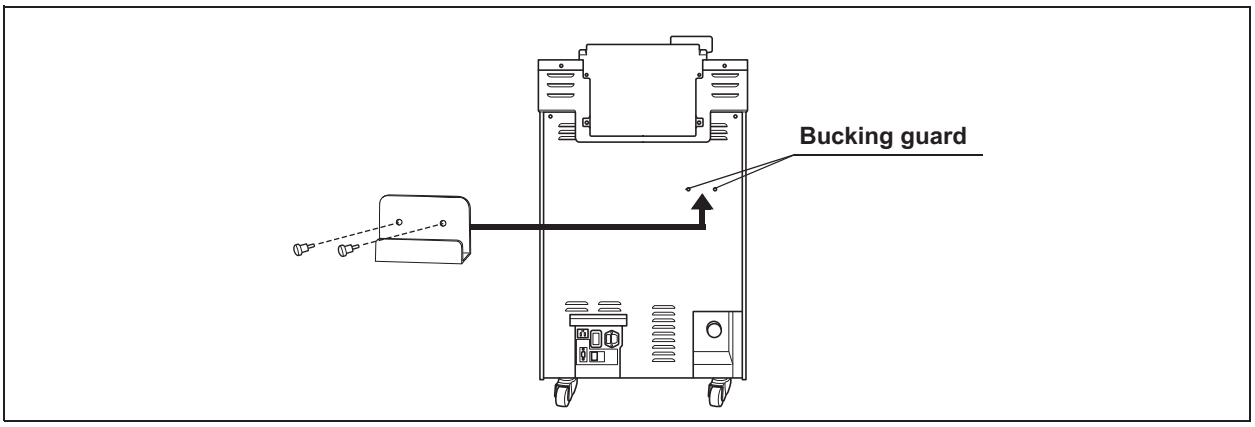



Figure 3.2

# 3.4 Inspection of the mesh filters

The mesh filters are used to prevent the penetration of debris into the equipment and endoscope channels.

**CAUTION**

- If the mesh filters have been removed, be sure to put them back in their original positions before using the equipment. If you forget to attach the mesh filters, the pump may malfunction and/or foreign objects may clog the endoscope channels including the nozzle.
- After removing any of the mesh filters, be sure to reinstall them in their original locations before using the equipment. Otherwise, debris may clog the endoscope channels and nozzles or the pumps may fail.
- If a mesh filter is dropped or impacted in any way, ensure that it is not damaged. Damaged mesh filters may not perform adequately.
- Two-type mesh filters are installed on the outer and inner sides of the circulation port. Be sure to remove, inspect, and clean both of them.



***1*** Step on the foot pedal to open the lid.

***2*** Check that the drain port mesh filter and two circulation port mesh filters are attached inside the reprocessing basin.

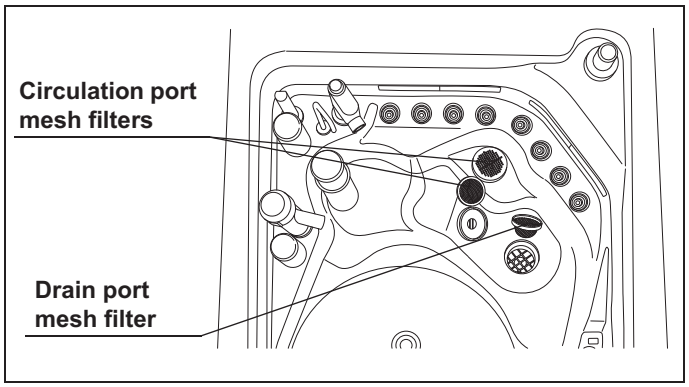



Figure 3.3

# 3.5 Inspection of the retaining rack

The retaining rack is used to hold the endoscopes in the specified position for reprocessing.

**WARNING**

Attach the retaining rack correctly. If the retaining rack is not attached properly, the washing case and endoscopes cannot be set properly and the endoscopes may not be adequately reprocessed.

Make sure the retaining rack is attached properly to the reprocessing basin and that the ring of the retaining rack fits onto the projection on the temperature sensor.



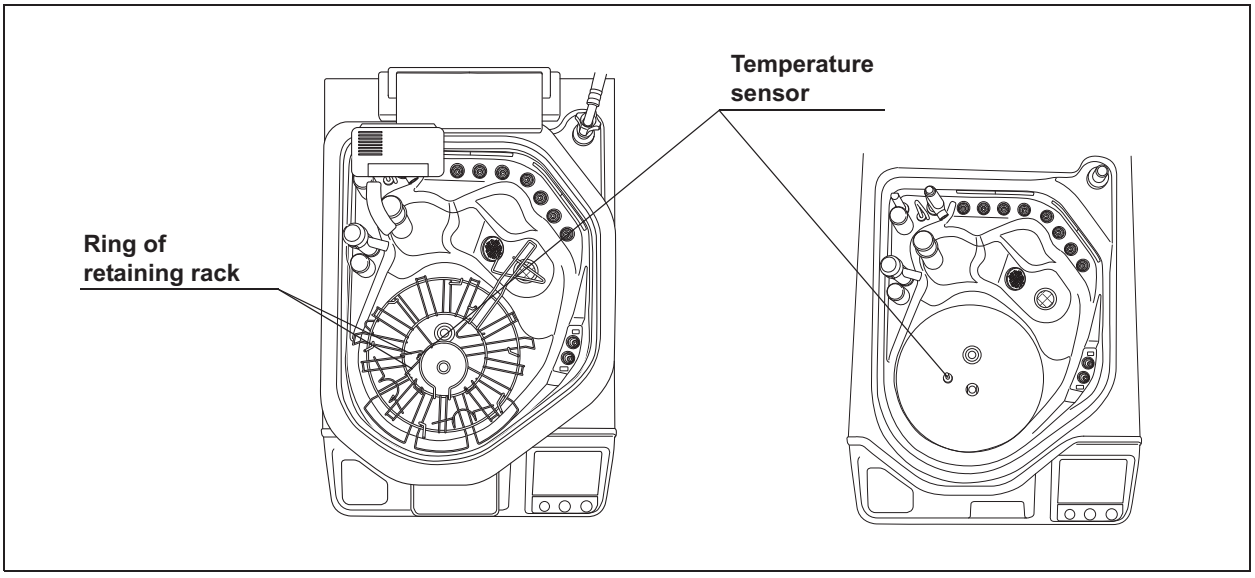



Figure 3.4

# 3.6 Installation of the washing case (MAJ-2121)

The washing case is used to hold the endoscope valves in the specified position for reprocessing.

**WARNING**

- Do not use the washing case if any abnormality is found with it. If an abnormal washing case is used, the reprocessing may become insufficient.
- Be sure to attach the washing case properly. Otherwise, endoscope reprocessing may not be effective.
- Place the washing case in the washing case holder of the retaining rack, washing case protrusion to fit on the cutout of washing case holder and ensure that it is centered on the washing case mount of the reprocessing basin. Otherwise the reprocessing may become insufficient.



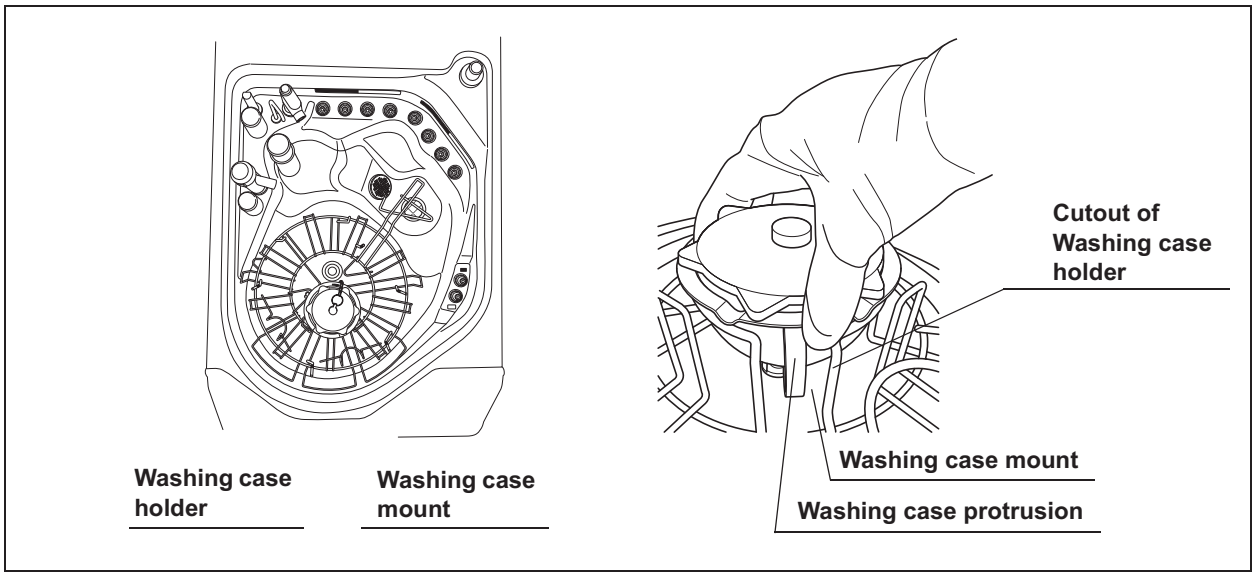



Figure 3.5

# 3.7 Installation of the stylus pen holder

The stylus pen offered is used to operate the touch screen of the OER-Elite.

## ■ Required items

| Check | Required items |
|---|---|
| | M4 × 10 mm cap bolt |
| | Hex wrench (GT804300) |
| | Stylus pen holder (RA016500) |
| | Stylus pen (GT944200) |

Table 3.1



## ■ Installing the stylus pen holder

***1*** Align the two holes on the stylus pen holder with the screw holes on the right side panel of the equipment and secure it with two M4 × 10 mm cap bolts using the provided hex wrench.

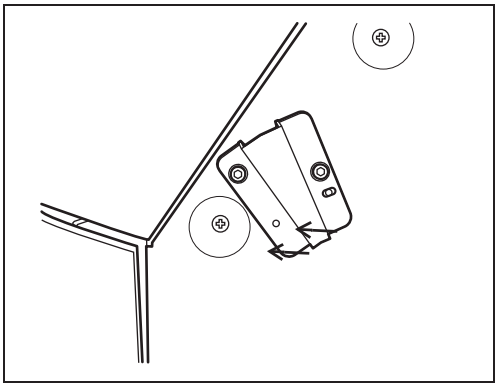


Figure 3.6

***2*** Place the stylus pen in to the stylus holder.

## 3.8 Inspecting the accessory holder

Check if the accessory holder is attached securely with two screws to the inner side of the front door as shown in Figure 3.7. Check by turning the screws clockwise with your hands, and tighten them if they are loose.

## 3.9 Storing other accessories



**1** Accessories such as the connecting tubes can be hung on the accessory holder on the inner side of the front door. After reprocessing the accessories ensure that they are completely dry before storing them.

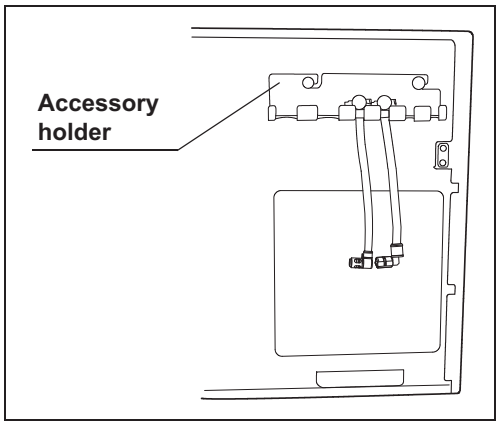



Figure 3.7

**2** Put the scope ID master card and user ID master card in the card holders and attach the card holder below the accessory holder on the inner side of the front door.

**3** Less frequently used accessories should be dried completely and then stored together in a place not exposed to dust or direct sunlight.

# 3.10 Installation of the optional accessories

## ■ Connection of the bar code reader (MAJ-2130)

If the optional bar code reader (MAJ-2130) is connected to the equipment, the patient ID can be entered by the bar code reader. For details, refer to "■ Entering the patient ID by the optional bar code" in Section 3.6, "Entering ID" in "Instructions-Operation Manual".
To install the bar code reader (MAJ-2130), refer to Chapter 3, "Installation and Connection" in "MAJ-2130 Instruction Manual".



**WARNING**

- Do not stare into beam. It may cause damage to the eyes.
- Do not irradiate people's eyes with beam. It may cause damage to the eyes.

**CAUTION**

- Do not connect any other equipment with the bar code reader port except the bar code reader itself (MAJ-2130). Otherwise, the bar codes may not be scanned correctly. Also, equipment failure or burnout may result.
- The communication cable should not be sharply bent, pulled, twisted, or crushed. Cable damage can result, and bar codes may not be properly scanned.

### ❍ Connecting diagram

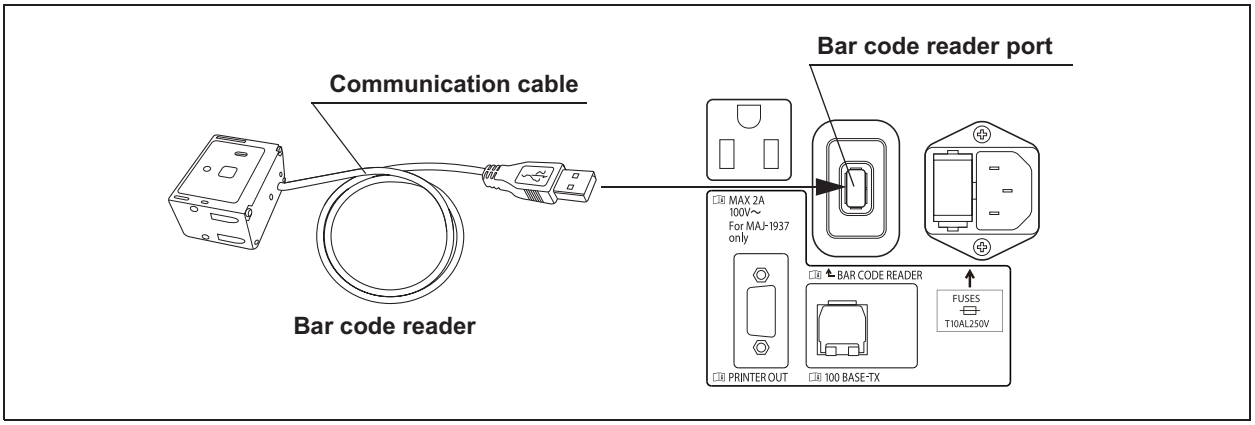



Figure 3.8

## ■ *Installation of the printer set (MAJ-2144)*

If the optional printer set (MAJ-2144) is connected to the equipment, the history of each process can printed. For details, refer to the instruction manual Section 6.10, “Printing of the reprocessing records” in “Instructions-Operation Manual”.
To install the printer set (MAJ-2144), refer to Chapter 3, “Installation of the printer” in “MAJ-2144 Instruction Manual”.

**WARNING**

Do not bend the AC power cord forcibly, or place heavy objectives on the AC power cord. Doing so may damage the AC power cord and cause a fire or an electric shock. If the AC power cord is damaged, discontinue using it and contact Olympus.



**CAUTION**

- Do not connect any other power cord and any equipment the printer power outlet except the printer (MAJ-1937) AC power cord. Connecting anything other than the specified power cord may result in failure or burnout of the equipment.
- Do not connect any other cable to the printer communication port except the interface cable intended to be used with printer (MAJ-1937). Connecting except the specified cable may result in failure or burnout of the equipment.
- The interface cable should not be sharply bent, pulled, twisted, or crushed. Cable damage can result, and printer may not be properly communicated.

## Connecting diagram

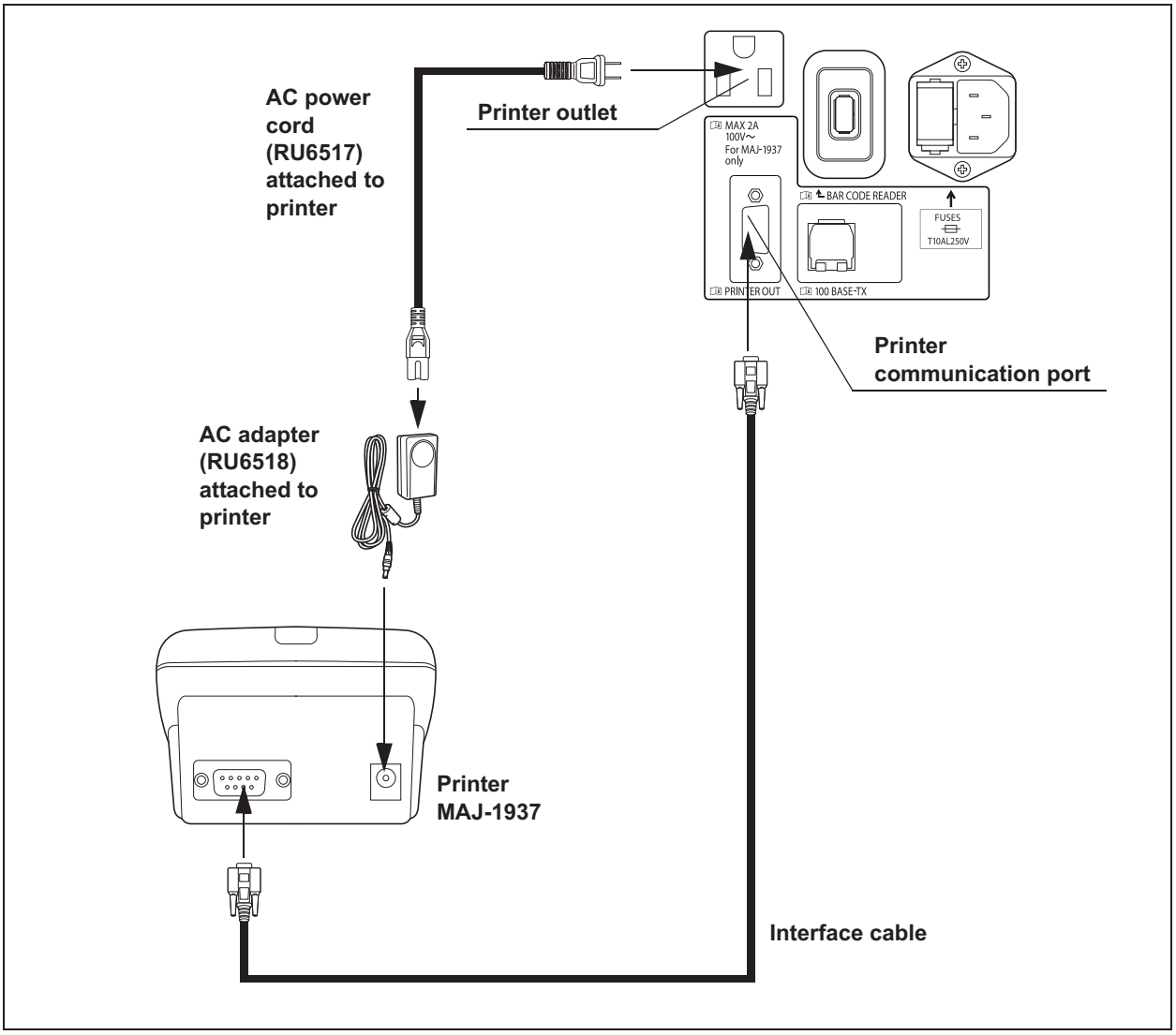



Figure 3.9

# Chapter 4 Installation of Equipment

## 4.1 General flow of installation of the equipment

Connect the water supply hose, drain hose and power cord to the equipment, and set up the required chemicals (disinfectant, detergent etc.).
Be sure to clean the reprocessor before installation, since dust could accumulate on or in the machine under certain storage or transport conditions. Check that the external surface, bottom surface, and casters of the equipment are clean before installation.

**WARNING**

- Make sure to connect the power cord plug to the hospital-grade wall mains power outlet of your medical facility. Plug the power cord directly into a hospital-grade, wall mains power outlet and do not use a multiple outlet. This equipment must be grounded; otherwise, an electric shock or a fire may result.
- Do not allow the power cord plug to get wet. A wet plug could cause an electric shock.
- To prevent an electric shock, do not touch the power cord plug or directly touch the power source with wet hands.
- When using disinfectant solution and alcohol, Olympus recommends the use of gas filters and running this equipment in well-ventilated areas.
  - Wear a face mask, gloves, and protective clothes to minimize aspiration and skin contact.
  - Wear goggles for eye protection.

  Refer to the following association's guidelines related to ventilation:

  SGNA (Society of Gastroenterology Nurses and Associates)
  ASGE (American Society of Gastroenterological Endoscopy)
  APIC (Association for Professionals of Infection Control and Epidemiology)
  AORN (Association of Preoperative Registered Nurses)
  ASTM (American Society for Testing and Materials)
  OSHA (Occupational Safety and Health Administration)
  ACGIH (American Conference of Governmental Industrial Hygienists)
  NIOSH (National Institute for Occupational Safety and Health)
  AIA (American Institute of Architects)

  If the person operating the equipment exhibits an allergic reaction or symptoms no matter how slight they should discontinue the task they are performing and vacate the room.

**WARNING**

- Do not push the rear end of equipment against a wall after connecting the power cord plug. The power cord may break and result in an electric shock or a fire.
- Make sure that the hospital-grade, wall mains power outlet of your medical facility meets the power specifications required by this unit. Insufficient capacity could result in a fire or activation of the facility's circuit breakers, which will turn off the power to all other equipment connected to the same power source.
- Use the power cord plug supplied with the equipment. Using a different power cord plug may result in equipment malfunction or power cord burnout. Additionally, do not use the supplied power cord plug on any other equipment as it is specified to be used only with this equipment.

**CAUTION**



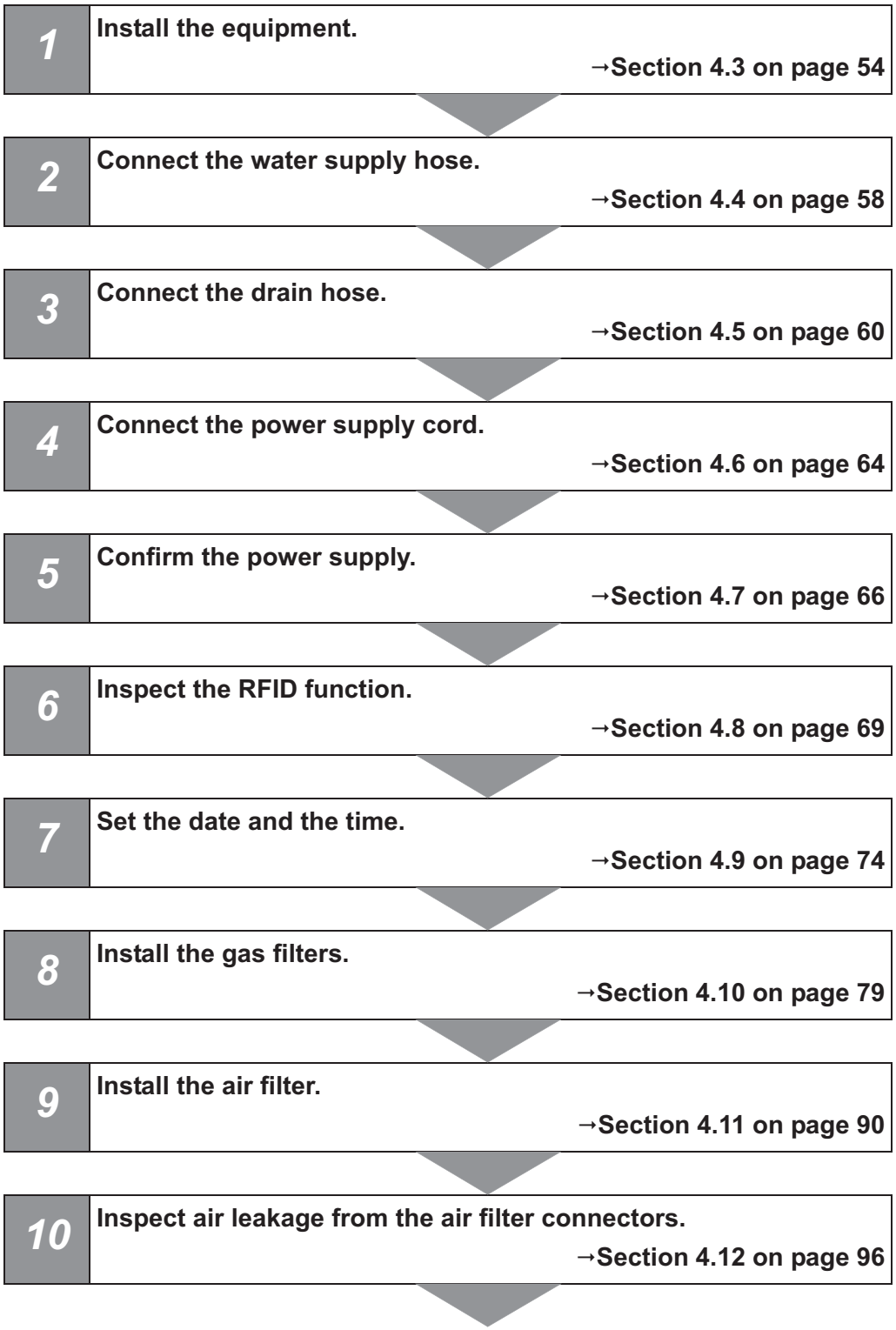
- To prevent fluid leakage, do not attempt to extend the water supply hose and drain hoses.
- To prevent fluid leakage or damage, do not bend the water supply hose and drain hose or apply external force to them.
- To prevent discharge failure, cut off any excess drain hose and coil in such a manner as to prevent it from bending or kinking.
- To prevent discharge failure, always leave the drain hose tip open to the air inside the floor drain (the hose tip should not be immersed in liquid and the inside of the floor drain should be open to the air).
- If the water supply capacity drops below the minimum required flow rate and pressure levels, the equipment may stop with an error, the process time may be prolonged. When the water supply capacity pressure and flow rate is low, improve the water supply by installing a booster pump, etc.
- If the water supply pressure (shut-off pressure) exceeds 0.5 MPa, contact Olympus to request pressure reducing materials.
- Do not supply water with a temperature over 28°C (82°F), as this can cause the equipment or endoscope to deteriorate.
- Although the reprocessor incorporates a water filter, it may still fail or the water filter use life may be reduced if the water contains a large amount of debris and sediment. If this is the case, contact Olympus to have a strainer installed in the water supply piping.

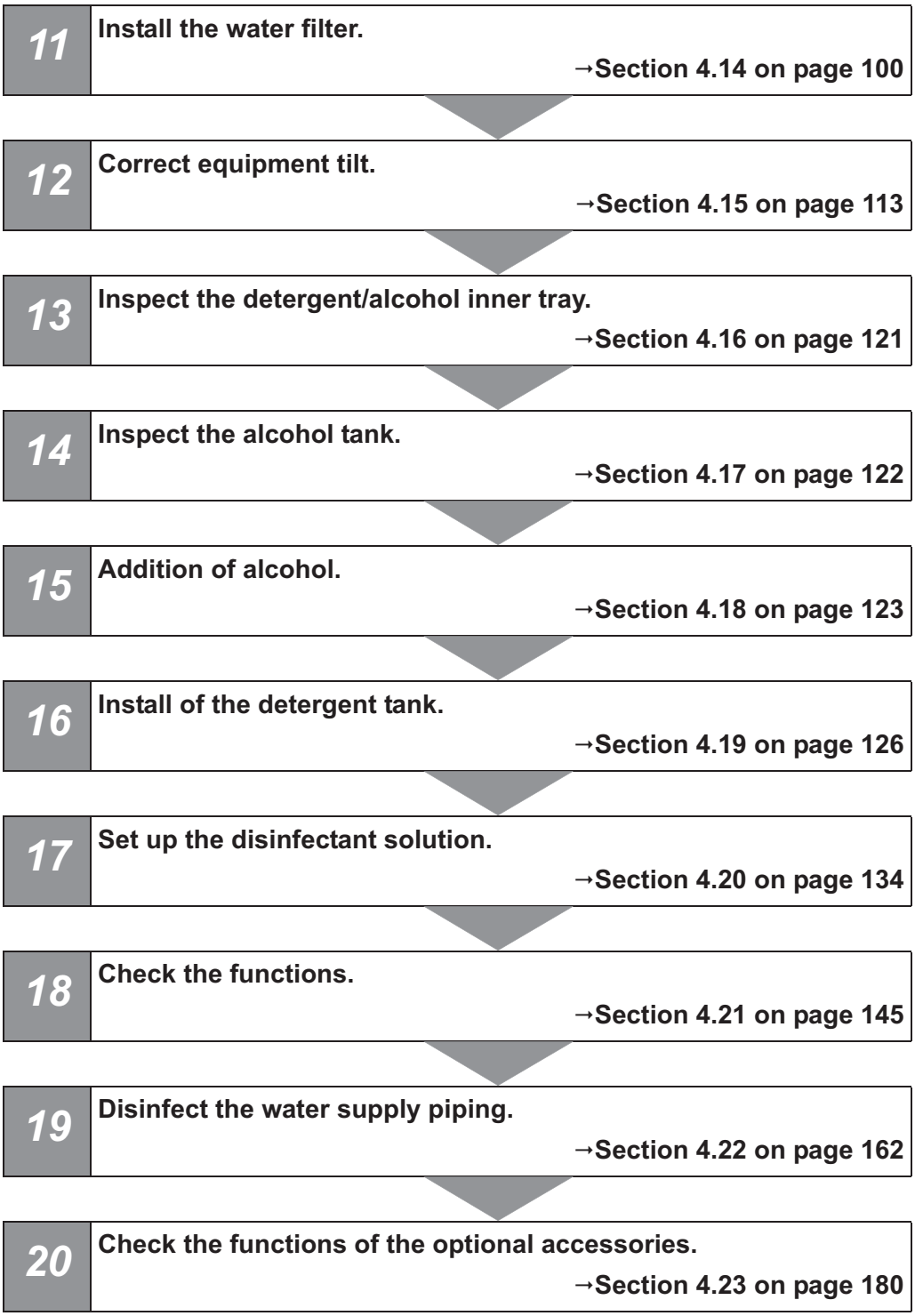
**CAUTION**

- The disinfectant solution's waste fluid should be treated in accordance with the instructions supplied with the disinfectant solution. It is recommended the waste fluid be treated and drained or disposed of according to local wastewater standards defined by law, or to temporarily collect and store the waste fluid and have it treated by a waste disposal firm.
- Do not install the equipment in a place exposed to direct sunlight or where the temperature exceeds 40°C (104°F). Otherwise, the equipment may malfunction or the disinfectant solution may not last as long.
- Do not place objects on or apply excessive force to the equipment. Doing so could damage or deform the lid.
- Before installing the equipment, ventilate the room. Otherwise, the ancillary equipment may malfunction.
- Do not install equipment in a way that would make it difficult to disconnect the power cord plug from the wall mains power outlet. Otherwise, power shutdown by disconnecting the power cord plug cannot be performed in case of malfunction or failure of the equipment.
- Before installing the equipment, be sure to check that the installation meets the conditions provided in Section 4.3, "Installation conditions". If not, water leaks, malfunction, or failure of the equipment may result.

# 4.2 Installation workflow

See the installation workflow below.




11
Install the water filter.
→Section 4.14 on page 100
12
Correct equipment tilt.
→Section 4.15 on page 113
13
Inspect the detergent/alcohol inner tray.
→Section 4.16 on page 121
14
Inspect the alcohol tank.
→Section 4.17 on page 122
15
Addition of alcohol.
→Section 4.18 on page 123
16
Install of the detergent tank.
→Section 4.19 on page 126
17
Set up the disinfectant solution.
→Section 4.20 on page 134
18
Check the functions.
→Section 4.21 on page 145
19
Disinfect the water supply piping.
→Section 4.22 on page 162
20
Check the functions of the optional accessories.
→Section 4.23 on page 180

# 4.3 Installation conditions

To ensure safe use of this equipment, be sure to observe the following conditions.

## ■ Installation condition

### ❍ Installation location conditions

- The floor should be able to support a weight of 200 kg (440 lb) (50 kg per caster).
- The provided water supply hose (3 m/9.8 ft) and drain hose (3 m/9.8 ft) should be able to reach the water faucet and floor drain.
- The power cord (3.5 m/11.5 ft) should be able to reach the power outlet.
- The equipment should not be exposed to direct sunlight.
- The location should be clean and free of dirt or dust.
- The ambient temperature should be between 10°C (50°F) and 40°C (104°F).
- The elevation above sea level should not exceed 3,000 m (9,842 ft)
- The equipment should be used indoors.
- When using the disinfectant solution, and alcohol, Olympus recommends the use of gas filters and running this equipment in well-ventilated areas.
  - Wear a face mask, gloves, and protective clothes to minimize aspiration and skin contact.
  - Wear goggles for eye protection.

  Refer to the following association's guidelines related to ventilation:

  SGNA (Society of Gastroenterology Nurses and Associates)
  ASGE (American Society of Gastroenterological Endoscopy)
  APIC (Association for Professionals of Infection Control and Epidemiology)
  AORN (Association of Preoperative Registered Nurses)
  ASTM (American Society for Testing and Materials)
  OSHA (Occupational Safety and Health Administration)
  ACGIH (American Conference of Governmental Industrial Hygienists)
  NIOSH (National Institute for Occupational Safety and Health)
  AIA (American Institute of Architects)

  If the person performing the inspection or maintenance exhibits an allergic reaction or symptoms no matter how slight they should discontinue the task and vacate the room.

## Water supply conditions

- Potable water, softened water, or pure water can be used.
- The water hardness should not exceed 400 ppm. The recommended water hardness is 150 ppm*1 or lower.
- The water supply quantity at water supply/circulation nozzle on the reprocessing basin should be 6 liters per minute (1.6 gallon per minute) or more when the water faucet is fully open. The recommended water supply quantity is 18 liters per minute (4.8 gallons per minute) or more.

**NOTE**

The process time is extended if the water supply amount is lower than 18 liters per minute.

- The water supply pressure should be between 0.1 and 0.5 MPa (Include water hammer).
- The water temperature should be between 5°C (41°F) and 28°C (82°F).
- The water should not contain rust, dirt, or other foreign matter.

*1 The recommended value is in reference to AAMI TIR34: 2014 “Water for the reprocessing of medical devices”.

## Drain conditions

- The top of the drain hose should be no higher than 60 cm. A floor drain is recommended.
- The diameter of the drain piping of the facility should be 36 mm (1.4 in) or more (a 100 mm (3.9 in) pipe is desirable).
- The drain capacity of the floor drain should be 50 liters per minute (13.3 gallons per minute) or more (this capacity should be maintained until all of the fluids in the reprocessing basin are drained).
- The floor drain should be connected to a waste fluid treatment or pooling facility.
- The specification of drain above is for one unit of the equipment. When using more than one unit in your facility, a larger size of floor drain will be required.

## Power supply conditions

- Power supply capacity should be enough for the equipment rating (120 V AC, 5.5 A, 60 Hz, voltage fluctuations within ±10%, frequency fluctuations within ±1 Hz).
- The power outlet should be a hospital-grade, wall mains power outlet (3-conductor, grounded).

## Equipment dimensions and minimum wall clearances

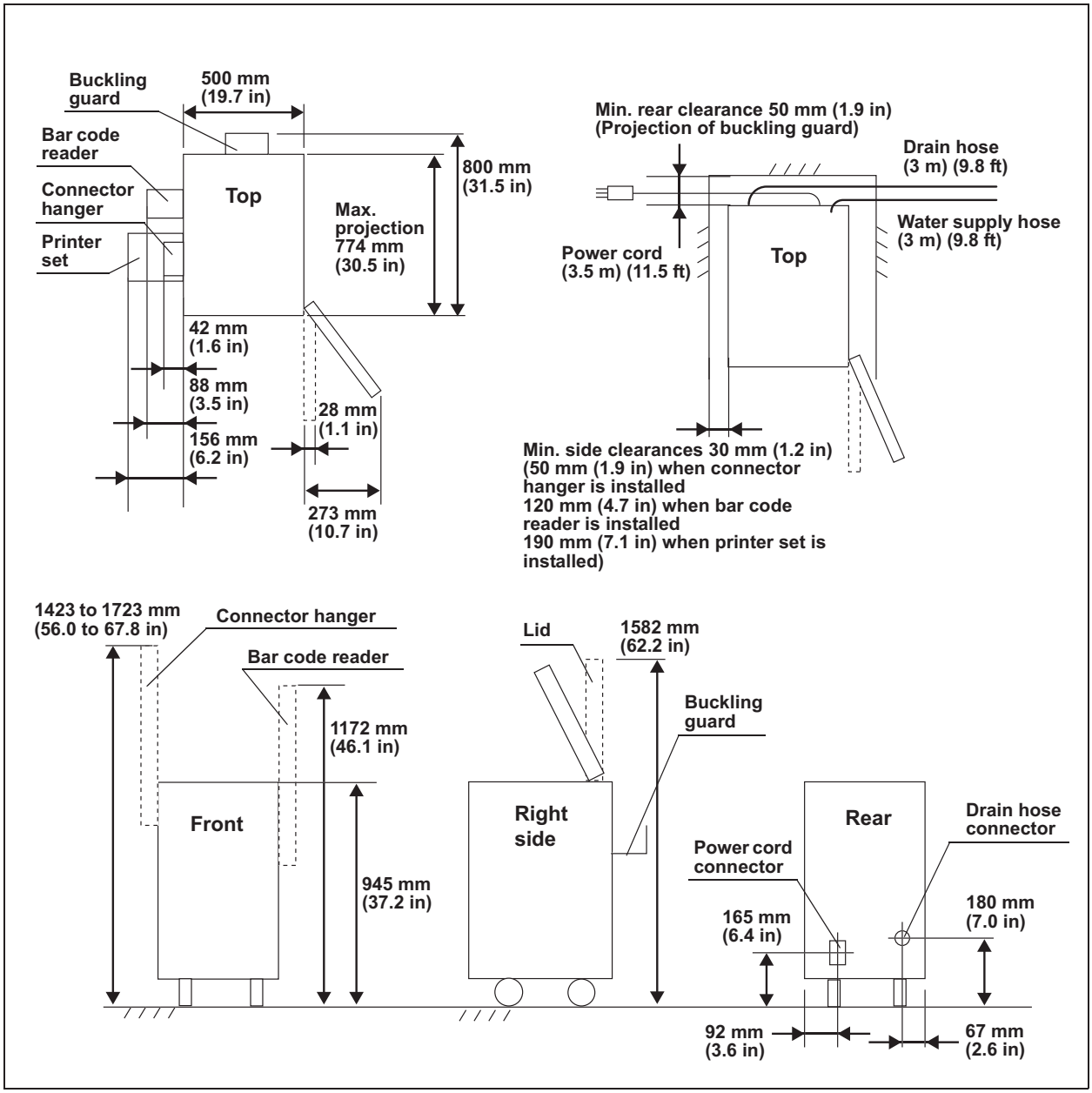



Figure 4.1

## ■ *Checking the installation position*

***1*** Place the equipment on a flat, level floor surface.

**NOTE**

The tilt of the equipment will be corrected in Section 4.15, “Correction of equipment tilt”.

***2*** Open the front door and press the foot pedal to open the lid. Make sure that the door and the cover do not come into contact with other equipment or with the walls.

# 4.4 Connection of the water supply hose

The water supply plug of this equipment is designed to be connected to an ordinary tap water faucet with 3/4” GHT (garden hose thread), or the Olympus Pre-Filter Assembly (MF01-0033PL). If a different type of the water faucet is used, have a plumber enable a safe and secure connection.

**1** Make sure that there is a packing inside of the water supply plug.

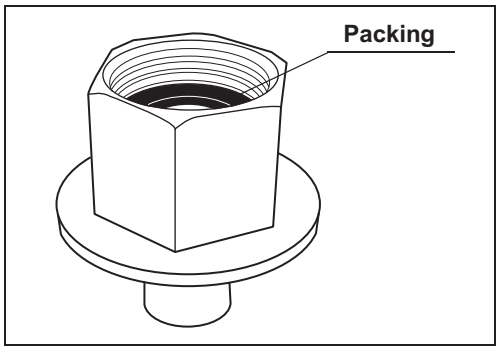



Figure 4.2

**2** Fit the water supply plug onto the water faucet and turn it clockwise to tighten with the provided wrench. The pitch of the thread of the water supply plug is “3/4” garden hose thread (GHT).

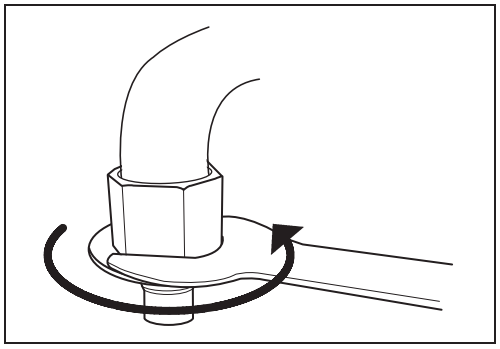


Figure 4.3

**3** While pushing a finger against the lock lever on the water supply socket, pull the sleeve down toward the hose and fit the socket onto the water supply plug. Release the lock lever ensuring that it hooks onto the outer ring of the plug as pictured in Figure 4.4.

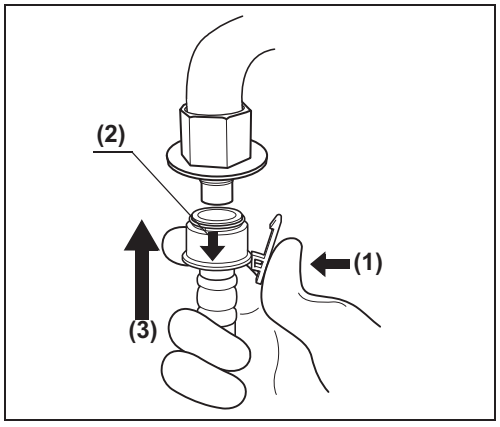



Figure 4.4

**4** After confirming that the lock lever is engaged, pull the hose lightly to make sure the connection is tight.

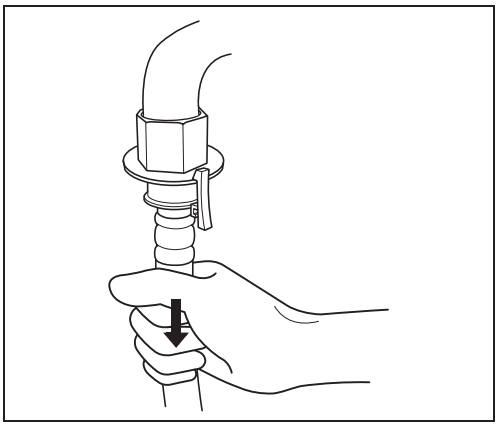


Figure 4.5

**CAUTION**

Connect the connection ring on the equipment end of the water supply hose to the water supply hose connection port by tightening securely. An insecure connection may lead to a risk of a water leak.



**5** Align the connection ring on the equipment end of the water supply hose with the water supply hose connector on the rear right of the reprocessing basin so the hose does not hinder the opening and shutting of the lid, and turn the connection ring clockwise to tighten.

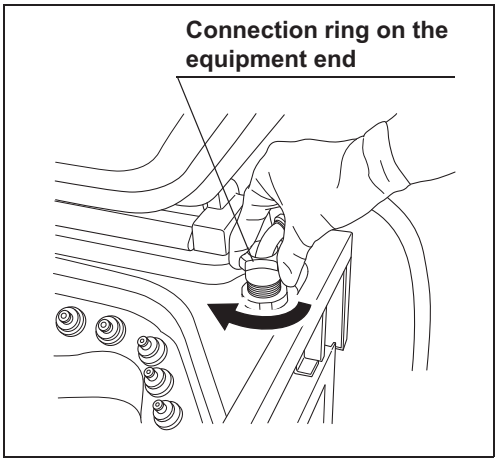



Figure 4.6

**6** Open the water faucet slowly while checking to make sure that water does not leak from the hose connection area. If water leaks, close the water faucet and reconnect the water supply hose.

# 4.5 Connection of the drain hose

**WARNING**

- Do not bend the drain hose or position it in such a way that it kinks and obstructs access to the floor drain hole. Otherwise, discharge will be incomplete and the endoscope may not be properly cleaned and disinfected.
- Connect the connection ring of the drain hose to the drain hose connection port on the rear (bottom right) of the equipment by tightening securely. An insecure connection may lead to a risk of a solution leak.

**CAUTION**

- Fix the other end of the drain hose firmly inside the facility's floor drain hole. Otherwise, the drain hose may come out of the hole due to the discharge pressure resulting in fluid overflow.
- Install the drain hose so that its maximum height is 60 cm (23 in) or less. Otherwise, discharge failure may cause the equipment to malfunction.



***1*** Align the connection ring of the drain hose with the drain hose connector on the rear (bottom right) of the equipment and turn the ring clockwise to tighten it.

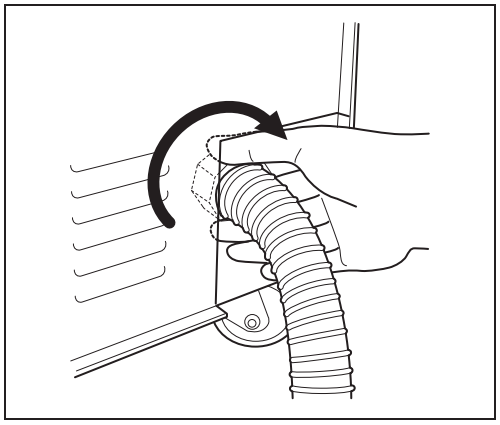


Figure 4.7

***2*** Insert the other end of the drain hose into the drain hole on the floor and secure it so that it does not come out of the drain hole during discharge.

**NOTE**

If the drain hose is too long, cut it to an appropriate length.