

INSTRUCTIONS

ENDOSCOPE REPROCESSOR

OER-Elite™

Labels and Symbols	1
Important Information — Please Read Before Use	7
Chapter 1 Checking the Package Contents	19
Chapter 2 Nomenclature and Functions	23
Chapter 3 Basic Operation	35
Chapter 4 Settings	75
Chapter 5 Inspection and Preparation Before Use	127
Chapter 6 Reprocessing Operations	147
Chapter 7 Functions	239
Chapter 8 Replacement of Consumable Items	339
Chapter 9 Routine Maintenance	423
Chapter 10 End-of-Day Checks	451
Chapter 11 Log Management	463
Chapter 12 Information Menu Screen	589
Chapter 13 Troubleshooting and Repair	599
Appendix	647

For details on installation and setup, refer to “Instructions - Installation Manual”.

Contents

Labels and Symbols	1
Important Information — Please Read Before Use	7
Intended use	7
Instruction manuals	7
Terms used in these manuals	8
User qualifications	11
Ensuring the safety of reprocessing personnel	12
Equipment compatibility	13
Care and storage	13
Maintenance and Inspection	13
Repair and modification	13
Disposal of disinfectant solution	14
Disposal of this reprocessor	14
Signal words	14
Warnings and cautions	14
Outline of Functions	16
Chapter 1 Checking the Package Contents	19
1.1 Checking the package contents	19
Chapter 2 Nomenclature and Functions	23
2.1 Front panel	23
2.2 Top panel	24
2.3 Inside	25
2.4 Rear panel	26
2.5 Side panel	27
2.6 Reprocessing basin	28
2.7 Control panels	30
2.8 Consumable accessories (Optional)	31
Chapter 3 Basic Operation	35
3.1 Turning power ON	35
3.2 Alarm indicator	37
3.3 Control panel operation	40
3.4 Menu screen	41
3.5 LCG Info. screen	42

3.6	Entering ID	44
	Entering through the RFID reader	45
	Entering by the software keyboard	48
	Entering the patient ID by the optional bar code	65
3.7	Checking the MRC level and entering the check result	69
	Required items	70
	Checking the MRC level	70

Chapter 4 Settings 75

4.1	Setting menu	75
4.2	Auto leak test setting	79
4.3	MRC check setting	81
4.4	Manual cleaning and leak test setting	82
4.5	User ID Setting	83
	User ID setting (reprocessing)	84
	User ID setting (functions and replacement)	86
	User ID setting (Heat LCG Timer)	87
4.6	Physician ID setting	88
4.7	Patient ID setting	89
4.8	Patient ID security setting	90
4.9	Procedure ID setting	91
4.10	Detergent replacement indicator	92
4.11	Detergent lot number and shelf-life management	94
4.12	LCG replacement indicator	95
4.13	LCG lot number and shelf-life management	98
4.14	Filter replacement indicator	99
4.15	Filter lot number management	103
4.16	Auxiliary water tube cleaning setting	104
4.17	Print option	106
	Print format setting	107
	Auto Print Setting	108
4.18	Start screen	109
4.19	Connection guide	110
4.20	Volume and brightness	111
4.21	Date and time	112
4.22	Temperature scale	115
4.23	Network setting	116
4.24	Network security	121

Chapter 5	<i>Inspection and Preparation Before Use</i>	127
5.1	Inspection before use	127
5.2	Flow of inspection	128
5.3	Inspecting the power activation	129
5.4	Inspecting for fluid leaks	132
5.5	Inspecting the lid and lid packing	133
5.6	Inspecting the connectors	134
5.7	Inspecting the connecting tubes and leak test air tube	137
5.8	Inspecting the remaining detergent	138
5.9	Inspecting and replenishing alcohol	139
	Inspection of the amount of alcohol	140
	Replenishing of alcohol	140
5.10	Inspecting the mesh filters	143
5.11	Inspecting the washing case (MAJ-2121)	144
5.12	Inspecting the labels on the reprocessing basin	145
5.13	Inspecting for disinfectant solution odor	145
Chapter 6	<i>Reprocessing Operations</i>	147
6.1	General flow of endoscope reprocessing using OER-Elite	147
6.2	Precleaning, leak testing, and manual cleaning	148
	Modified manual cleaning process for preparing endoscopes for processing in the OER-Elite	149
	Endoscope precleaning (Procedure performed at bedside immediately after patient examination)	149
	Endoscope precleaning continued (Procedure performed at bedside immediately after patient examination)	150
	Leakage testing	152
	Manual cleaning (procedure performed in reprocessing area)	152
	Loading the endoscope and their accessories into the OER-Elite	154
6.3	Reprocessing operation in the OER-Elite	155
	Warnings	155
	Outline of reprocessing operation in the OER-Elite	157
6.4	Worst case load condition of endoscopes and accessories	158
6.5	Basic operation for reprocessing	160
	Reprocessing standby screen	160
	Reprocessing program	162

6.6	Loading of endoscopes and accessories	163
	Outline of loading operation of endoscopes and accessories	163
	Input scope ID of first endoscope	165
	Loading of first endoscopes in the reprocessing basin	166
	Loading of the accessories of first endoscope (valves, etc.)	173
	Attaching the connecting tubes loading to first endoscope	177
	Loading of auxiliary water tube of first endoscope	186
	Attaching the Leak test air tube loading to first endoscope	189
	Input connection information of first endoscope	194
	Input results of manual cleaning and leak test of first endoscope	195
	Inputs user ID, physician ID, patient ID, and procedure ID of first endoscope	196
	Input scope ID of second endoscope	197
	Loading of second endoscopes in the reprocessing basin	197
	Loading of the accessories of second endoscope (valves, etc.)	202
	Attaching the connecting tubes loading to second endoscope	205
	Loading of auxiliary water tube of second endoscope	211
	Attaching the Leak test air tube loading to second endoscope	213
	Input connection information of second endoscope	214
	Input results of manual cleaning and leak test of second endoscope	214
	Inputs user ID, physician ID, patient ID, and procedure ID of second endoscope	214
	Loading the stylus pen	215
6.7	Inspection before starting reprocessing process	216
6.8	Reprocessing	220
	Auto leak test	221
	Channel monitoring	223
	Reprocessing operation	225
6.9	Removing the endoscopes and accessories	228
6.10	Printing of the reprocessing records	232
	Printing reprocessing results after completion of reprocessing	234
	Printing error code details in case of error	237
Chapter 7	Functions	239
7.1	Function menu	239
	Function menu	239
7.2	Heat LCG	242
7.3	Heat LCG Timer	244
	Flow of Heat LCG Timer	245
	Starting the Heat LCG Timer	245
	Standing by and starting the Heat LCG Timer	253
	Finishing the Heat LCG Timer	254
7.4	Mix LCG	255
7.5	Rinse	258
7.6	Air purge	260

7.7	Water line disinfection	262
	Workflow of water line disinfection	263
	Required items	264
	Checking the MRC level and entering the check result	264
	Water line disinfection	266
7.8	Self-disinfection and water sampling	274
	Workflow of self-disinfection	274
	Required items	275
	Checking the MRC level and entering the check result	275
	Performing the self-disinfection	277
	Microbiological Surveillance	281
7.9	Detergent line disinfection	282
	Required items	283
	Detergent line disinfection	283
7.10	Alcohol line disinfection	293
	Required items	294
	Alcohol line disinfection	294
7.11	Manual leak test	303
	Workflow of manual leak test	304
	Performing manual leak test	305
7.12	Auto leak test	310
	Workflow of auto leak test	312
	Performing auto leak test	313
7.13	Self-check of auto leak test	321
7.14	Alcohol flush	323
7.15	Leaking scope decontamination	326
	Workflow of leaking scope decontamination	328
	Required items	328
	Performing leaking scope decontamination	329
Chapter 8	Replacement of Consumable Items	339
8.1	Replacement of consumable items menu	339
8.2	Replacing the disinfectant solution	340
	Workflow of replacement the disinfectant solution	341
	Draining the disinfectant solution	342
	Load the disinfectant solution	354
	Required items	355
	Setting the disinfectant solution	356
8.3	Replacing the detergent tank	364
	Required item	365
	Replacing the detergent tank	366

8.4	Replacing the water filter (MAJ-824 or MAJ-2318)	375
	Replacing the water filter workflow (when performing the water line disinfection followed by the replacement of the water filter)	377
	Required items	377
	MRC check, check result input	378
	Replacing the water filter	380
	Draining air in the water filter housing	389
	Disinfecting the water line	392
8.5	Replacing the air filter (MAJ-823)	402
	Workflow of replacement of the air filter	402
	Required items	402
	Replacing the air filter	403
	Inspecting air leakage from the air filter connectors	408
8.6	Replacing the gas filter (MAJ-822)	411
	Required items	412
	Replacing the gas filter on the lid	412
	Replacing the gas filter on the disinfectant solution tank	416
Chapter 9 Routine Maintenance		423
9.1	Periodic inspection	423
9.2	Cleaning the detergent/alcohol drawer	425
9.3	Cleaning the accessories and accessory holder	426
	Required items	426
	Cleaning the accessories and accessory holder	426
9.4	Cleaning the alcohol tank	428
9.5	Checking cassette cutters	429
9.6	Cleaning the disinfectant bottle drawer	429
9.7	Cleaning the mesh filter in the water supply hose connector	430
	Required items	430
	Cleaning the mesh filter in the water supply hose connector	430
9.8	Replacing the fuse	434
9.9	Preparing the reprocessor for long-term storage	436
	Workflow of Preparing the reprocessor for long-term storage	437
	Required items	437
	Preparing the reprocessor for long-term storage	438
9.10	Care and maintenance after long-term storage	448
Chapter 10 End-of-Day Checks		451
10.1	Inspection at the end of every working day	451
10.2	Turning the power OFF and closing the water faucet	452
10.3	Cleaning the mesh filters	453
10.4	Cleaning the float switches	454
10.5	Cleaning the fluid level sensor	458

10.6	Cleaning the stylus pen	460
	Wiping the stylus pen with alcohol	460
	Reprocessing together with endoscopes	460
10.7	Cleaning the outer surface	461
Chapter 11 Log Management		463
11.1	Log menu	463
11.2	Log display and output	464
	Information recorded in each record	470
11.3	Log management with PC	533
	Flow of electronic log management	534
	Required item	534
	Output of recorded data to the portable memory	535
	Log management on PC	541
11.4	Printing records	575
	Printing	575
	Print format	579
Chapter 12 Information Menu Screen		589
12.1	RFID data check	589
12.2	Reprocessor information check	592
12.3	List management	595
Chapter 13 Troubleshooting and Repair		599
13.1	Emergency stop and automatic processing after stopping	599
13.2	Troubleshooting guide	600
	When the error code [E024] is displayed during the reprocessing process	614
	When any leaks are detected	617
	When the message screen "Message 087" is displayed	627
	When the "Message 093" is displayed	635
	Other problems and remedial actions	642
13.3	OER-Elite return	645
Appendix		647
	System chart	647
	Specifications	649
	Shipping environment	649
	Operating environment	649
	Specifications	650
	EMC information	653
	License information of Open Source Software	658
	License information of Open Source Software	670

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 reprocessor are as follows:

Symbol	Description
	Refer to instructions.
	Endoscope reprocessor
	Manufacturer
	Authorized representative in the European Community
	Lot number
	Serial number
	Non-ionizing electromagnetic radiation
	Date of manufacture
	Fuse
	General prohibition sign

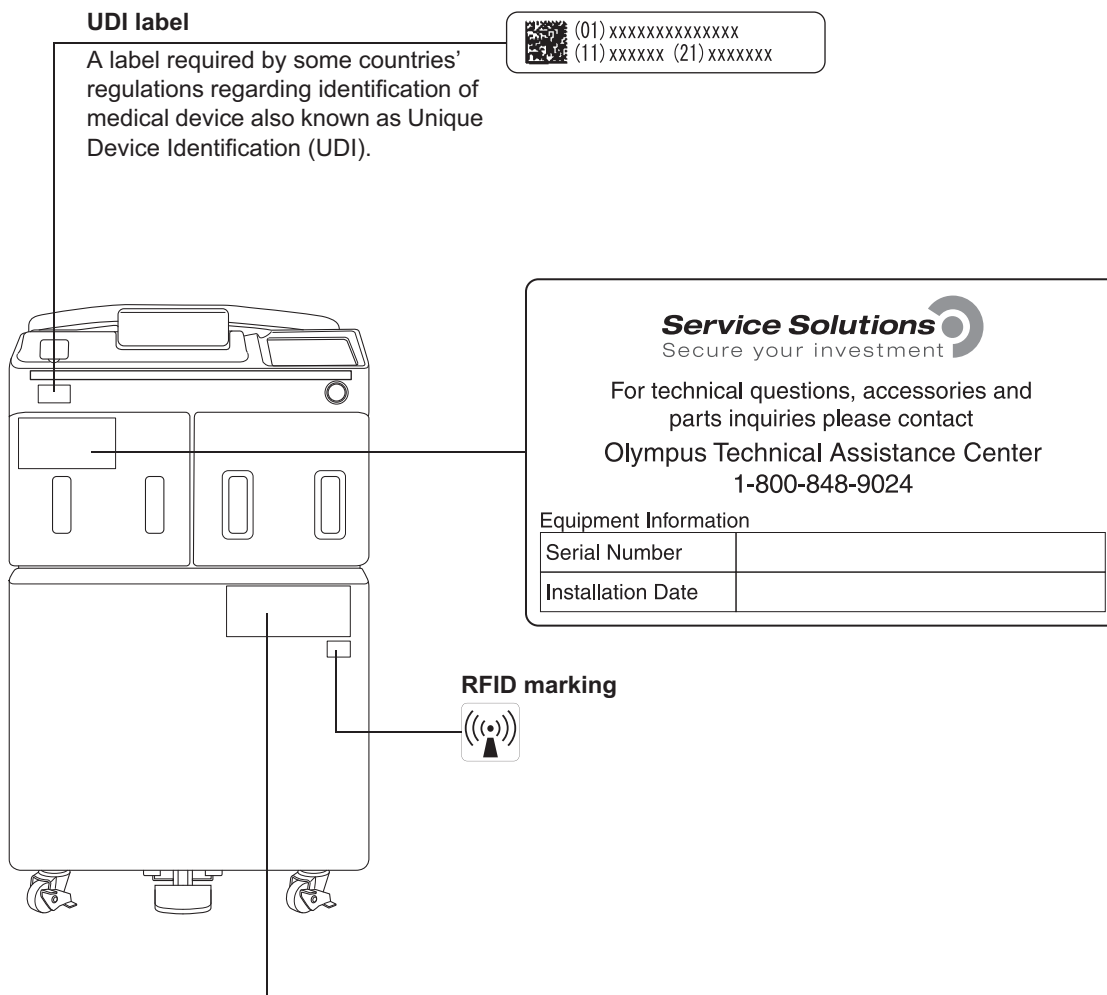
For US Customers only

For a Symbols Glossary, visit us:

<http://www.olympus-global.com/en/common/pdf/symbolsglossary.pdf>

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

○ Front panel



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/designed detergent. If no detergent is used or non-validated/designed 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 DÉTÉRGENT APPROUVÉ OU DÉSIGNÉ PAR OLYMPUS. SI AUCUN DÉTÉRGENT N' EST UTILISÉ OU SI UN DÉTÉRGENT 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 ADEQUAT.
- 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抜きは確実に行ってください。エア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.

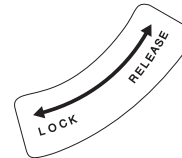
左側の通気口は絶対にふさがないようにください。装置が正常に作動しないおそれがあります。



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

WARNING DISCONNECT SUPPLY BEFORE SERVICING.
AVERTISSEMENT COUPER L'ALIMENTATION AVANT L'ENTRETIEN ET LE DÉPANNAGE.



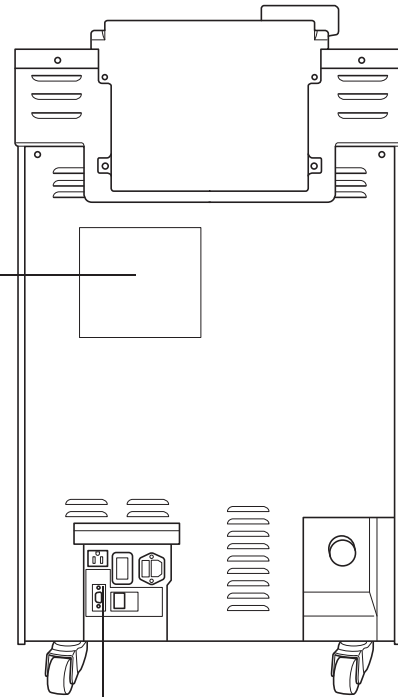
This device complies with part 15 of the FCC Rules and Industry Canada's licence-exempt RSSs.
 Operation is subject to the following two conditions:
 (1) This device may not cause harmful interference, and
 (2) this device must accept any interference received, including interference that may cause undesired operation.

Operation is subject to the following two conditions:
 (1) this device may not cause interference, and
 (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

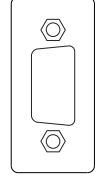
Le présent appareil est conforme à la partie 15 des règles de la FCC et aux normes des CNR d'industrie Canada applicables aux appareils radio exempts de licence. L'utilisation de ce dispositif est autorisée seulement aux deux conditions suivantes:
 (1) il ne doit pas produire de brouillage, et
 (2) l'utilisateur du dispositif doit être prêt à accepter tout brouillage radioélectrique reçu, même si ce brouillage est susceptible de compromettre le fonctionnement du dispositif.

Manufacturer
OLYMPUS MEDICAL SYSTEMS CORP.
 2951 Ishikawa-cho, Hachioji-shi, Tokyo, Japan

Manufacturing site
AIZU OLYMPUS CO., LTD.
 500 Aza-Muranishi, Oaza-Niidera, Monden-machi, Aizu-Wakamatsu-shi, Fukushima, Japan
MADE IN JAPAN

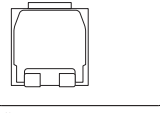


MAX 2A
100V~
For MAJ-1937
only



PRINTER OUT

BAR CODE READER

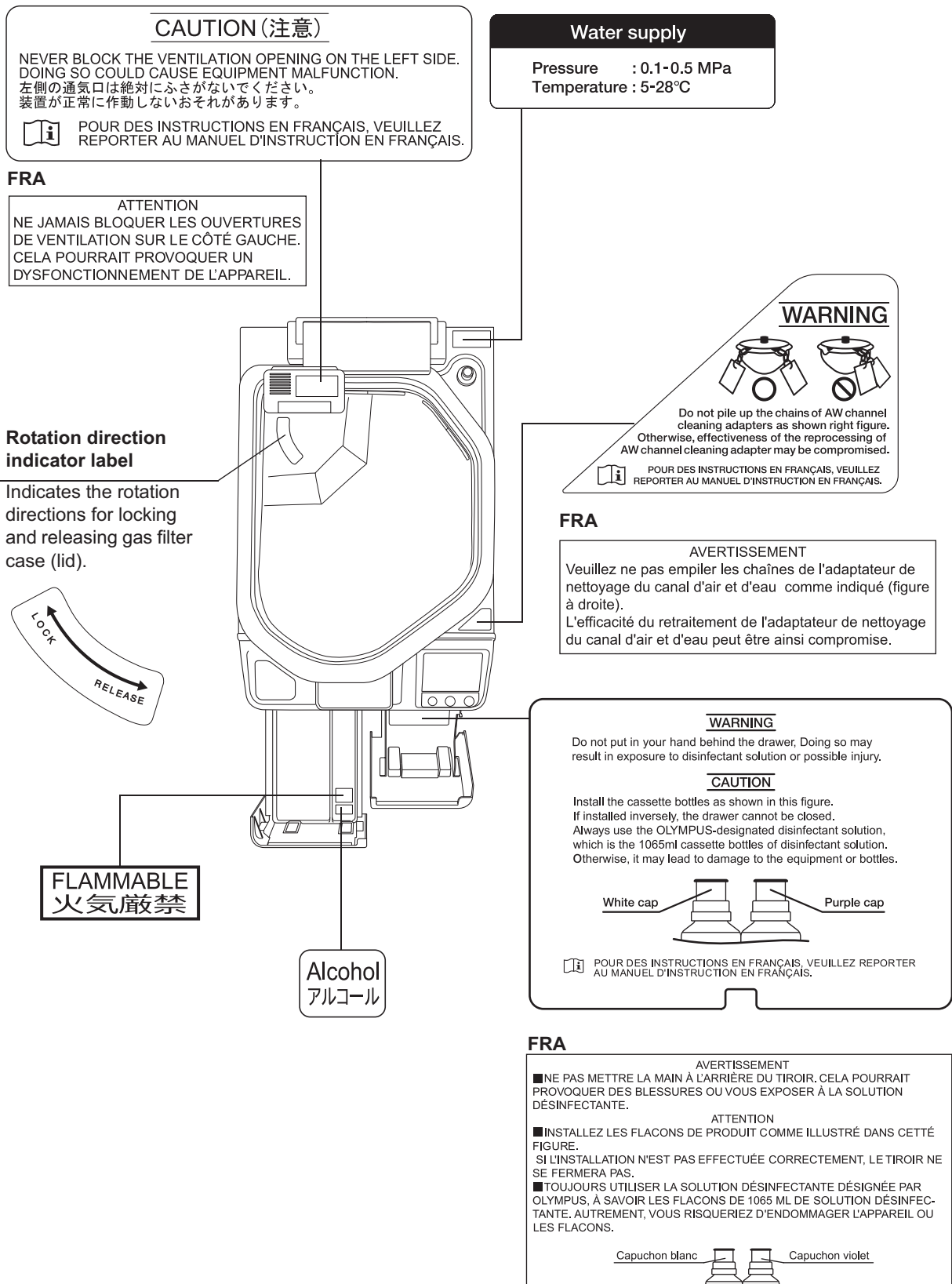


100 BASE-TX

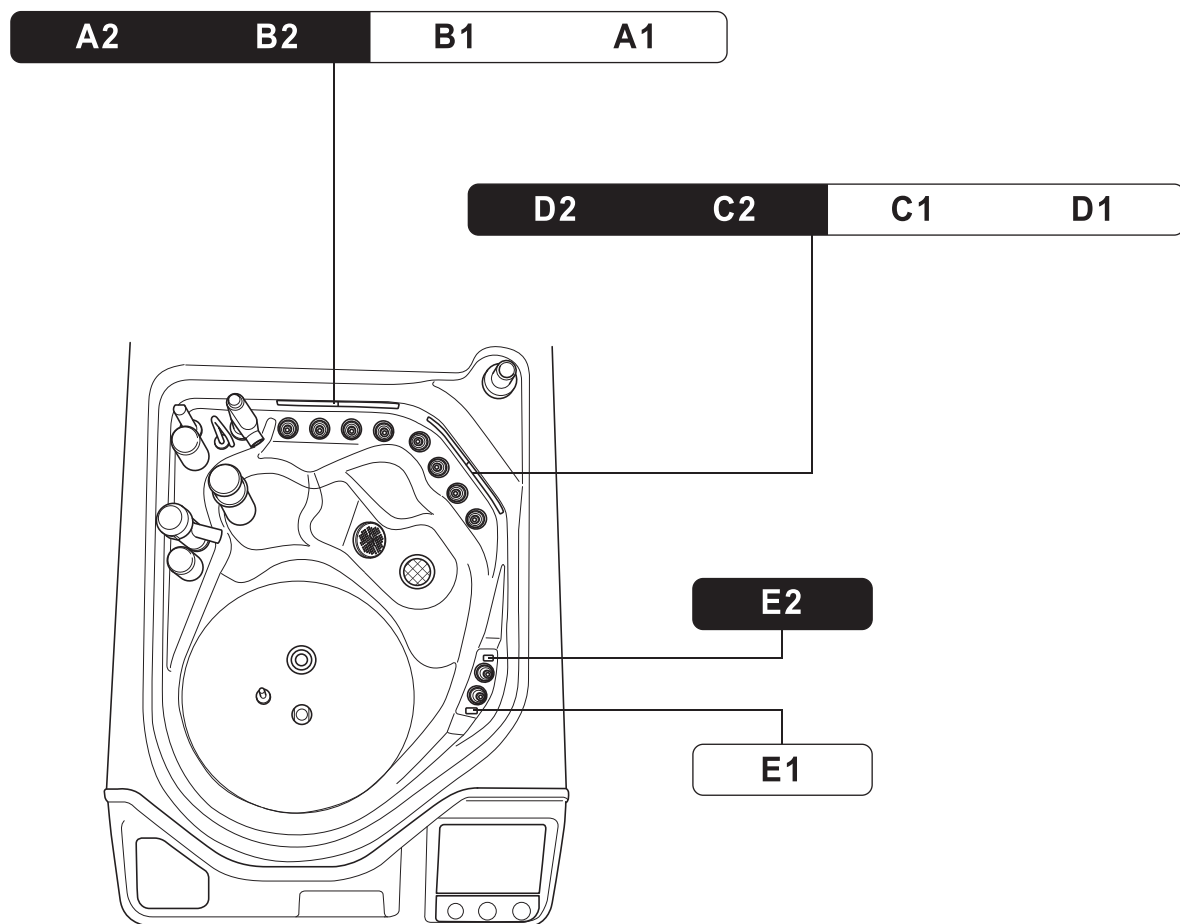
FUSES
T10AL250V



○ Top panel



○ 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 cleaned by the user prior to reprocessing; however, use of the OER-Elite enables the user to perform modified manual cleaning of some endoscopes prior to automated cleaning and high-level disinfection in the OER-Elite.

■ *Instruction manuals*

The instructions for this reprocessor 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 reprocessor safely and effectively.

The “Instructions-Installation Manual” describes how to install the reprocessor. The

“Instructions-Operation Manual” describes how to operate and maintain the reprocessor 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 reprocessor 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 reprocessor 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 reprocessor is stopped by the operator or due to an error, it identifies its status and executes the optimum operation automatically. For example, if the reprocessor 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 term meaning "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 reprocessor 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 reprocessor 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 reprocessor. When an error code is displayed, check the troubleshooting guide.

LCG

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 reprocessor 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 is simplified due to subsequent use of the OER-Elite which automates cleaning steps in the process.

MRC

Minimum Recommended Concentration.

Patient ID

Identity 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”.

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”.

Portable memory

A digital medium for storage.

Precleaning

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

Procedure ID

Identity 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”.

Process

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

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 historical data of reprocessing, etc. For the scope ID input method, refer to Section 3.6, “Entering ID”.

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”.

■ ***User qualifications***

The operator of this reprocessor must be sufficiently trained in reprocessing of endoscopes. The medical literature reports cases of infections due to inappropriate cleaning, disinfection, and /or sterilization. Thoroughly review and understand the following items before use:

- Cleaning, disinfection, and sterilization procedures described in the instruction manuals for the endoscope and ancillary equipment.
- Professional health and safety standards.
- Applicable guidelines on cleaning, disinfection, and sterilization of endoscopy equipment.
- Structure and handling of endoscopic equipment.
- Personal protective equipment requirements to minimize exposure to chemicals and infectious materials.

These manuals do not explain or discuss detailed cleaning, disinfection, and sterilization procedures. For more details, consult your facility's procedures, professional guidelines, and regulatory requirements for reprocessing endoscopes.

■ ***Ensuring the safety of reprocessing personnel***

- Disinfectant solution and detergent may irritate the mucous membranes in the eyes and respiratory organs. If disinfectant solution contacts the skin directly and eyes, it may cause irritation or damage. Therefore, before handling high-level disinfectant solution and detergent, carefully read the instructions for use and the safety data sheet. For further details, contact Olympus.
- While using chemicals, wear appropriate personal protective gear to prevent contact with or inhalation of chemicals or infectious substances. Personal protective gear includes eyewear, face mask, moisture-resistant clothing, and chemical-resistant gloves that fit properly and are long enough so that your skin and eyes is not exposed. All personal protective gear 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 reprocessor 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 reprocessor exhibits an allergic reaction or symptoms, no matter how slight, they should discontinue the task they are performing and vacate the room.

- Before handling the detergent or disinfectant, read the SDS (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 reprocessor.
- This reprocessor 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 reprocessor may cause medical devices such as pacemakers to malfunction. If any interference with the equipment is found, immediately move away from the RFID reader or set the power switch to OFF. Contact a medical professional immediately if symptoms persist.

■ **Equipment compatibility**

Use the OER-Elite in combination with ancillary equipment listed in “System chart” on page 647. Using incompatible equipment may result in patient or operator injury and equipment damage and/or malfunction.

Olympus has not tested the efficacy of reprocessing on the OER-Elite in combination with endoscopes that are not listed on the “List of compatible Endoscopes/Connecting Tubes <OER-Elite>”.

If using endoscopes that are not listed on the “List of compatible Endoscopes/Connecting Tubes <OER-Elite>”, reprocessing of endoscopes may be insufficient.

■ **Care and storage**

After use, reprocess and store this reprocessor referring to the instructions in Chapter 10, “End-of-Day Checks” in this manual. Inappropriate care and storage could present an infection control risk and/or cause reprocessor damage or malfunction.

■ **Maintenance and Inspection**

- The OER-Elite requires routine maintenance and inspection. In addition to checks before use, the person in charge of maintenance and administration of the medical equipment at the facility should periodically check all of the items described in this manual. If any irregularity is found, do not use the reprocessor and inspect it as described in Section 13.2, “Troubleshooting guide”. If the irregularity is still present, the reprocessor must be repaired prior to next use.
- If the PERIODIC MAINTENANCE indicator starts to indicate on the touch screen, described in Section 2.7, “Control panels”, the time for regularly scheduled maintenance is near. Contact Olympus to perform the maintenance.

■ **Repair and modification**

Do not disassemble, modify, or attempt to repair this reprocessor and its accessories. Doing so could result in operator or patient injury and/or equipment damage or malfunction. Some problems that appear to be malfunctions may be corrected by referring to Chapter 13, “Troubleshooting and Repair”. If the problem cannot be resolved using the information in Chapter 13, “Troubleshooting and Repair”, contact Olympus.

■ ***Disposal of disinfectant solution***

Expired disinfectant solution for this reprocessor should be handled as directed in the Olympus-validated disinfectant product label and instructions. Follow all applicable national, state, and local guidelines.

■ ***Disposal of this reprocessor***

When disposing of this reprocessor and accessories, follow all applicable national, state, and local regulations and guidelines.

■ ***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 reprocessor. 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 reprocessor.
- Do not allow any liquid (including water or disinfectant solution) to flow into an opening. Contact with an electrical part inside the reprocessor could cause an electric shock or reprocessor 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 reprocessor and contact an electrical part inside, causing an electric shock or fire hazard.

WARNING

- Do not install this reprocessor in any place where any of the following are present.
 - High oxygen concentration
 - Oxidizing substance such as Nitrous Oxide (N₂O)
 - Flammable anesthetic gas

This reprocessor is not explosion-proof and may explode or cause a fire under these conditions.

- Always use the power cord provided with this reprocessor. Otherwise, reprocessor failure or power cord burnout may result. Also, remember that the provided power cord is for use only with this reprocessor and should not be used with any other equipment.

CAUTION

- Do not press any of the switches on the control panel of this reprocessor 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 reprocessor at the end of the day to avoid potential water leaks.
- To avoid malfunctions, do not use this reprocessor in a dusty environment.
- To avoid electromagnetic interference from other equipment, do not install any other electrical devices in close proximity to this reprocessor (aside from ancillary devices used with this reprocessor).
- This equipment enables radio communication by RFID and emits RF (radio frequency: 13.56 MHz) 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 reprocessor.

○ Reprocessing

A series of operations that enable the reprocessor 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".

○ Heat LCG

A process for heating disinfectant solution until it reaches the specified temperature (22°, 72°F). 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".

○ Heat LCG Timer

The function for heating the disinfectant solution until the specified temperature (22°, 72°F) by the specified time. For details, refer to Section 7.3, "Heat LCG Timer".

○ Drain LCG

This function drains the disinfectant solution from the disinfectant tank. For details, refer to Section 8.2, "Replacing the disinfectant solution".

○ Load LCG

This function loads the disinfectant solution after inserting a new disinfectant bottle. For details, refer to Section 8.2, "Replacing the disinfectant solution".

○ Mix LCG

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

○ Water line disinfection

This function disinfects the water supply line and other lines inside the reprocessor. For details, refer to Section 7.7, "Water line disinfection".

○ Self disinfection and water sampling

This function disinfects the basin and internal piping of the reprocessor. 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".

○ Detergent/Alcohol line disinfection

This function disinfects the detergent line and alcohol line of the reprocessor. For details, refer to Section 7.9, "Detergent line disinfection" and Section 7.10, "Alcohol line disinfection".

○ 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".

○ 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".

○ 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".

○ 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".

○ 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”.

○ 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”.

○ ALT self-check

This function checks the auto leak test function of the reprocessor. 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”.

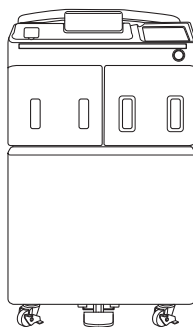
Chapter 1 Checking the Package Contents

Ch.1

1.1 Checking the package contents

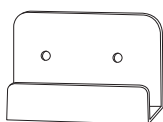
Check that the package contains all the items listed below. Inspect each item for damage. If the device is damaged, a component is missing, or there is any question regarding items, do not use the device and contact Olympus immediately.

○ Endoscope reprocessor

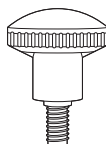


Endoscope reprocessor OER-Elite

○ Accessories for use in installation



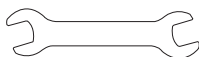
Buckling guard (GT970400)



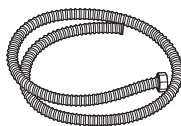
Buckling guard retaining screw (GC783700, 2 pcs)



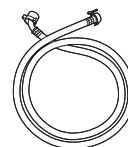
Grommet (GC784100, 4 pcs)



Wrench (GC748400)



Drain hose (GJ853400)



Water supply hose (GC416500)

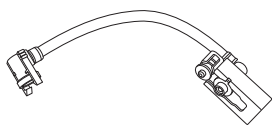


Power cord (RL545000)



Water supply plug (GN573800)

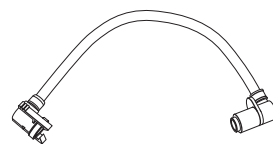
○ Accessories for use in reprocessing



Connecting tube (MAJ-2110, 2 pcs)



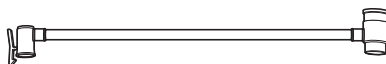
Connecting tube (MAJ-2111, 2 pcs)



Connecting tube (MAJ-2112, 2 pcs)

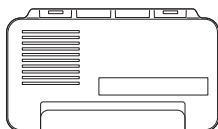


Connecting tube (MAJ-2113, 2 pcs)



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

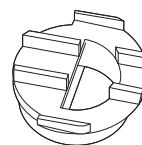
○ Accessories to be attached to the reprocessor



Gas filter case (GJ460700)



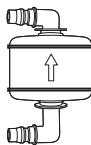
Gas filter (2 pcs) (MAJ-822)



Gas filter adapter (splash guard)
(GC949900)



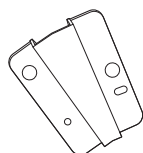
Washing case (MAJ-2121)



Air filter (MAJ-823)



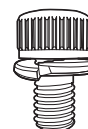
Water filter (MAJ-824 or MAJ-2318)



Stylus pen holder (RA016500)



Hex wrench (GT804300)

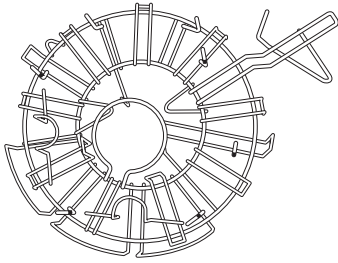


M4 × 10 mm cap bolt (2 pcs)

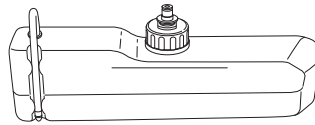


Stylus pen (GT944200)

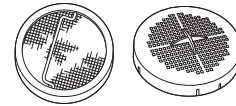
○ Accessories preattached to the reprocessor



Retaining rack (GT943000)



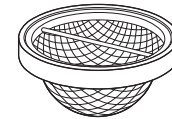
Alcohol tank (RU715000)



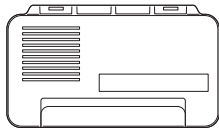
Circulation port mesh filter
(GC574000 and GC693900)



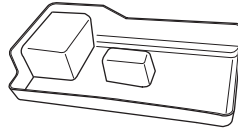
Detergent/alcohol inner tray
(GT647800)



Drain port mesh filter
(GC220100)

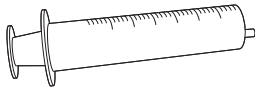


Gas filter case (GJ460700)

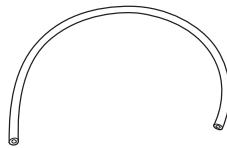


Water tray (GT949200)

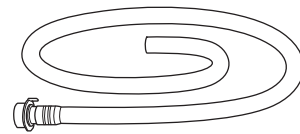
○ Accessories for use in maintenance



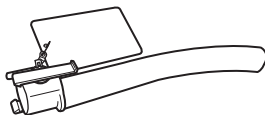
Syringe (GT173600)



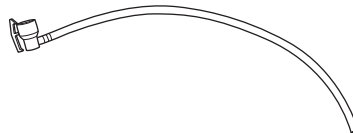
Tube (GC651300)



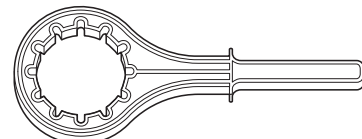
Disinfectant collection hose
(GJ668000)



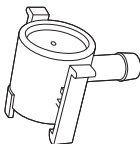
Disinfectant removal tube
(GJ460200)



Filter tube (GJ460500, 2 pcs)



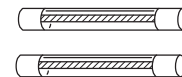
Water filter wrench (GC601300)



Drain connector (GL366300)



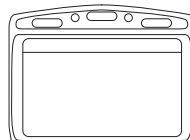
Connector jig (RU726500)



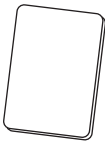
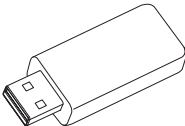
Spare fuse (DB181500, 2 pcs)



Water supply piping disinfection
hose (RU205800)



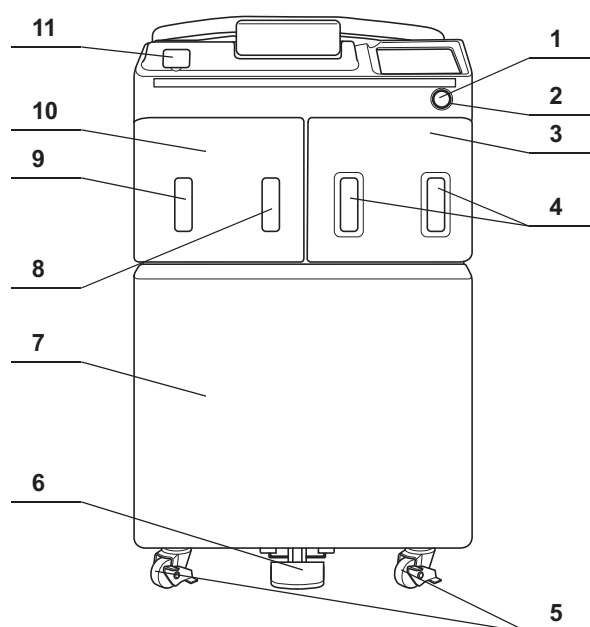
Card holder (GT271000, 2 pcs)

 Scope ID master card (GT970700)	 User ID master card (GT970600)
○ Accessory for use in record management  Portable memory (MAJ-1925)	
○ Manuals  Instructions-Installation Manual  Instructions-Operation Manual (this 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

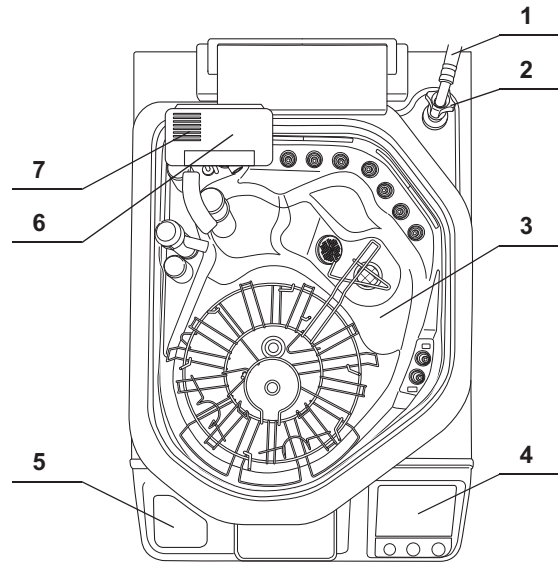
Ch.2



No.	Nomenclature	Description
1	Power switch	Press to turn the reprocessor ON or OFF.
2	Power indicator	Lights up when the reprocessor 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 reprocessor.
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

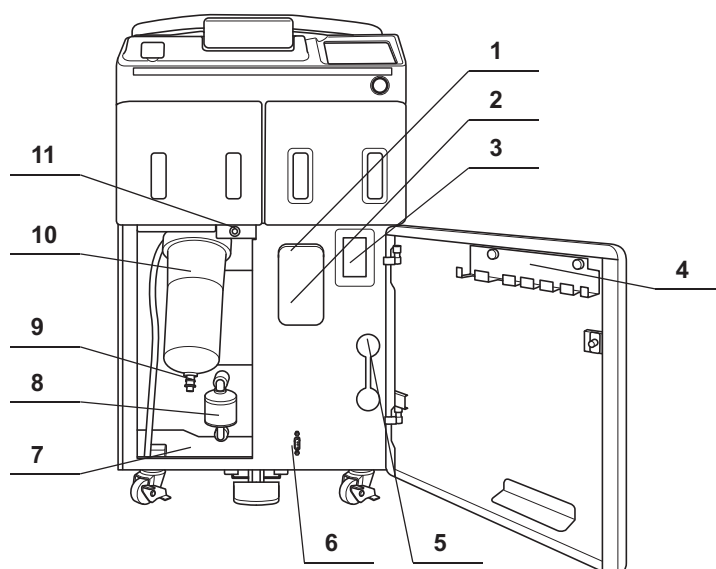
Ch.2



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 which removes the odor and vapor of the disinfectant solution.
7	Ventilation openings on the gas filter case	These are the slots for intake and exhaust of air into/from the reprocessing basin. Do not block the ventilation openings on the gas filter case.

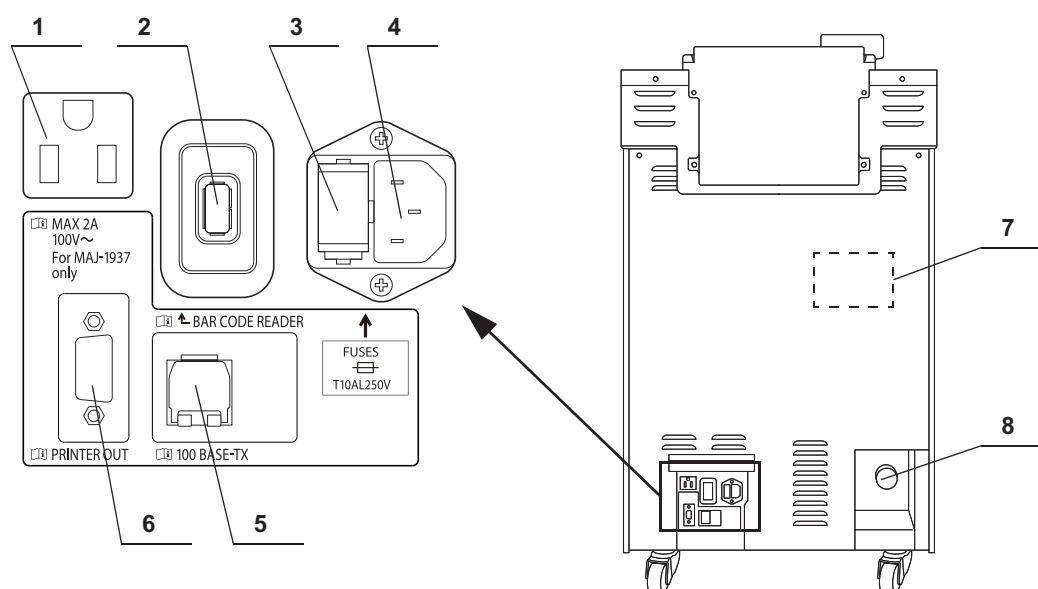
2.3 Inside

Ch.2



No.	Nomenclature	Description
1	Gas filter case (tank)	Accommodates the gas filter which removes the odor and vapor of the disinfectant solution.
2	Ventilation opening on the gas filter case	These are the slots for intake and exhaust of 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. It is also used to withdraw the amount of disinfectant solution by using the drain connector for detergent/alcohol piping disinfection. (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.

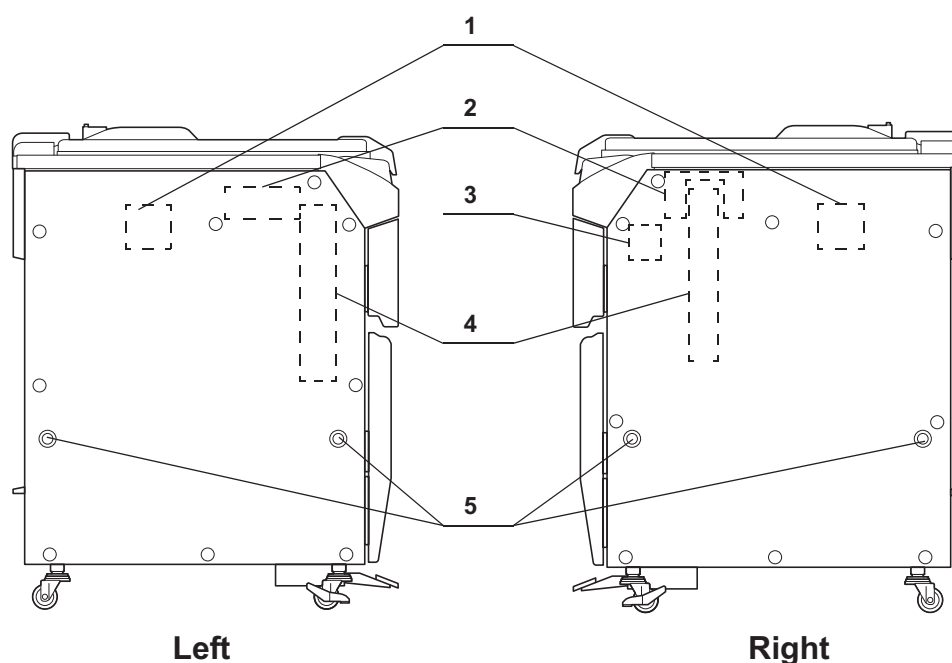
2.4 Rear panel



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). Do not connect any devices other than the specified bar code reader.
3	Fuse (BOX)	Protects the reprocessor 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

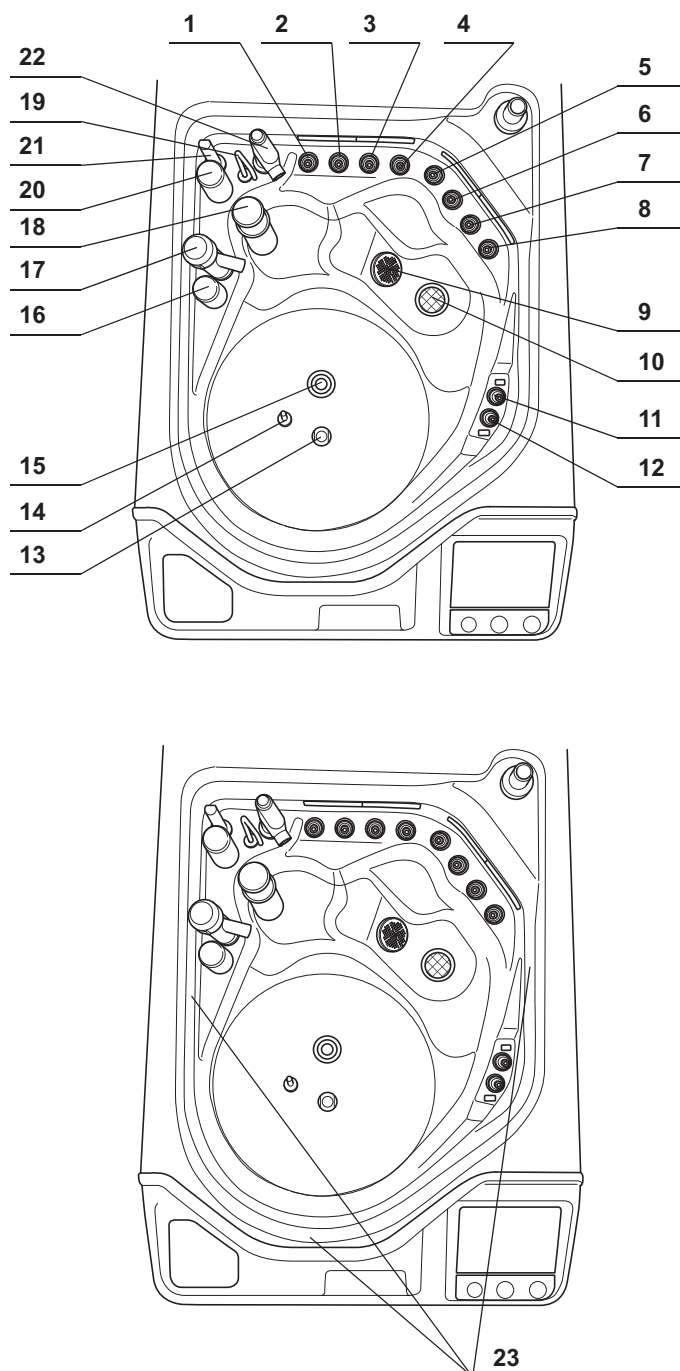
Ch.2



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

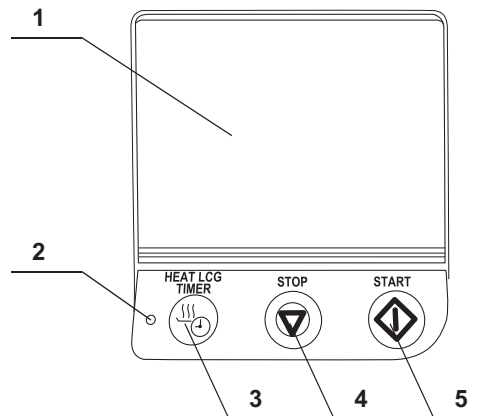
Ch.2



No.	Nomenclature	Description
1	Connector A2 (Light blue)	Connect a connecting tube colored light blue. This connector is mainly used for second endoscope.
2	Connector B2 (Blue)	Connect a connecting tube colored blue. This connector is mainly used for second endoscope.
3	Connector B1 (Blue)	Connect a connecting tube colored blue. This connector is mainly used for first endoscope.
4	Connector A1 (Light blue)	Connect a connecting tube colored light blue. This connector is mainly used for first endoscope.
5	Connector D2 (Orange)	Connect a connecting tube colored orange. This connector is mainly used for second endoscope.
6	Connector C2 (Green)	Connect a connecting tube colored green. This connector is mainly used for second endoscope.
7	Connector C1 (Green)	Connect a connecting tube colored green. This connector is mainly used for first endoscope.
8	Connector D1 (Orange)	Connect a connecting tube colored orange. 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 reprocessor is level.

2.7 Control panels

Ch.2



No.	Nomenclature	Description
1	Touch screen	Used to control and set the reprocessor. Also, the information and state of the reprocessor 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.

2.8 Consumable accessories (Optional)

WARNING

Before using consumable items, be sure to check its shelf-life and expiration date items. If these items are expired, effectiveness of items may be compromised.

Ch.2

○ Water filter (MAJ-824 or MAJ-2318)

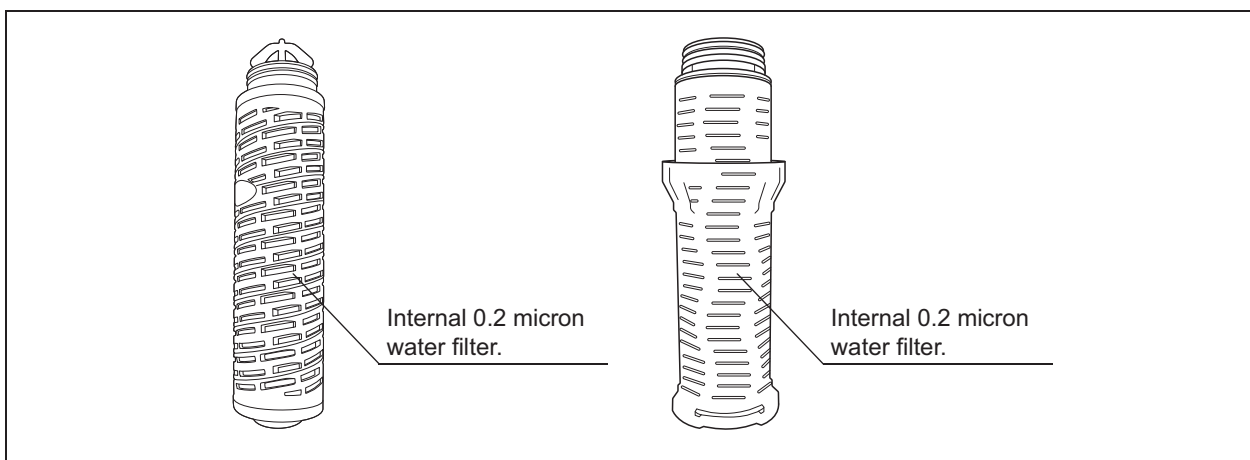


Figure 2.1

○ Gas filters (MAJ-822)

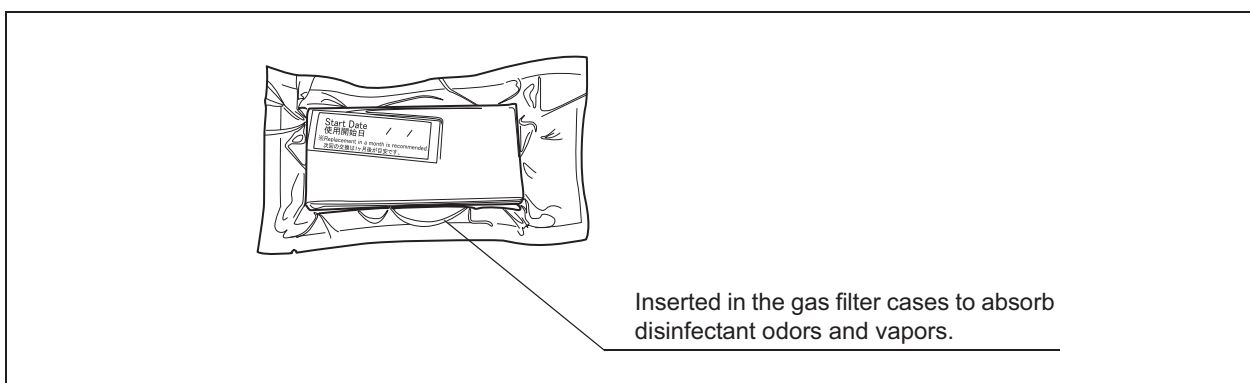


Figure 2.2

○ Air filter (MAJ-823)

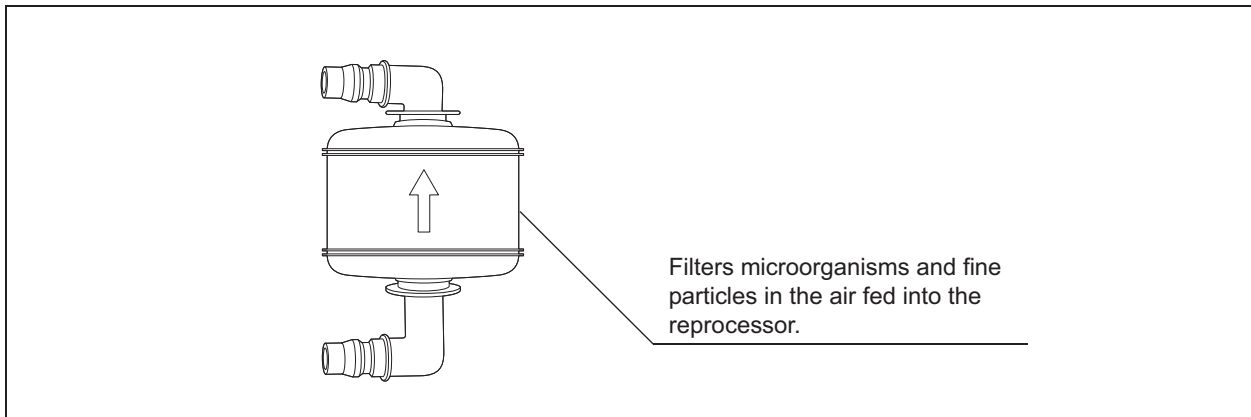


Figure 2.3

○ Olympus-validated detergent

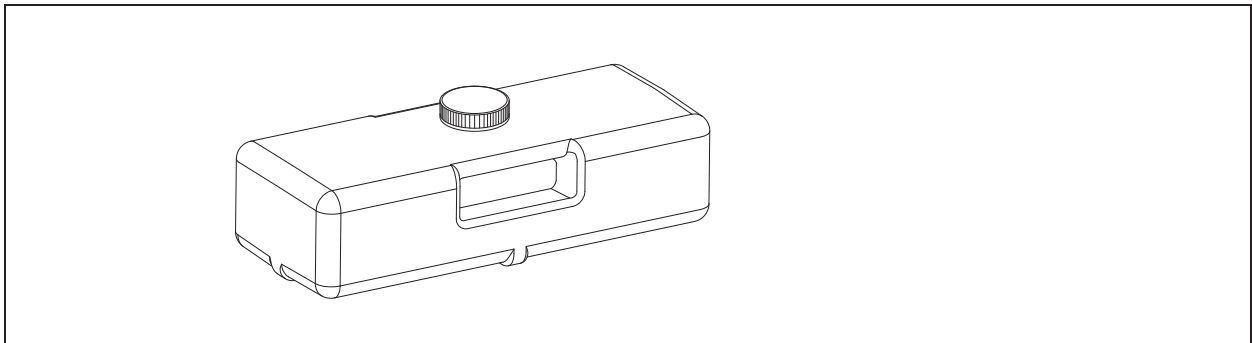


Figure 2.4

Name	Type	Manufacturer	Remarks
EndoQuick	Alkaline detergent	Best Sanitizers, Inc. (154 Mullen Drive, Walton, KY)	2.8 L disposable tank

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)

Ch.2

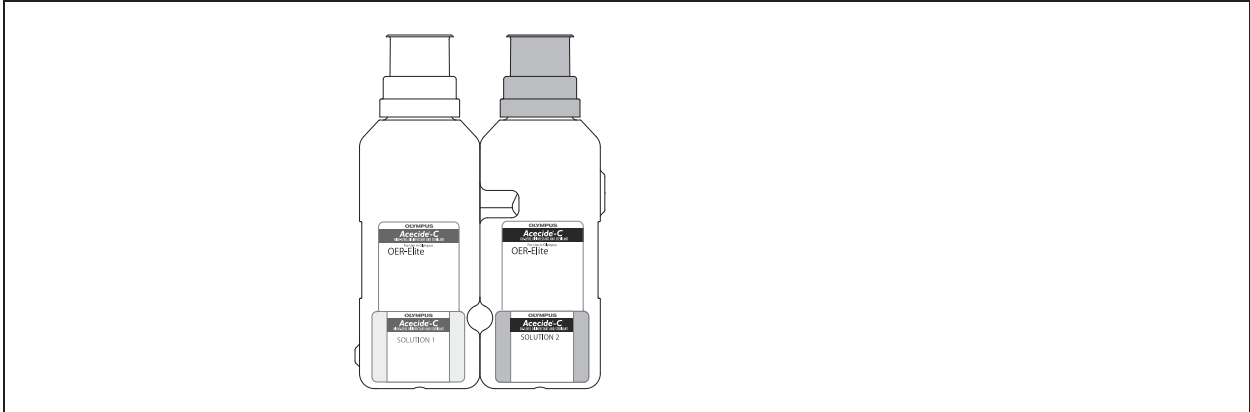


Figure 2.5

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)

Ch.2

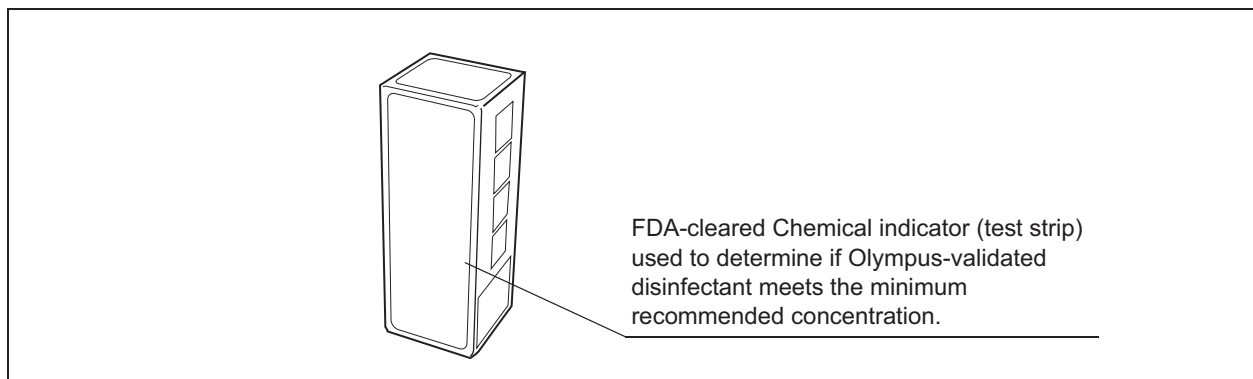


Figure 2.6

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 Basic Operation

3.1 Turning power ON

- 1 Press the power switch of the reprocessor.

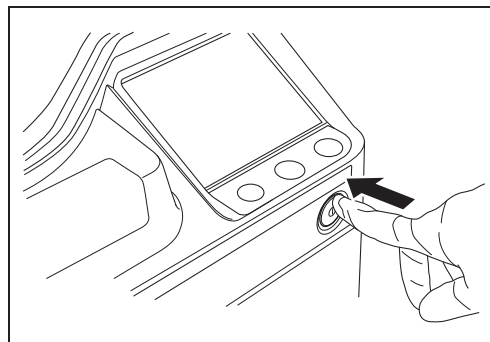


Figure 3.1

Ch.3

CAUTION

Connect the connection ring on the reprocessor 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. For detail, refer to Section 4.4 “Connection of the water supply hose” in “Instructions-Installation Manual”.

NOTE

Lighting of Heat LCG Timer indicator means that Heat LCG Timer is being activated. For the operation during running of the Heat LCG Timer, refer to Section 7.3, “Heat LCG Timer”.

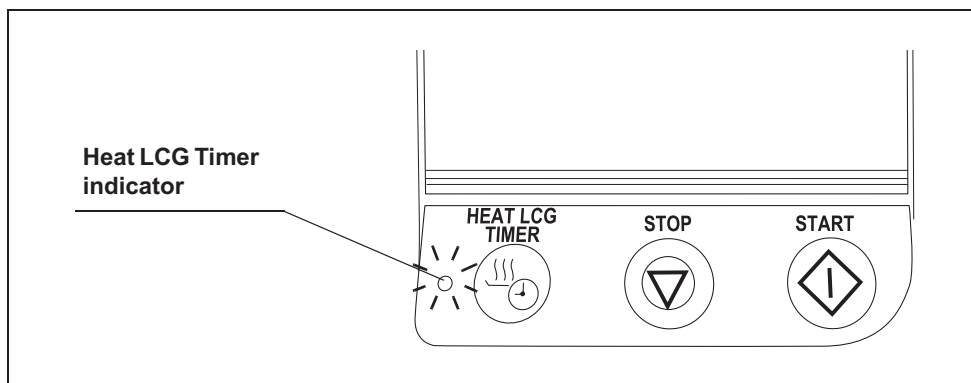


Figure 3.2

3.1 Turning power ON

- 2 The power indicator lights up and the touch screen displays the initial screen for few seconds.

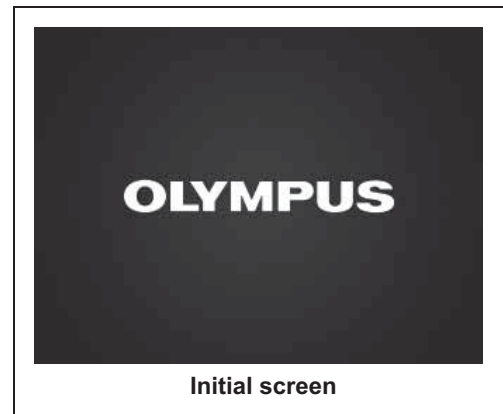


Figure 3.3

- 3 The Start screen appears. Start screen will display the Menu screen or Reprocess standby screen.



Figure 3.4

NOTE

- The Start Screen is set to "Menu screen" at the factory. For how to set the Reprocessing Standby screen, refer to Section 4.18, "Start screen".
- Before using the reprocessor, always show the confirmation information. Refer to Figure 3.5.

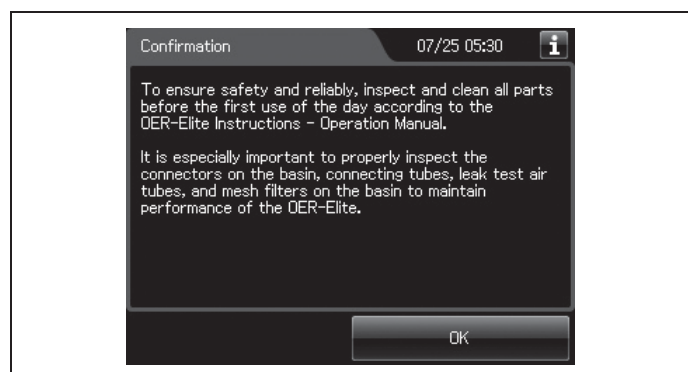
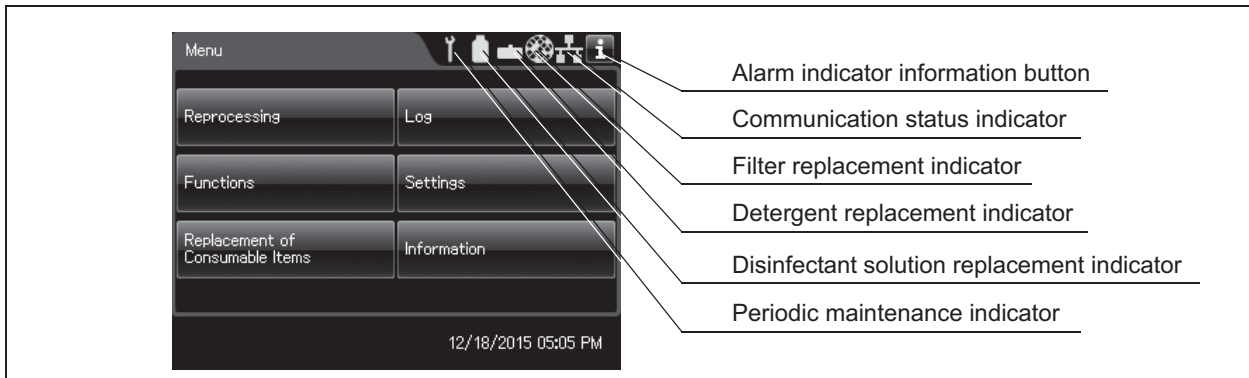


Figure 3.5

3.2 Alarm indicator

When the timing of periodical maintenance comes, the number of usage days or cycles of a consumable item reaches the set value, shelf-life of the item expires or the network setting is activated, the alarm indicator displays on the top right of the touch screen.



Ch.3

Figure 3.6

○ Periodic maintenance indicator

If the PERIODIC MAINTENANCE indicator starts to indicate on the touch screen, “Control panels”, the time for regularly scheduled maintenance is near. Contact Olympus to perform the maintenance.

If you do not know when the indicator started to light, do not use the reprocessor and contact Olympus. Otherwise, the reprocessing may be insufficient.

○ Disinfectant replacement indicator

The indicator lights when the following reaches set value.

- The number of days of disinfectant usage
- The number of cycle count of disinfectant usage
- The number of day of shelf-life reaches

For how to set the disinfectant solution counter, refer to Section 4.12, “LCG replacement indicator”.

For how to set the shelf-life, refer to Section 4.13, “LCG lot number and shelf-life management”.

WARNING

Be sure to check the concentration of the disinfectant solution by using the separately available test strips. The disinfectant replacement indicator does not determine the effectiveness of the disinfectant solution. The expiration of the disinfectant solution varies depending on many factors including the time since activation, the temperature of the environment where the reprocessor is installed, and the number and types of endoscopes that have been reprocessed. The disinfectant replacement indicator does not take these and other factors into consideration.

○ Detergent replacement indicator

The indicator lights when the following reaches set value.

- The number of days of detergent usage
- The number of day of shelf-life reaches

For details on the setting change, refer to Section 4.10, “Detergent replacement indicator”.

For how to set the shelf-life, refer to Section 4.11, “Detergent lot number and shelf-life management”.

○ Filter replacement indicator

The lamp light when the number of days of filter usage reaches set value.

- The number of days of water filter usage.
- The number of days of air filter usage.
- The number of days of gas filter (lid) usage.
- The number of days of gas filter (tank) usage.

For details on the setting change, refer to Section 4.14, “Filter replacement indicator”.

○ Communication status indicator

This indicator shows the network status of the reprocessor. The network function setting and connection status can be confirmed depending on the type of indicator. When the non-connected status is displayed (yellow indicator), the reprocessor is not connected to a network. Check the power supply to the external devices and the connection between the external devices and the OER-Elite. If the problem cannot be resolved, contact Olympus.

Indicator	Description
green	Communication is established.
yellow	Communication is interrupted.
Not displayed	Communication setting is OFF.

Table 3.1

Ch.3

○ Alarm indicator information button

Press the button to view the information about the displayed alarm indicator.

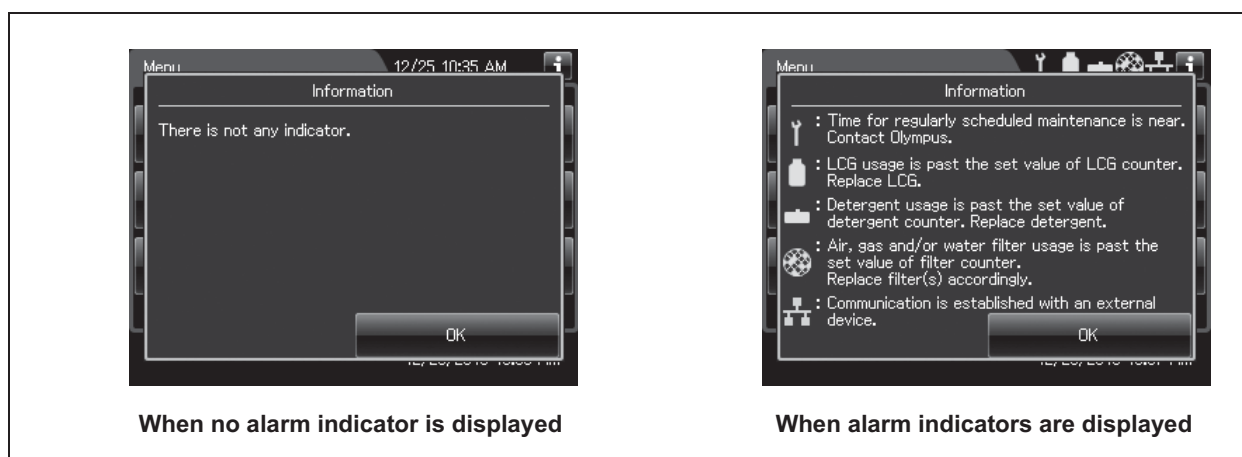


Figure 3.7

NOTE

- If the network function is disabled, the information screen does not show information on the network.
- The information screen shows only the explanations of the warnings indicated by the displayed alarm indicator.

3.3 Control panel operation

This reprocessor employs a touch screen control panel.

The touch screen should be manipulated by pressing with a finger of the operator or touching with the provided stylus pen.

Ch.3

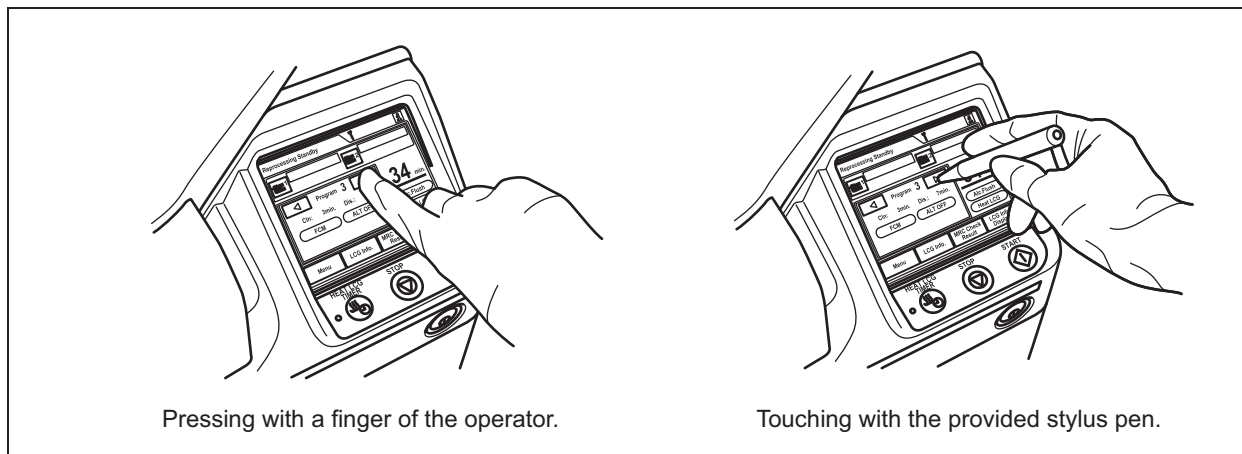
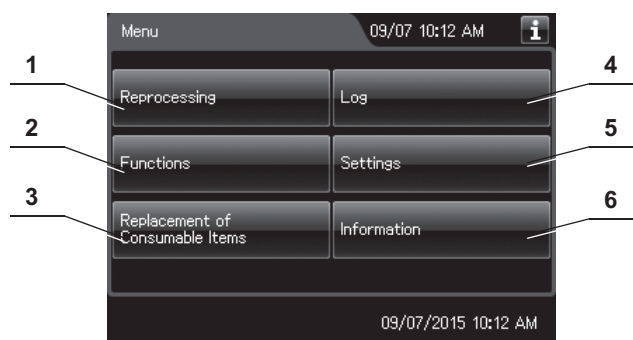


Figure 3.8

3.4 Menu screen

In the menu screen, there are six buttons. Select the desired category here.



Ch.3

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

NOTE

The operational buttons are expressed by a box with gradation.



Figure 3.9

3.5 LCG Info. screen

This reprocessor can display the information on the disinfectant solution including the temperature and usage count.

- 1 Press the “Reprocessing” button on the touch screen.

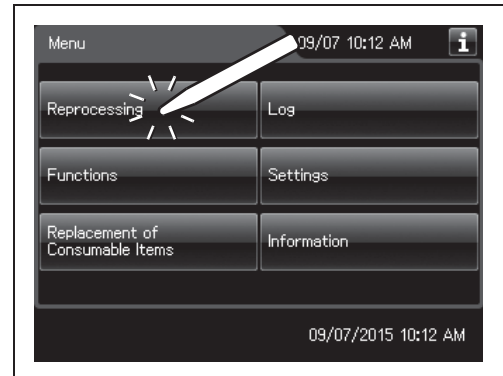


Figure 3.10

- 2 Press the “LCG Info.” button on the touch screen.

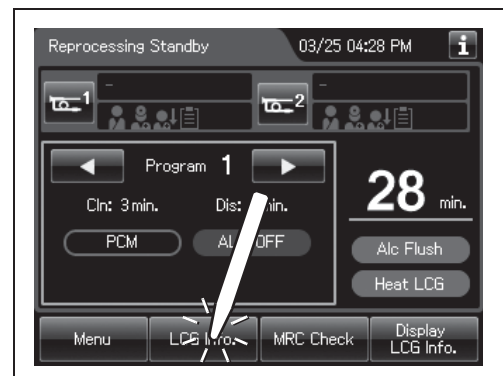
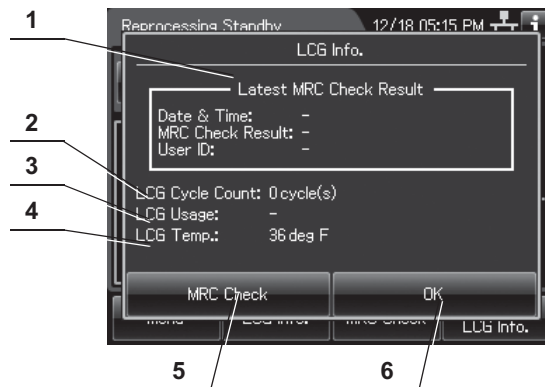


Figure 3.11

- 3 The LCG Info. screen pops up.



Ch.3

No.	Item/Button	Description
1	Latest MRC Check Result	Information on the latest MRC check result.
2	LCG Cycle Count	Usage count of the current disinfectant solution. When this setting is activated, the reprocessor counts the number after each process that uses the disinfectant solution (e.g. reprocessing, water line disinfection or leaking scope decontamination) is performed.
3	LCG Usage	Number of days the current disinfectant solution has been used.
4	LCG Temp.	Current temperature of the disinfectant solution.
5	MRC Check Result	Opens the MRC check result input screen.
6	OK	Closes the LCG Info. screen.

3.6 Entering ID

Five kinds of IDs can be input, including the scope ID, user ID, physician ID, patient ID and procedure ID.

The IDs can be input with one of the following four methods. The input methods are variable depending on the types of IDs.

- Input through the RFID reader built into the reprocessor.
- Input from the software keyboard displayed on the touch screen.
- Recalling ID information registered in advance (Recalling the pre-registered ID).
- Input using the optional MAJ-2130 bar code reader.

Ch.3

	RFID reader	Software keyboard	Recalling the pre-registered ID	Optional bar code reader
Scope ID	✓	✓	✓	–
User ID	✓	✓	✓	–
Physician ID	✓	✓	✓	–
Patient ID	–	✓	–	✓
Procedure ID	–	✓	✓	–

✓ Possible – Impossible

NOTE

- If the scope ID is input by using the scope ID master card, input by the software keyboard or input by recalling the pre-registered ID, the “Auto leak test” and “Channel Monitoring” are disabled.
- When reprocessing endoscope and accessories with no ID tag such as ultrasonic probes, enter the master ID as the scope ID. If the master ID is entered as the scope ID, “N/A” is entered as physician, patient and procedure IDs.
- Do not use anything other than the designated ID tag/chip. Otherwise correct data will not be inputted.

■ *Entering through the RFID reader*

WARNING

Be aware that the radio waves emitted from the RFID reader of the reprocessor 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.

CAUTION

Electromagnetic interference with other devices may reduce the communication distance of the designated ID tag and cause signals to become unreadable. Try to take mitigation measures such as keeping other radio frequency emitting or other energy emitting devices, such as electrosurgical units, away from this reprocessor.

Ch.3

Perform the following operations on a screen that requests an ID input such as the Reprocessing Standby screen.

○ Scope ID entry

- 1** Press the “Reprocessing” button on the Menu Screen.
- 2** Hold the internal ID endoscope connector or the external ID tag near the RFID reader on the OER-Elite. A short beep will indicate the tag was read successfully.

Ch.3

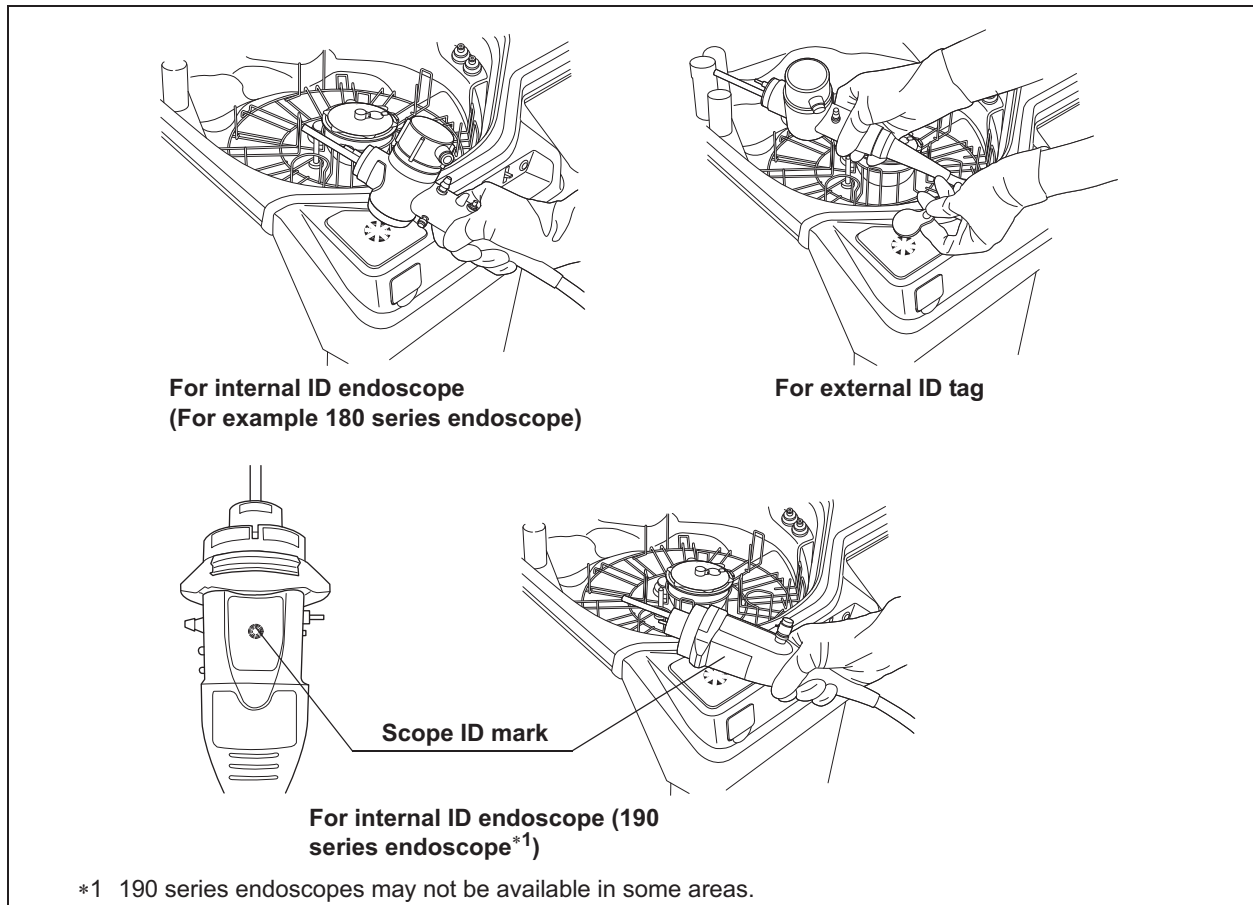


Figure 3.12

- 3** If the connection guide display setting is activated, when the ID has been read, the following screen appears.

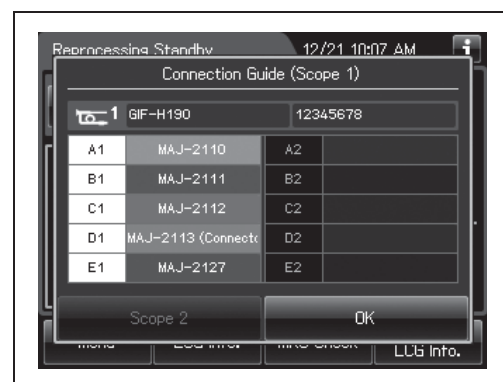


Figure 3.13

○ User or physician ID entry

- 1 Press the “Reprocessing” button on the Menu screen.
- 2 Hold the user or physician ID card parallel with the ID reader section and approach it until a short beep is generated.

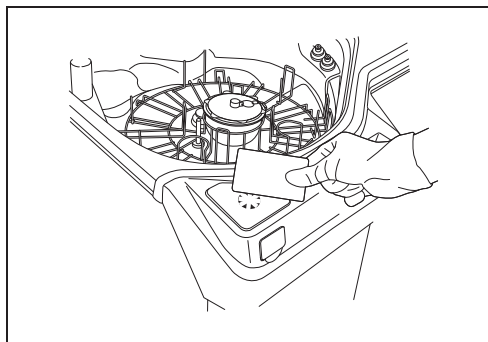


Figure 3.14

- 3 When the ID has been read, the following screen appears.

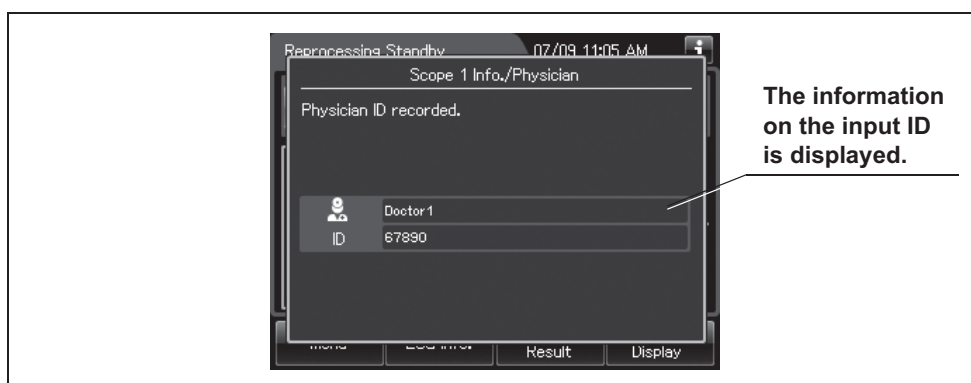


Figure 3.15

NOTE

The user ID (load) and physician ID of second endoscope can be read after reading the ID of second endoscope.

Entering by the software keyboard

An ID can be entered by the software keyboard (on-screen) on the touch screen as described below.

- 1 If it is during the reprocessing process, press  or  button on the Reprocessing Standby screen. If it is during the leaking scope decontamination, press  button on the ID input screen.

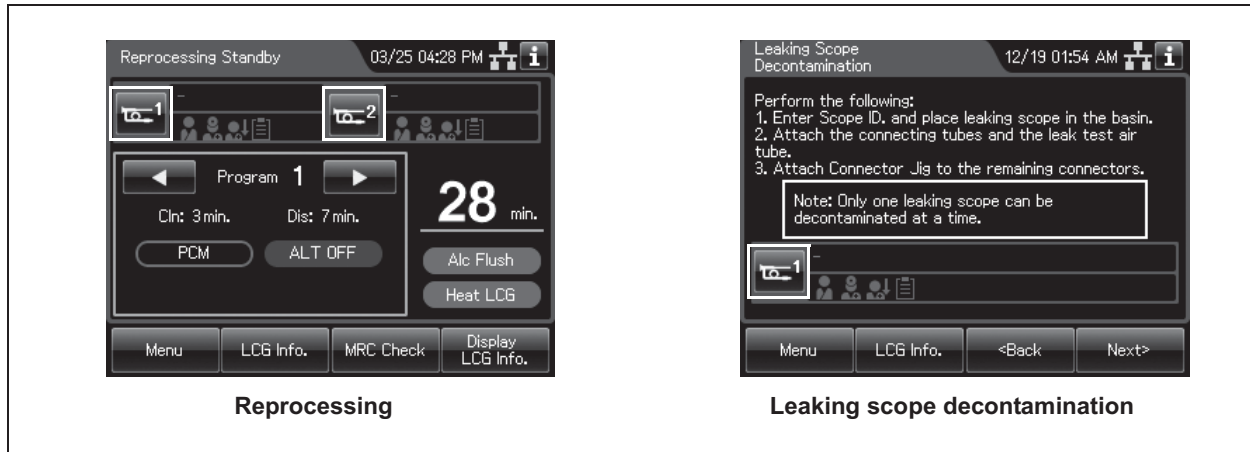


Figure 3.16

- 2 Then, the ID select screen is displayed.



No.	Button	Note
1	"Edit" button of scope ID	Opens the scope ID list.
2	"Edit" button of patient ID	Opens the patient ID list.
3	"Edit" button of physician ID	Opens the physician ID list.
4	"Edit" button of user ID (load)	Opens the user ID (load) list.
5	"Edit" button of procedure ID	Opens the procedure ID list.

NOTE

- When scope ID is entered using the software keyboard, the auto leak test and channel blockage monitoring functions will not be available. In the manual leak test function, the scope ID can be entered by the software keyboard. To enter the scope ID, Press the “Edit” button during the manual leak test. Then, refer to step 2 in “○ Scope ID entry” on page 49.
- In the auto leak test function, the scope ID cannot be entered by the software keyboard (on-screen). RFID of the endoscope is necessary to perform the auto leak test.
- When User ID setting of Reprocessing (end of reprocessing) is activated, the user ID can be entered by the software keyboard (on-screen) at the end of reprocessing. To enter the user ID, press the “Edit” button at the end of reprocessing. Then, refer to Step 2 in “○ Physician ID, user ID, or procedure ID entry” on page 59. For details of User ID setting, refer to Section 4.5, “User ID Setting”.
- When user ID setting of “Functions & Replacement of Consumable Items” is activated, the user ID can be entered by the software keyboard (on-screen) before starting each function or replacement. To enter the user ID, Press the “Edit” button during each function or replacement. Then, refer to Step 2 in “○ Physician ID, user ID, or procedure ID entry” on page 59. For details of User ID setting, refer to Section 4.5, “User ID Setting”.

Ch.3**○ Scope ID entry**

- 1 Press the “Edit” button of scope ID on the ID select screen.

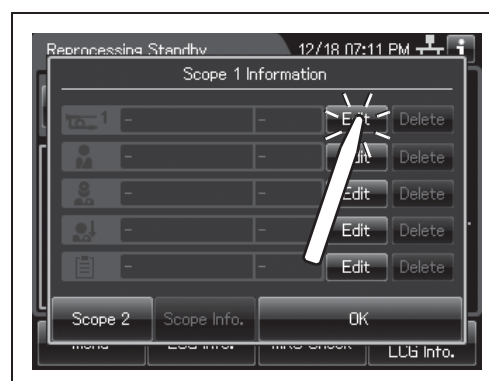
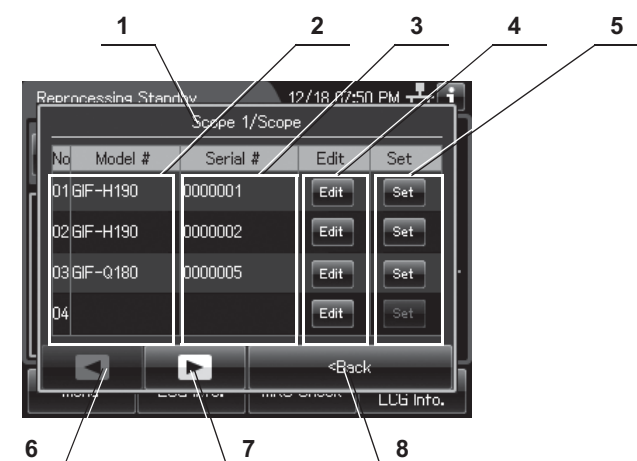


Figure 3.17

- 2** Then the scope ID list is displayed. When the Scope ID is not listed on the ID list, go to “(a) Select a Scope ID that is not listed” on page 51. When the Scope ID is listed on the ID list, go to “(b) Recalling the pre-registered ID” on page 54.



No.	Item/Button	Note
1	ID type	Type of the currently edited ID.
2	Model #	Registered model number of the endoscope. These areas are blank if no ID has been registered.
3	Serial #	Registered serial number of the endoscope. These areas are blank if no ID has been registered.
4	Edit	Press one of the buttons to open the ID information edit screen.
5	Set	Press one of the buttons to set a registered ID.
6	Previous page button	Press to return to the previous page. When there is no further page to turn back to, the button turns gray and becomes unavailable.
7	Next page button	Press to go to the next page. When there is no further page to go forward to, the button turns gray and becomes unavailable.
8	Back	Press to close the ID select screen.

(a) Select a Scope ID that is not listed

- 1 To set a new scope ID, press the “Edit” button that no ID has been registered. To change the registered Scope ID, press the “Edit” button of the Scope ID.

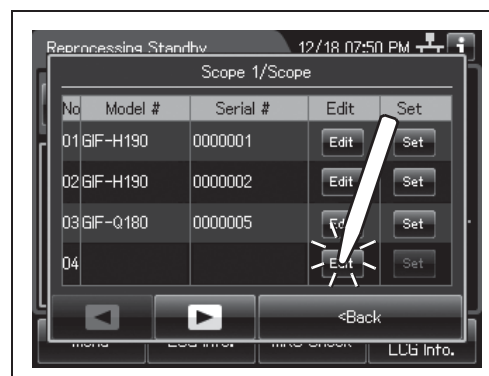
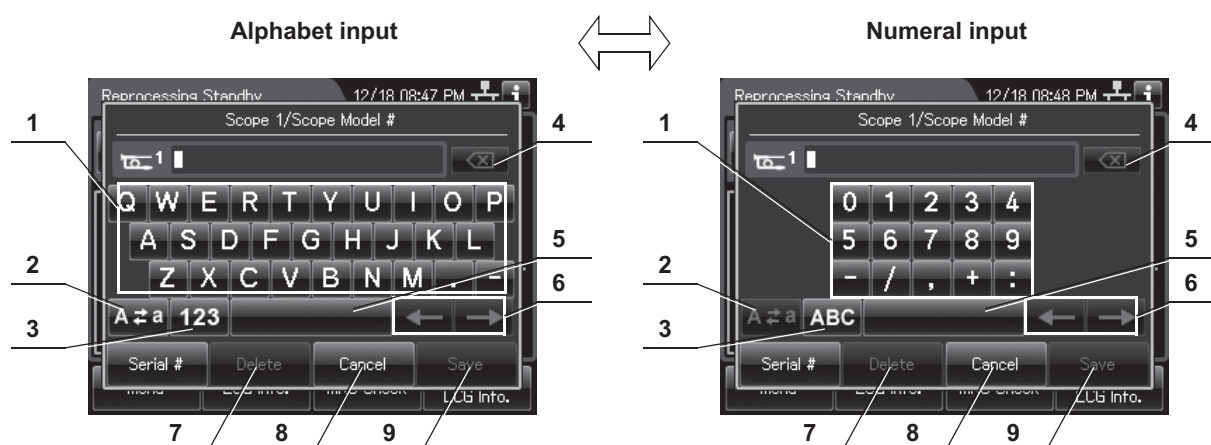


Figure 3.18

- 2 The software keyboard (on-screen) is opened. Enter the model number of the endoscope on the software keyboard.



No.	Button	Note
1	Alphabet/ Numeral key	Enter an alphabet or a numeral.
2	Uppercase/ Lowercase	Press “Uppercase/lowercase” button to switch alphabet character on the software keyboard (on-screen) between uppercase characters and lowercase characters.
3	Numeric/ Alphabetic	Press “Numeric or Alphabetic” button to switch the input mode between a numeral and the alphabet.
4	Backspace	Press the “Backspace” button to delete the left character of a cursor. When a cursor is on the left edge, this button turns gray and becomes unavailable.
5	Space	Press the “Space” button to insert a space character.
6	Cursor move	Press the “Cursor move” button to move the cursor left or right.
7	Delete	Press the “Delete” button to delete about all information.
8	Cancel	Return to the previous screen without saving the setting value.
9	Save	Return to the previous screen and save the entered value.

- 3 Press the “Serial #” button on the software keyboard.



Figure 3.19

- 4 Enter the serial number of the endoscope. Press the “Save” button, then the scope ID was set to the reprocessing process.

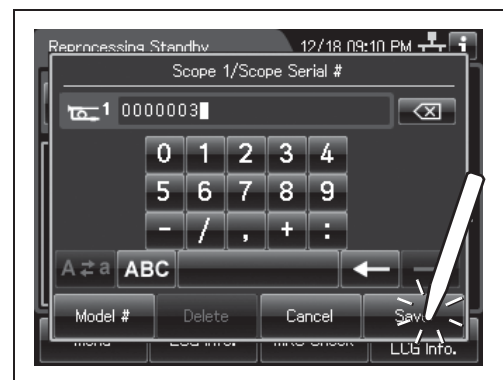


Figure 3.20

- 5 The connection information screen is displayed on the touch screen. Connect the suitable connecting tubes according to the “List of Compatible Endoscopes/Connecting Tubes <OER-Elite>”, then press the “No Connection” buttons corresponding to the reprocessing basin connectors to which the connecting tubes are connected. The “No Connection” indicator will now change to “Connection”.

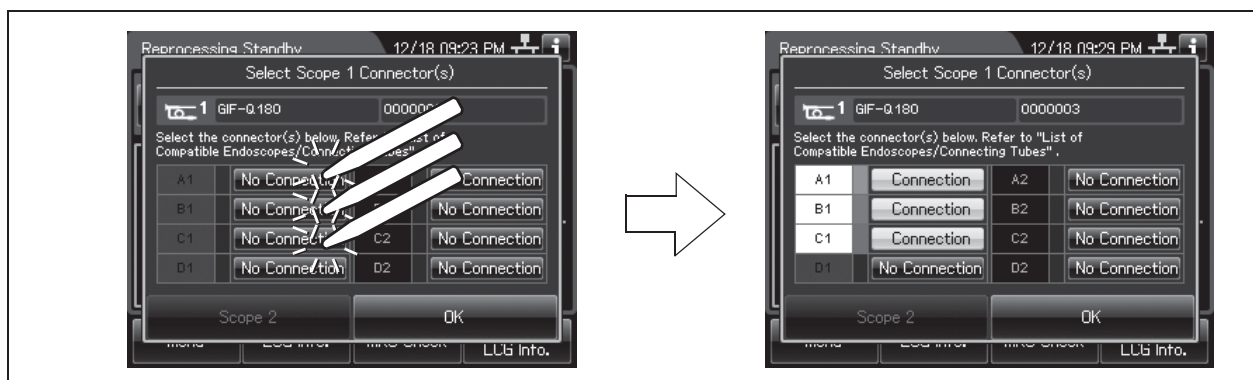


Figure 3.21

- 6 Press the “OK” button.

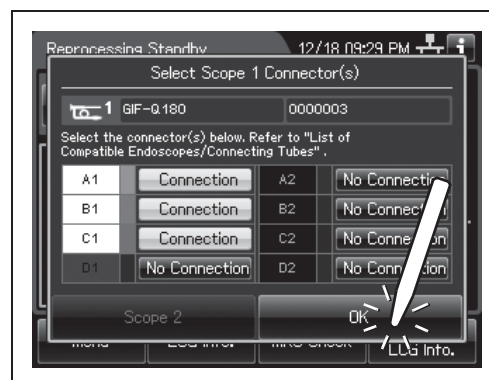


Figure 3.22

- 7 The following message is displayed. After reading the message, Press the “OK” button again.

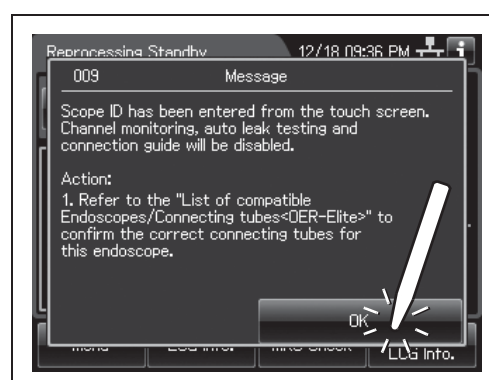


Figure 3.23

NOTE

When the “Manual Cleaning and Leak Test Setting” is activated, select the manual cleaning and leak testing results after Step 7. For detail, refer to “■ Input results of manual cleaning and leak test of second endoscope” on page 214.

- 8 Once the scope ID is entered, the ID select screen appears. To go back to the reprocessing standby screen, press “OK” button.

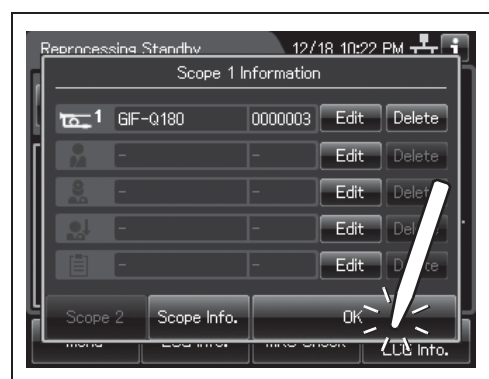


Figure 3.24

(b) Recalling the pre-registered ID

NOTE

- The ID edited on “(a) Select a Scope ID that is not listed” on page 51 is registered to the ID list.
- The ID list can be edited on the list management function. For detail, refer to Section 12.3, “List management”.

Ch.3

- 1 Press the “Set” button for the ID to be recalled.

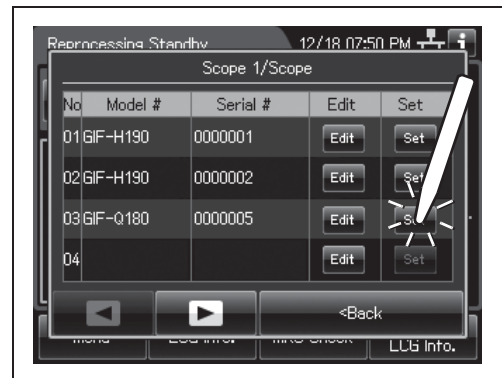


Figure 3.25

- 2 On the Connection information screen, Press the “No Connection” buttons corresponding to the reprocessing basin connectors to which the connecting tubes are connected. The “No Connection” indicator will now change to “Connection”.

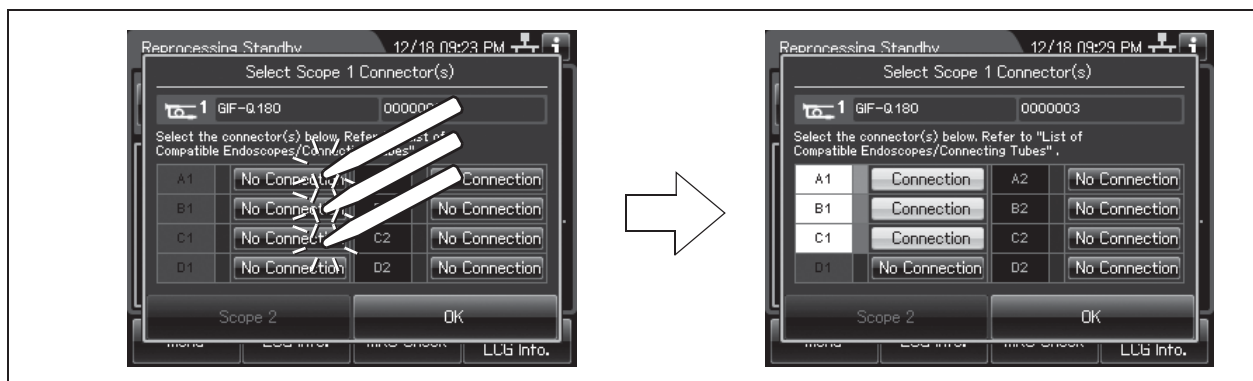


Figure 3.26

- 3 Press the “OK” button.

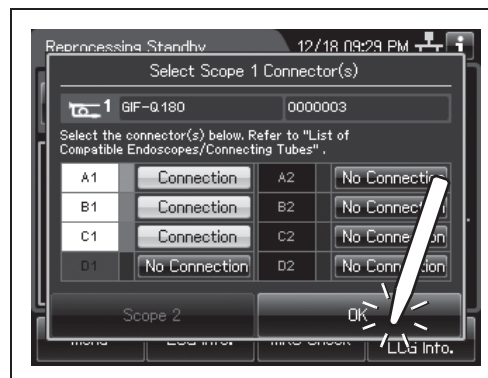


Figure 3.27

- 4 The following message is displayed. After reading the message, Press the “OK” button again.

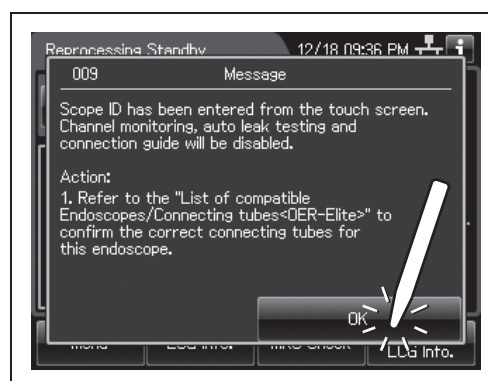


Figure 3.28

NOTE

When the “Manual Cleaning and Leak Test Setting” is activated, select the manual cleaning and leak testing results after Step 4. For detail, refer to “■ Input results of manual cleaning and leak test of second endoscope” on page 214.

- 5 When the scope ID is completed to enter, the ID select screen appears.

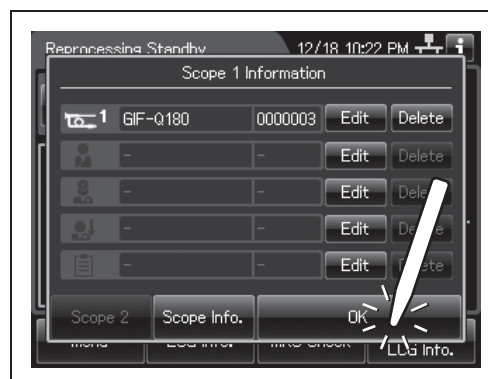


Figure 3.29

Ch.3

○ Patient ID entry

NOTE

When the patient ID setting is not activated, patient ID cannot be entered.

- 1 Press the “Edit” button of the patient ID on the ID select screen.

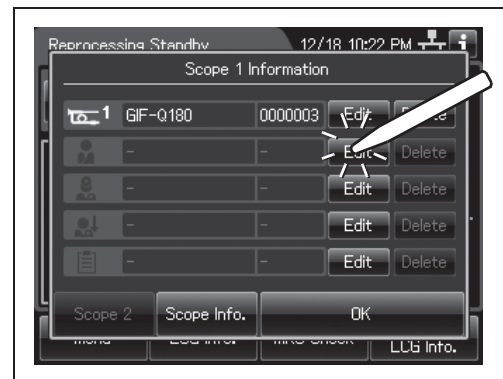
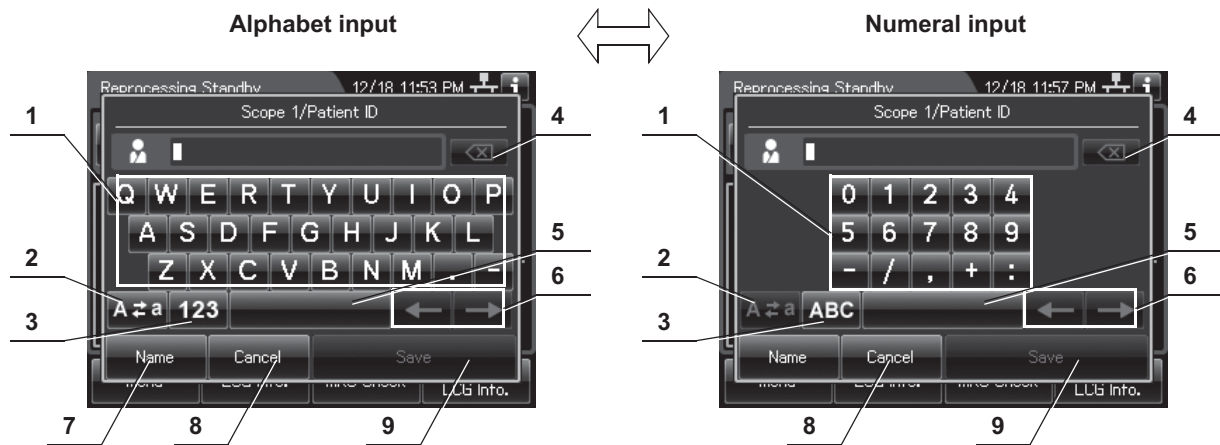


Figure 3.30

- 2** The software keyboard (on-screen) is opened. Enter the ID number of the patient on the software keyboard (on-screen).



Ch.3

No.	Button	Note
1	Alphabet/ Numeral key	Enter an alphabet or a numeral.
2	Uppercase/ Lowercase	Press "Uppercase/lowercase" button to switch alphabet character on the soft keyboard between uppercase characters and lowercase characters.
3	Numeric/ Alphabetic	Press "Numeric or Alphabetic" button to switch the input mode between a numeral and the alphabet.
4	Backspace	Press the "Backspace" button to delete the left character of a cursor. When a cursor is on the left edge, this button turns gray and becomes unavailable.
5	Space button	Press the "Space" button to insert a space character.
6	Cursor move	Press the cursor move button to move the cursor left or right.
7	Name	Press "Name or ID" button to switch the input mode between a Name and an ID.
8	Cancel	Return to the previous screen without saving the setting value.
9	Save	Return to the previous screen and save the entered value.

- 3** Press the "Name" button.

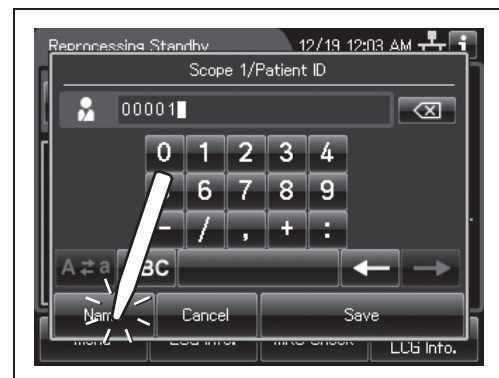


Figure 3.31

- 4 Enter the patient name.

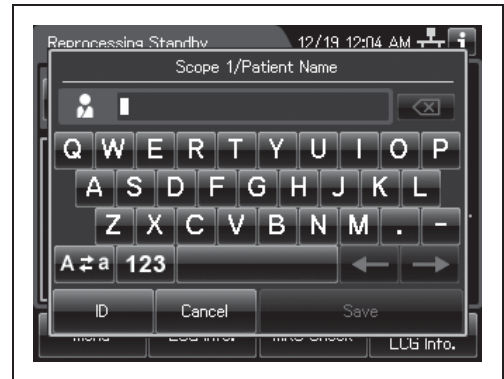


Figure 3.32

- 5 Press the "Save" button.

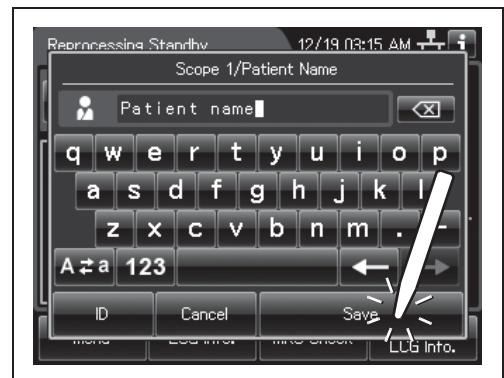


Figure 3.33

- 6 When the patient ID is completed to enter, the following screen appears.

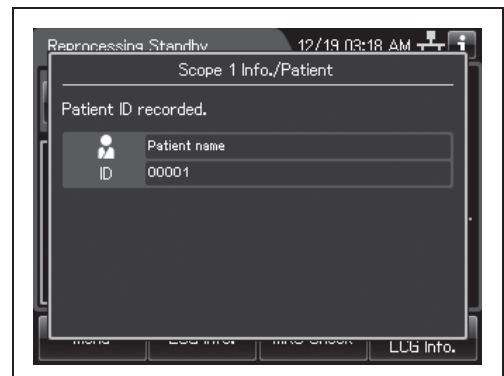


Figure 3.34

○ Physician ID, user ID, or procedure ID entry

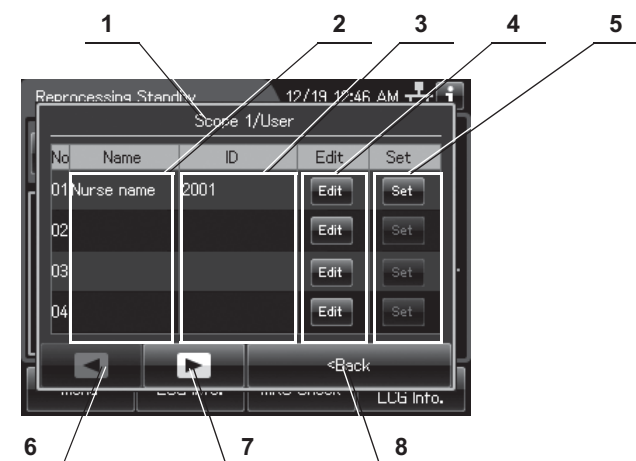
- 1 Press the “Edit” button to enter each ID on the ID select screen.



Ch.3

No.	Button	Note
1	Edit physician ID button	Opens the physician ID list. When the physician ID setting is not activated, item of the physician ID is not displayed. For physician ID setting, refer to Section 4.6, “Physician ID setting”.
2	Edit user ID button	Opens the user ID list. When the user ID setting is not activated, item of the user ID is not displayed. For user ID setting, refer to Section 4.5, “User ID Setting”.
3	Edit procedure ID button	Opens the procedure ID list. When the procedure ID setting is not activated, item of the procedure ID is not displayed. For procedure ID setting, refer to Section 4.9, “Procedure ID setting”.

- 2** Then the ID list is displayed. When the ID is not listed on the ID list, go to “(a) Select each ID that is not listed” on page 61. When the Scope ID is listed on the ID list, go to “(b) Recalling the pre-registered ID” on page 63.



No.	Item/Button	Note
1	ID type	Type of the currently edited ID.
2	Name	Name of the registered IDs. These areas are blank if no ID has been registered.
3	ID	ID number of registered IDs. These areas are blank if no ID has been registered.
4	Edit buttons	Press one of the buttons to open the ID information edit screen.
5	Set buttons	Press one of the buttons to set a registered ID.
6	Previous page button	Press to return to the previous page. When there is no further page to turn back to, the button turns gray and becomes unavailable.
7	Next page button	Press to go to the next page. When there is no further page to go forward to, the button turns gray and becomes unavailable.
8	Back	Press to close the ID select screen.

(a) Select each ID that is not listed

- 1 Press the “Edit” button that no ID has been registered.

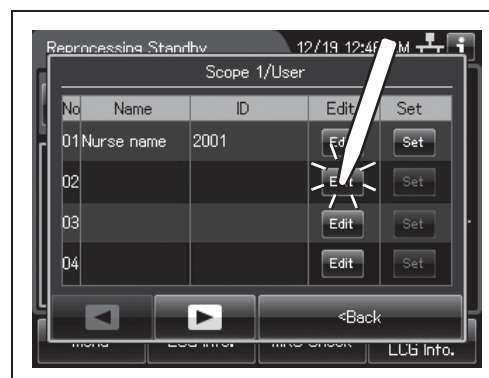
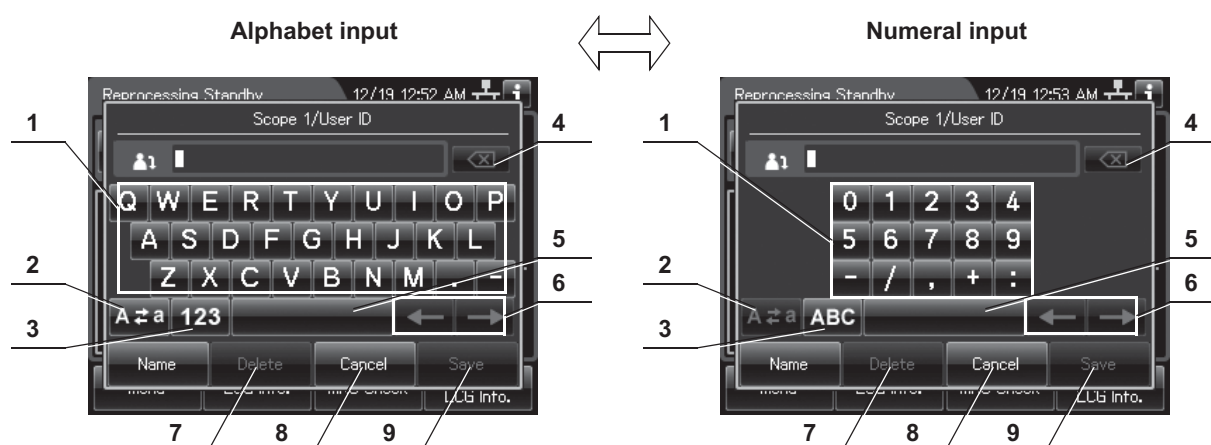


Figure 3.35

- 2 The software keyboard (on-screen) is opened. Enter the ID number of the physician, user, or procedure on the software keyboard (on-screen).



No.	Button	Note
1	Alphabet/ Numeral key	Enter an alphabet or a numeral.
2	Uppercase/ Lowercase	Press “Uppercase/lowercase” button to switch alphabet character on the soft keyboard between uppercase characters and lowercase characters.
3	Numeric/ Alphabetic	Press “Numeric or Alphabetic” button to switch the input mode between a numeral and the alphabet.
4	Backspace	Press the “Backspace” button to delete the left character of a cursor. When a cursor is on the left edge, this button turns gray and becomes unavailable.
5	Space	Press the “Space” button to insert a space character.
6	Cursor move	Press the “Cursor move” button to move the cursor left or right.
7	Delete	Press the “Delete” button to delete about all information.
8	Cancel	Return to the previous screen without saving the setting value.
9	Save	Return to the previous screen and save the entered value.

- 3 Press the “Name” button.



Figure 3.36

- 4 Enter the physician, user, or procedure name.



Figure 3.37

- 5 Press the “Save” button.

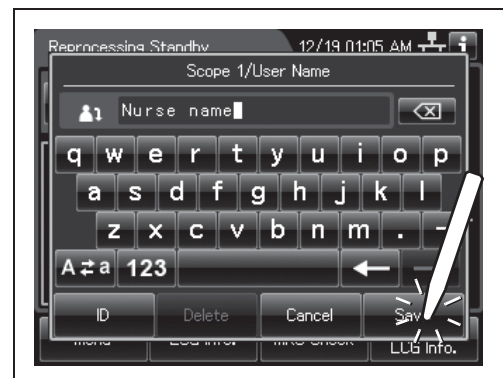


Figure 3.38

- 6** When the ID is completed to enter, the following screen appears.



Figure 3.39

Ch.3

(b) Recalling the pre-registered ID

NOTE

- The ID edited on “(a) Select each ID that is not listed” is registered to the ID list.
- The ID list can be edited on the list management function. For detail, refer to Section 12.3 “List management”.

- 1** Press the “Set” button for the ID to be recalled.



Figure 3.40

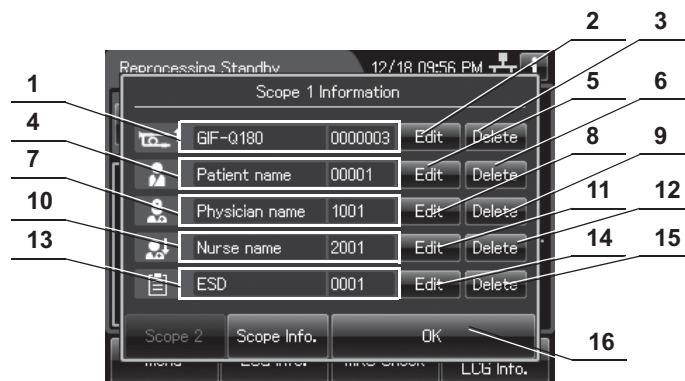
- 2** When the ID is completed to enter, the following screen appears.



Figure 3.41

Confirmation of the input ID

- 1 Open the ID select screen.
- 2 Confirm each ID information.



No.	Item/Button	Note
1	View Scope ID information	Displays the scope ID information (endoscope type and serial number). This area is blank when no scope ID has been input.
2	Edit Scope ID button	Opens the scope ID list to modify.
3	Delete Scope ID button	Deletes the input scope ID information.
4	View Patient ID information	Displays the patient ID information (patient name and ID number). This area is blank when no patient ID has been input.
5	Edit Patient ID button	Opens the patient ID list to modify.
6	Delete Patient ID button	Deletes the input patient ID information.
7	View Physician ID information	Displays the physician ID information (physician name and ID number). This area is blank when no physician ID has been input.
8	Edit Physician ID button	Opens the physician ID list to modify.
9	Delete Physician ID button	Deletes the input physician ID information.
10	View user ID information	Displays the user ID (load) information (user name and ID number). This area is blank when no user ID has been input.
11	Edit user ID button	Opens the user ID list to modify.
12	Delete user ID button	Deletes the input user ID information.
13	View procedure ID information	Displays the procedure ID information (procedure name and ID number). This area is blank when no procedure ID has been input.
14	Edit procedure ID button	Opens the procedure ID list to modify.
15	Delete procedure ID button	Deletes the input procedure ID information.
16	OK button	Returns to the Reprocessing standby screen.

■ *Entering the patient ID by the optional bar code*

To input the patient ID from a bar code, it is required to connect the optional MAJ-2130 bar code reader.

For the installation of the bar code reader, refer to the Instructions - Installation Manual for this reprocessor and the Instructions for the MAJ-2130 bar code reader.

CAUTION

Do not connect anything other than the designated bar code reader to the bar code port. Otherwise, the IDs may not be read out correctly or the instrument may malfunction.

Ch.3

NOTE

- A patient ID can be input by either bar code reader or software keyboard (on-screen), but a patient name can be input only by the software keyboard. It is possible to input the patient name by software keyboard (on-screen) after entering the patient ID by the bar code reader.
- The OER-Elite can read the top 23 characters of each bar code. When the bar code contains data other than patient data, the reprocessor reads all of 23 characters including data other than the patient data that a bar code has.
- Do not alter the settings of the bar code reader. It has been set to the optimum settings for combined use with this reprocessor. If the Settings are altered, it may be impossible to read the bar code, contact Olympus.

○ Readable bar code standards

The optional MAJ-2130 bar code reader can read below as a bar cord standards.

UPC/EAN
Code 128
GS1-128
Code 39
Trioptic Code 39
Code 93
Code 11
Interleaved 2 of 5
Discrete 2 of 5
Codabar
MSI
Chinese 2 of 5
Matrix 2 of 5
Korean 3 of 5
Inverse 1D
GS1 DataBar
Composite Codes

○ Scanning area of the bar code reader

When the bar code reader scans a bar code, the bar code reader projects a green aiming pattern. The scanning pattern of the bar code reader is formed by the aiming pattern. When the entire bar code does not cross the scanning pattern, the bar code reader cannot scan the entire bar code. For how to install the bar code reader (for example setting), refer to Figure 3.43.

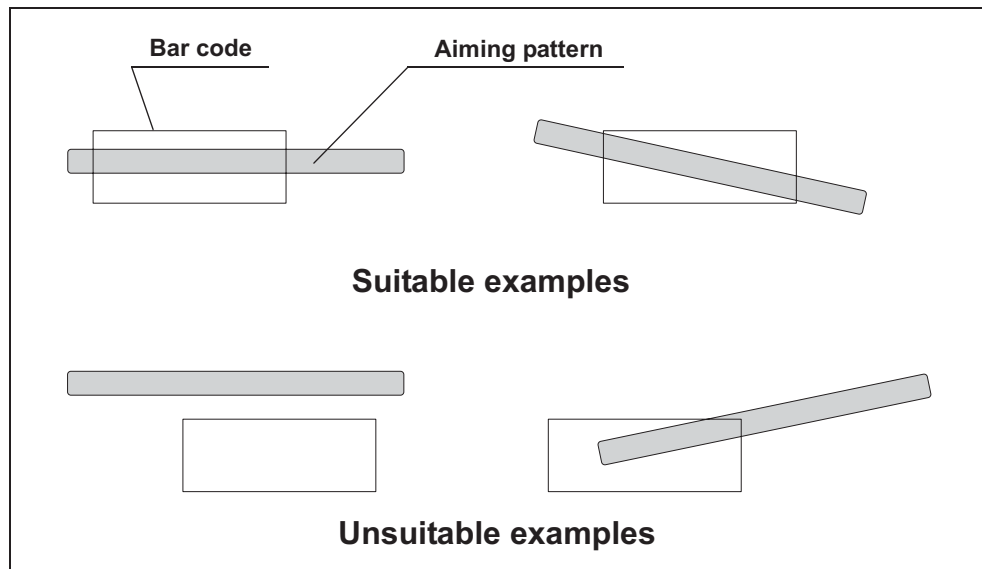


Figure 3.42

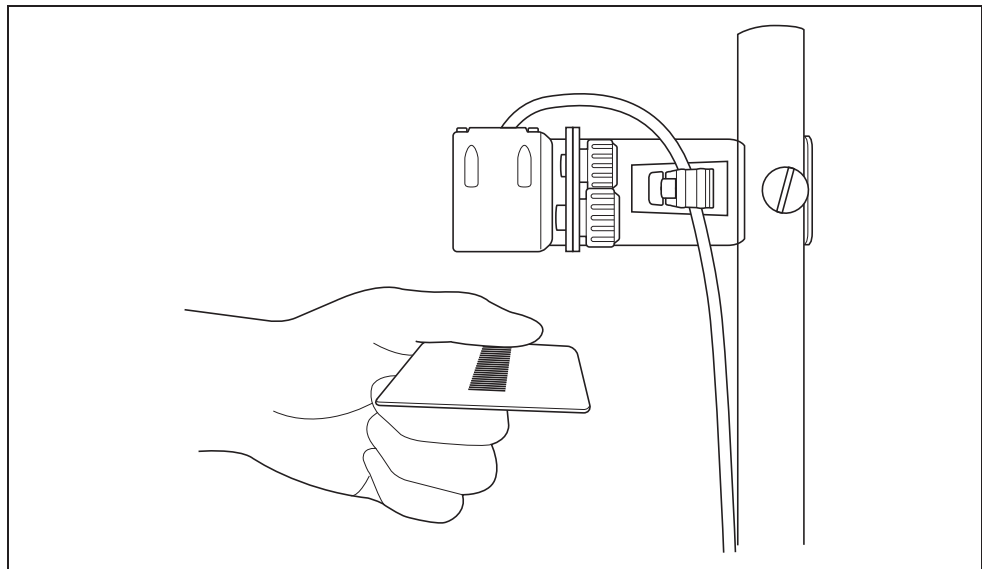


Figure 3.43

○ Reading a bar code

- 1** Press the “Reprocessing” button on the touch screen.
- 2** Place the bar code under the bar code reader to read the bar code and adjust the distance between them so that the entire bar code is within the scanning area of the bar code reader. When the bar code reader succeeds in scanning of the bar code, the bar code reader sounds a short beep. If the bar code reader does not sound a short beep, correct problems in reference to the instruction manual for the bar code reader MAJ-2130 or Section 13.2, “Troubleshooting guide”.

NOTE

If the bar code reader does not sound a short beep, correct problems in reference to the instruction manual for the bar code reader MAJ-2130 and Section 13.2, “Troubleshooting guide”.

- 3** The touch screen displays data scanning form bar code as shown in the following figure. Check if the patient ID matches the actual patient information.

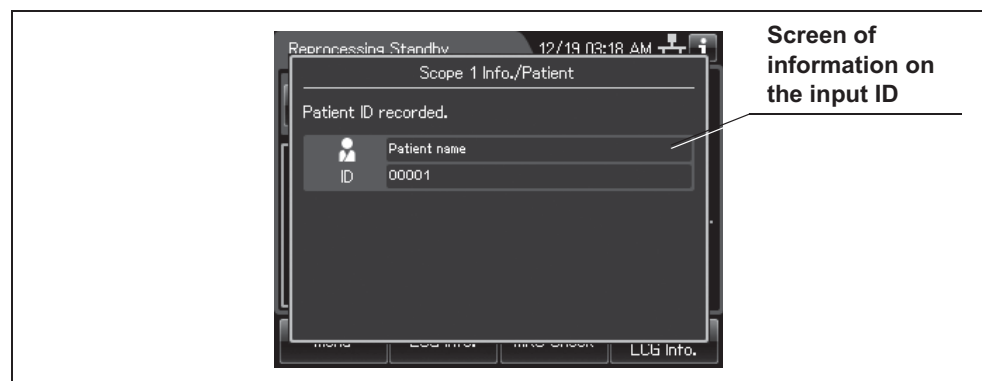


Figure 3.44

3.7 *Checking the MRC level and entering the check result*

Before starting any of the following processes, be sure to check that the concentration of the disinfectant solution is no less than the Minimum Recommended Concentration (MRC). If the concentration is below the recommended minimum concentration or the shelf life of the disinfectant solution has expired, replace the disinfectant solution. The result of MRC can be recorded with the reprocessor.

- Reprocessing
- Leaking scope decontamination
- Water line disinfection
- Self-disinfection & Water sampling
- Detergent line disinfection
- Alcohol line disinfection

WARNING

- The use life of the disinfectant solution may vary depending on many factors, including storage conditions, and the temperature of the environment where the reprocessor is installed. Routinely check the concentration of the disinfectant solution with the test strip before performing endoscope disinfection. If this check is not performed, the disinfection process may be ineffective. Replace the disinfectant solution when it fails to meet the minimum recommended concentration or beyond the specified use life.
- Before handling the disinfectant solution, read the SDS and instructions for use of the disinfectant solution carefully, get fully accustomed to the contents, and use the disinfectant solution as instructed. Be sure to fully understand what to do if the disinfectant solution comes in contact with your skin and eyes.
- When handling the disinfectant solution, wear appropriate personal protective equipment. Avoid direct physical contact and inhalation of vapors. If any disinfectant solution gets in your eyes, immediately rinse with a large amount of fresh water and then consult a medical specialist. 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 and eyes is not exposed. All personal protective equipment should be inspected before use and replaced periodically. If personal protective gear is damaged or defective in anyway, do not handle hazardous chemicals and refer to the facility policies.

■ Required items

Check	Required Items
	Chemical indicator (Test strip)
	Clean cloth

Table 3.2

NOTE

For the usable test strips, refer to Section 2.8, “Consumable accessories (Optional)”.

Ch.3

■ Checking the MRC level

WARNING

Since the period of validity of the disinfectant solution varies depending on multiple factors including the storage condition and the environmental temperature of the reprocessor’s installation location, be sure to check the concentration of the disinfectant solution before reprocessing endoscopes. If the concentration is below the recommended minimum concentration or the validity date specified for the disinfectant solution has expired, replace the disinfectant solution. Otherwise, the endoscope reprocessing would become insufficient.

NOTE

If you collect the disinfectant solution from the drain port, the reduction of the solution inside the disinfectant solution tank may make it impossible to start reprocessing.

○ Checking the MRC level

- 1 Press the foot pedal to open the lid.
- 2 Uncap the disinfectant solution nozzle of the reprocessing basin by turning the disinfectant solution nozzle cap in the direction shown right.

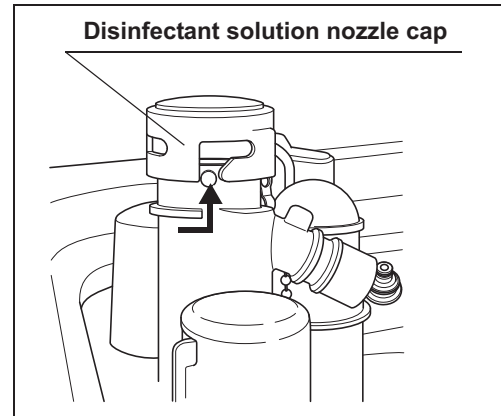


Figure 3.45

- 3 Insert the test strip all the way into the disinfectant solution nozzle and check the MRC as described in the test strip instruction manual. If the concentration is lower than the effective level, replace the disinfectant solution by following the instructions in Section 8.2, "Replacing the disinfectant solution".

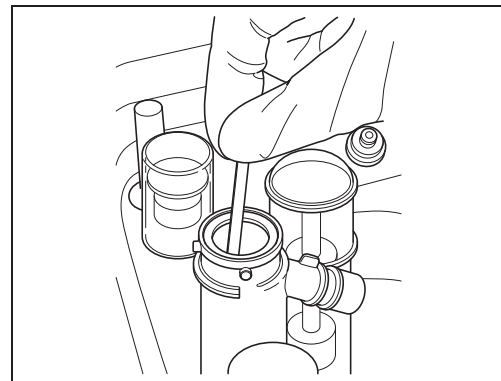


Figure 3.46

NOTE

- Under high temperature and extreme temperature fluctuations, test strip may result in fail. In such cases, Olympus recommends performing mix LCG and check the MRC level again.
- Depending on conditions of internal valve, there is a possibility that no disinfectant solution exist in the disinfectant solution nozzle. In the following cases, perform the mix LCG, then check the MRC level again.
 - No reaction is observed on the chemical indicator after checking the MRC level.
 - Reaction is observed only from the edge parts of the chemical indicator after checking the MRC level.

If the disinfectant solution in the disinfectant solution nozzle is found insufficient for checking the MRC level on a regular basis, contact Olympus.

3.7 Checking the MRC level and entering the check result

- 4 Attach the disinfectant solution nozzle cap to the original position on the disinfectant solution nozzle. Make sure that the pin returns to the original position, and the projection of the disinfectant solution nozzle cap is aligned to the projection of the disinfectant solution nozzle.

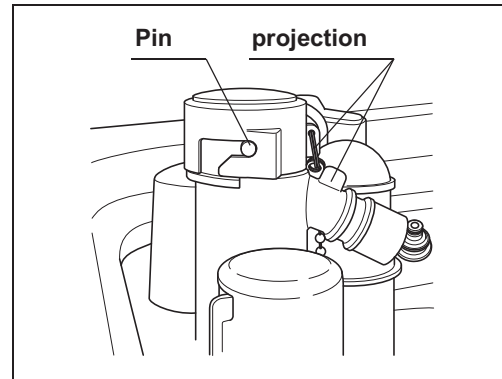


Figure 3.47

NOTE

Be sure to return the disinfectant solution nozzle cap to the original position. Otherwise, the disinfectant solution inside the nozzle may be diluted in the next process and next MRC check will be failed even if the concentration of LCG in the tank is above its MRC. In this case, perform mix LCG, then check MRC again.

○ Entering the check result

- 1 Display the Reprocessing Standby screen and Press the “MRC Check” button.

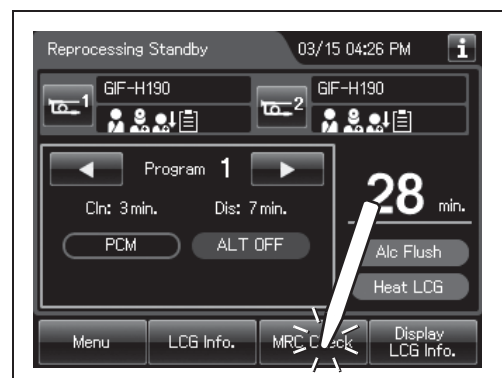


Figure 3.48

NOTE

If the touch screen displays a screen as shown in following figure, perform the LCG Mixing. If not completed Mix LCG, cannot see the MRC check result. For detailed on "Mix LCG", refer to Section 7.4, "Mix LCG".

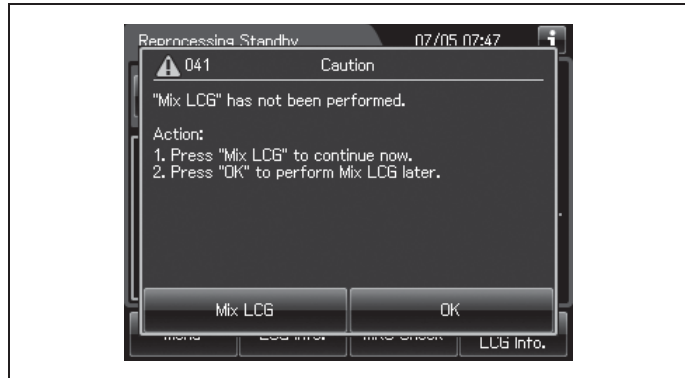


Figure 3.49

- 2 Select the button that corresponds with the result of the MRC check. The button turns white.

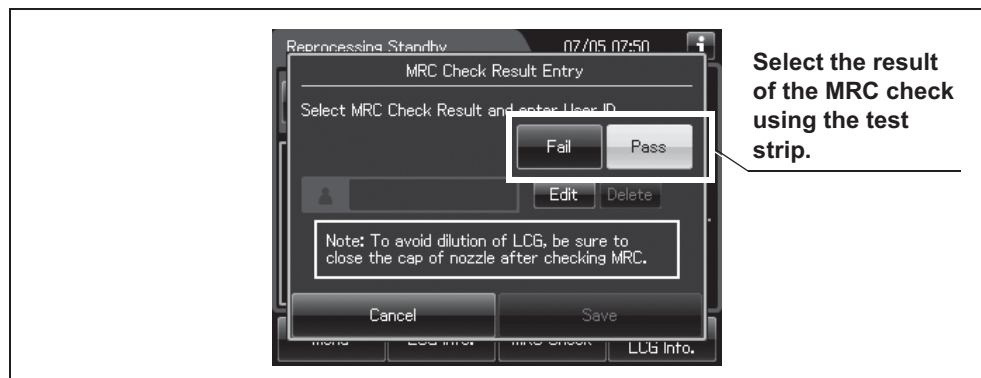


Figure 3.50

3.7 Checking the MRC level and entering the check result

NOTE

- Input the user ID by following the instructions in Section 3.6, “Entering ID” (If applicable). Hold the user ID card in parallel with the ID reader section of the reprocessor or press the “Edit” button for software keyboard input.

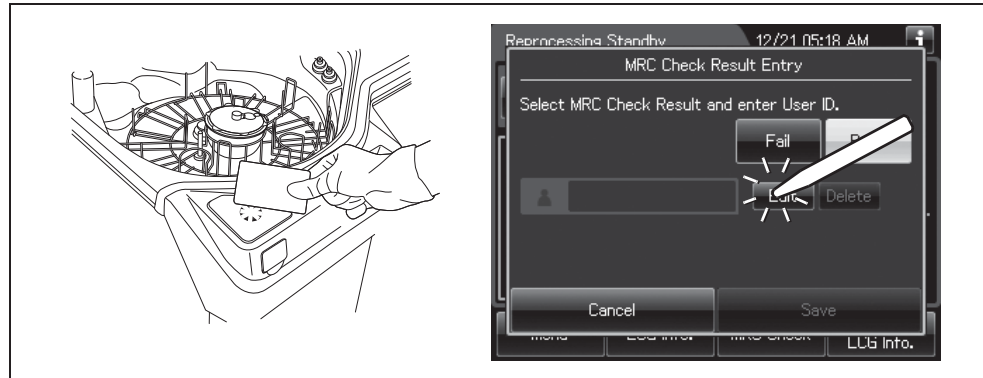


Figure 3.51

- The user ID input can be omitted according to the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.

3 Press the “Save” button.



Figure 3.52

NOTE

If the “Save” button is pressed after “Fail” has been selected, the processes that use the disinfectant solution cannot be started.

Chapter 4 Settings

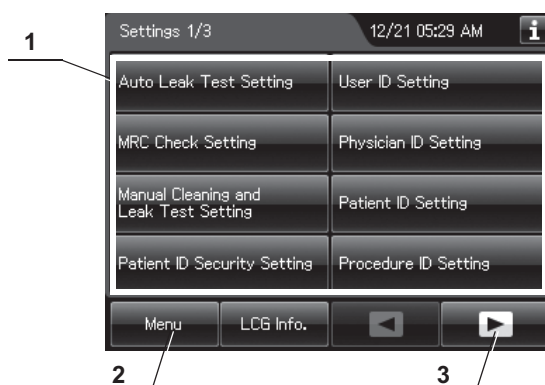
4.1 Setting menu

To change the settings of the reprocessor, press “Settings” on the Menu Screen.

This menu is composed of three pages. To go between the pages, press the next page button or the previous page button.

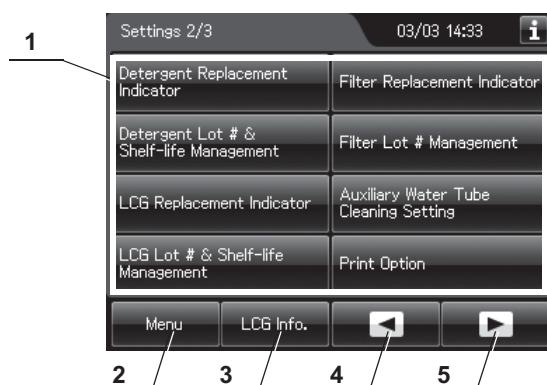
Ch.4

4.1 Setting menu



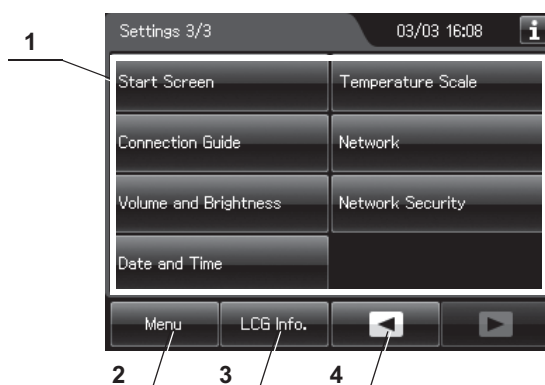
Ch.4

No.	Button	Description
1	Setting item button	Press to display the buttons for starting various Functions. Press the button for the desired function.
1	Page 1	
	Auto Leak Test Setting	This setting sets the timing of auto leak test when it is included in the reprocessing process. →Refer to Section 4.2, "Auto leak test setting".
	MRC Check Setting	When this setting is activated and the MRC check result is not input before start of the following process, the reprocessor inhibits the start of the following process and message screen is displayed. →Refer to Section 4.3, "MRC check setting".
	Manual Cleaning and Leak Test Setting	When this setting is activated, the confirmation results of a manual cleaning and the leak test before manual cleaning can be selected after the scope ID input. →Refer to Section 4.4, "Manual cleaning and leak test setting".
	Patient ID Security Setting	When the setting is activated, patient data will not be exported or printed from the OER-Elite. Even this setting is activated, data except the patient data can be exported to the portable memory or printed. →Refer to Section 4.8, "Patient ID security setting".
	User ID Setting	When this setting is activated, the user ID can be input in each process. →Refer to Section 4.5, "User ID Setting".
	Physician ID Setting	When this setting is activated, the physician ID of the endoscope performing the examination can be input before starting reprocessing process and leaking scope decontamination and recorded in the reprocessing record. →Refer to Section 4.6, "Physician ID setting".
	Patient ID Setting	When this setting is activated, the ID of the patient receiving the endoscopic examination can be input and recorded in the reprocessing records. →Refer to Section 4.7, "Patient ID setting".
	Procedure ID Setting	When this setting is activated, the procedure ID can be entered before starting "Reprocessing". →Refer to Section 4.9, "Procedure ID setting".
2	Menu button	Press to go to the Menu.
3	Next page button	Press to go to the next page. When there is no further page to go forward to, the button turns gray and becomes unavailable.



No.	Button		Description
1	Page 2	Detergent Replacement Indicator	When this setting is activated, the reprocessor counts the day count (number of days the detergent is effective after replacement) after each replacement of detergent and displays the detergent replacement indicator when the day counts reach to the set value. After reaching to the set value, a pop-up message screen opens prior to the start of reprocessing and inhibit starting the process. →Refer to Section 4.10, "Detergent replacement indicator".
		Detergent Lot # & Shelf-Life Management	This setting sets the shelf life and lot number that are input when replacing the detergent. →Refer to Section 4.11, "Detergent lot number and shelf-life management".
		LCG Replacement Indicator	This setting sets the display of the disinfectant solution replacement indicator. →Refer to Section 4.12, "LCG replacement indicator".
		LCG Lot # & Shelf-Life Management	This setting sets the shelf life and lot number that are input when replacing the disinfectant solution. →Refer to Section 4.13, "LCG lot number and shelf-life management".
		Filter Replacement Indicator	This setting sets the display of the Filter Replacement Indicator. →Refer to Section 4.14, "Filter replacement indicator".
		Filter Lot # Management	This setting sets the lot number that is input when replacing the filters. →Refer to Section 4.15, "Filter lot number management".
		Auxiliary Water Tube Cleaning Setting	This setting sets the reprocessing of the auxiliary water tube together with endoscopes. →Refer to Section 4.16, "Auxiliary water tube cleaning setting".
		Print Option	This setting sets the auto printing of the result of reprocessing, auto leak test, manual leak test or leaking scope decontamination. To activate this setting, an optional MAJ-2144 printer set is necessary. →Refer to Section 4.17, "Print option".
2	Menu button		Press to go to the Menu.
3	LCG Info. button		Press to open the LCG Info. display. →Refer to Section 3.5, "LCG Info. screen".
4	Previous page button		Press to return to the previous. When there is no further page to turn back to, the button turns gray and becomes unavailable.
5	Next page button		Press to go to the next page. When there is no further page to go forward to, the button turns gray and becomes unavailable.

4.1 Setting menu



Ch.4

No.	Button	Description
1	Page 3	
	Start Screen	This setting sets the display that appears after the startup display at power ON. →Refer to Section 4.18, "Start screen".
	Connection Guide	This setting sets the automatic display of the Connection Guide screen after the Scope ID reading in the reprocessing program. →Refer to Section 4.19, "Connection guide".
	Volume and Brightness	This setting sets the volume of buzzer sound, etc., the brightness of the touch screen and the panel press tone. →Refer to Section 4.20, "Volume and brightness".
	Date and Time	This setting sets the date display format and the clock of the reprocessor. →Refer to Section 4.21, "Date and time".
	Temperature Scale	This setting sets the scale used in the disinfectant solution temperature display. →Refer to Section 4.22, "Temperature scale".
	Network	This setting sets the information required for connecting the reprocessor to a Network. →Refer to Section 4.23, "Network setting".
	Network Security	This setting sets the security of the Network-related Settings. →Refer to Section 4.24, "Network security".
2	Menu button	Press to go to the Menu.
3	LCG Info. button	Press to open the LCG Info. display. →Refer to Section 3.5, "LCG Info. screen".
4	Previous page button	Press to return to the previous. When there is no further page to turn back to, the button turns gray and becomes unavailable.

4.2 Auto leak test setting

This setting is to set the timing of the auto leak test when this function is included in the reprocessing process.

For the auto leak test in the reprocessing process, refer to “■ Auto leak test” on page 221.

CAUTION

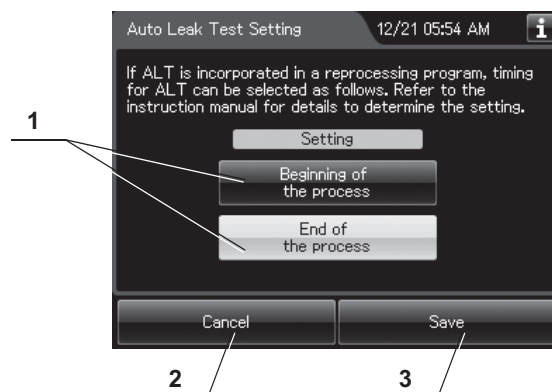
Always perform leak test in a sink before manual cleaning. If the endoscope has a water leaking point, water may penetrate the scope during manual cleaning, in which case the scope may break down.

- 1 Select the “Auto Leak Test Setting” on the settings menu.

Ch.4

4.2 Auto leak test setting

2 Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	ALT setting	Beginning of the process	Auto leak test is performed at the starting of "Reprocessing". The reprocessing process time is extended by about 2 minutes. If "Beginning of the process" is selected and hot water is used for manual cleaning, the ALT result may be "Leaked" even though the endoscope has no leakage. The leak test result may become "Leaked" depending on the temperature of the endoscope. To perform auto leak test with the ultrasonic endoscope, wait for more than 30 minutes. To perform it with the other type of endoscope, wait for more than 15 minutes.
		End of the process (default)	Auto leak test is performed at the end of "Reprocessing". The reprocessing process time is extended by about 2 – 7 minutes. When "End of the process" was chosen and there is a leak with an endoscope, water may enter the endoscope from the leakage point.
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

The selected settings are displayed with white buttons.

3 Press the "Save" button to save the selected setting.

4.3 MRC check setting

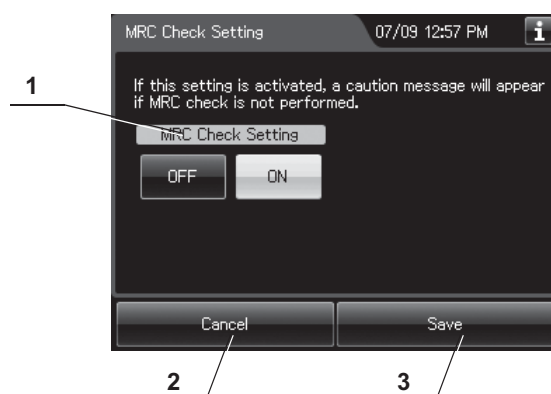
When this setting is activated and the MRC check result is not input before start of the following process, the reprocessor inhibits the start of the following process and message screen is displayed.

- Reprocessing
- Leaking Scope Decontamination
- Water Line Disinfection
- Self-disinfection & Water sampling
- Detergent Line Disinfection
- Alcohol Line Disinfection

NOTE

This setting is provided to prevent forgetting of the input of the MRC check result.
The MRC check result can be input even when this setting is disabled.

- 1 Select “MRC Check Setting” on the settings menu.
- 2 Select setting from options.



No.	Item/Button	Setting options	Description
1	MRC Check Setting	OFF	The reprocessing process starts even if the disinfectant solution concentration check result is not input.
		ON (default)	If the disinfectant solution concentration check result is not input before start of the process, the reprocessor inhibits start of the process and notifies that the check result is not input.
2	Cancel	–	Returns to the Setting menu without saving the selected setting.
3	Save	–	Returns to the Setting menu after saving the selected setting.

NOTE

The selected settings are displayed with white buttons.

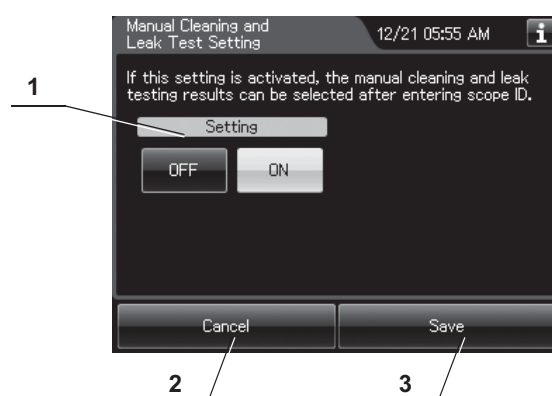
- 3 Press the “Save” button to save the selected setting.

4.4 Manual cleaning and leak test setting

Ch.4

When this setting is activated, users can confirm if a manual cleaning and leak test have been performed based on the scope ID. When the setting is On, those inputs are necessary. The manual cleaning and leak test confirmations are linked to the scope ID's reprocessing records or leaking scope decontamination records.

- 1 Select “Manual Cleaning and leak test Setting” on the settings menu.
- 2 Select setting from options.



No.	Item/Button	Setting options	Description
1	Manual Cleaning and leak test Setting	OFF	Disables the data entry for result of manual cleaning and leak test.
		ON (default)	Before starting “Reprocessing” and “Leaking Scope Decontamination” are entered for each endoscope’s result about manual cleaning and leak test.
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

The selected settings are displayed with white buttons.

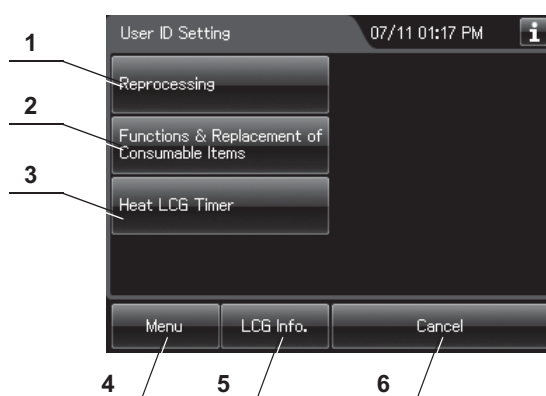
- 3 Press the “Save” button to save the selected setting.

4.5 User ID Setting

When this setting is activated, the user ID can be inputted in each process and the process cannot be started without inputting User ID.

- 1 Select “User ID setting” on the Settings menu.
- 2 Select the function to change the user ID setting.

Ch.4

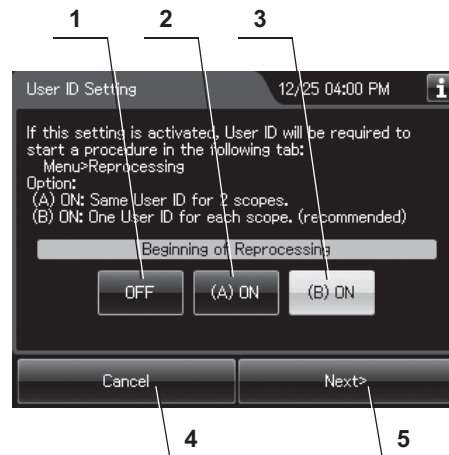


No.	Button	Description
1	Reprocessing	Goes to the user ID Setting for “Reprocessing”. →Refer to “■ User ID setting (reprocessing)” on page 84.
2	Functions & Replacement of Consumable Items	Goes to the user ID Setting for “Functions” and “Replacement of Consumable Items”. →Refer to “■ User ID setting (functions and replacement)” on page 86.
3	Heat LCG Timer	Goes to the user ID Setting for “Heat LCG Timer”. →Refer to “■ User ID setting (Heat LCG Timer)” on page 87.
4	Menu	Returns to the Menu screen.
5	LCG Info.	Open the disinfectant information screen.
6	Cancel	Returns to the Setting menu.

■ User ID setting (reprocessing)

When this setting is activated, User ID can be entered before and/or after starting reprocessing process and recorded in the reprocessing record.

- 1 Select the setting for user ID entry before beginning of reprocessing process.



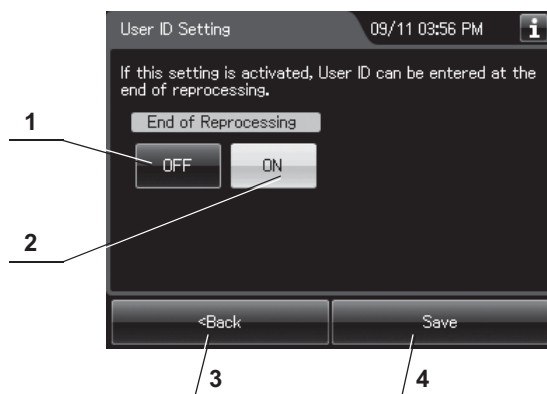
No.	Setting Options	Description
1	OFF	Disables the user ID entry before starting reprocessing process.
2	(A) ON	One User ID can be input for two endoscopes before starting reprocessing process.
3	(B) ON (default)	User ID can be input for each endoscope before starting reprocessing process.
4	Cancel	Returns to the previous screen.
5	Next	Goes to the next setting.

NOTE

- The selected settings are displayed with white buttons.
- Only one User ID can be input at the end of reprocessing process.
- If the setting is activated, User ID input before beginning reprocessing process cannot be skipped.

- 2 Press the “Next” button.

3 Select the setting for User ID entry at the end of reprocessing process.



Ch.4

No.	Setting Options	Description
1	OFF	Disable the user ID entry at the end of reprocessing process.
2	ON (default)	User ID can be input at the end of reprocessing process. The lid is locked until user ID entry is completed.
3	Back	Returns to the previous screen.
4	Save	Returns to two previous menu after saving the selected setting.

NOTE

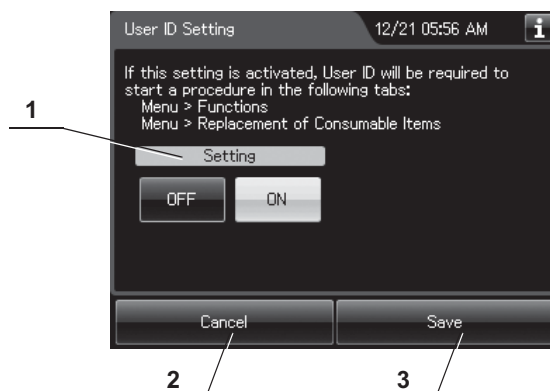
- The selected settings are displayed with white buttons.
- If the setting is activated, user ID input at the end of reprocessing process cannot be skipped.

4 Press the “Save” button to save the selected settings.

■ User ID setting (functions and replacement)

When this setting is activated, user ID can be entered before starting each process of “Functions” and “Replacement of Consumable Items” and recorded in the reprocessing record.

- 1 Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	User ID Setting (Functions & Replacement of Consumable Items)	OFF	Disable the user ID entry for “Functions” and “Replacement of Consumable Items”.
		ON (default)	User ID can be input before starting each process of “Functions” and “Replacement of Consumable Items”.
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

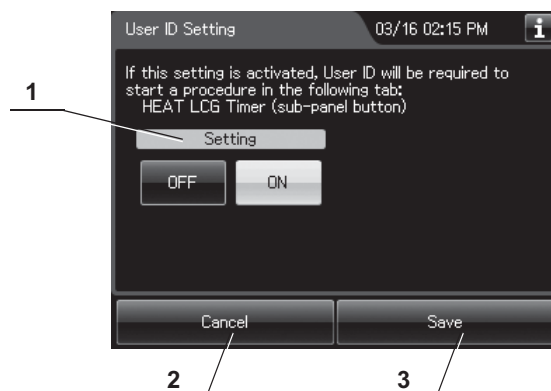
The selected settings are displayed with white buttons.

- 2 Press the “Save” button to save the selected setting.

■ User ID setting (Heat LCG Timer)

When this setting is activated, user ID can be entered before starting “Heat LCG Timer” and recorded in the reprocessing record.

- 1 Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	User ID Setting (Heat LCG Timer)	OFF	Disable the user ID entry for “Heat LCG Timer”.
		ON (default)	Before starting “Heat LCG Timer” are entered the user ID.
2	Cancel	–	Returns to the Setting menu without saving the selected setting.
3	Save	–	Returns to the Setting menu after saving the selected setting.

NOTE

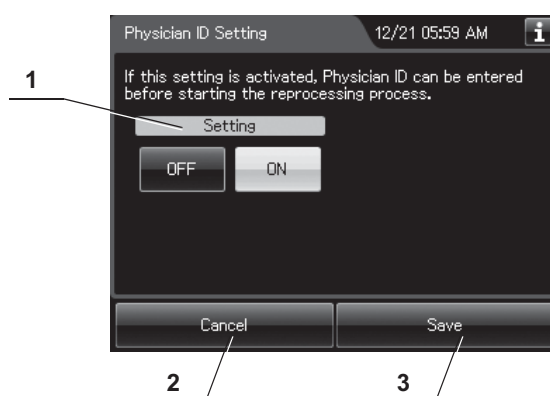
The selected settings are displayed with white buttons.

- 2 Press the “Save” button to save the selected setting.

4.6 Physician ID setting

When this setting is activated, the physician ID of the endoscopist can be input before starting reprocessing process and leaking scope decontamination and recorded in the reprocessing record.

- 1 Select "Physician ID Setting" on the settings menu.
- 2 Select setting from options.



No.	Item/Button	Setting options	Description
1	Physician ID Setting	OFF	Disable the physician ID entry for "Reprocessing" and "Leaking Scope Decontamination".
		ON (default)	User can enter the physician ID before starting "Reprocessing" and "Leaking Scope Decontamination".
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

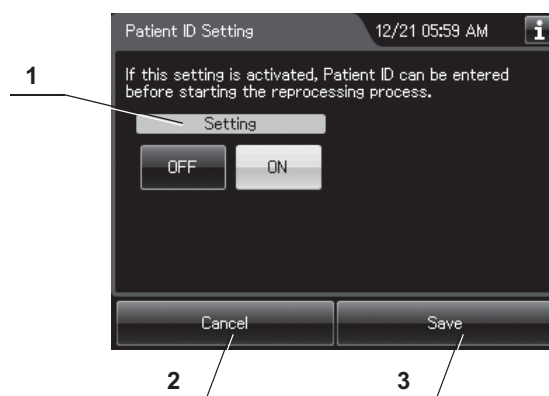
The selected settings are displayed with white buttons.

- 3 Press the "Save" button to save the selected setting.

4.7 Patient ID setting

When this setting is activated, the ID of the patient receiving the endoscopic examination can be input and recorded in the reprocessing records and recorded in the reprocessing record.

- 1 Select "Patient ID Setting" on the settings menu.
- 2 Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	Patient ID Setting	OFF	Disable the patient ID entry for "Reprocessing" and "Leaking Scope Decontamination".
		ON (default)	User can enter the patient ID before starting "Reprocessing" and "Leaking Scope Decontamination".
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

The selected settings are displayed with white buttons.

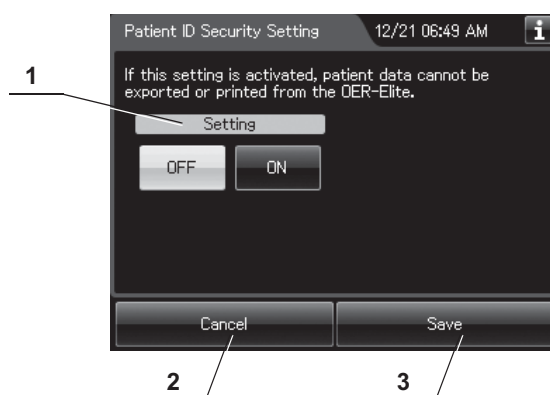
- 3 Press the "Save" button to save the selected setting.

4.8 Patient ID security setting

When the setting is activated, patient data will not be exported or printed from the OER-Elite. Even this setting is activated, all data, with exception of patient data can be exported to the portable memory or printed and recorded in the reprocessing record.

- 1 Select "Patient ID Security Setting" on the settings menu.
- 2 Select setting from options.

Ch.4



No.	Item/Button	Setting options	Description
1	Patient ID Security Setting	OFF (default)	The patient ID is printed on the printer and output to a portable memory.
		ON	The printout of the patient ID and its output to a portable memory are inhibited.
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

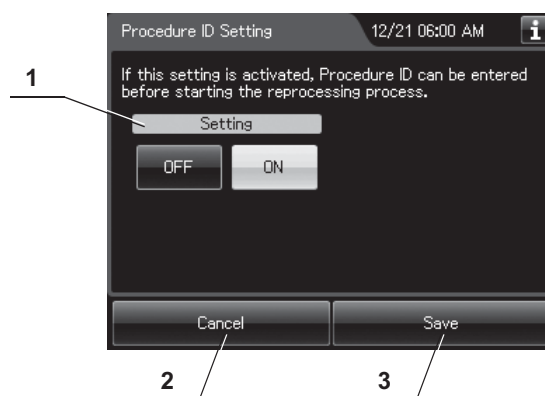
The selected settings are displayed with white buttons.

- 3 Press the "Save" button to save the selected setting.

4.9 Procedure ID setting

When this setting is activated, the procedure ID can be entered before starting reprocessing process and recorded in the reprocessing record.

- 1 Select "Procedure ID" on the Settings menu.
- 2 Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	Procedure ID Settings	OFF	Disable the procedure ID entry for "Reprocessing" and "Leaking scope decontamination".
		ON (default)	User can enter the procedure ID before starting "Reprocessing" and "Leaking scope decontamination".
2	Cancel	–	Returns to the Setting menu without saving the edited information.
3	Save	–	Returns to the Setting menu after saving the edited information.

NOTE

The selected settings are displayed with white buttons.

- 3 Press the "Save" button to save the selected settings.

4.10 Detergent replacement indicator

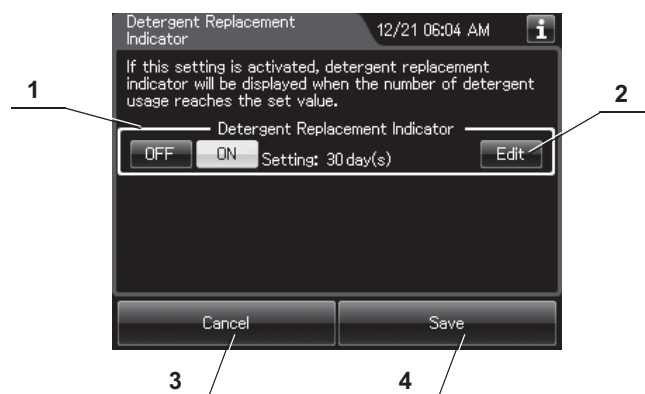
When this setting is activated, the reprocessor counts the day count (number of days the detergent is effective after replacement) after each replacement of detergent and displays the detergent replacement indicator when the day counts reach to the set value. After reaching to the set value, a pop-up message screen opens prior to the start of reprocessing.

NOTE

- For details of the indicator, refer to Section 3.2, “Alarm indicator”.
- When replace the consumable item after changing date and time, the Detergent replacement indicator might not be displayed incorrectly.

Ch.4

- 1 Select “Detergent Replacement Indicator” on the settings menu.
- 2 Select setting from options of the Detergent replacement indicator. To change the setting value, press “Edit” button.

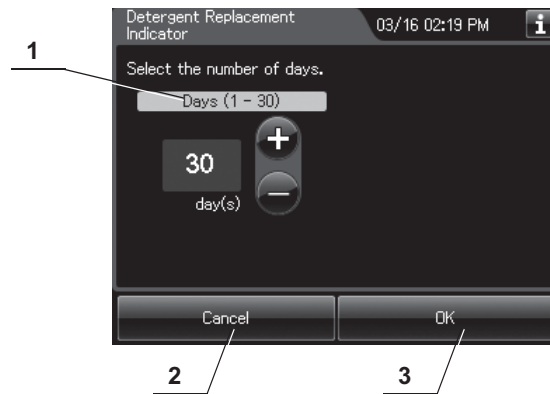


No.	Item/Button	Setting options	Description
1	Detergent replacement indicator	OFF	Disables the detergent replacement indicator.
		ON (default)	The reprocessor counts the day count (number of days the detergent is effective after replacement) after each replacement of detergent. And the detergent replacement indicator is displayed when the day count is reached to the set value.
2	Edit	—	Goes to the screen for editing set value of day count.
3	Cancel	—	Returns to the Setting menu without saving the edited information.
4	Save	—	Returns to the Setting menu after saving the edited information.

NOTE

The selected settings are displayed with white buttons.

- 3 If “Edit” button is pressed in the previous screen, following screen is displayed. Edit the number of days, and press “OK” button.



Ch.4

No.	Item/Button	Setting options	Description
1	Days	1 – 30 [days] (default: 30)	Sets the set value of days for the detergent replacement indicator. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
2	Cancel	–	Returns to the previous screen without saving the edited information.
3	OK	–	Returns to the previous menu after saving the edited information.

- 4 Press the “Save” button to return to the Setting menu after saving the edited information.

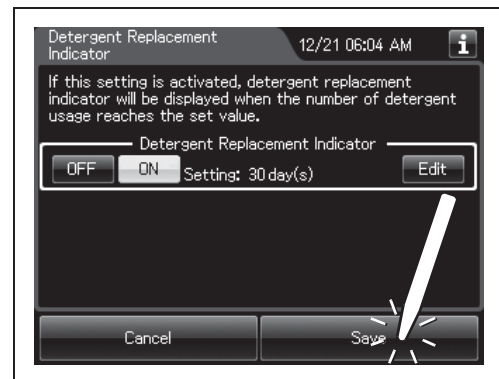


Figure 4.1

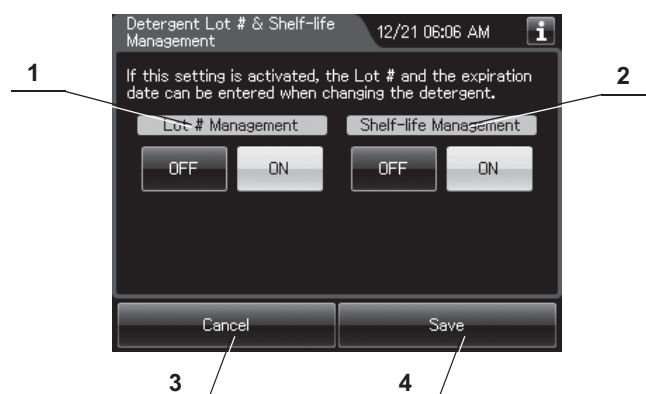
NOTE

For details of the indicator, refer to Section 3.2, “Alarm indicator”.

4.11 Detergent lot number and shelf-life management

When this setting is activated, the detergent lot number and shelf life can be input during a detergent replacement. For details on replacement of each information, both information is referred to Section 8.2, “Replacing the disinfectant solution” and Section 8.3, “Replacing the detergent tank”. The reprocessor displays the detergent replacement indicator when the shelf life is reached. After reaching the shelf life, a pop-up message screen opens prior to the start of reprocessing and inhibits starting the process. The lot number and shelf life are linked with the detergent replacement record.

- 1 Select “Detergent Lot #& shelf life management” on the Setting menu.
- 2 Select each setting from options.



No.	Item/Button	Setting options	Description
1	Lot # Management (Detergent)	OFF (default)	Disables the lot number entry for detergent.
		ON	User can enter lot number of detergent.
2	Shelf-life Management (Detergent)	OFF (default)	Disables the shelf-life entry for detergent.
		ON	User can enter shelf-life of detergent.
3	Cancel	—	Returns to the Setting menu without saving the selected settings.
4	Save	—	Returns to the Setting menu after saving the selected settings.

NOTE

The selected settings are displayed with white buttons.

- 3 Press the “Save” button to return to the Setting menu after saving the selected settings.

4.12 LCG replacement indicator

When this setting is activated, the reprocessor counts a LCG day count (number of days the disinfectant solution is effective after replacement) and a LCG usage count (number of cycles the disinfectant solution is effective after replacement) after Loading LCG process. In addition, the reprocessor displays the disinfectant replacement indicator when the day counts or the usage counts reach each set value. You can set the number of days and the maximum number of disinfection cycles prior to replacement of the disinfectant solution. The reprocessor indicates the replacement timing when the set value for the elapsed days or operations is reached as a reference or reminder for disinfectant solution replacement. Note that this reprocessor does not determine the degradation of the disinfectant concentration. It is recommended to update the set value according to changes in the operating environment, etc.

WARNING

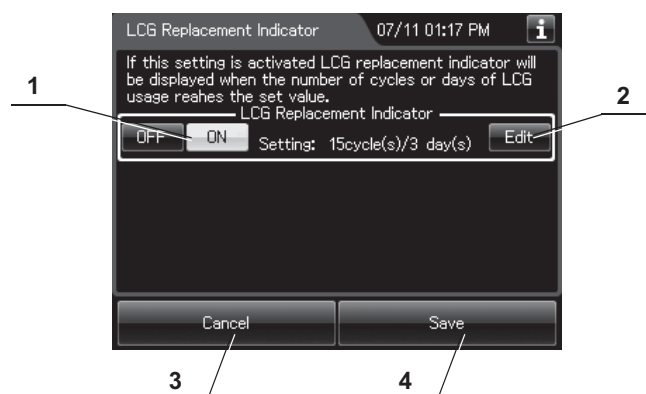
Be sure to check a concentration of the disinfectant solution by using a separately available test strips. The LCG replacement indicator does not determine the effectiveness of the disinfectant solution. The expiration of the disinfectant solution varies depending on many factors including the time after activation, the temperature of the environment where the reprocessor is installed, and the number and types of endoscopes that have been reprocessed. The LCG replacement indicator does not take these and other factors into consideration.

NOTE

- For details of indicator, refer to Section 3.2, "Alarm indicator".
- When replace the consumable item after changing date and time, the disinfectant solution replacement indicator might not be displayed incorrectly.

4.12 LCG replacement indicator

- 1** Select “LCG Replacement Indicator” on the Setting menu.
- 2** Select setting from options. To change the setting value, press “Edit” button.



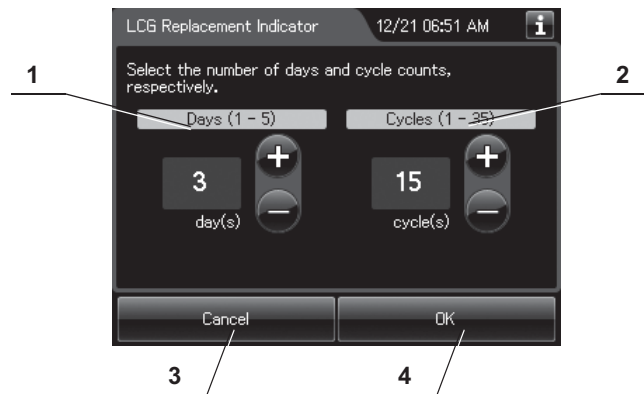
Ch.4

No.	Item/Button	Setting options	Description
1	LCG Replacement Indicator	OFF	Disables the LCG replacement indicator.
		ON (default)	The LCG replacement indicator is displayed when a day count or usage count is reached to the set value.
2	Edit	—	Edit the setting value.
3	Cancel	—	Returns to the Setting menu without saving the edited information.
4	Save	—	Returns to the Setting menu after saving the edited information.

NOTE

The selected settings are displayed with white buttons.

- 3 If “Edit” button is pressed in the previous screen, following screen is displayed. Edit the number of days and cycles, and press “OK” button.



Ch.4

No.	Item/Button	Setting options	Description
1	Days	1 – 5 [days] (default: 3)	Sets the set value of days for the LCG replacement indicator. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
2	Cycles	1 – 35 [usages] (default: 15)	Sets the set value of cycles for the LCG replacement indicator. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
3	Cancel	–	Returns to the Setting menu without saving the edited information.
4	OK	–	Returns to the Setting menu after saving the edited information.

- 4 Press the “Save” button to return to the Setting menu after saving the edited information.



Figure 4.2

NOTE

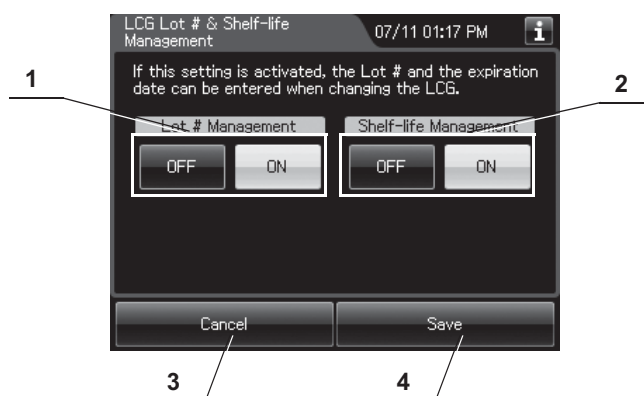
For details of the indicator, refer to Section 3.2, “Alarm indicator”.

4.13 LCG lot number and shelf-life management

When this setting is activated, the disinfectant solution lot number and shelf life can be input during Loading LCG process. If the shelf life is reached, both the message and disinfectant replacement indicator are displayed on the screen and the reprocessor inhibits starting the process automatically. For details how to do setting the Lot number and shelf-life, refer to Section 8.2, “Replacing the disinfectant solution”.

- 1 Select “LCG Lot # & Shelf-Life Management” on the Setting menu.
- 2 Select each setting from options.

Ch.4



No.	Item/Button	Setting options	Description
1	Lot # Management (Disinfectant)	OFF (default)	Disables the lot number entry for disinfectant solution.
		ON	Enables the lot number is entered for disinfectant solution.
2	Shelf-life Management (Disinfectant)	OFF (default)	Disables the shelf-life entry for disinfectant solution.
		ON	User can enter shelf-life of disinfectant solution.
3	Cancel	–	Returns to the Setting menu without saving the selected settings.
4	Save	–	Returns to the Setting menu after saving the selected settings.

NOTE

The selected settings are displayed with white buttons.

- 3 Press the “Save” button to return to the Setting menu after saving the selected settings.

4.14 Filter replacement indicator

When this setting is activated, the reprocessor displays the filter replacement indicator when day counts of each filter reach the set value. After reaching the set value, a pop-up message screen opens soon after powering ON the reprocessor. When this setting is activated, the reprocessor counts the day count (number of days of the each filter is effective after replacement) after each replacement of filters. If the day counts reach the set value, both the message and the filter replacement indicator are displayed on the touch screen.

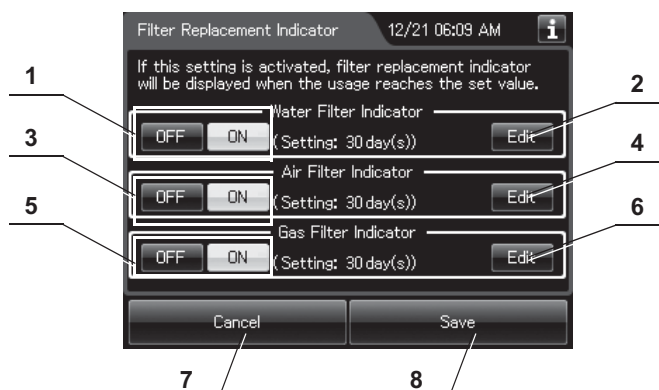
NOTE

- For details of indicator, refer to Section 3.2, “Alarm indicator”.
- When replace the consumable item after changing date and time, the filter replacement indicator might not be displayed incorrectly.

Ch.4

- 1** Select “Filter Replacement Indicator” on the Setting menu.
- 2** Select each setting from options. To change the setting value, press “Edit” button.

4.14 Filter replacement indicator



Ch.4

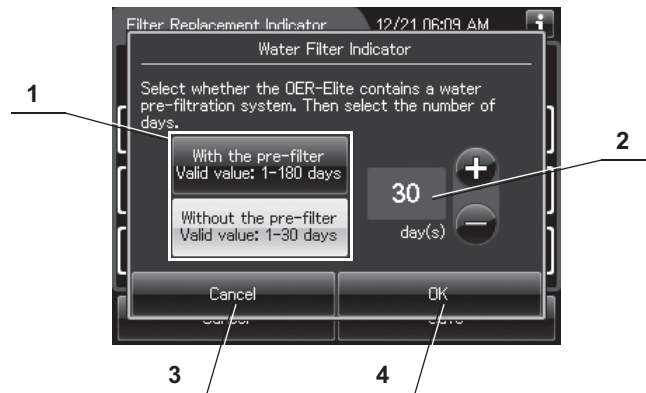
No.	Item/Button	Setting options	Description
1	Water filter replacement indicator	OFF	Disables the filter replacement indicator of water filter.
		ON (default)	The water filter replacement indicator is displayed when the day count is reached the set value.
2	Edit	—	To change the day count of water filter, press the “Edit” button to open the Water Filter Indicator screen. →Refer to “○ Editing the set value for water filter” on page 101.
3	Air filter replacement indicator	OFF	Disables the filter replacement indicator of air filter.
		ON (default)	The air filter replacement indicator is displayed when the set day count is reached.
4	Edit	—	To change the day count of the air filter, press the “Edit” button to open the Air Filter Indicator screen. →Refer to “○ Editing the setting value for air filter” on page 102.
5	Gas filter replacement indicator	OFF	Disables the filter replacement indicator of gas filter.
		ON (default)	The gas filter replacement indicator is displayed when the set day count is reached.
6	Edit	—	To change the day count of the gas filters on lid and tank, press the “Edit” button to open the Gas Filter Indicator screen. →Refer to “○ Editing the set value for gas filter” on page 102.
7	Cancel	—	Returns to the Setting menu without saving the edited information.
8	Save	—	Returns to the Setting menu after saving the edited information.

NOTE

The selected settings are displayed with white buttons.

3 Press the “Save” button to save the edited information.

○ Editing the set value for water filter



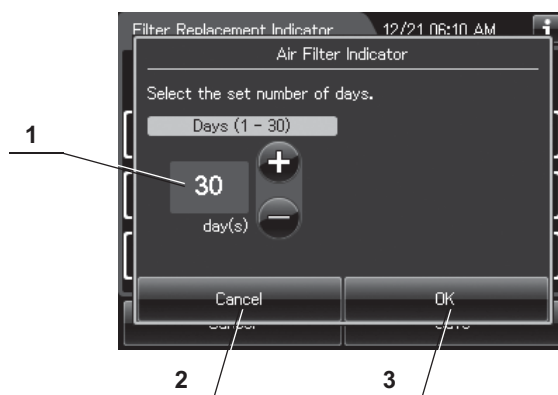
Ch.4

No.	Item/Button	Setting options	Description
1	Pre-filtering	With the pre-filter	When the pre-filter is used, select this option to expand the setting range of day count up to 180 days.
		Without the pre-filter (default)	When the pre-filter is not used, select this option to restrict the setting range of day count to 30 days.
2	Days	1 – 180 [days] or 1 – 30 [days] (default: 30)	Sets the set value of days for the filter replacement indicator of water filter. Pressing the “+” button increments the setting and pressing the “-” button decrements it. The setting range varies depending on the usage of pre-filter.
3	Cancel	–	Returns to the previous screen without saving the edited information.
4	OK	–	Returns to the previous screen after saving the edited information.

NOTE

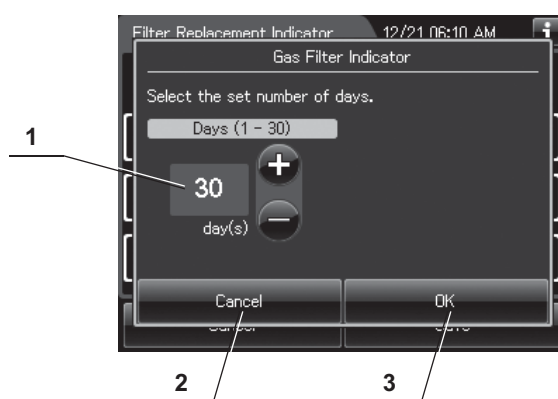
The selected settings are displayed with white buttons.

○ Editing the setting value for air filter



No.	Item/Button	Setting options	Description
1	Days	1 – 30 [days] (default: 30)	Sets the set value of days for the filter replacement indicator of air filter. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
2	Cancel	–	Returns to the previous screen without saving the edited information.
3	Save	–	Returns to the previous screen after saving the edited information.

○ Editing the set value for gas filter

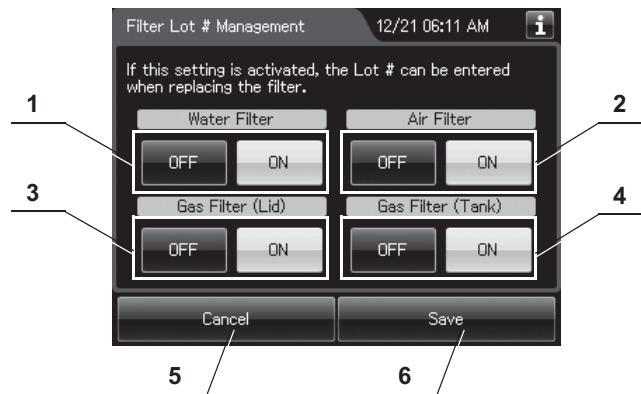


No.	Item/Button	Setting options	Description
1	Days	1 – 30 [days] (default: 30)	Sets the set value of days for the filter replacement indicator of gas filter. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
2	Cancel	–	Returns to the Setting menu without saving the edited information.
3	Save	–	Returns to the Setting menu after saving the edited information.

4.15 Filter lot number management

When this setting is activated, filter lot number can be input during replacement of a water, air, or gas filter. For details on replacement of each filters, water filter is referred to Section 8.4, “Replacing the water filter (MAJ-824 or MAJ-2318)”, air filter is referred to Section 8.5, “Replacing the air filter (MAJ-823)”, and gas filter is referred to Section 8.6, “Replacing the gas filter (MAJ-822)”.

- 1 Select “Filter Lot # Management” on the Setting menu.
- 2 Press “ON” or “OFF” button for each setting.



Ch.4

No.	Item/Button	Setting options	Description
1	Water Filter	OFF (default)	Disables the lot number entry for water filter.
		ON	Enables the lot number is entered for water filter.
2	Air Filter	OFF (default)	Disables the lot number entry for air filter.
		ON	User can enter the lot number of air filter.
3	Gas Filter (Lid)	OFF (default)	Disables the lot number entry for gas filter on the lid.
		ON	User can enter the lot number of gas filter on the lid.
4	Gas Filter (Tank)	OFF (default)	Disables the lot number entry for gas filter on the tank.
		ON	User can enter the lot number of gas filter on the tank.
5	Cancel	–	Returns to the Setting menu without saving the edited information.
6	Save	–	Returns to the Setting menu after saving the edited information.

NOTE

The selected settings are displayed with white buttons.

- 3 Press the “Save” button to save the selected settings.

4.16 Auxiliary water tube cleaning setting

When this setting is activated, an auxiliary water tube (MAJ-855) can be reprocessed simultaneously with an endoscope with water jet function by using dedicated connecting tube MAJ-2138. In this case, two endoscopes with two auxiliary water tubes can be reprocessed in one reprocessing process. To obtain optional connecting tube MAJ-2138, contact Olympus.

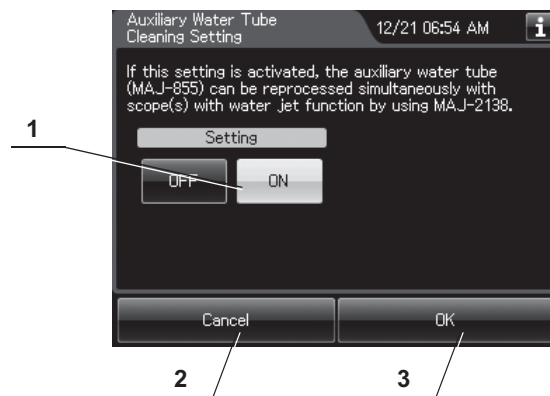
WARNING

If the setting is activated, always use connecting tube MAJ-2138 for an endoscope with water jet function. Otherwise, channel connectivity monitoring may not be able to detect improper connection of the connecting tubes.

NOTE

- If the setting is activated, the Connection guide screen which appears after reading the scope ID displays MAJ-2138 as the connecting tube to be connected to the water jet function.
- If the setting is activated, an endoscope with water jet function cannot be reprocessed without an auxiliary water tube (MAJ-855).
- If this setting is disabled, either 2 endoscopes or 1 endoscope and 1 auxiliary water tube (MAJ-855) can be simultaneously reprocessed.
- For details how to install endoscopes and auxiliary water tubes simultaneously, refer to Section 6.6, "Loading of endoscopes and accessories".

- 1** Select "Auxiliary Water Tube Cleaning Setting" on the Setting menu.
- 2** Select setting from options. Then press "OK" or "Save" button.



Ch.4

No.	Item/Button	Setting options	Description
1	Auxiliary Water Tube Cleaning Setting	OFF (default)	Disables the auxiliary water tube cleaning setting.
		ON	Auxiliary water tubes (MAJ-855 or MAJ-2021) can be reprocessed simultaneously with endoscopes with water jet function by using dedicated connecting tube MAJ-2138.
2	Cancel	–	Returns to the Setting menu without saving the selected setting.
3	Save/OK	–	When the “OFF” is selected, “Save” button is displayed here. Press this button to return to the setting menu after saving the selected setting. When the “ON” is selected, “OK” button is displayed here. Press this button to go to the confirmation screen about activating this setting.

NOTE

The selected settings are displayed with white buttons.

- When “ON” was selected in the setting, this confirmation screen is displayed. Read the description and press the “Save” button to save the setting.

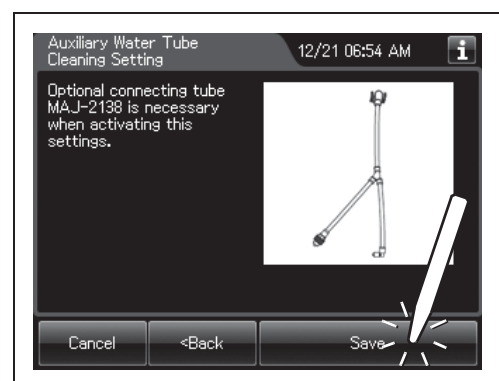


Figure 4.3

4.17 Print option

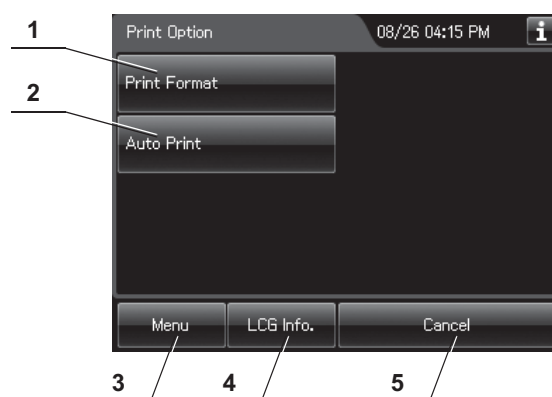
This step is to make the settings for the auto printing function and the print format for auto printing function.

NOTE

To print a record, an optional MAJ-2144 printer set is necessary.

- 1 Select "Print Option" on the Setting menu.
- 2 Select the item that you want to change the print option settings.

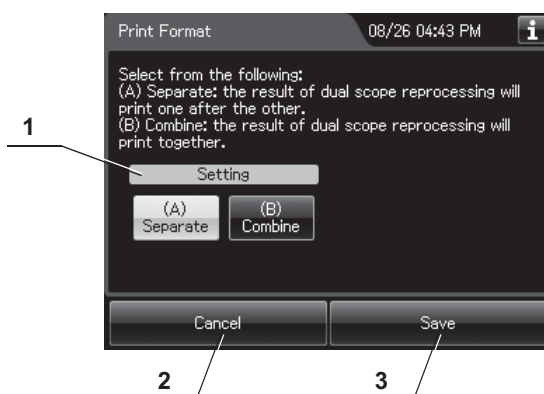
Ch.4



No.	Item/Button	Description
1	Print Format	Goes to the "Print Format Setting". →Refer to "■ Print format setting" on page 107.
2	Auto Print	Goes to the "Auto Print". →Refer to "■ Auto Print Setting" on page 108.
3	Menu	Returns to the Menu.
4	LCG Info	Press to open the LCG Info display. →Refer to Section 3.5. "LCG Info. Screen"
5	Cancel	Returns to the Setting menu.

■ **Print format setting**

- 1** Select “Print Format” on the Print option menu.
- 2** Select setting from options.


Ch.4

No.	Item/Button	Setting options	Description
1	Print Format Setting	(A) Separate (default)	The results of two endoscopes in a process are printed out one after the other.
		(B) Combine	The results of two endoscopes in a process are combined in one result and printed out.
2	Cancel	–	Returns to the previous screen without saving the selected setting.
3	Save	–	Returns to the previous screen after saving the selected setting.

NOTE

- For details of the print format, refer to Section 6.10, “Printing of the reprocessing records”.
- The selected settings are displayed with white buttons.

- 3** Press the “Save” button to save the selected setting.

■ Auto Print Setting

If this setting is activated, Reprocessing result and Leak Testing result will print automatically after the process is complete.

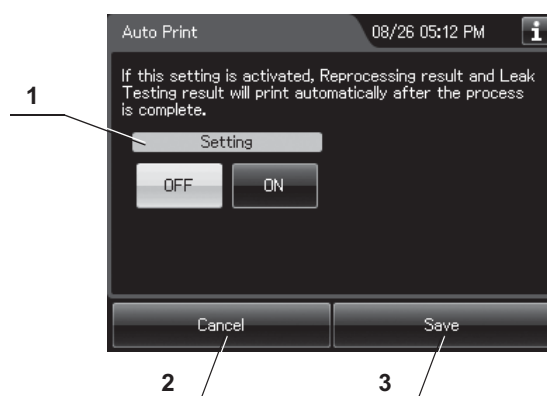
NOTE

- To print a record, an optional MAJ-2144 printer set is necessary.
- If the printer is not connected to the reprocessor although “Auto Print” is selected, [E094] error occurs at the completion of reprocessing process, leak test, and leaking scope decontamination.

Ch.4

1 Select “Auto Print” on the Print option menu.

2 Select setting from options.



No.	Item/Button	Setting options	Description
1	Auto Print Setting	OFF (default)	Disable the auto printing for “Reprocessing”.
		ON	Enable the auto printing for “Reprocessing”.
2	Cancel	—	Returns to the previous screen without saving the selected setting.
3	Save	—	Returns to the previous screen after saving the selected setting.

NOTE

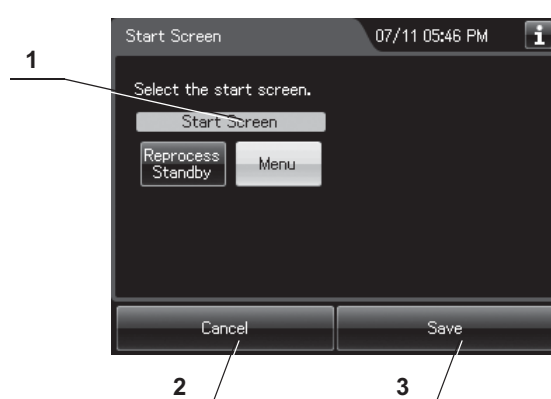
The selected settings are displayed with white buttons.

3 Press the “Save” button to save the selected setting.

4.18 Start screen

The start screen, which is displayed after turning on the reprocessor, can be chosen from Reprocess standby screen or Menu screen.

- 1 Select “Start Screen” on the Setting menu.
- 2 Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	Start Screen setting	Reprocessing standby	The menu screen does not appear automatically the reprocessing standby screen.
		Menu (default)	The menu screen appears as the start screen.
2	Cancel	–	Returns to the Setting menu without saving the selected setting.
3	Save	–	Returns to the Setting menu after saving the selected setting.

NOTE

The selected settings are displayed with white buttons.

- 3 Press the “Save” button to save the selected setting.

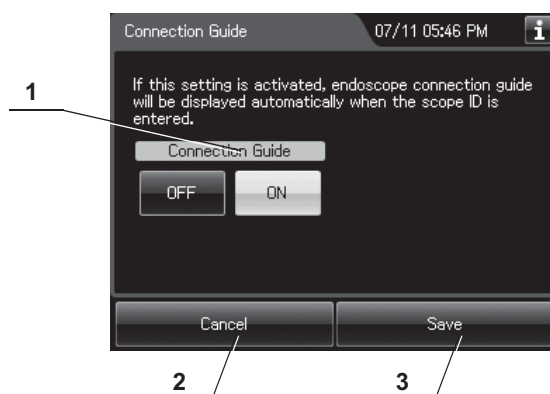
4.19 Connection guide

When this setting is activated, the connection guide screen is displayed after inputting scope ID with RFID.

For details, refer to “○ Connection guide of first endoscope” on page 179, or “○ Connection guide of second endoscope” on page 206.

- 1 Select “Connection Guide” on the Setting menu.
- 2 Select setting from options.

Ch.4



No.	Item/Button	Setting options	Description
1	Connection Guide	OFF	Disable the Connection Guide screen.
		ON (default)	The Connection Guide screen appears automatically when scope ID is entered.
2	Cancel	—	Returns to the Setting menu without saving the selected setting.
3	Save	—	Returns to the Setting menu after saving the selected setting.

NOTE

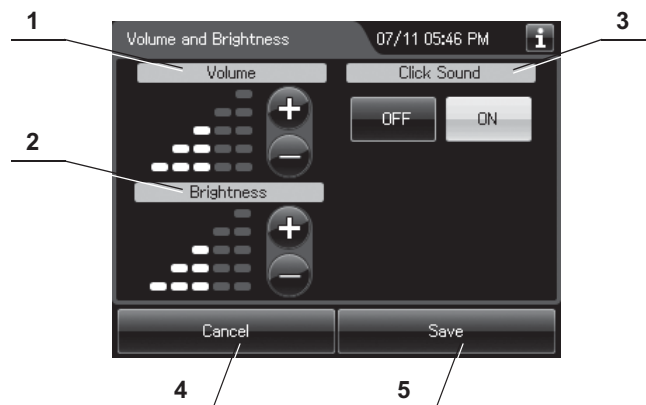
The selected settings are displayed with white buttons.

- 3 Press the “Save” button to save the selected setting.

4.20 Volume and brightness

The buzzer volumes and touch screen brightness can be adjusted. Also, when the panel click sound setting is activated, a click sound can be generated when a button on the touch screen is pressed.

- 1** Select “Volume and Brightness” on the Setting menu.
- 2** Edit the settings.



Ch.4

No.	Item/Button	Setting options	Description
1	Volume	5 steps (default: 3)	Sets the volume of the buzzer in 5 steps. Pressing the “+” button increments the setting and pressing the “-” button decrements it.
2	Brightness	5 steps (default: 3)	Sets the brightness of the touch screen in 5 steps. Pressing the “+” button increases the brightness and pressing the “-” button decreases it.
3	Click Sound	ON (default)	The click sound is generated when a button on the touch screen is pressed.
		OFF	The click sound is not generated even when a button on the touch screen is pressed.
4	Cancel	–	Returns to the Setting menu without saving the edited information.
5	Save	–	Returns to the Setting menu after saving the edited information.

- 3** Press the “Save” button to save the edited information.

4.21 Date and time

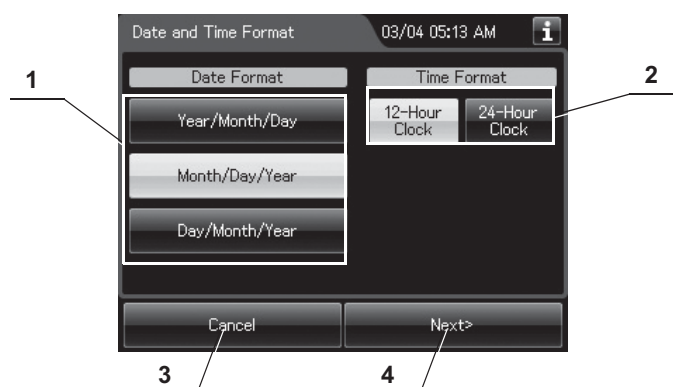
This setting can not only select date format and time format (either 12 or 24 hour clock), but also adjust date and time.

NOTE

When replace the consumable item after changing date and time, the alarm indicator might not be displayed incorrectly.

Ch.4

- 1 Select "Date and Time" on the Setting menu.
- 2 Select date format and time format.



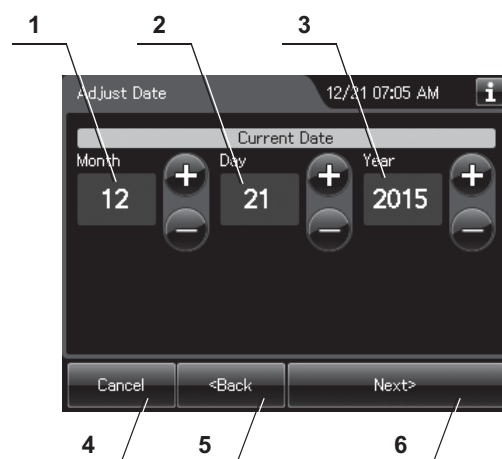
No.	Item/Button	Setting options	Description
1	Date Format	Year/Month/Day	Sets the format of the date display on the touch screen.
		Month/Day/Year (default)	
		Day/Month/Year	
2	Time Format	12-hour clock (default)	The hour is displayed in the 12-hour system, with "AM" for before noon or "PM" for the afternoon.
		24-hour clock	The hour is displayed in the 24-hour system.
3	Cancel	—	Returns to the Setting menu without saving the edited information.
4	Next	—	Goes to the next setting.

NOTE

The selected settings are displayed with white buttons.

3 Press the “Next” button.

4 Check and correct the date, and then press the “Next” button.



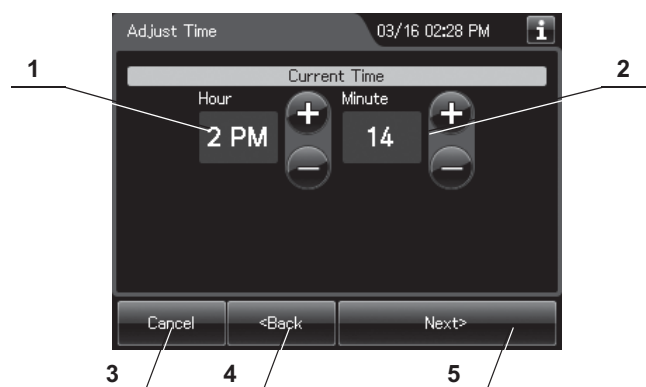
Ch.4

No.	Item/Button	Setting options	Description
1	Month	1 – 12	Edit the figure of the current month. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
2	Day	1 – 31	Edit the figure of the current day. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
3	Year	2012 – 2087	Edit the figure of the current year. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
4	Cancel	–	Returns to the Setting menu without saving the edited information.
5	Back	–	Returns to the previous screen.
6	Next	–	Goes to the next setting.

NOTE

The order of year, month, and day displayed on the screen depends on the date format setting.

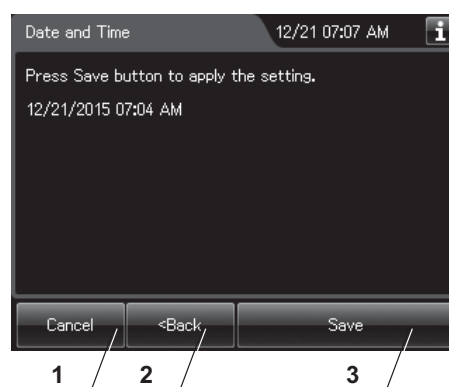
5 Check and correct the time, and then press the “Next” button.



Ch.4

No.	Item/Button	Setting options	Description
1	Hour	0 – 11 (12-hour clock) 0 – 23 (24-hour clock)	Edit the figure of the current hour. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
2	Minute	0 – 59	Edit the figure of the current minute. Pressing the “+” button increments the setting and pressing the “–” button decrements it.
3	Cancel	–	Returns to the Setting menu without saving the edited information.
4	Back	–	Returns to the previous screen.
5	Next	–	Goes to the confirmation screen.

6 Confirm the edited information and press the “Save” button.

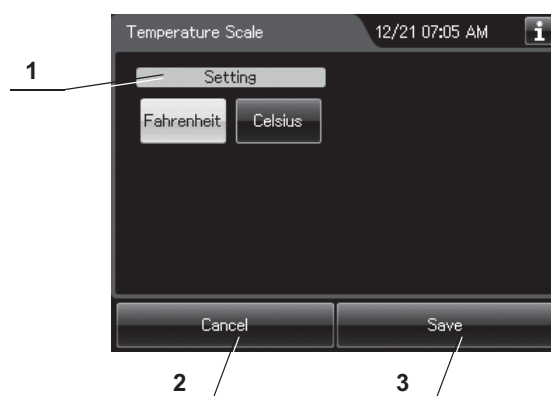


No.	Item/Button	Setting options	Description
1	Cancel	–	Returns to the Setting menu without saving the edited information.
2	Back	–	Returns to the previous screen.
3	Save	–	Returns to the Setting menu after saving the edited information.

4.22 Temperature scale

The temperature scale displayed on the touch screen can be selected in this setting.

- 1** Select “Temperature Scale” from the Settings menu.
- 2** Select setting from options.



Ch.4

No.	Item/Button	Setting options	Description
1	Setting	Fahrenheit (default)	The temperature is displayed in the Fahrenheit scale (unit: °F).
		Celsius	The temperature is displayed in the Celsius scale (unit: °C).
2	Cancel	–	Returns to the Setting menu without saving the edited information.
3	Save	–	Returns to the Setting menu after saving the edited information.

NOTE

The selected settings are displayed with white buttons.

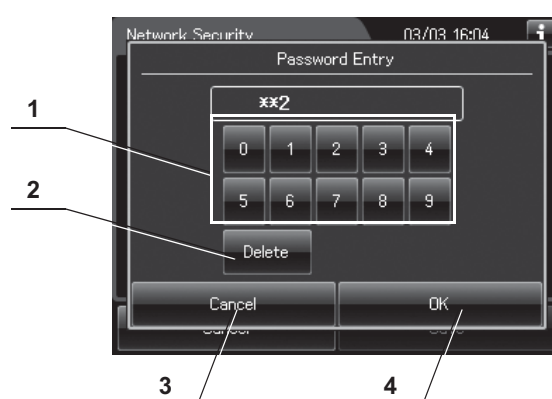
- 3** Press the “Save” button to save the selected setting.

4.23 Network setting

The communication parameters with external equipment can be set.

- 1** On the Setting menu, select “Network”. If the “Network Security” setting is not activated, go to Step 3 below. For details of “Network Security”, refer to Section 4.24, “Network security”.
- 2** If the “Network Security” setting is activated, the password authentication screen appears. Enter the password and press the “OK” button. If a wrong password is entered, the entire password is cleared. In this case, re-enter the correct password.

Ch.4



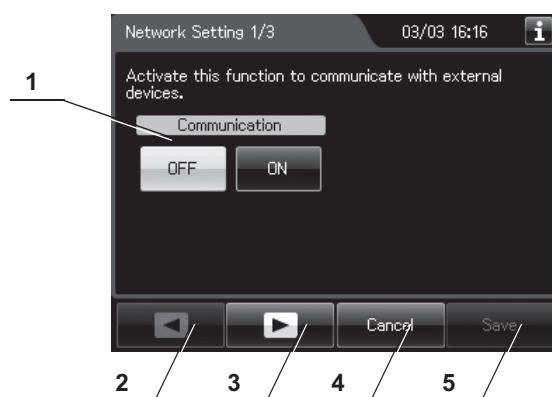
No.	Button	Description
1	Numeric buttons	Press to enter the value.
2	Delete	Deletes one character.
3	Cancel	Returns to the Setting menu without saving the edited information.
4	OK	The input password will be checked. When the password is correct, the network setting screen appears. If the password is erroneous, the entire input password is cleared.

NOTE

If you forget the password, contact Olympus.

- 3** This setting consists of three pages. Switch the page using the next page button or the previous page button, and edit the settings in each page.

○ Page 1



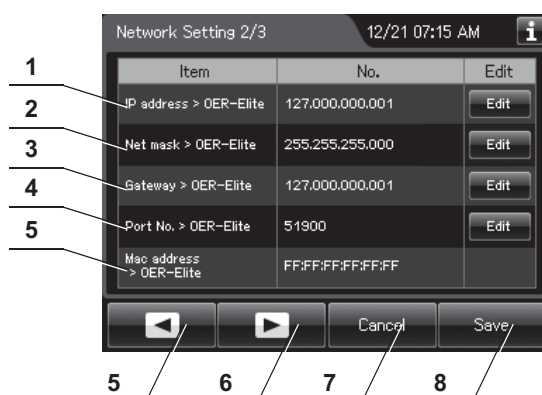
Ch.4

No.	Item/Button	Setting options	Description
1	Communication	OFF (default)	The network communication function is disabled.
		ON	The network communication function is enabled.
2	Previous page button	–	This button is unavailable on this page.
3	Next page button	–	Press to go to the next page. When there is no further page to go forward to, the button turns gray and becomes unavailable.
4	Cancel	–	Returns to the Setting menu without saving the edited information.
5	Save	–	Returns to the Setting menu after saving the edited information.

NOTE

Turning ON the “Communication” setting without connecting the OLYMPUS KE to the OER-Elite may lead to slower communications when connecting the OLYMPUS KE afterward.

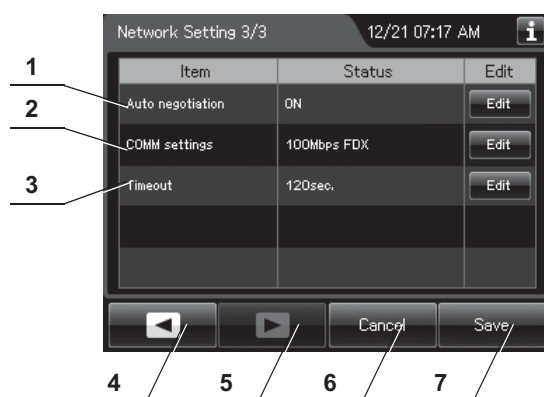
○ Page 2



Ch.4

No.	Item/Button	Setting options	Description
1	IP address > OER-Elite	Conforming to the IPV4 address setting. (default: 127.000.000.001)	The IP address of the OER-Elite is displayed. Press the “Edit” button to open the screen for use in input. The following addresses are invalid: x.x.x.0 x.x.x.255
2	Net mask > OER-Elite	Conforming to the IPV4 address setting. (default: 255.255.255.0)	The subnet address of the OER-Elite is displayed. Press the “Edit” button to open the screen for use in input.
3	Gateway > OER-Elite	Conforming to the IPV4 address setting. (default: 127.000.000.001)	The gateway of the OER-Elite is displayed. Press the “Edit” button to open the screen for use in input.
4	Port No. > OER-Elite	0 – 65535 (default: 51900)	The port No. of the OER-Elite is displayed. Press the “Edit” button to open the screen for use in input.
5	Mac address > OER-Elite	–	The MAC address of the OER-Elite is displayed. The MAC address cannot be modified.
6	Previous page button	–	Press to return to the previous page. When there is no further page to turn back to, the button turns gray and becomes unavailable.
7	Next page button	–	Press to go to the next page. When there is no further page to go forward to, the button turns gray and becomes unavailable.
8	Cancel	–	Returns to the Setting menu without saving the edited information.
9	Save	–	Returns to the Setting menu after saving the edited information.

○ Page 3



Ch.4

No.	Item/Button	Setting options	Description
1	Auto negotiation	ON (default), OFF	The status of auto negotiation is displayed. Each press of the “Edit” button switches the setting values alternately. OFF: The auto negotiation is disabled. ON: The auto negotiation is enabled.
2	COMM Settings	100 Mbps full duplex (default), 100 Mbps half duplex, 10 Mbps full duplex, 10 Mbps half duplex	The communication method is displayed. Each press of the “Edit” button switches the communication method.
3	Timeout	1 – 255 seconds (default: 120 seconds)	The time-out time is displayed. Press the “Edit” button to open the screen for use in input.
4	Previous page button	–	Press to return to the previous page. When there is no further page to turn back to, the button turns gray and becomes unavailable.
5	Next page button	–	This button is unavailable on this page
6	Cancel	–	Returns to the Setting menu without saving the edited information.
7	Save	–	Returns to the Setting menu after saving the edited information.

4 Press the “Save” button to save the edited information.

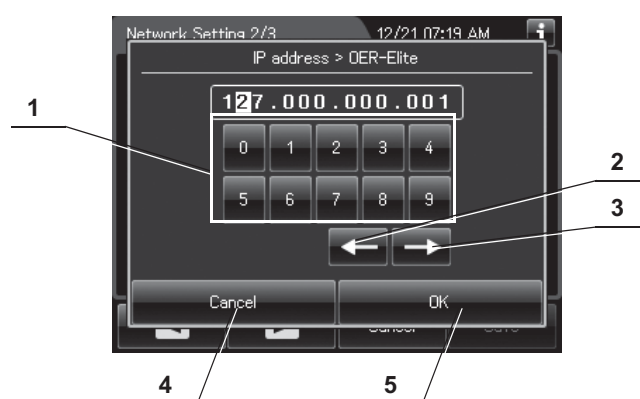
○ Editing the setting of each item

The settings of the following items can be edited:

- Reprocessor IP address
- Reprocessor net mask
- Reprocessor gateway
- Reprocessor port number
- Auto negotiation
- COMM Settings
- Timeout

Ch.4

- 1** Press the “Edit” button for the IP address, etc. to open the screen for use in input.
- 2** Enter the figures using the numeric buttons.



No.	Button	Description
1	Numeric buttons	Press to enter the value.
2	←	Moves the cursor to the right.
3	→	Moves the cursor to the left.
4	Cancel	Returns to the previous screen by disabling the edited settings.
5	OK	Returns to the previous screen by enabling the edited settings. While the settings are not changed, the “OK” button turns gray.

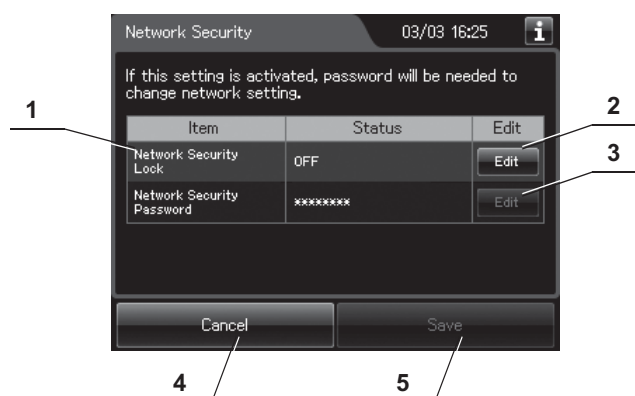
- 3** Confirm the edited information and press the “OK” button to return to the previous screen.

4.24 Network security

When this setting is activated, the network setting is protected with a password lock. The password can be changed by editing the network security password in this setting.

When this setting is performed, the Network Settings are password-protected, and the screen of password authentication is displayed as Section 4.23, "Network setting".

- 1** Select "Network Security" on the Setting menu.
- 2** Edit the settings.



Ch.4

No.	Item/Button	Setting options	Description
1	Network Security Lock	OFF (default)	Password is unnecessary to open the network setting.
		ON	Password is necessary to open the network setting. →Refer to Section 4.23, "Network setting".
2	"Edit" button (Network Security Lock)	–	If the network security lock is OFF, press to activate it and edit the new network security password. If the network security lock is ON, press to inactivate it. In this case, to input the network security password is necessary.
3	"Edit" button (Network Security Password)	–	Press to change the password. If the network security lock is OFF, the button turns gray and becomes unavailable.
4	Cancel	–	Returns to the Setting menu without saving the edited information
5	Save	–	Returns to the Setting menu after saving the edited information.

- 3** To change the "Network Security Lock", refer to the following sections:
 - “○ Enabling the "Network Security Lock"” on page 122.
 - “○ Disabling the "Network Security Lock"” on page 123.
 - To set a password, refer to “○ Changing the password” on page 124.
- 4** After completing the editing, press the "Save" button to save the edited information.

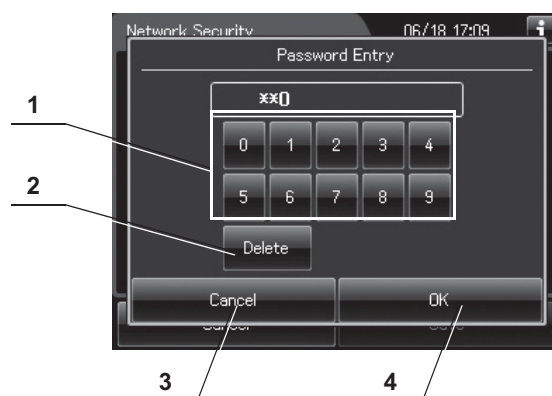
○ Enabling the “Network Security Lock”

- 1 Press the “Edit” button for the network security lock on the Network Security setting screen.



Figure 4.4

- 2 Enter the new password up to 10 numbers and press the “OK” button. The password re-input screen appears.



No.	Button	Description
1	Numeric buttons	Press to enter the value.
2	Delete	Deletes one character entered immediately before.
3	Cancel	Returns to the Setting menu without saving the edited information.
4	OK	Returns to the previous screen if the entered password is correct. All of the entered characters are cleared if the entered password is erroneous.

- 3 Enter the new password again and press the “OK” button. When the input password is correct, the password is changed and the screen returns to the Network Security setting screen.

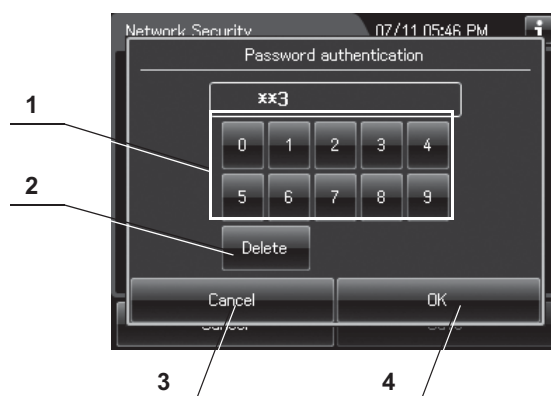
○ Disabling the “Network Security Lock”

- 1 Press the “Edit” button for the network security lock on the Network Security setting screen.



Figure 4.5

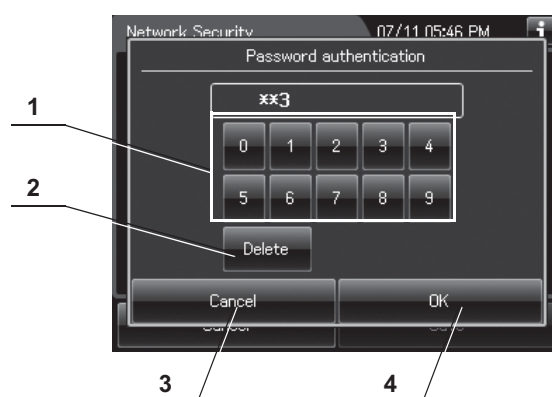
- 2 Enter the current password. When the entered password is correct, the password input screen closes and the security setting is disabled.



No.	Button	Description
1	Numeric buttons	Press to enter the value.
2	Delete	Deletes one character entered immediately before.
3	Cancel	Returns to the previous screen by disabling the edited settings.
4	OK	Returns to the previous screen if the entered password is correct. All of the entered characters are cleared if the entered password is erroneous.

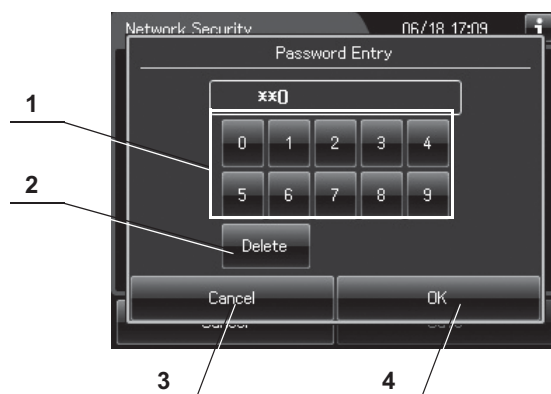
○ Changing the password

- 1** Press the “Edit” button for the network security password on the Network Security setting screen.
- 2** Enter the current password. The password input screen appears when the entered password is correct.



No.	Button	Description
1	Numeric buttons	Press to enter the value.
2	Delete	Deletes one character entered immediately before.
3	Cancel	Returns to the previous screen by disabling the edited settings.
4	OK	Returns to the previous screen if the entered password is correct. All of the entered characters are cleared if the entered password is erroneous.

- 3** On the password input screen, enter the new password and press the “OK” button. When the entered password is correct, the password re-input screen appears.



Ch.4

No.	Button	Description
1	Numeric buttons	Press to enter the value.
2	Delete	Deletes one character entered immediately before.
3	Cancel	Returns to the previous screen by disabling the edited settings.
4	OK	Returns to the previous screen if the entered password is correct. All of the entered characters are cleared if the entered password is erroneous.

- 4** On the password re-input screen, enter the new password again and press the “OK” button. When the input password is correct, the password is changed and the screen returns to the Network Security setting screen.

Chapter 5 *Inspection and Preparation Before Use*

5.1 *Inspection before use*

To ensure that this reprocessor operates safely and reliably, inspect and clean all parts before first use of the day. Also, check all consumables and replace or replenish as necessary.

WARNING

- When using the disinfectant solution and alcohol, Olympus recommends the use of gas filters and running this reprocessor 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 reprocessor exhibits an allergic reaction or symptoms, no matter how slight, they should discontinue the task they are performing and vacate the room.

- Be sure to perform all inspections and replenish consumables as described in this chapter. Otherwise, the reprocessor may not work properly.
- If any irregularity is found during the inspections, do not use the reprocessor and contact Olympus. Using the reprocessor when an irregularity has been detected may impair operation of the reprocessor and could cause leakage, an electric shock, burns, and/or a fire and create an infection control risk.

Ch.5

WARNING

- During inspection, always wear appropriate personal protective equipment, such as eyewear, face mask, moisture-resistant clothing, and chemical-resistant gloves that fit properly and are long enough so that your skin and eyes is not exposed. All personal protective equipment should be inspected before use and replaced periodically before it is damaged.

5.2 Flow of inspection

On the first day you use the reprocessor, inspect it by following the procedure below.

Ch.5

