7 Put the tube-side ends of the two filter tubes in the container placed and insert the connector ends of the two filter tubes into the connector above the water filter housing and the connector below the water filter housing until they click. Water will start to flow from the tube connected to the connector below the water filter housing.

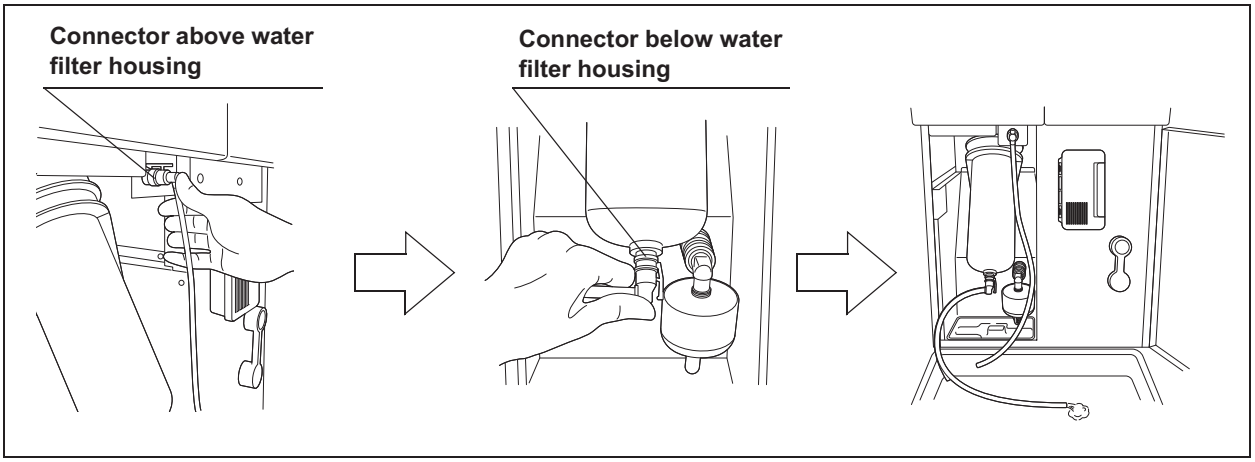


Figure 7.40

8 Press the “Continue” button. If need more information, press the “Detail” button.

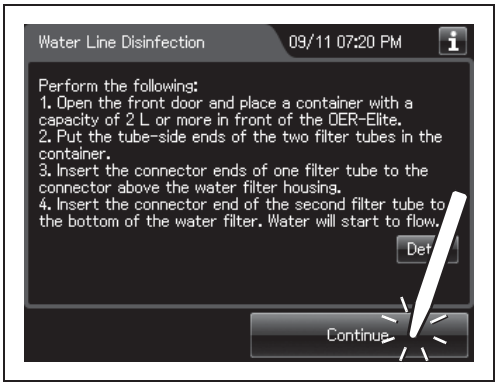


Figure 7.41

9 When water flow stops, disconnect the two filter tubes by pushing the lock levers on their connectors.

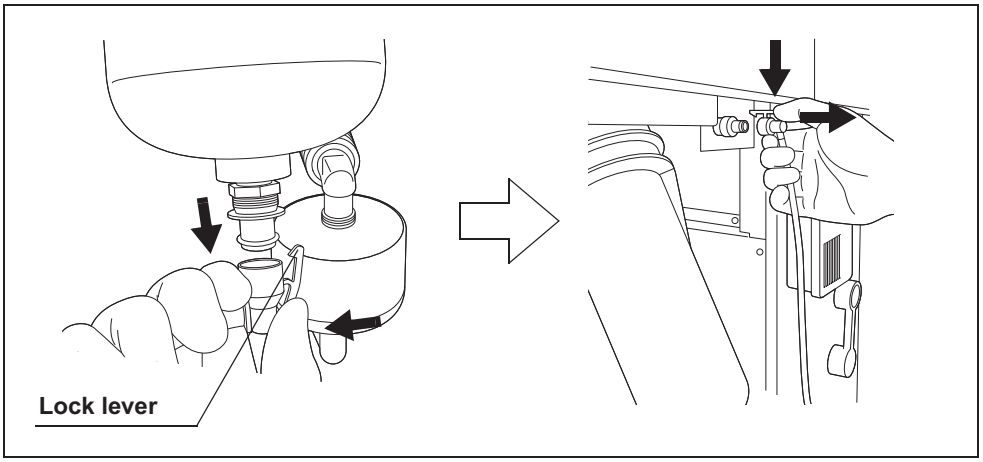


Figure 7.42

10 Press the “Continue” button.

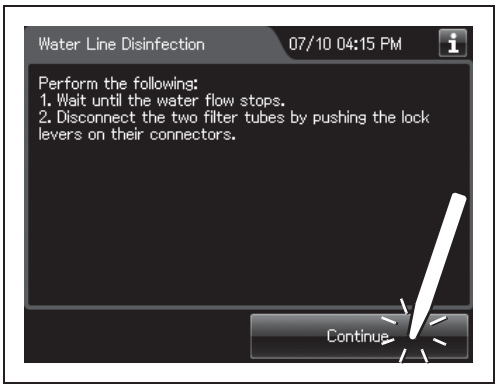


Figure 7.43

11 Step on the foot pedal to open the lid.

12 Connect the water supply piping disinfection hose between the connector C1 in the reprocessing basin and the water supply piping disinfection connector.

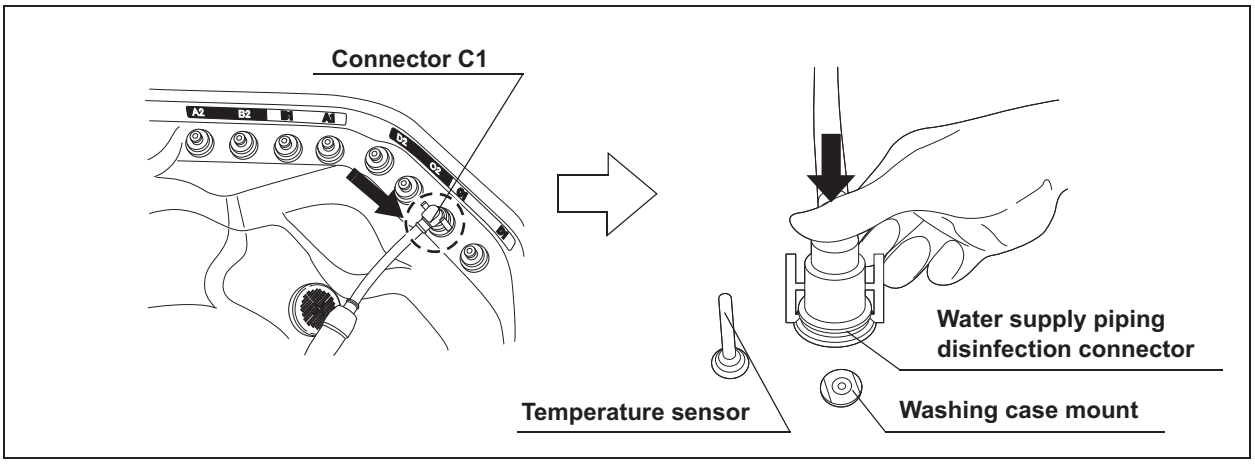


Figure 7.44

13 Close the lid by pushing until it clicks.

14 Press the “Continue” button to supply the disinfectant solution in the reprocessing basin.

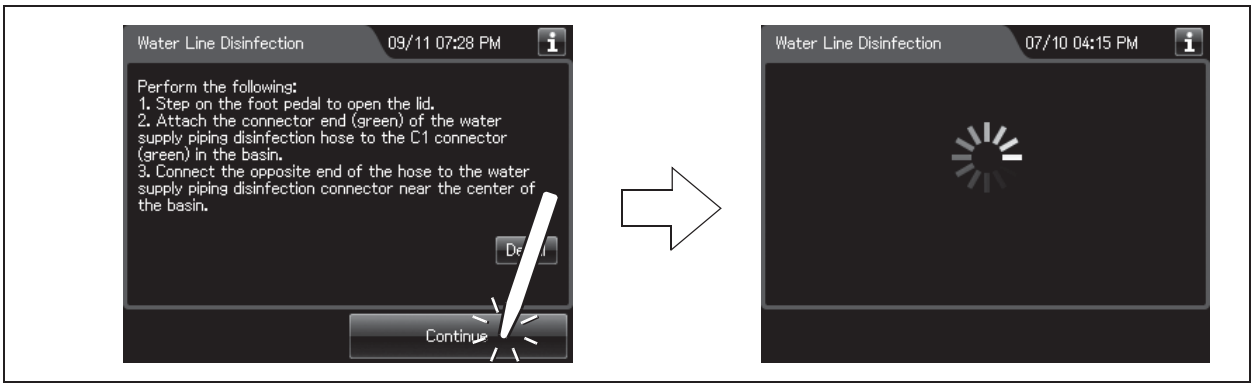


Figure 7.45

15 When the reprocessing basin is filled with disinfectant solution, a buzzer sounds three times and the touch screen displays the following screen.

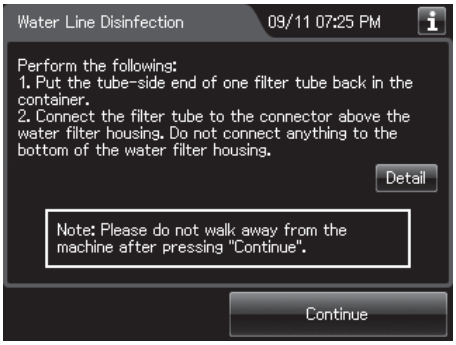


Figure 7.46

16 Put the tube-side end of the filter tube and put it in the container.

17 Insert the connector end of the filter tube into the connector above the water filter housing until it clicks. Do not connect anything to the connector below the water filter housing.

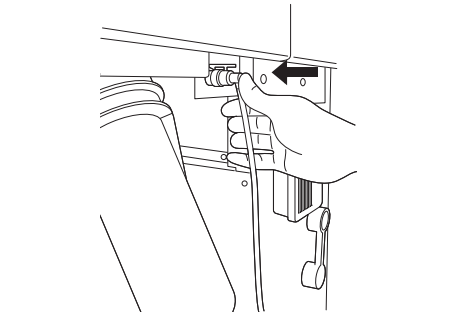


Figure 7.47

18 Press the “Continue” button. Please do not walk away from the reprocessor.

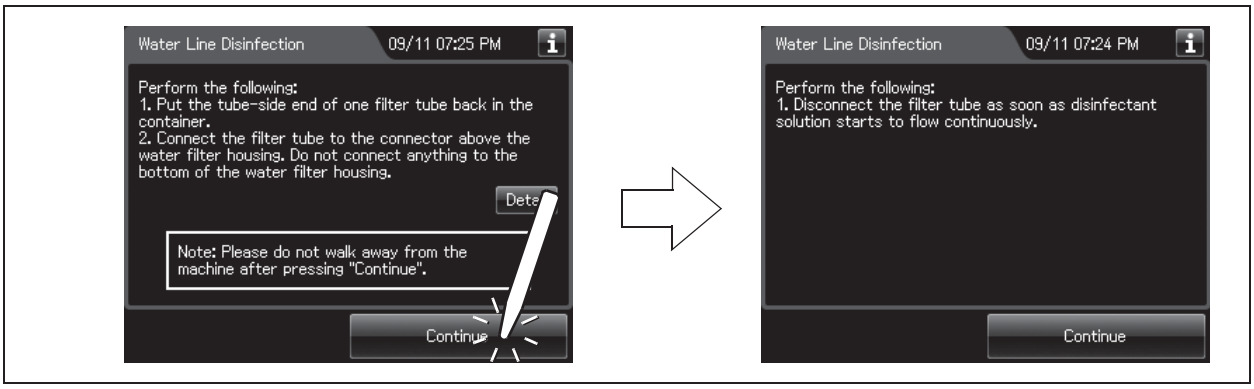


Figure 7.48

19 Disconnect the filter tube as soon as disinfectant solution starts to flow from it continuously.

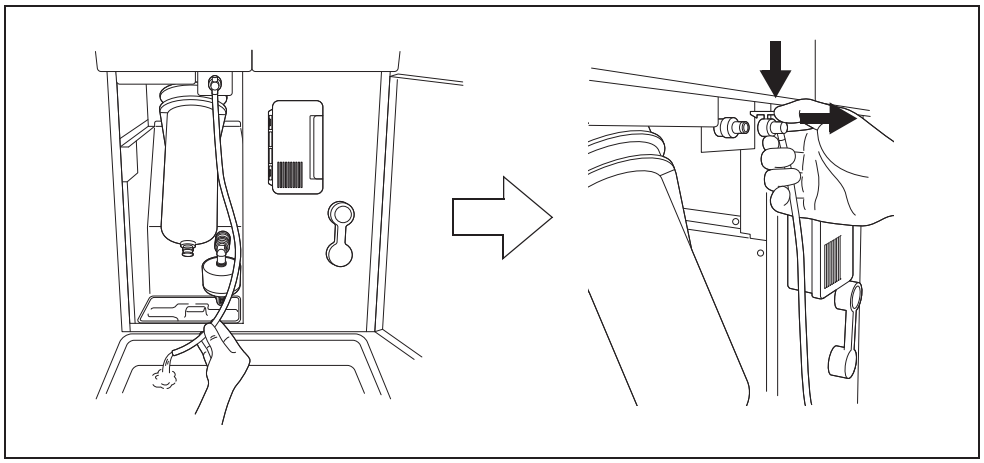


Figure 7.49

20 Press the “Continue” button.

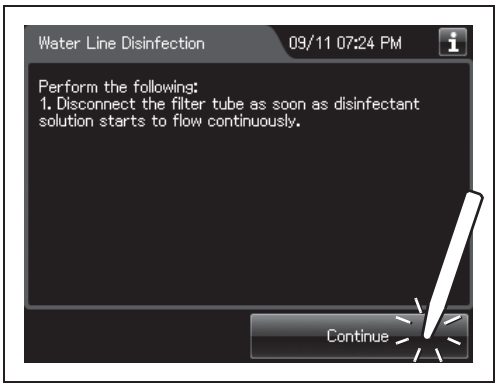


Figure 7.50

21 When the disinfection process starts, the touch screen displays the remaining time and the progress bar.

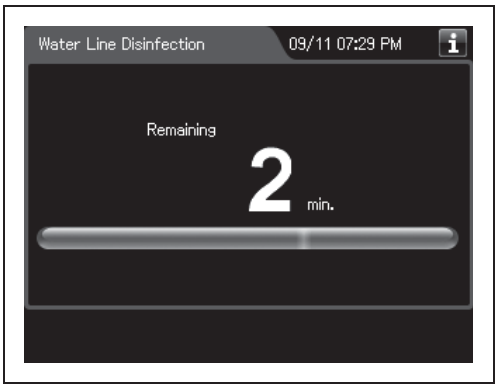


Figure 7.51

NOTE

If the temperature of the disinfectant solution is less than 20°C (68°F), it will be heated to 20°C (68°F). During heating, the remaining time countdown and the progress bar display stop and turn gray. After the completion of heating, the remaining time countdown and progress bar display resume.

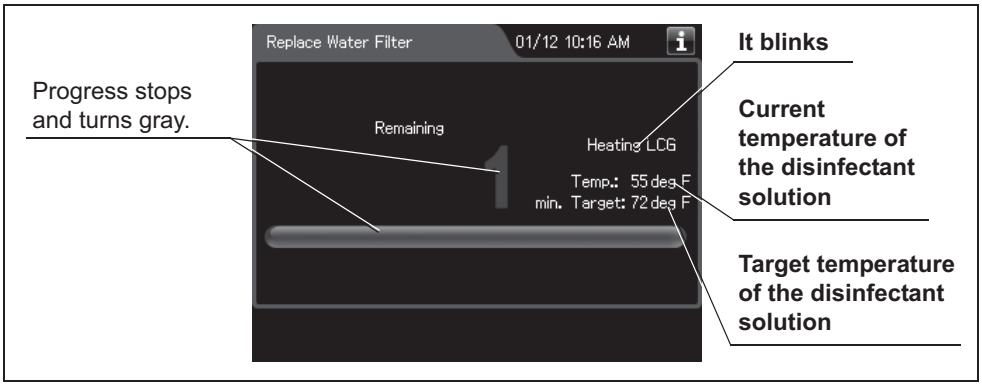


Figure 7.52

22 Make sure that a jet of fluid is output from the water supply/circulation nozzle to the dome of lid during the process.

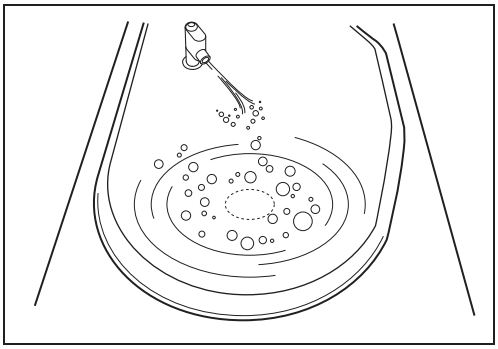


Figure 7.53

NOTE

Fluid jet from the water supply/circulation nozzle of this process is gentler than other processes such as the endoscope reprocessing process. As a result, fluid spreads on less than half of dome part of the lid whereas the fluid jet of other process spreads on entire dome part of the lid. This difference is due to use of a different pump and therefore the gentle fluid flow of this process is adequate.

23 When the remaining time displayed on the touch screen reaches 0 minutes, the buzzer sounds and the touch screen displays the following screen.

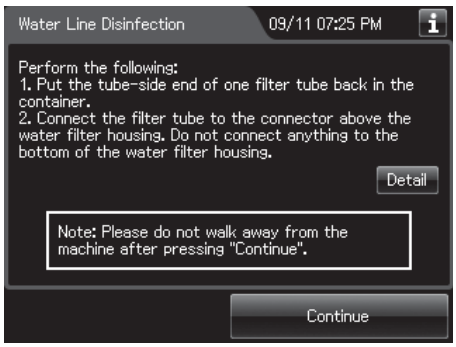


Figure 7.54

24 Put the tube-side end of the filter tube back in the container.

25 Connect the connector end of the filter tube into the connector above the water filter housing. Do not connect a filter tube to the connector below the water filter housing.

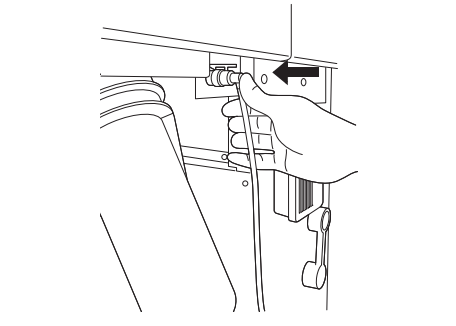


Figure 7.55

26 Press the “Continue” button. The touch screen displays a screen as shown in the following figure and water will flow from the filter tube.

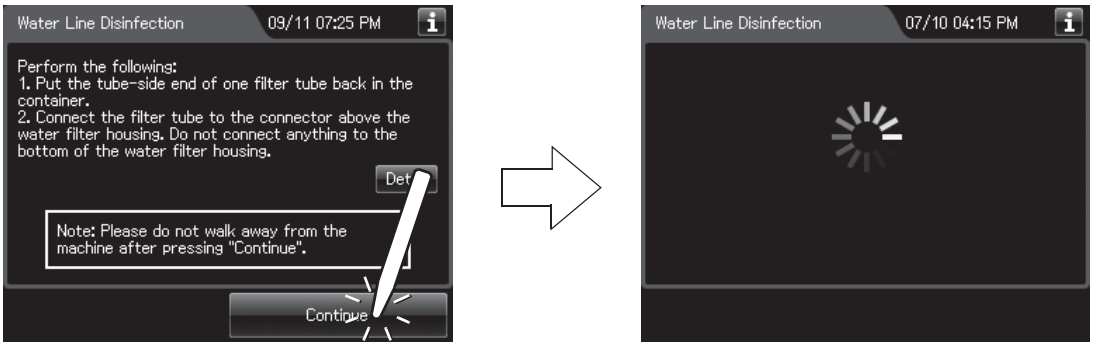


Figure 7.56

27 After several seconds, the buzzer sounds indicating the end of the process and the touch screen displays the following screen.

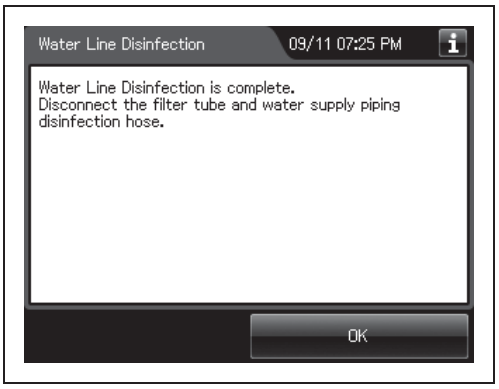


Figure 7.57

28 Disconnect the filter tube by pushing its lock lever.

29 Close the front door.

30 Step on the foot pedal to open the lid.

31 Disconnect the water supply piping disinfection hose and close the lid by pushing until it clicks.

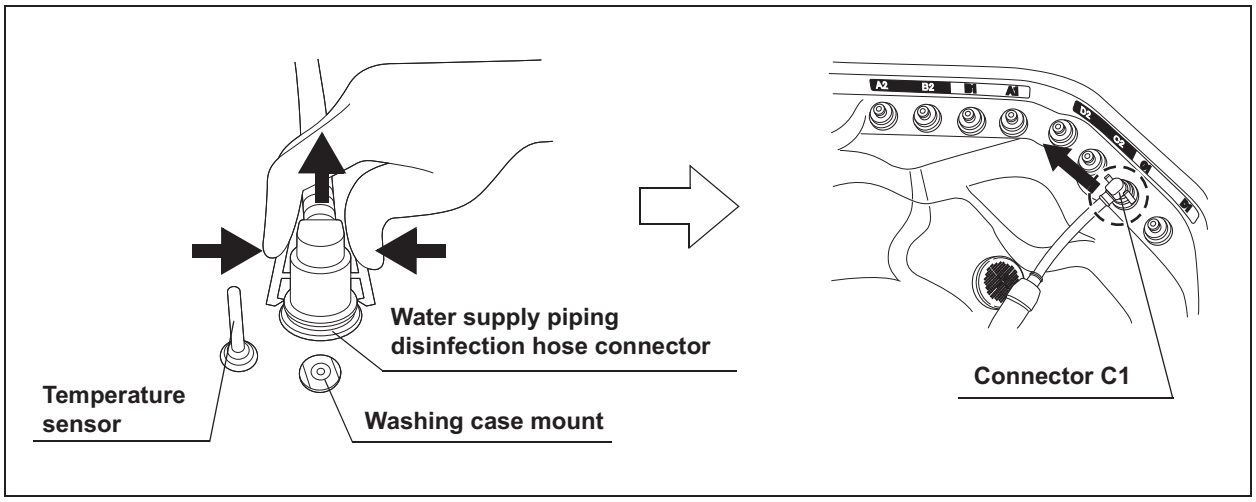


Figure 7.58

32 Rinse the filter tube and water supply piping disinfection hose thoroughly in running water, dry them thoroughly, and store in a clean place.

33 Press the “OK” button to complete the water filter replacement process.

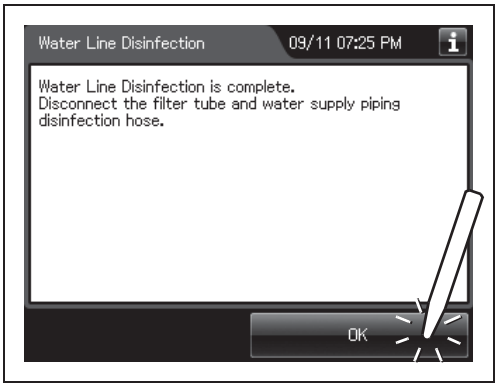


Figure 7.59

7.8 Self-disinfection and water sampling

Self-Disinfection is required in the following cases.

- Before using this reprocessor for the first time.
- Before using this reprocessor when it has not been used for more than 14 days.

In addition, it is recommended that sampling for microbiological surveillance is performed at the end of self-disinfection process.

■ *Workflow of self-disinfection*

See the self-disinfection workflow below.

1	**Checking the MRC level and entering the check result.** **→on page 275**
2	**Performing the Self-disinfection and water sampling.** **→on page 277**
3	**Performing the water sampling and microbiological surveillance.** **→on page 281**

■ *Required items*

Check	Required items
	Sterilized syringe
	Sterilized bottle
	Connector jig

Table 7.3

NOTE

- Sterilized syringe and Sterilized bottle are needed to perform a microbiological surveillance.
- Perform microbiological sampling of the OER-Elite rinse water quality as required by your hospital's policy. Also, Olympus recommends to perform microbiological sampling of the rinse water right after performing the water supply piping disinfection if the reprocessor has not been used for more than 14 days.

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

Before performing the self-disinfection, check the concentration of the disinfectant solution with the test strip, and replace the disinfectant solution if the disinfectant concentration is below the required level.

1 Press the "Functions" button on the Menu screen.

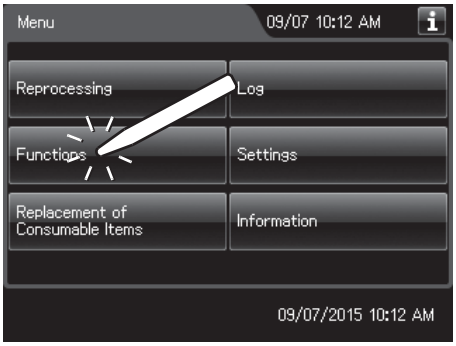


Figure 7.60

2 Press the “Self-Disinfection & Water Sampling” button on the Function menu.

Figure 7.61

3 Press the “LCG Info.” button to display the LCG Info. screen.

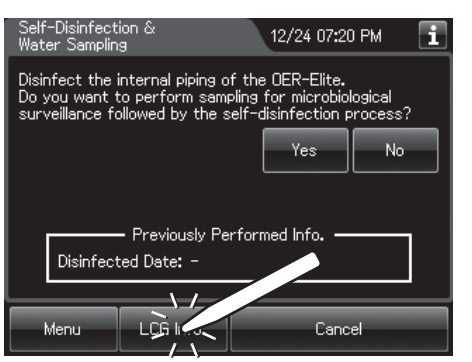


Figure 7.62

4 Check the concentration of the disinfectant solution with the test strip, and enter the check result as described in Section 3.7, “Checking the MRC level and entering the check result”.

5 Press the “OK” button to close the LCG Info screen.

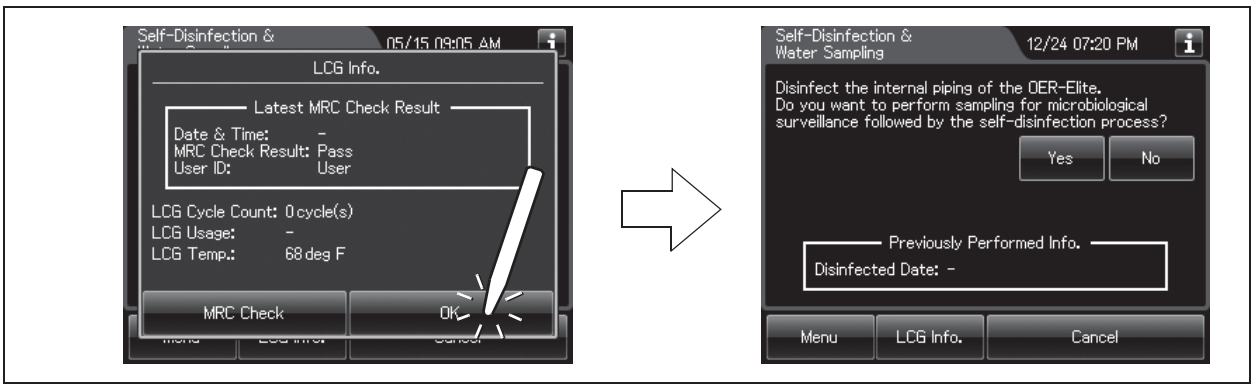


Figure 7.63

■ *Performing the self-disinfection*

1 If you want to perform sampling for microbiological surveillance followed by the self-disinfection process, press the “Yes” button. Otherwise, press the “No” button.

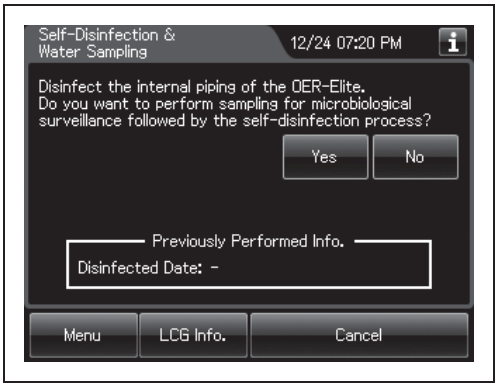


Figure 7.64

2 Step on the foot pedal to open the lid.

3 Connect the connector jig to the same-colored connector at the reprocessing basin by pushing down on the connector jig until it clicks.

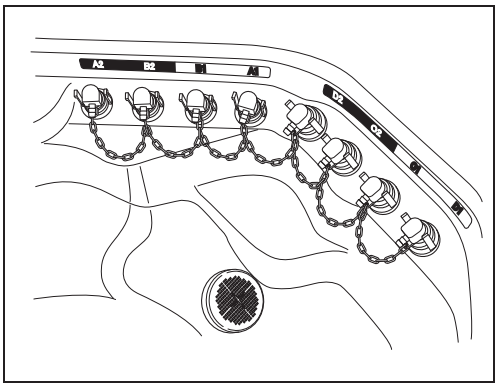


Figure 7.65

4 Press the “Next” button repeatedly until the touch screen display changes as shown Figure 7.66.

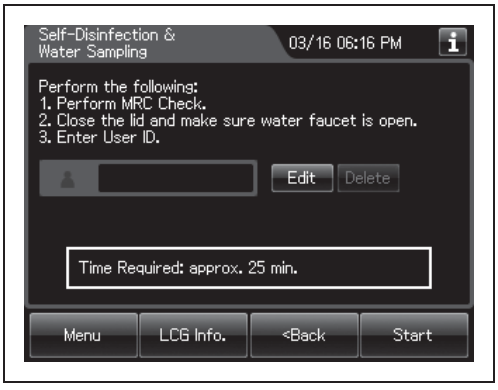


Figure 7.66

5 Close the lid by pushing until it clicks.

6 Make sure that the water faucet is open.

7 Enter the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

8 Press the “Start” button.

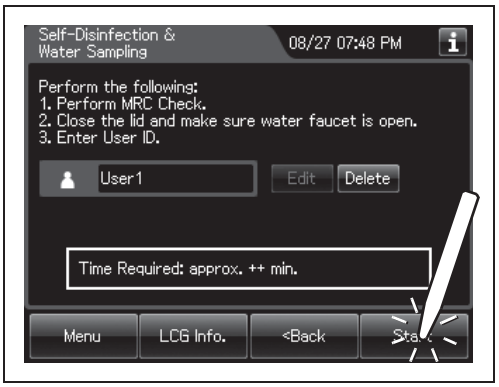


Figure 7.67

9 The touch screen displays the remaining time. If sampling water was selected in the Step 1, go to the Step 10. Otherwise, go to the step 17.

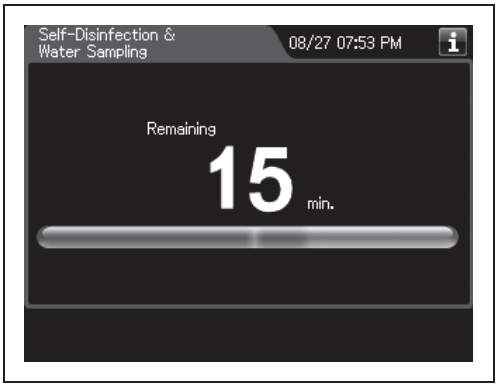


Figure 7.68

NOTE

- The cleaning, disinfection and rinse are executed in the process.
- If the temperature of the disinfectant solution is less than 20°C (68°F), it will be heated to 20°C (68°F). During heating, the remaining time countdown and the progress bar display stop and turn gray. After the completion of heating, the remaining time countdown and progress bar display resume.

10 When the reprocessing basin is filled with water, the buzzer beeps and the touch screen displays the following screen.

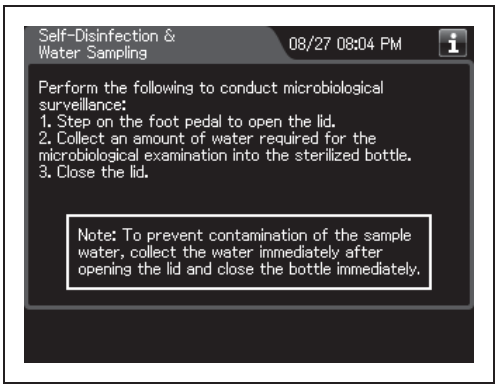


Figure 7.69

11 Step on the foot pedal to open the lid.

12 Using a sterilized syringe, collect an amount of water for the microbiological examination from the reprocessing basin.

CAUTION

Be sure to wear sterile gloves when collecting the water in the reprocessing basin to prevent contamination. Do not touch the lid, the reprocessing basin, the bottle or any area while wearing the sterile gloves. Otherwise, the collected water may become contaminated.

13 Put the collected water in the sterile bottle.

14 Close the lid by pushing until it clicks to drain the water in the reprocessing basin. During draining the water, the touch screen displays the following screen.

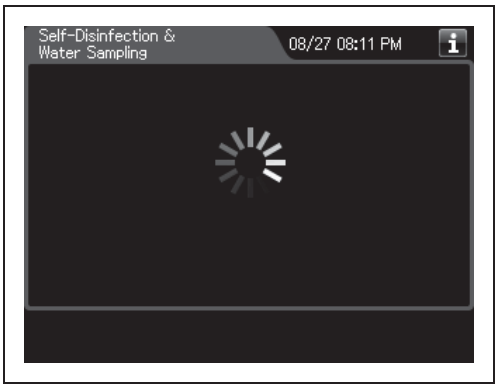


Figure 7.70

15 When discharge is completed, the buzzer beeps and the touch screen displays the following screen.

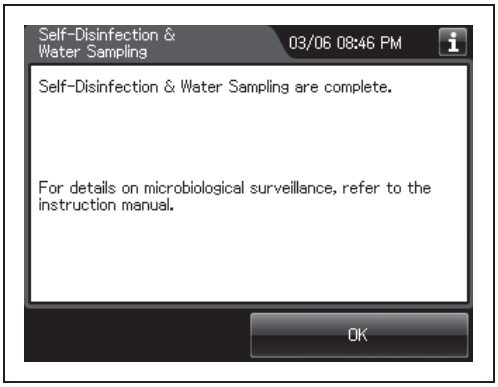


Figure 7.71

16 Step on the foot pedal to open the lid.

17 Disconnect the connector jig from the reprocessing basin, wipe off any water using a piece of sterile gauze, and store them in a clean place.

18 Press the “OK” button.

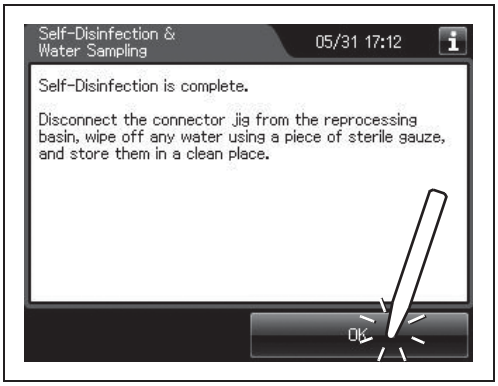


Figure 7.72

■ *Microbiological Surveillance*

❍ Methods for how to determine microbial level of rinse water

There are several methods for determining the microbial level. For further information on determining the microbial level, consult other relevant guidelines or standards.
AAMI TIR34: 2014 is the latest edition of this TIR 34, one of the relevant guideline, includes the information about available methods for how to determine microbial level of rinse water.

❍ Acceptable microbial levels of rinse water

The acceptable microbial levels of rinse water are “bacteria-free”.

❍ Action to be taken if microbial levels exceed acceptable level

If unacceptable bacterial levels are detected, the site should be sampled again to confirm that unacceptable levels are a consistent finding.
If repeat testing confirms unacceptable levels, then perform decontamination process described below to reduce the microbial level contamination.

(a) Decontamination process

1 Perform Self-Disinfection again. For detailed instruction, refer to Section 7.8, “Self-disinfection and water sampling”.

2 Perform Disinfection of the water supply piping. For detailed instruction, refer to Section 4.20, “Disinfection of the water supply piping” in “Instructions-Installation Manual”.

If the microbial levels continue to exceed acceptable level despite the decontamination process, an internal problem with the reprocessor or degradation of main water is suspected. In this case, it is recommended to contact Olympus.

7.9 Detergent line disinfection

WARNING

- When handling the disinfectant solution and detergent, carefully read the cautions for its use to fully understand the given information and use as instructed. Particular understanding is required for measures to be taken in case the disinfectant solution comes into contact with your skin and eyes.
- When handling the disinfectant solution and detergent, wear appropriate personal protective equipment to avoid direct contact with your skin and eyes or excessive inhalation of its vapor. The disinfectant solution and its vapor may affect the human body.
  Wear 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.
- Do not block the disinfectant removal port with a finger or other objects when the rubber cap is not attached. Otherwise, the disinfectant solution may flow out.
- To prevent peripheral devices and areas near the reprocessor from being damaged by leaked disinfectant solution, do not leave the rubber cap off from the disinfectant removal port.
- If disinfectant solution leaks out of the disinfectant removal port when the rubber cap has been removed, immediately reattach the rubber cap and follow the procedure in Section 13.2, “Troubleshooting guide”. For details, refer to “Fluid leak the disinfectant removal port” of “■ Other problems and remedial actions” on page 642. If leaking does not stop, contact Olympus.

CAUTION

To prevent spills, keep the detergent tanks upright.

■ *Required items*

Check	Required items
	FDA-cleared chemical indicator (test strip)
	Drain connector (should be dry)
	Clean cloth
	Two beakers with 300 ml or larger capacity (e.g. beaker)
	Disinfectant solution: approximately 120 ml
	Sterile water: more than 300 ml

Table 7.4

NOTE

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

■ *Detergent line disinfection*

Before disinfecting, disinfectant solution temperature is confirmed. When disinfectant solution temperature is below 20°C (68°F), execute the Heat LCG. For detail of Heat LCG, refer to Section 7.2, “Heat LCG”.

1 Close the lid by pushing until it clicks.

2 Make sure that the water faucet is open.

3 Press the “Functions” button on the Menu screen.

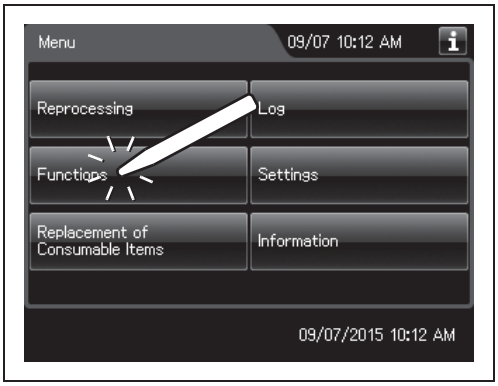


Figure 7.73

4 Press the “Detergent Line Disinfection” button.

Figure 7.74

5 Press the “Next” button.

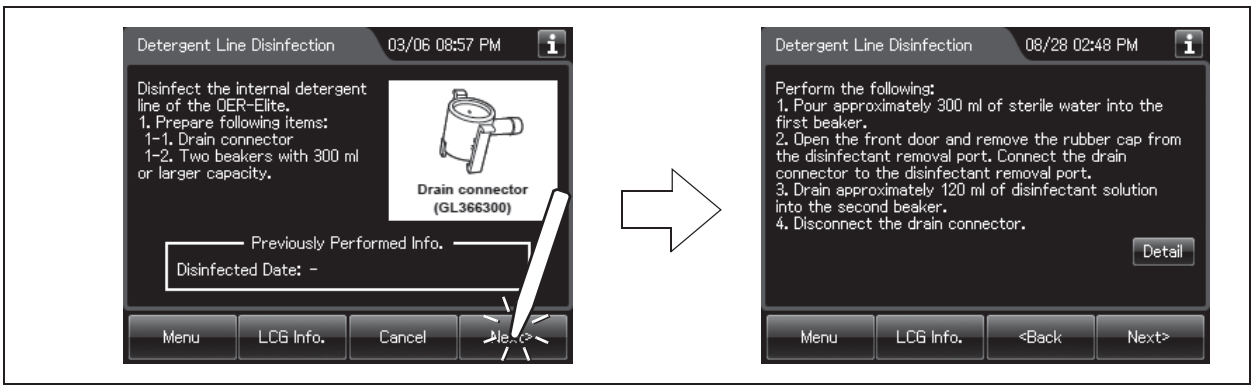


Figure 7.75

6 Push [PUSH] on the front door to open the front door. Remove the rubber cap from the disinfectant removal port.

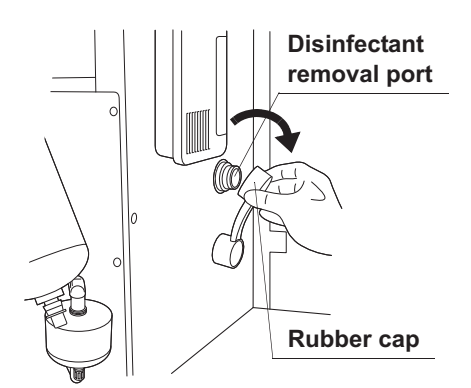


Figure 7.76

7 Push the drain connector into the disinfectant removal port until it clicks.

WARNING

When connecting the drain connector to the disinfectant removal port, do not push on the connector’s valve. Otherwise, disinfectant solution will leak out of it.

8 Place a beaker below the drain connector, push the connector's valve, and collect approximately 120 ml of disinfectant solution.

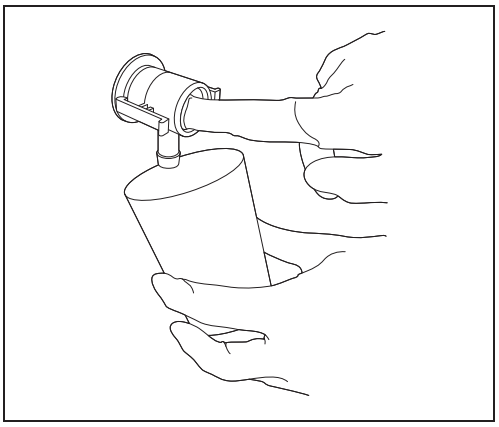


Figure 7.77

9 Place the prepared cloth under the drain connector, hold the lock lever, and slowly disconnect the connector. Wipe off any disinfectant solution if it leaks.

10 Wipe the disinfectant removal port with a clean cloth and put the rubber cap back on. Rinse the drain LCG connector thoroughly in running water, dry it thoroughly and store in a clean place.

11 Close the front door.

NOTE

The front door cannot be closed unless the rubber cap is attached.

12 Check the disinfectant solution concentration level in the beaker by using the test strip while taking care not to inhale the disinfectant solution vapor. If the concentration is below its MRC, replace the disinfectant solution as described in Section 8.2, "Replacing the disinfectant solution".

NOTE

In the detergent line disinfection, always check the disinfectant concentration level in the beaker.

13 Press the “LCG Info” button.

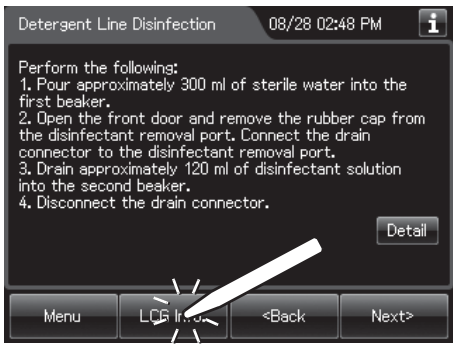


Figure 7.78

14 Press the “MRC Check” button.

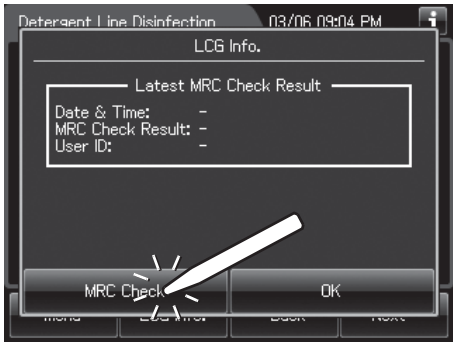


Figure 7.79

15 Input the MRC Check Result.

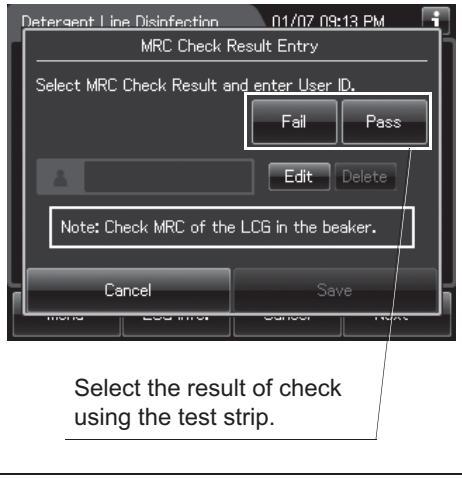


Figure 7.80

16 Input the operator’s user ID. For the detailed procedure, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

17 Press the “Save” button.

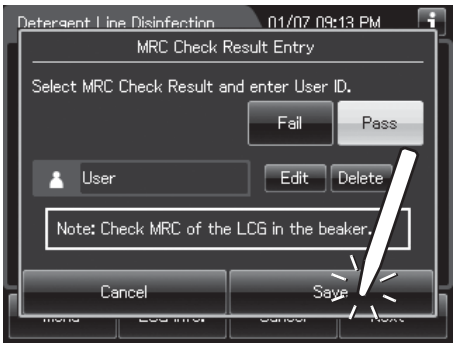


Figure 7.81

18 Press the “OK” button and the “Next” button repeatedly until the touch screen display changes as shown Figure 7.82.

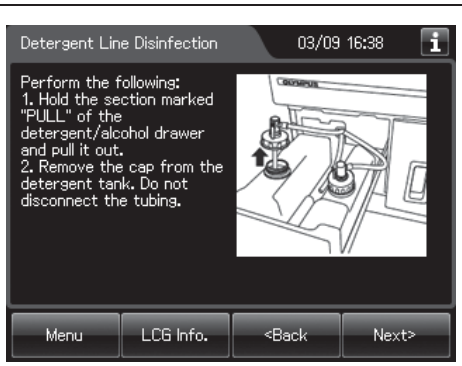


Figure 7.82

19 Pull out the detergent/alcohol drawer.
Detach the detergent tank cap to which the tube is connected. (Do not disconnect the connector.)

20 Press the “Next” button. Input the operator’s user ID. For the detailed procedure, refer to Section 3.6, “Entering ID” (If applicable).

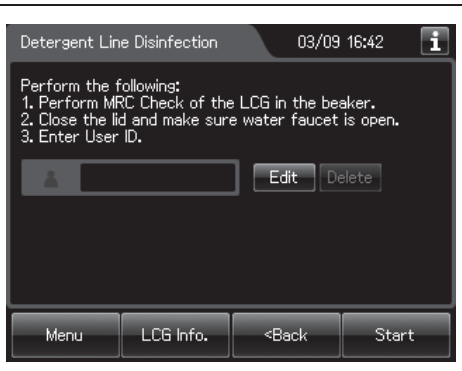


Figure 7.83

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

21 Press the “Start” button. The drain of detergent solution from the detergent line starts.

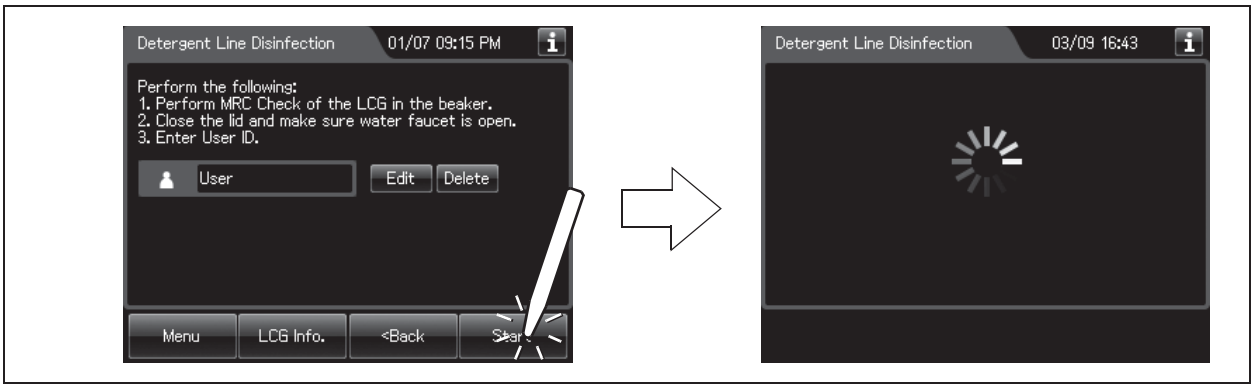


Figure 7.84

22 Pour approximately 150 ml of sterile water into another beaker.

23 When the touch screen display changes as shown Figure 7.85, put the nozzle of detergent cap in the beaker filled with the sterile water.

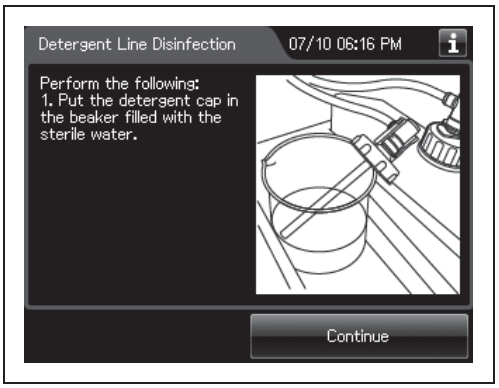


Figure 7.85

24 Press the “Continue” button. The rinse of the detergent lines starts. Wait for a few seconds.

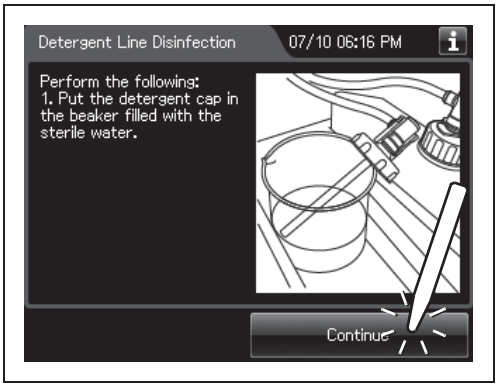


Figure 7.86

25 When the touch screen display changes as shown Figure 7.87, take the nozzle of detergent cap out of the beaker.

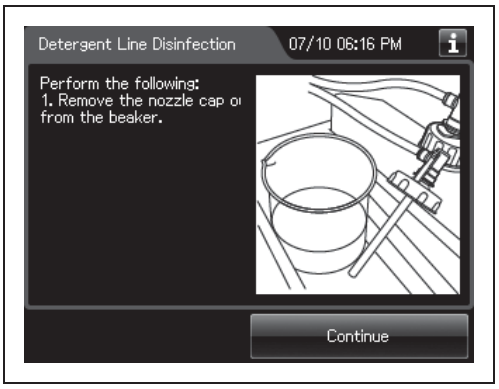


Figure 7.87

26 Press the “Continue” button and wait for a few seconds.

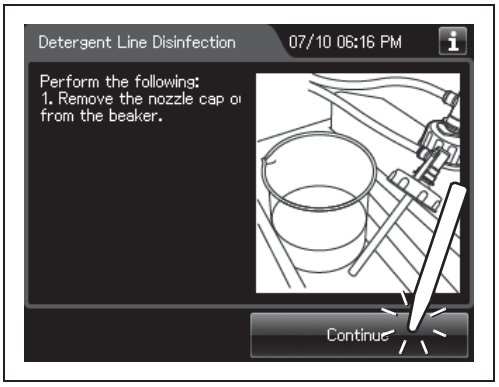


Figure 7.88

CAUTION

Do not block the tube-shaped tip of the detergent tank cap. Otherwise, the fluid inside the detergent line may not be able to be drained.

27 When the touch screen display changes as shown Figure 7.89, put the nozzle of the detergent cap in the beaker filled with the disinfectant solution.

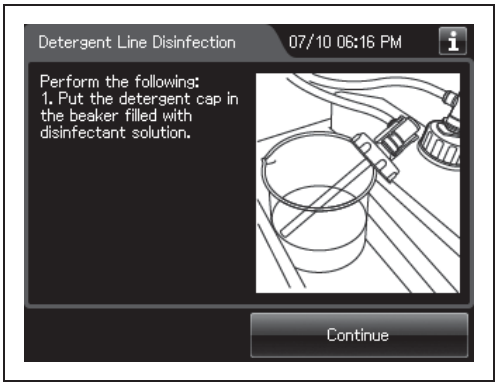


Figure 7.89

28 Press the “Continue” button. The disinfection of the detergent lines starts and the touch screen displays the remaining disinfectant time. Wait a few minutes.

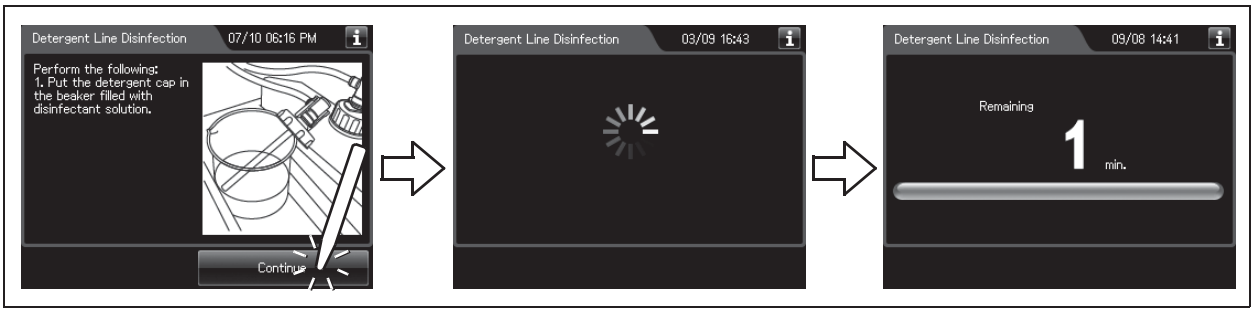


Figure 7.90

29 When the touch screen display changes as shown Figure 7.91, take the nozzle of detergent cap out of the beaker.

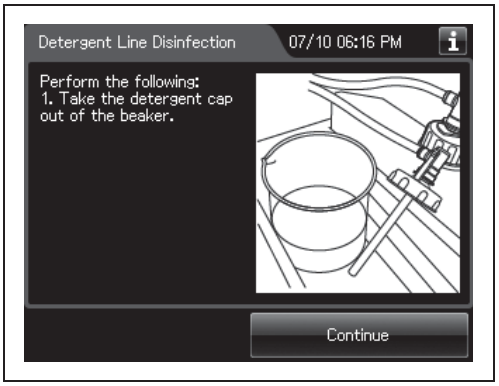


Figure 7.91

30 Press the “Continue” button and wait for a few seconds.

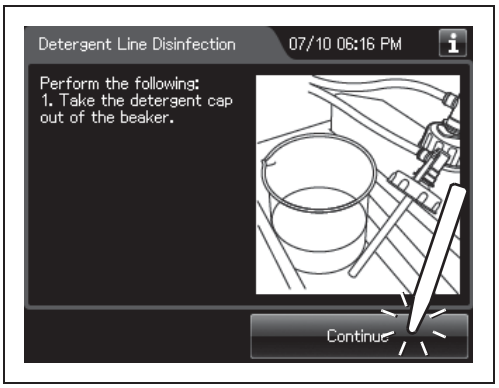


Figure 7.92

31 When the touch screen display changes as shown Figure 7.93. Put the nozzle of detergent cap in the beaker filled with more than 150 ml of sterile water.

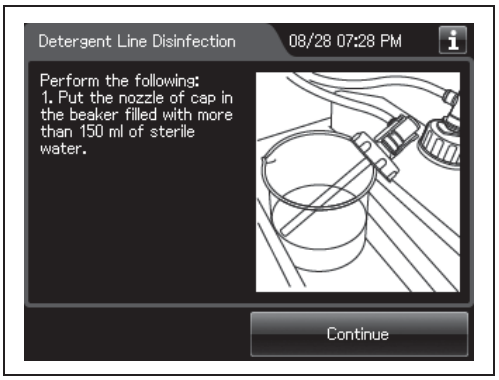


Figure 7.93

32 Press the “Continue” button. Rinse of the detergent lines starts.

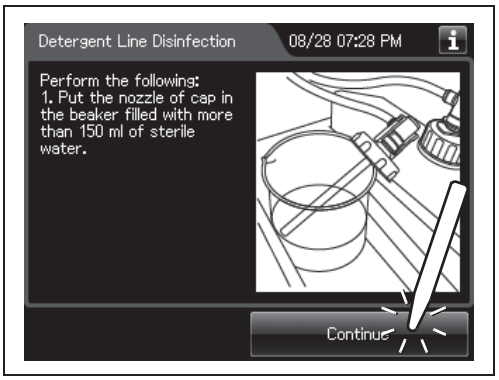


Figure 7.94

33 When the touch screen display changes as shown Figure 7.95, take the nozzle of detergent cap out of the beaker.

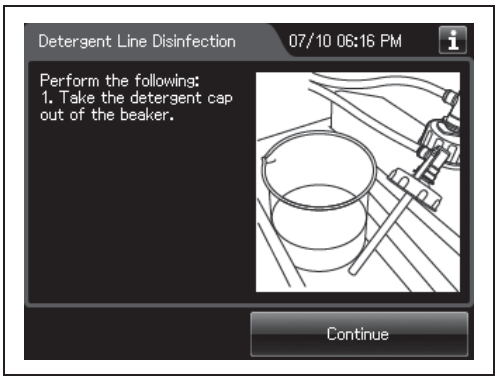


Figure 7.95

34 Press the “Continue” button. Draining of the detergent lines starts.

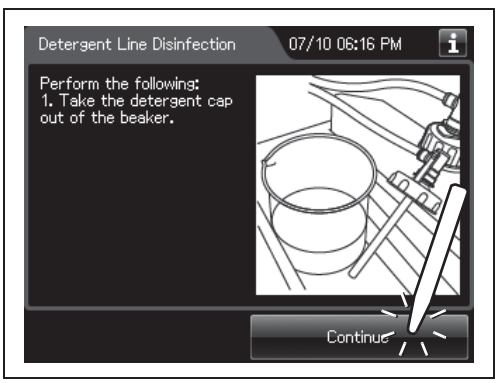


Figure 7.96

35 When the touch screen display changes as shown below, attach the detergent cap to the detergent tank.

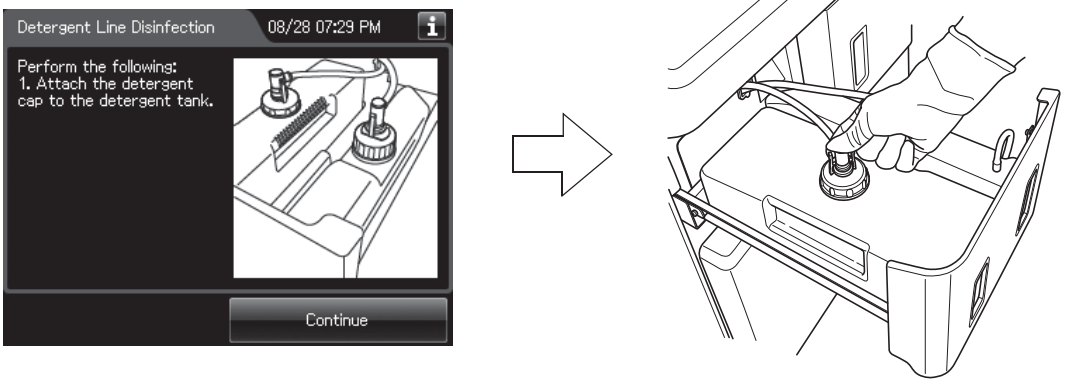


Figure 7.97

36 Press the “Continue” button. Injection of detergent in the detergent lines starts and the water in the reprocessing basin is drained.

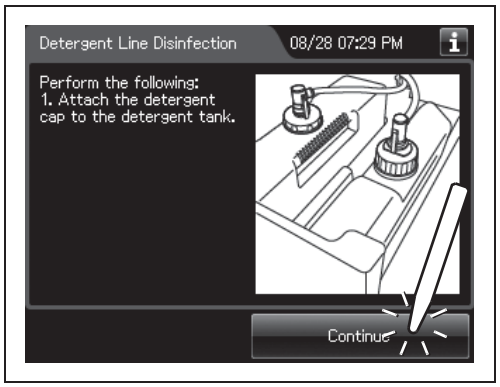


Figure 7.98

37 Press the “OK” button to finish disinfection of the detergent lines.

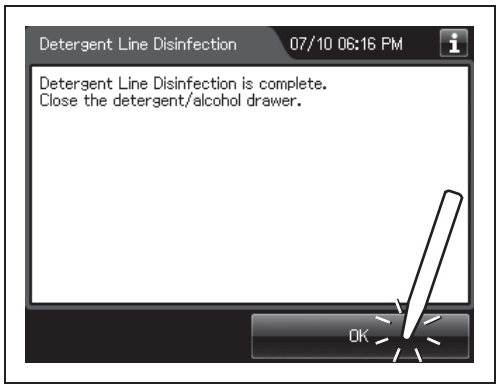


Figure 7.99

7.10 Alcohol line disinfection

WARNING

- When handling the disinfectant solution and alcohol, carefully read the cautions for its use to fully understand the given information and use as instructed. Particular understanding is required for measures to be taken in case the disinfectant solution comes into contact with your skin and eyes.
- When handling the disinfectant solution and alcohol, wear appropriate personal protective equipment to avoid direct contact with your skin and eyes or excessive inhalation of its vapor. The disinfectant solution and its vapor may affect the human body.
  Wear 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.
- Do not block the disinfectant removal port with a finger or other objects when the rubber cap is not attached. Otherwise, the disinfectant solution may flow out.
- To prevent peripheral devices and areas near the reprocessor from being damaged by leaked disinfectant solution, do not leave the rubber cap off from the disinfectant removal port except when connecting the drain connector to the disinfectant removal port.
- If disinfectant solution leaks out of the disinfectant removal port when the rubber cap has been removed, immediately reattach the rubber cap and follow the procedure in Section 13.2, “Troubleshooting guide”. For details, refer to “Fluid leak the disinfectant removal port” of “■ Other problems and remedial actions” on page 642. If leaking does not stop, contact Olympus.
- Make sure to attach the connector jigs. Otherwise, the disinfection of the alcohol supply line may not be effective.
- After disinfecting the alcohol supply line, always rinse it thoroughly. Otherwise, disinfectant solution may remain on the endoscope following reprocessing and pose a patient safety risk.

CAUTION

To prevent spills, keep the alcohol tanks upright.

■ *Required items*

Check	Required items
	FDA-cleared chemical indicator (test strip)
	Drain connector (should be dry)
	Clean cloth
	Two beakers with 200 ml or larger capacity (e.g. beaker)
	Disinfectant solution: approximately 120 ml
	Sterile water: more than 150 ml

Table 7.5

NOTE

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

■ *Alcohol line disinfection*

Before disinfecting, disinfectant solution temperature is confirmed. When disinfectant solution temperature is below 20°C (68°F), execute the Heat LCG. For detail of Heat LCG, refer to Section 7.2, “Heat LCG”.

1 Close the lid by pushing until it clicks.

2 Make sure that the water faucet is open.

3 Press the “Functions” button on the Menu screen.

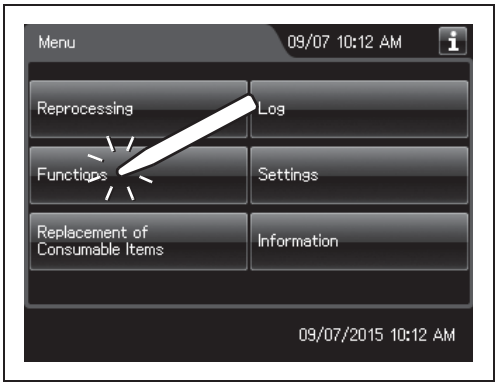


Figure 7.100

4 Press the “Alcohol Line Disinfection” button.

Figure 7.101

5 Press the “Next” button.

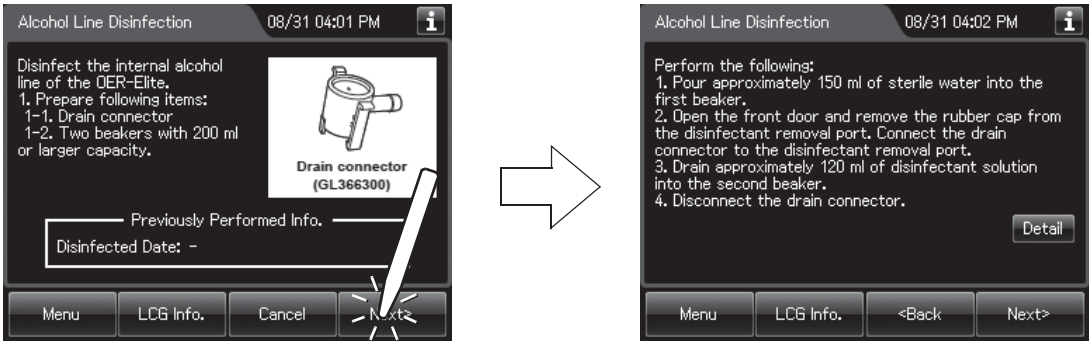


Figure 7.102

6 Push [PUSH] on the front door to open the front door. Remove the rubber cap from the disinfectant removal port.

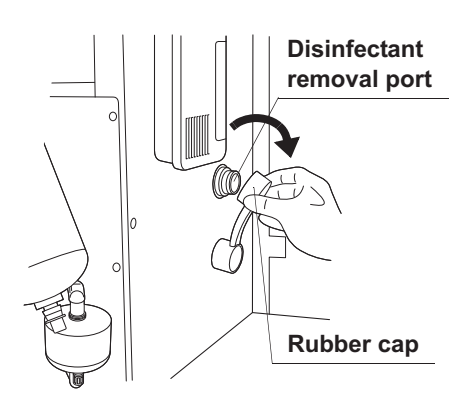


Figure 7.103

7 Push the drain connector into the disinfectant removal port until it clicks.

WARNING

When connecting the drain connector to the disinfectant removal port, do not push on the connector’s valve. Otherwise, disinfectant solution will leak out of it.

8 Place a beaker below the drain connector, push the connector's valve, and collect approximately 120 ml of disinfectant solution.

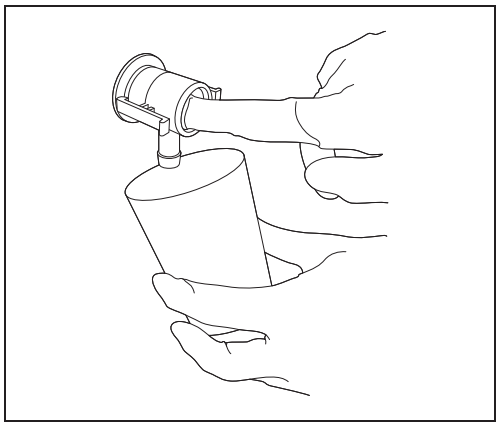


Figure 7.104

9 Place the prepared cloth under the drain connector, hold the lock lever, and slowly disconnect the connector. Wipe off any disinfectant solution if it leaks.

10 Wipe the disinfectant removal port with a clean cloth and put the rubber cap back on. Rinse the drain LCG connector thoroughly in running water, dry it thoroughly and store in a clean place.

11 Close the front door.

NOTE

The front door cannot be closed unless the rubber cap is attached.

12 Check the disinfectant solution concentration level in the beaker by using the test strip while taking care not to inhale the disinfectant solution vapor. If the concentration is below its MRC, replace the disinfectant solution as described in Section 8.2, "Replacing the disinfectant solution".

NOTE

In the alcohol line disinfection, always check the disinfectant concentration level in the beaker.

13 Press the “LCG Info” button.

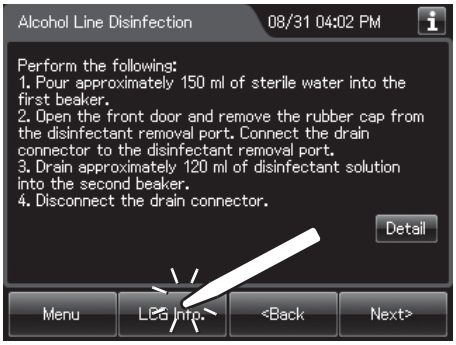


Figure 7.105

14 Press the “MRC Check” button.

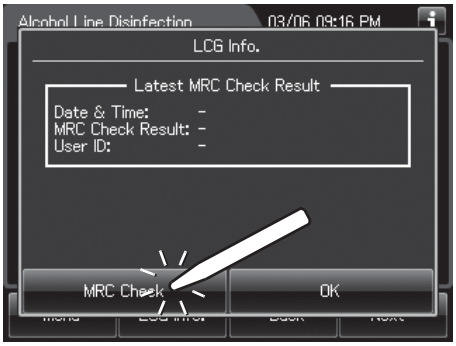


Figure 7.106

15 Input the MRC Check Result.

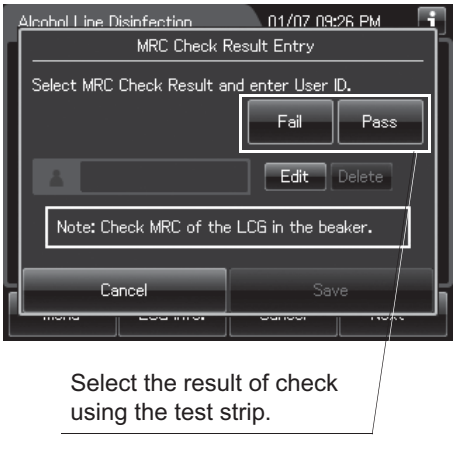


Figure 7.107

16 Input the operator’s user ID. For the detailed procedure, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

17 Press the “Save” button.

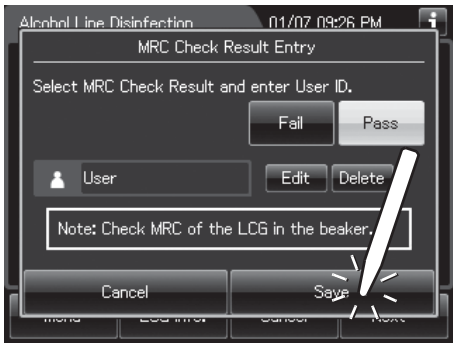


Figure 7.108

18 Press the “OK” button and the “Next” button repeatedly until the touch screen display changes as shown Figure 7.109.

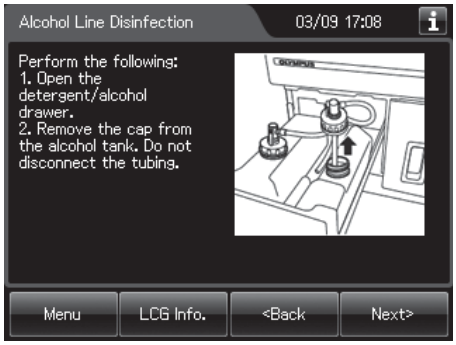


Figure 7.109

19 Pull out the detergent/alcohol drawer.
Detach the alcohol tank cap to which the tube is connected. (Do not disconnect the connector.)

20 Press the “Next” button. Input the operator’s user ID. For the detailed procedure, refer to Section 3.6, “Entering ID” (If applicable).

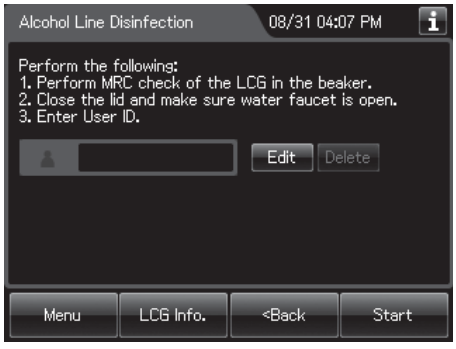


Figure 7.110

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

21 Press the “Start” button. The drain of alcohol from the alcohol line starts.

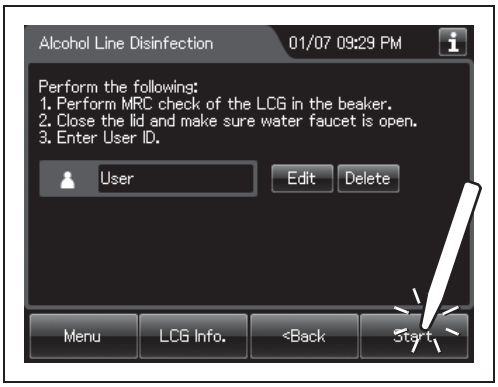


Figure 7.111

22 Pour approximately 120 ml of disinfectant solution into another beaker.

23 When the touch screen display changes as shown Figure 7.112, put the nozzle of alcohol cap in the beaker filled the disinfectant solution.

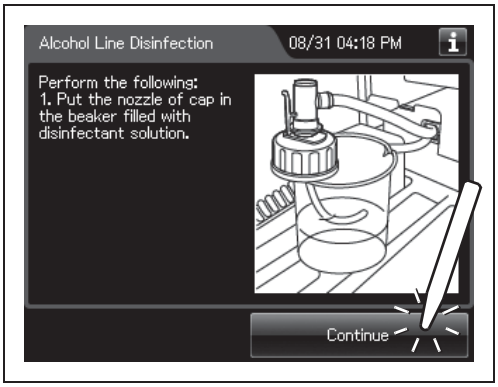


Figure 7.112

24 Press the “Continue” button. The disinfection of the alcohol lines starts and the touch screen displays the remaining disinfectant time. Wait a few minutes.

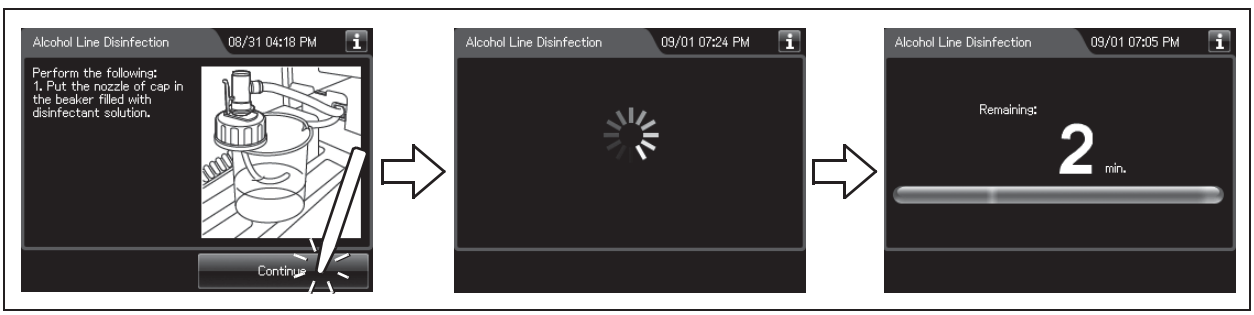


Figure 7.113

25 When the touch screen display changes as shown Figure 7.114, take the nozzle of the alcohol cap out of the beaker.

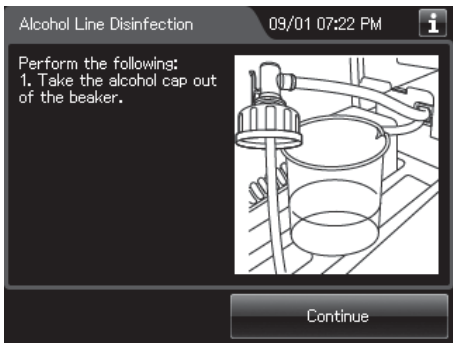


Figure 7.114

26 Press the “Continue” button and wait for a few seconds.

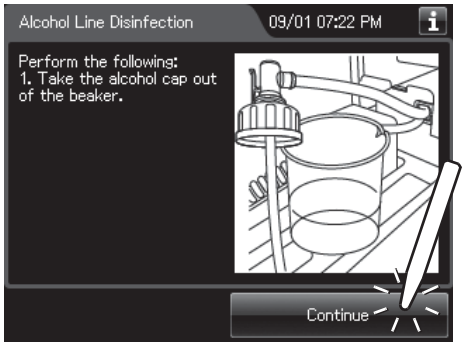


Figure 7.115

27 When the touch screen display changes as shown Figure 7.116, Put the nozzle of alcohol cap in the beaker filled with more than 150ml of sterile water.

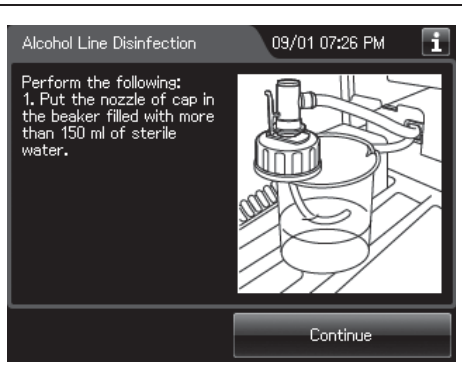


Figure 7.116

28 Press the “Continue” button. Rinse of the alcohol lines starts.

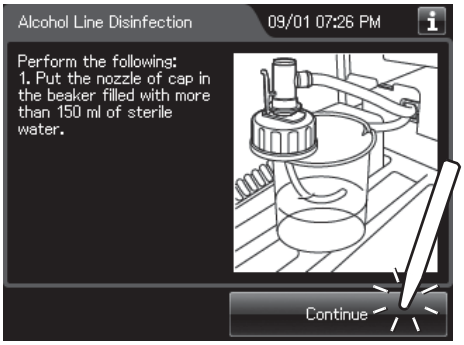


Figure 7.117

29 When the touch screen display changes as shown Figure 7.118, take the nozzle of alcohol cap out of the beaker.

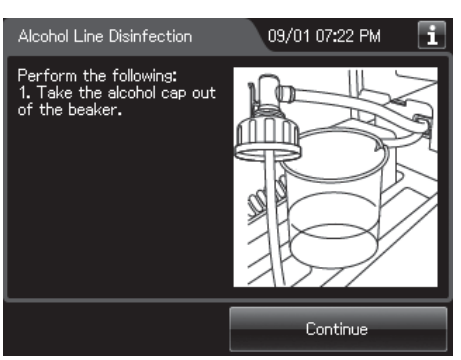


Figure 7.118

30 Press the “Continue” button. Draining of the alcohol lines starts.

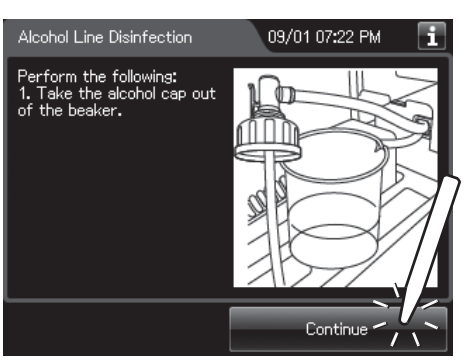


Figure 7.119

31 When the touch screen display changes as shown Figure 7.120, attach the nozzle of alcohol cap to the alcohol tank.

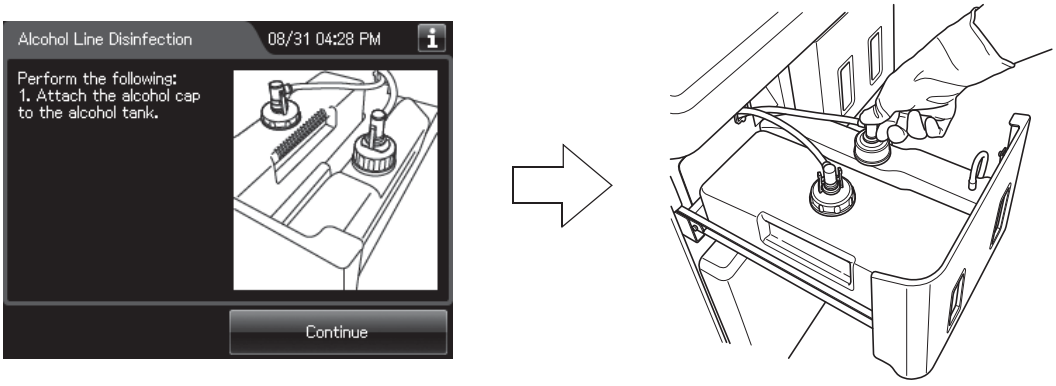


Figure 7.120

32 Press the “Continue” button. Injection of alcohol in the alcohol lines starts and the water in the reprocessing basin is drained.

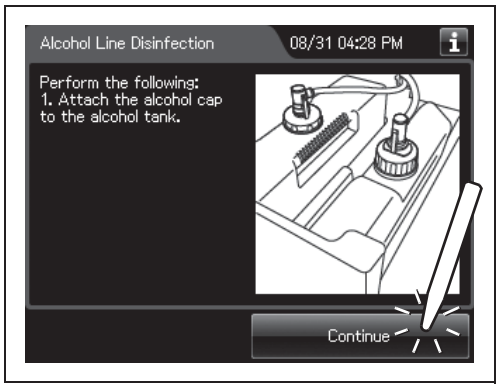


Figure 7.121

33 Press the “OK” button to finish disinfection of the alcohol lines.

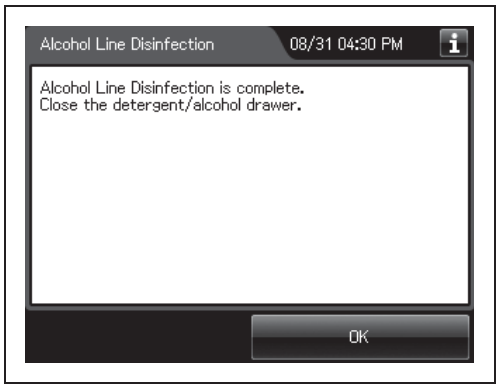


Figure 7.122

7.11 Manual leak test

The manual leak test confirmations are linked to the scope ID's reprocessing records or leaking scope decontamination records. To prevent endoscope damage due to water invasion, always check for leaks before reprocessing the endoscope to ensure that you discover any irregularity, such as small holes, at an early stage. The leak test consists of filling the reprocessing basin with water and observing the endoscope's outer surfaces and the leak test air tube to ensure that air bubbles are not produced continuously from any point and that there is no sound of air leakage. Refer to the "List of Compatible Endoscopes/Connecting Tubes <OER-Elite>" for the necessary tubing required for proper leakage testing.

WARNING

When reprocessing the endoscopes after the manual leak test, be sure to straighten their bending sections. Otherwise, the reprocessing may become insufficient.

CAUTION

- The leak test air tube will disconnect easily if it is not attached properly or if the lock lever is degraded. Air cannot be fed properly if the leak test air tube is bent. In these cases, an accurate leak test is not possible.
- Ensure that each leak test air tube is free of irregularity such as a crack, fissure, scratch, or contamination. If an abnormal leak test air tube is used, the endoscope may fail or the leak test will be erroneous. Replace it with a new tube and retry the Manual Leak test.
- Do not connect the leak test air tube if the inside of the tube, the endoscope's venting connector, or the reprocessor's leak test connector is wet. Doing so could allow water to get inside the endoscope and cause the endoscope to malfunction.
- Do not perform the manual leak test while connecting tubes are connected. Otherwise, irregularity in the endoscope may not be detected.
- Do not disconnect the leak test air tubes in the middle of the process or while the water is remaining in the reprocessing basin. Otherwise, the endoscopes may fail due to the fluid entering inside them or the retention of the pressurized status inside them.
- Do not leave an unused leak test air tube in the basin. Otherwise, water penetrating inside the leak test air tube may cause malfunctions of the reprocessor.

CAUTION

- If air bubbles are produced continuously from an endoscope or leak test air tube during a leak test, press the Stop button on the touch screen to discontinue the leak test process, remove the scope or tube from the reprocessing basin and contact Olympus. Otherwise, water may penetrate the scope via the area around where the bubbles are exiting.

NOTE

During leak test, the angulating section's covering may expand. This is not a malfunction.

■ *Workflow of manual leak test*

1. **Input scope ID of first endoscope.** →on page 305
2. **Loading of first endoscope in reprocessing basin and attaching the connecting tubes.** →on page 306
3. **Input scope ID of second endoscope.** →on page 307
4. **Loading of second endoscope in reprocessing basin and attaching the connecting tubes.** →on page 307
5. **Performing manual leak test.** →on page 307
6. **Print format.** →on page 309

■ *Performing manual leak test*

1 Make sure that the water faucet is open.

2 Press the “Functions” on the Menu screen.

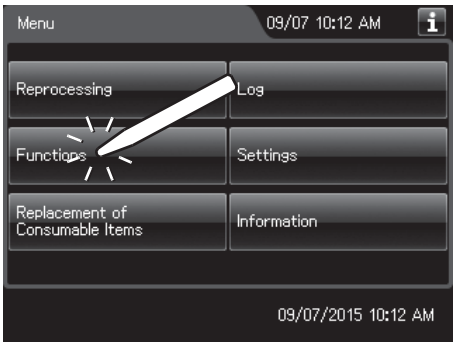


Figure 7.123

3 Press the “Manual Leak Test” button on the 2nd page of the Functions menu.

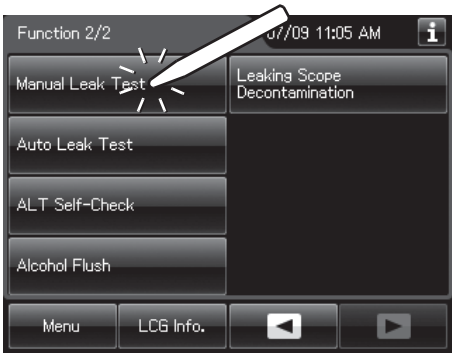


Figure 7.124

4 Step on the foot pedal to open the lid.

5 Input the Scope IDs. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

6 Place the endoscope carefully, checking the following:

- The distal end of the insertion tube is straight.
- The distal end of the insertion tube is not on or beneath another object.
- The leak test air tube is not twisted.
- The endoscope is not contacting the lid.
- The connecting tube is not connected.

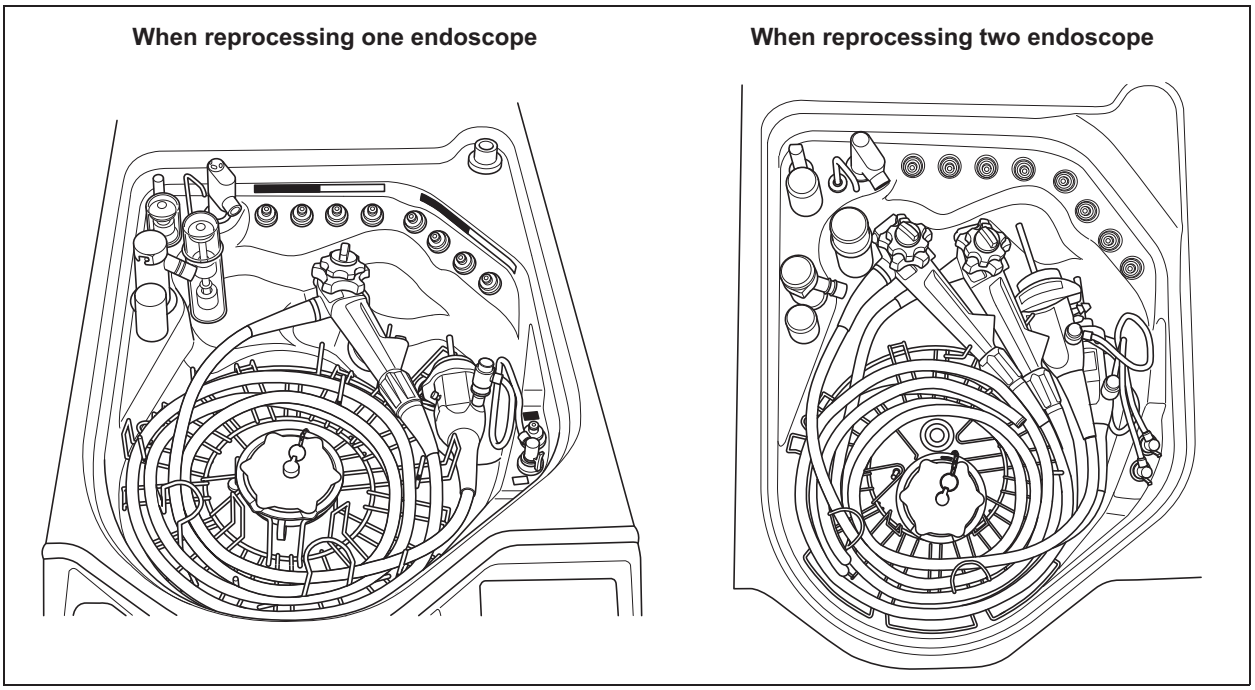


Figure 7.125

7 Wipe the venting connector of the endoscope or that of the waterproof cap with a clean cloth immersed in 70% ethyl alcohol or 70% isopropyl alcohol.

8 If the leak test connector E1/E2 in the reprocessing basin is wet, wipe the entire connector with a clean cloth.

9 Connect the MAJ-2127 leak test air tubes to the venting connector or the water resistant cap of the first endoscope and leak test connector E1 in the reprocessing basin. When placing the second endoscope, connect the MAJ-2127 leak test air tubes to the second endoscope and leak test connector E2 in the reprocessing basin.

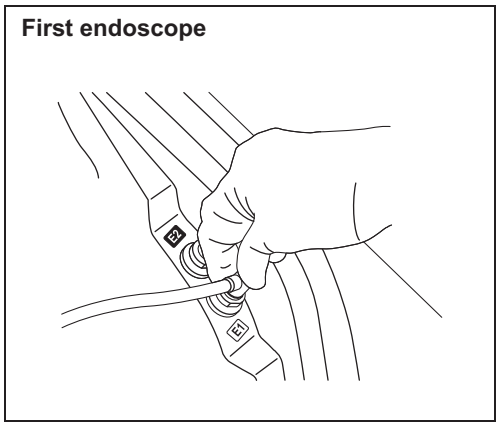


Figure 7.126

10 Place the second endoscope, same as from Step 1 through 9 of the first endoscope.

11 Close the lid by pushing until it clicks.

12 Press the “Next” button.

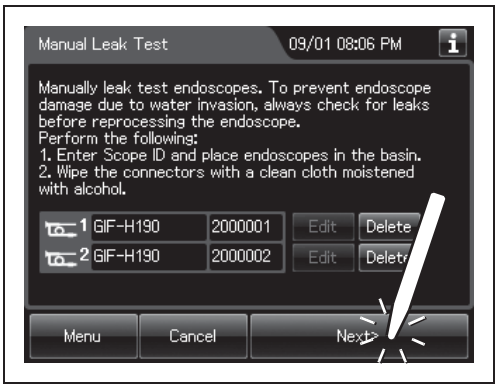


Figure 7.127

13 Input the operator’s user ID. For the detailed procedures, refer to Section 3.6, “Entering ID”. (If applicable)

NOTE

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

14 Press the “Start” button. Water supply starts and the touch screen changes as shown below.

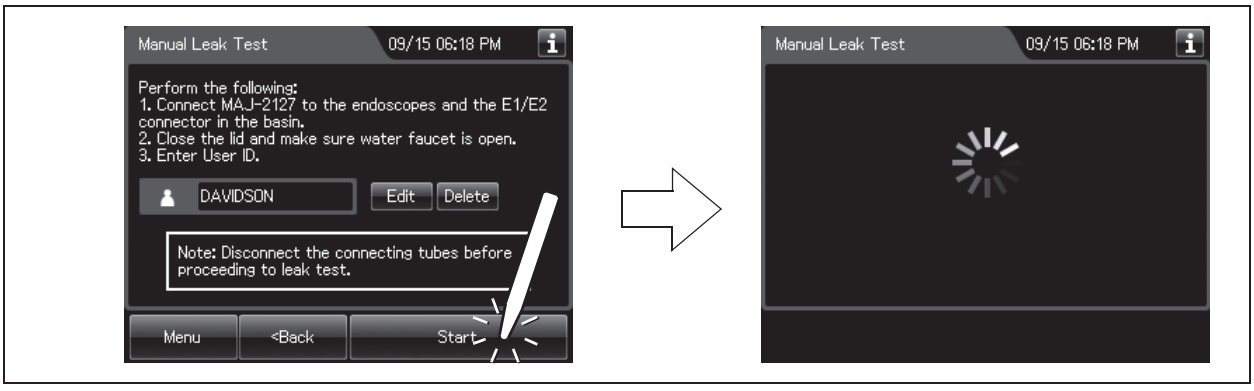


Figure 7.128

15 When the water supply completes, the reprocessor generates three buzzer beeps and unlock the lid.

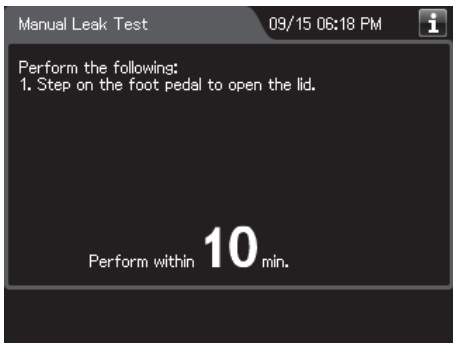


Figure 7.129

16 Ensure that the water supply is stopped and then step on the foot pedal to open the lid. When the lid is opened, the touch screen displays the following screen. Perform from Step 16 to Step 19 within 10 minutes after opening the lid.

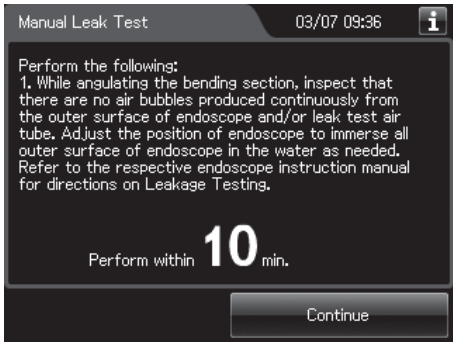


Figure 7.130

NOTE

If the lid is not opened within 10 minutes, the fluid in the reprocessing basin is drained automatically and the manual leak test stops. The touch screen will then display the error code [E092].

17 Check that there are not any bubbles produced continuously from the outer surface of the endoscope and/or leak test air tube while angulating the bending section of the endoscope. Check for leaks at least for 30 seconds.

CAUTION

- When angulating the endoscope's bending section, do not to let the bending section touch the reprocessing basin or retaining rack as this could damage the endoscope. After bending, straighten the bending section and place it properly on the retaining rack.
- During the manual leak test, be sure to angulate the bending section. Otherwise, it would be impossible to find abnormalities in the endoscopes.

NOTE

- Adjust the position of endoscope to immerse all outer surface of endoscope in the water as needed.
- If you set two endoscopes in the basin, it may be difficult to sufficiently immerse endoscopes to inspect bubbles. In this case, perform the leakage test for each endoscope separately.

18 Press the “Continue” button, and then input each manual leak test result on the touch screen.

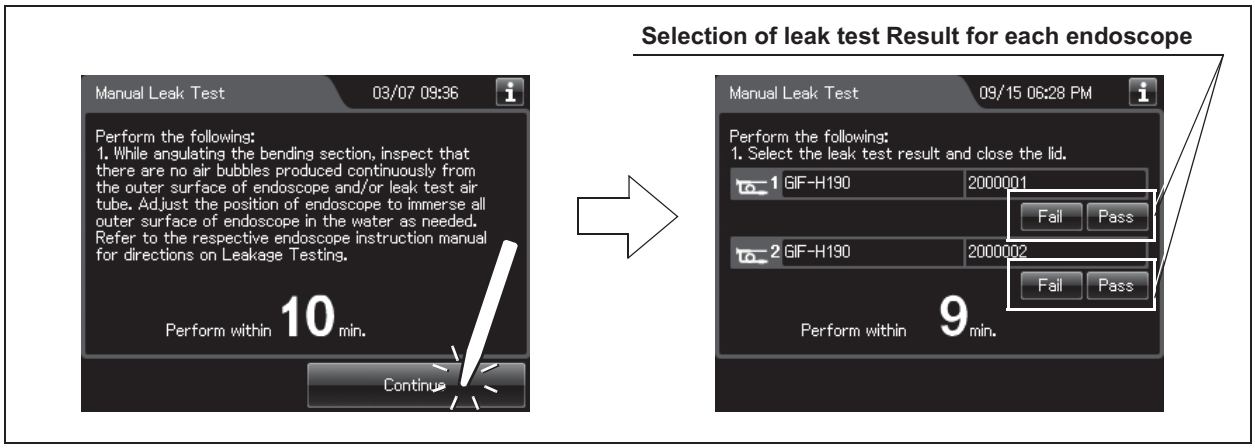


Figure 7.131

19 Close the lid by pushing until it clicks. The water starts to be drained.

NOTE

Even if the process is not completed by closing the lid, the water is drained automatically 10 minutes after the water supply stopped. The touch screen will then display error code [E092].

20 When draining has completed, the reprocessor generates three buzzer beeps and the touch screen shows the following screen. Press the “OK” button to finish.

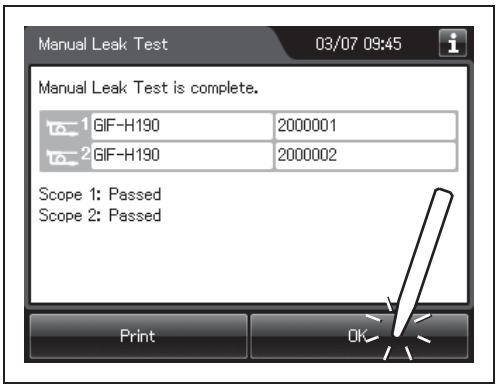


Figure 7.132

WARNING

When reprocessing the endoscopes after the manual leak test, be sure to straighten their bending sections. Otherwise, the reprocessing may become insufficient.

NOTE

- When the MAJ-1937 printer included in the optional MAJ-2144 printer set is connected and the auto print setting is activated, the result of manual leak test is printed automatically. For the setting changes of the auto print setting, refer to Section 4.17, “Print option”.
- To print the manual leak test result without using the auto print setting, press the “Print” button.

7.12 Auto leak test

This function is used to perform auto leak test independently. Auto leak test is not available with certain endoscopes. For detail unavailable of Auto leak test, refer to “Unavailable endoscope with the functions of the OER-Elite” in “List of compatible Endoscopes/Connecting Tubes <OER-Elite>”.

A scope ID has to be input by an RFID. If a 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 is not available.

CAUTION

- The leak test air tube may easily disconnect spontaneously if it is connected insufficiently or, particularly if the lock lever is degraded. If the leak test air tube is bent, sufficient air supply will not be possible. In both cases, the leak test of endoscopes will be erroneous.
- Ensure that each leak test air tube is free of irregularity such as a crack, fissure, scratch, or contamination. If an abnormal leak test air tube is used, the endoscope may fail or the leak test will be erroneous.
- Before connecting a leak test air tube, ensure that the inner side of the tube, the venting connector of the endoscope and the leak test connector of the reprocessor are not wet. Otherwise, water penetrating inside the endoscope may cause a failure of the endoscope.
- Be sure to connect the leak test air tubes securely. If the connection is insufficient, the leak test may be abnormal because the inside of the endoscope cannot be pressurized.

CAUTION

- If an irregularity is found with a leak test air tube, replace it with a new tube and retry the leak test.
- When a leak test air tube is not to be used, disconnect it from the connector and be sure to remove it from the reprocessing basin. If reprocessing is performed without removing it, the leak test may be erroneous.
- When the auto leak test gives a “Leaked” judgment to an endoscope do not execute reprocessing program [1] to [4] on the endoscope. Otherwise, water may penetrate inside the endoscope. The endoscope should be subjected to the leaking scope decontamination and then serviced. For details on the leaking scope decontamination, refer to Section 7.15, “Leaking scope decontamination”.
- 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. Then, re-execute the auto leak test. If the result is “Leaked” again, the scope should be subjected to the leaking scope decontamination and then serviced. For details on the leaking scope decontamination, refer to Section 7.15, “Leaking scope decontamination”.

NOTE

- The covering of the bending section of the endoscope may dilate slightly during the leak test. This is not malfunction.
- The auto leak test may sometimes be incapable of detecting a very small hole.

■ *Workflow of auto leak test*

1. **Input scope ID of first endoscope.** →on page 313
2. **Loading of first endoscope in reprocessing basin and attaching the leak test air tube.** →on page 314
3. **Input scope ID of second endoscope.** →on page 315
4. **Loading of second endoscope in reprocessing basin and attaching the leak test air tube.** →on page 315
5. **Performing auto leak test.** →on page 316
6. **Print format.** →on page 316

■ *Performing auto leak test*

1 Step on the foot pedal to open the lid.

2 Press the “Functions” button on the Menu Screen.

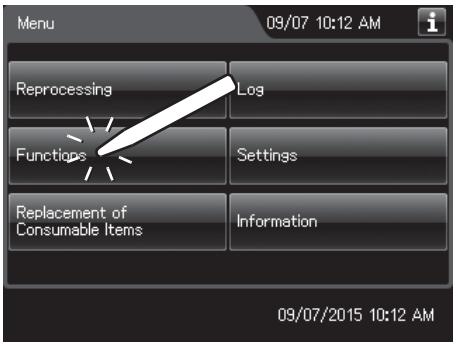


Figure 7.133

3 Press the “Auto Leak Test” button on the 2nd page of the Functions menu.

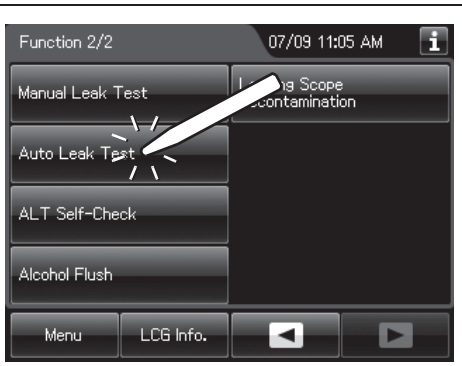


Figure 7.134

4 Enter scope ID by RFID.

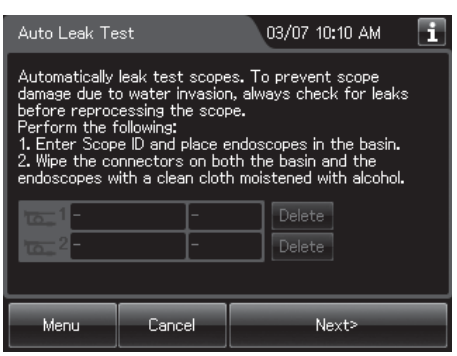


Figure 7.135

NOTE

To perform auto leak test, scope ID entry is allowed only by RFID. Other ID entry method cannot be performed.

5 Place the endoscope carefully, checking the following:

- The distal end of the insertion tube is straight.
- The distal end of the insertion tube is not on or beneath another object.
- The leak test air tube is not twisted.
- The leak test air tube is not contacting the lid.

6 Wipe the venting connector of the endoscope or that of the waterproof cap with a clean cloth immersed in 70% ethyl alcohol or 70% isopropyl alcohol.

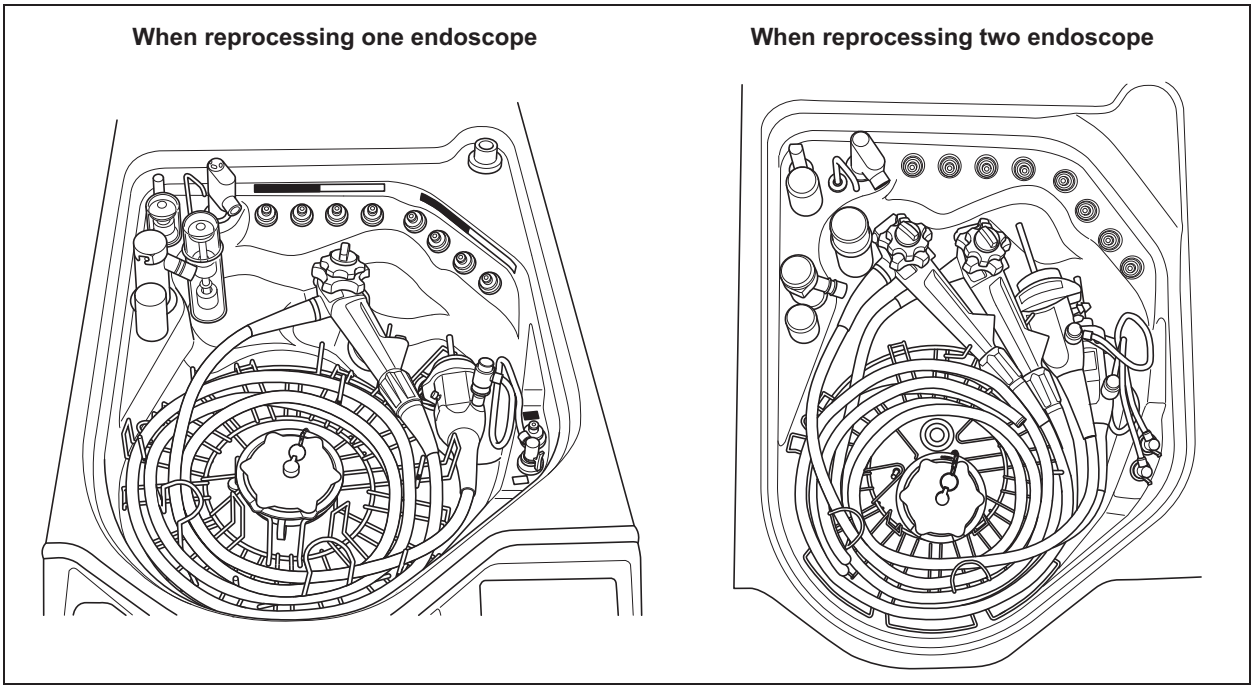


Figure 7.136

7 If the leak test connector E1/E2 in the reprocessing basin is wet, wipe the entire connector with a clean cloth.

8 Entry the scope ID of the first endoscope, then the message is displayed.

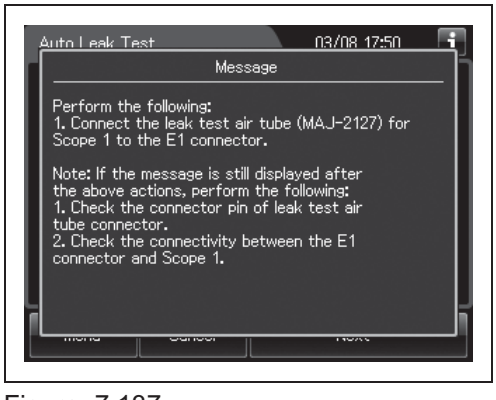


Figure 7.137

9 Connect the MAJ-2127 leak test air tubes to the venting connector or the water resistant cap of the first endoscope and leak test connector E1 in the reprocessing basin. When placing the second endoscope, entry the scope ID of the second endoscope, then connect the MAJ-2127 leak test air tubes to the second endoscope and leak test connector E2 in the reprocessing basin.

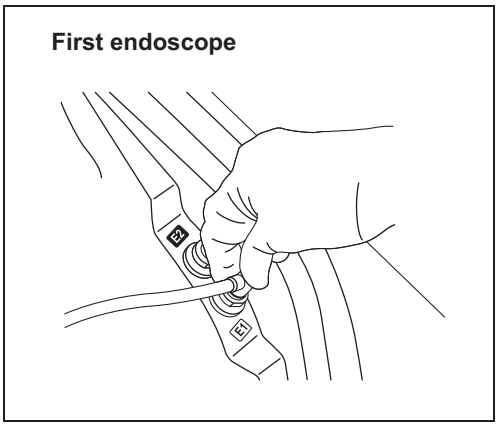


Figure 7.138

CAUTION

Connect the first endoscope to the leak test connector E1 in the reprocessing basin and the second endoscope to the leak test connector E2. If the endoscopes are connected improperly, reconnect them by following the instructions displayed on the touch screen. If the Auto leak Test is performed with wrong connections, the leak test may be incorrect.

10 Place the second endoscope, same as from Step 2 through 9 of the first endoscope.

NOTE

- If the first endoscope is connected to connector E2 by mistake, the notification of erroneous connection of the leak test air tube is displayed. Correct this by following the instructions displayed on the touch screen.
- If the message is still displayed after connecting the MAJ-2127 leak test air tubes, check the connector pin of leak test air tube connect and the connectivity between the E1 connector and the first endoscope. If any irregularity is not found, contact OLYMPUS.

11 Press the “Next” button.

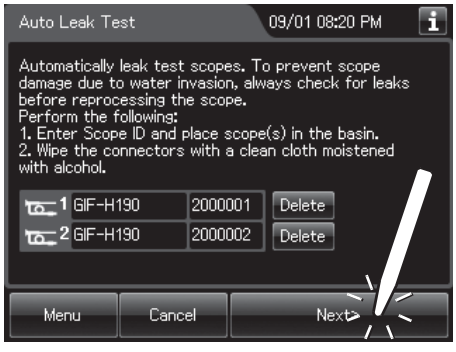


Figure 7.139

12 Follow the guide displayed on the screen until process starts. Enter user ID. For detailed procedure, refer to Section 3.6, “Entering ID” (If applicable).

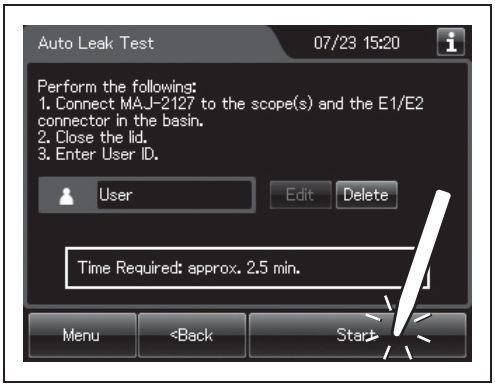


Figure 7.140

NOTE

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

13 When the auto leak test process completes, the reprocessor generates a buzzer beep and shows the following screen on the touch screen.

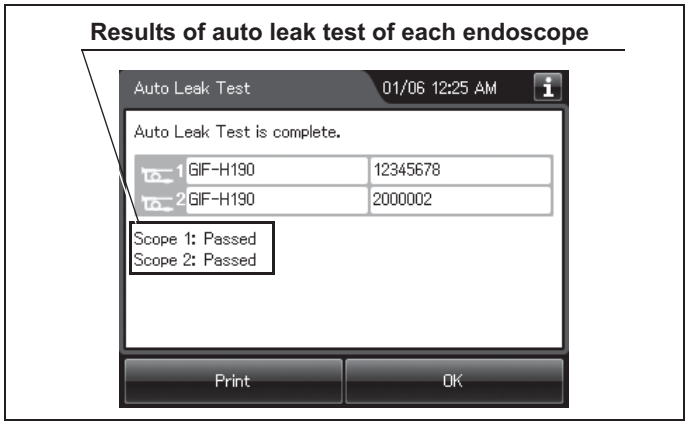


Figure 7.141

NOTE

- When the MAJ-1937 printer included in the optional MAJ-2144 printer set is connected and the auto print setting is activated, the results of auto leak test are printed automatically. For the setting changes of the auto print setting, refer to Section 4.17, “Print option”.
- To print the auto leak test results without using the auto print setting, press the “Print” button.
- If any leak were detected, refer to “■ When any leaks are detected” on page 617.

14 Press the “OK” button to finish.

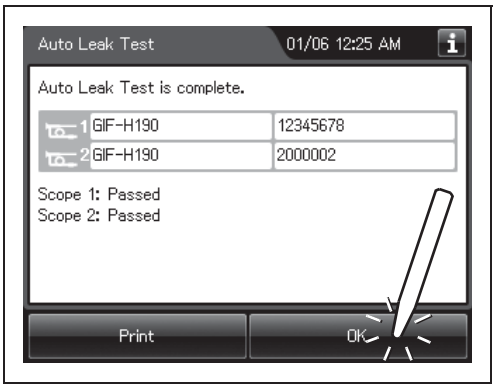


Figure 7.142

❍ Print format

(a) When the print format setting is “Separated”:

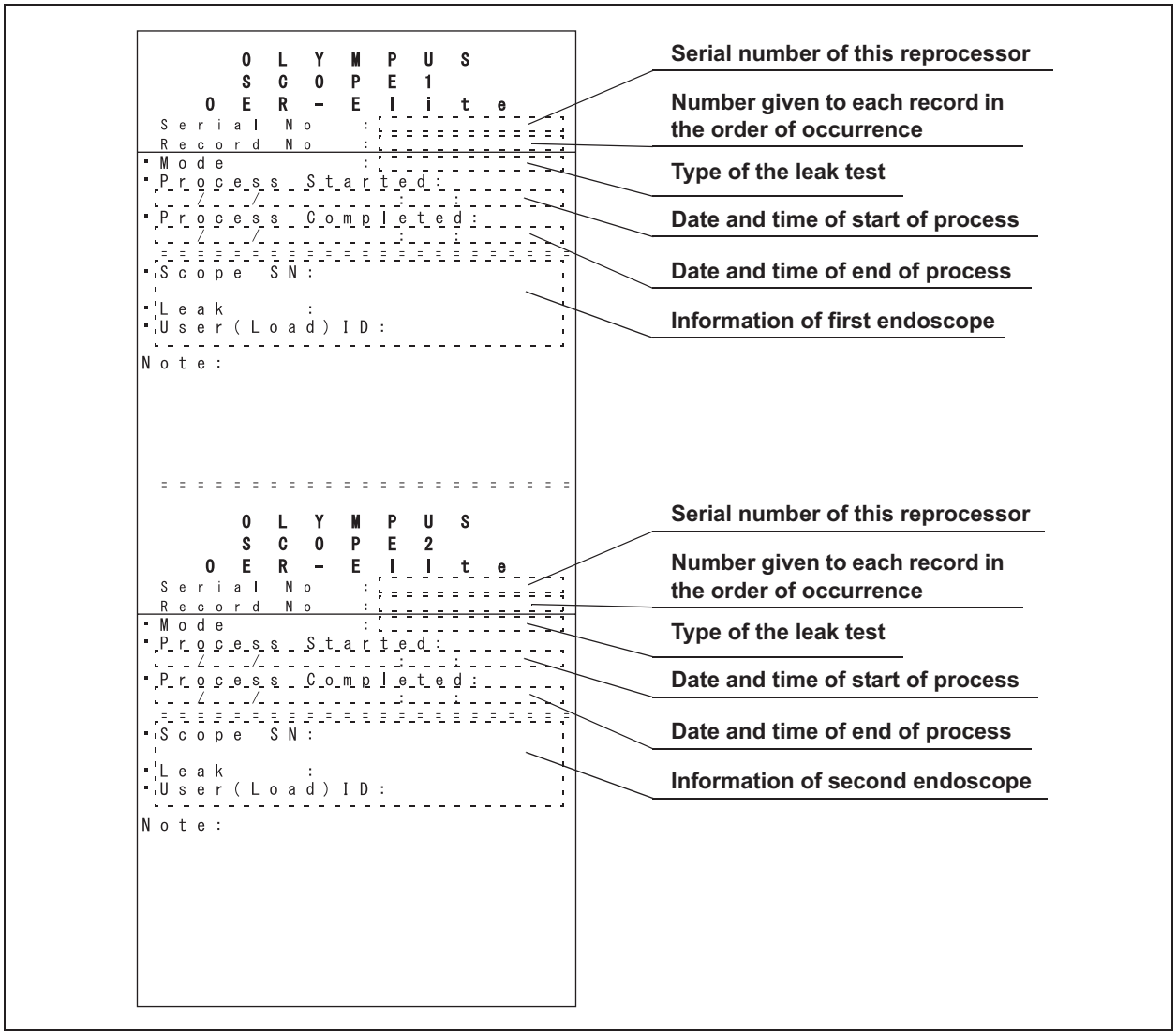


Figure 7.143

(b) When the print format setting is “Combine”:

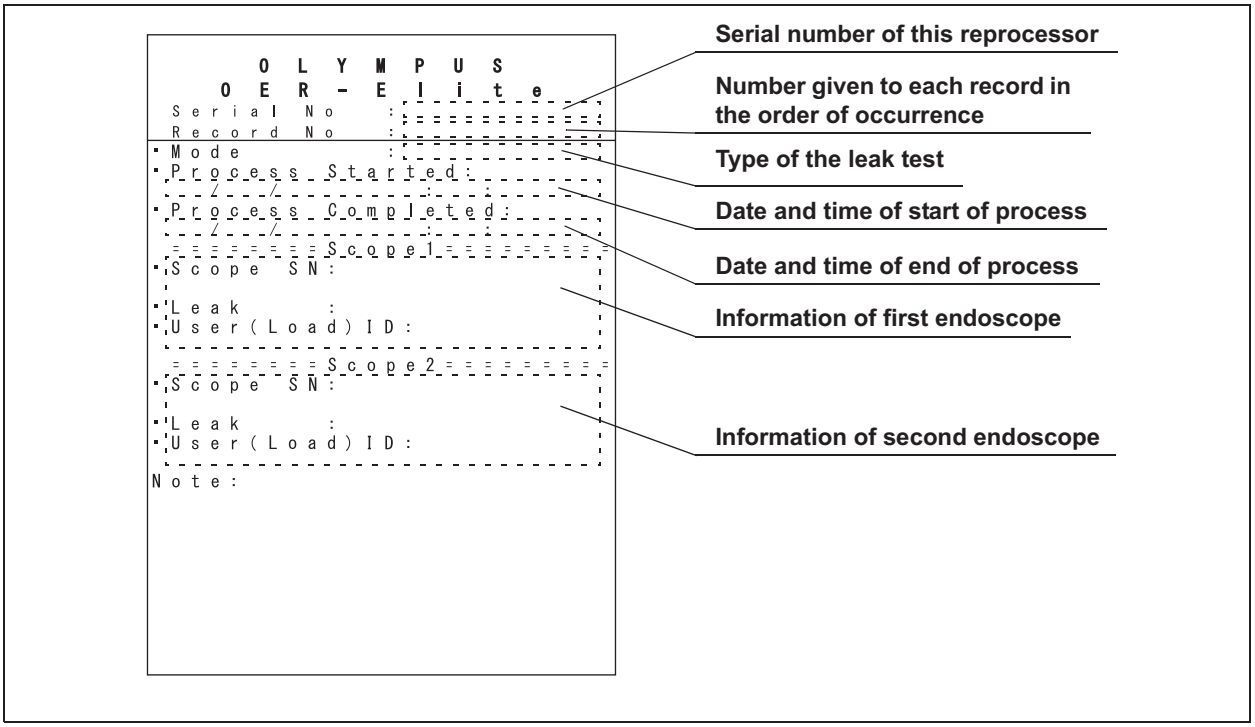


Figure 7.144

(c) When error occurs during auto leak test:

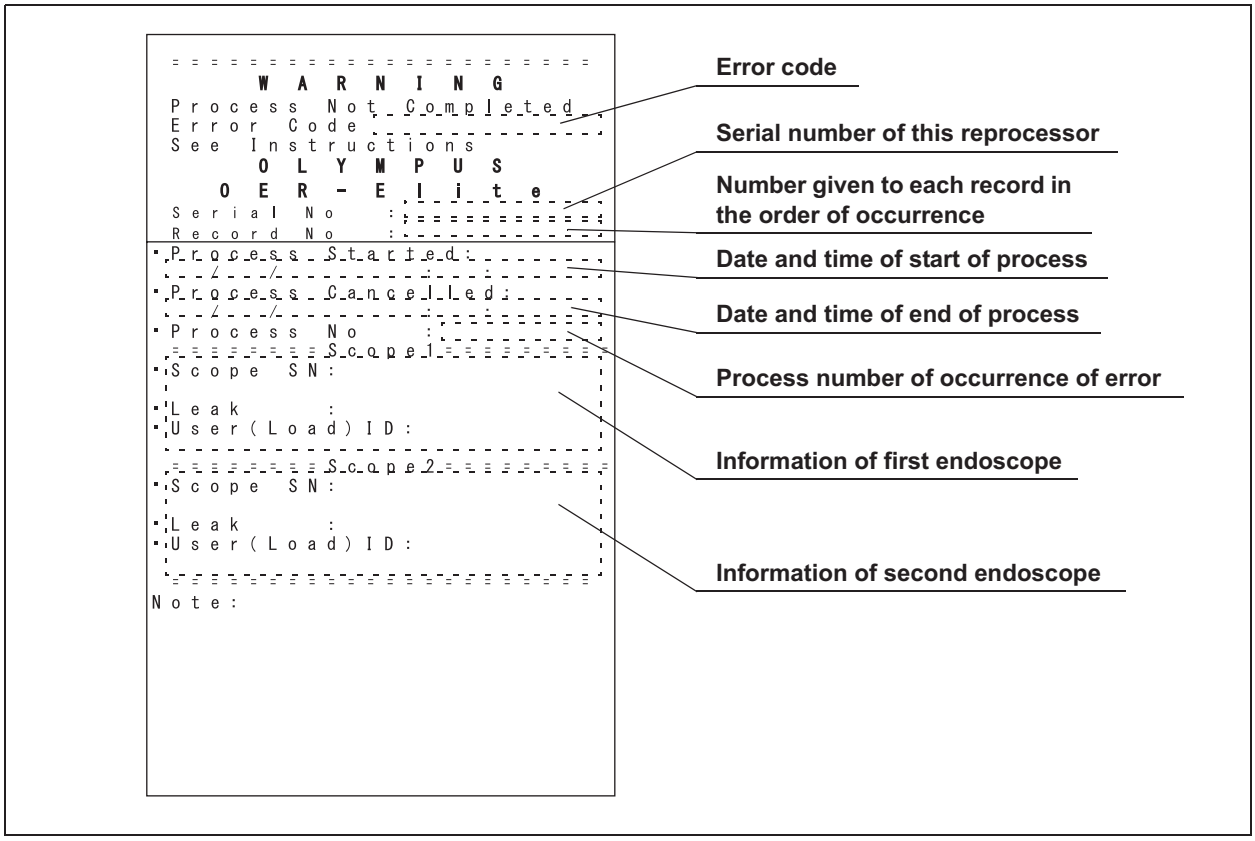


Figure 7.145

7.13 Self-check of auto leak test

This function is checked the operation of the auto leak test function.
The self-check of auto leak function is performed automatically during the load LCG process. However, if the load LCG process stops and an error code ([E112], etc.) is generated, execute the Self-check of auto leak test.

CAUTION

Do not connect any leak test air tubes to leak test connectors E1 or E2 on the reprocessing basin. Otherwise, the self-check will not run properly and Auto Leak Test function will not work properly.

1 Press the “Functions” button on the Menu screen.

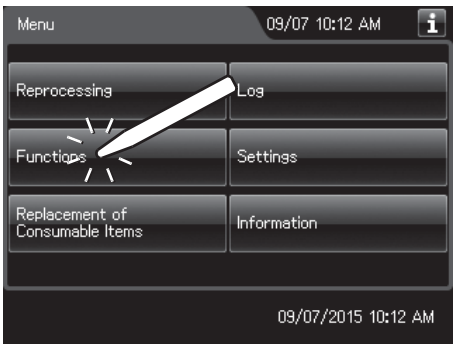


Figure 7.146

2 Press the “ALT Self-Check” button on the 2nd page of the Function menu.

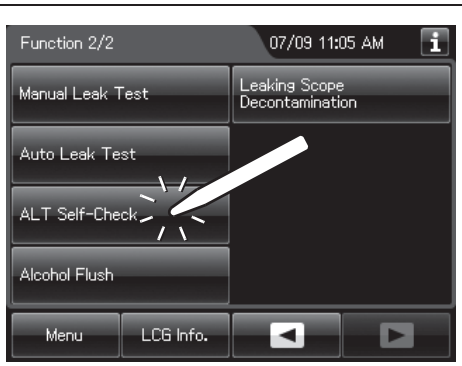


Figure 7.147

3 Input the operator’s user ID. For the detailed procedure, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

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

4 Press the “Start” button. The process starts.

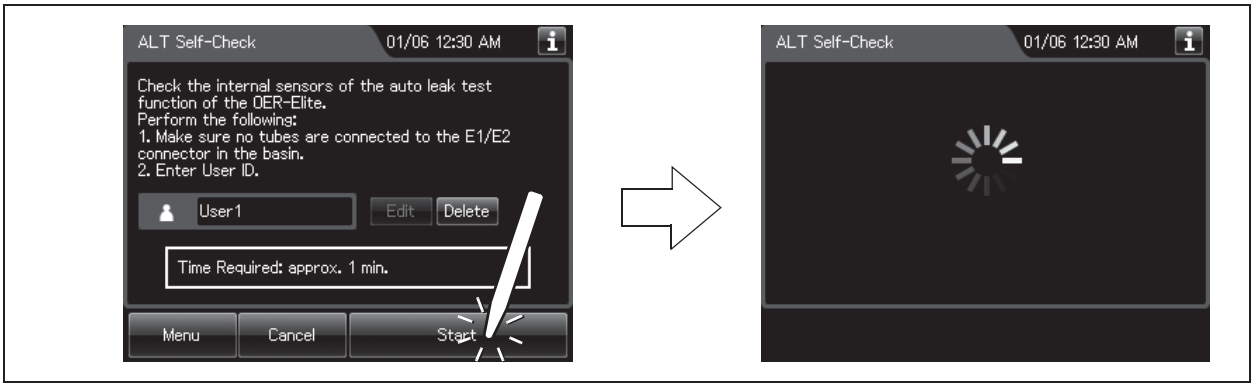


Figure 7.148

5 When the process completes, the reprocessor generates a buzzer beep and displays the result.

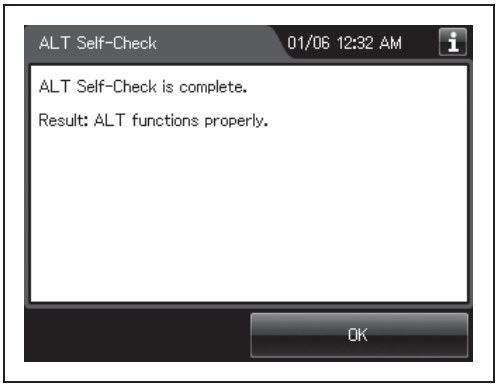


Figure 7.149

6 Press the “OK” button to finish.

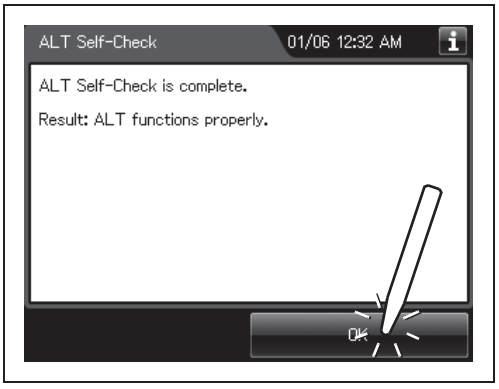


Figure 7.150

7.14 Alcohol flush

This process automates the flushing of the endoscope channels with alcohol followed by air to help dry the channels.

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.
- When the alcohol flush process is stopped due to an reprocessor error, do not use the endoscope and restart the alcohol flush process from the beginning. Otherwise, alcohol may remain in the endoscope channel and pose a risk to patient safety.

CAUTION

Do not perform alcohol flush without connecting the connecting tubes. Otherwise, excessive pressure on the pipes in the reprocessor may damage it.

1 Check the alcohol tank check window on the reprocessor's detergent/alcohol drawer to confirm that the surface of alcohol is visible. If the alcohol has reduced, add more alcohol as described in Section 5.9, "Inspecting and replenishing alcohol".

NOTE

Alcohol flush includes the water feed and drain operations. These operations are intended to drain alcohol while diluting it.

2 Press the "Functions" button on the Menu screen.

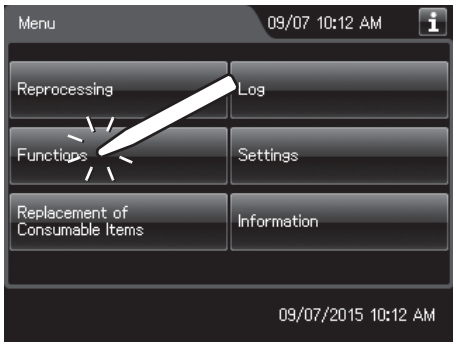


Figure 7.151

3 Press the "Alcohol Flush" button on the 2nd page of the Function menu.

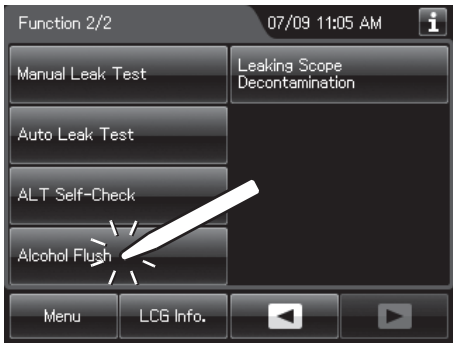


Figure 7.152

4 Follow the guide displayed on the touch screen. Firstly, step on the foot pedal to open the lid.

5 Place the endoscope(s) in the reprocessing basin.

6 Connect connecting tubes to the endoscope(s) and the connectors on the reprocessing basin according to the "List of Compatible Endoscopes/Connecting Tubes <OER-Elite>".

7 Enter the user ID. (If applicable)

NOTE

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

8 Press the “Start” button. Alcohol flush starts and the touch screen displays the remaining time, which will count down every minute.

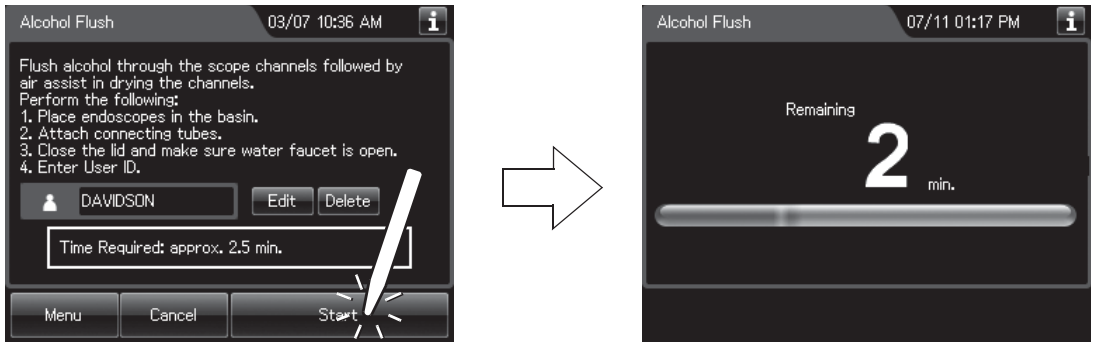


Figure 7.153

NOTE

Water supply and draining are performed in this process. These operations are intended to dilute the alcohol and drain the dilution.

9 When the alcohol flush process completes, the reprocessor generates a buzzer beep and shows the following screen on the touch screen. Press the “OK” button to finish.

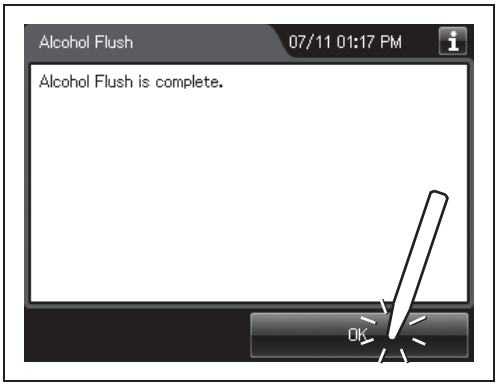


Figure 7.154

7.15 Leaking scope decontamination

If water leak of endoscope is detected in a leak test before manual cleaning or an auto leak test before reprocessing, apply leaking scope decontamination for the endoscope before sending it for servicing center. By using this function the endoscope can be immersed in the disinfectant solution while preventing from influx of disinfectant solution into the internal of the endoscope.

In case error code [E115] is displayed during the auto leak test process, perform the manual leak test and confirm area(s) of the leaking point(s). If a leaking point is found, thoroughly dry the identified location of the leak on the outer area of the endoscope using alcohol and a clean lint-free cloth. Carefully apply a piece of electrical tape or other waterproof tape over the location of the leak prior to immersing the endoscope in detergent solution. Wrapping the tape too tightly may result in damage to the endoscope. Then perform the Leaking scope decontamination with the endoscope. If error code [E115] is generated again in Leaking scope decontamination, the leaking point cannot be stopped by taping, or a leaking point is not found, do not perform this process but contact Olympus. For details, refer to “❍ Manual decontamination for leaking endoscope” on page 619.

WARNING

- The leaking scope decontamination process is intended to decontaminate a leaking endoscope before sending it to a servicing center. It does not guarantee the reprocessing of the endoscope and its accessories after this process. After completing this process, do not use the endoscope and its accessories in examination but send it to a servicing center.
- Do not subject an endoscope without leak (correctly functioning endoscope) in this process.
- Do not perform the Leaking scope decontamination process with auxiliary water tubes. This process is not capable of high-level disinfection of the auxiliary water tubes. Even when the auxiliary water tube cleaning setting is activated, do not use the MAJ-2138. Instead, be sure to use the provided MAJ-2113. Otherwise, the reprocessing of the auxiliary water tubes may be insufficient.
- When handling the disinfectant solution, wear personal protective equipment to prevent any disinfectant solution from getting on your skin and eyes or being inhaled. 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. Wear 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.

WARNING

- Before proceeding to the leaking scope decontamination, always be sure to check using a test strip that the concentration of the disinfectant solution is no less than the minimum recommended concentration. If this check is not performed, decontamination may be insufficient. The disinfectant solution should be replaced when the concentration falls below the minimum recommended concentration or the shelf life of the disinfectant solution has expired.
- Disinfectant vapor may still be in the reprocessing basin immediately after the lid is opened. Wear appropriate personal protective gear to prevent excessive inhalation of the vapor.
- Before disconnecting a connecting tube, visually confirm that there are no irregularities such as kinking, accidental detachment or use of wrong connecting tube and confirm that each connecting tube is firmly attached. If any irregularity is observed, it must be corrected and the endoscope must be reprocessed again. Otherwise, the reprocessing may insufficient.
- If any irregularity is found with the connection of the connecting tubes, connect them correctly and retry leaking scope decontamination. Otherwise, decontamination may be insufficient.
- Be sure to wear sterilized gloves when taking out the decontaminated endoscope. Otherwise, attaching of dirt on the hand on the endoscope may cause infection.
- This process does not guarantee reprocessing of the endoscope. Pay attention to in handling the endoscope by wearing protective gear, etc.

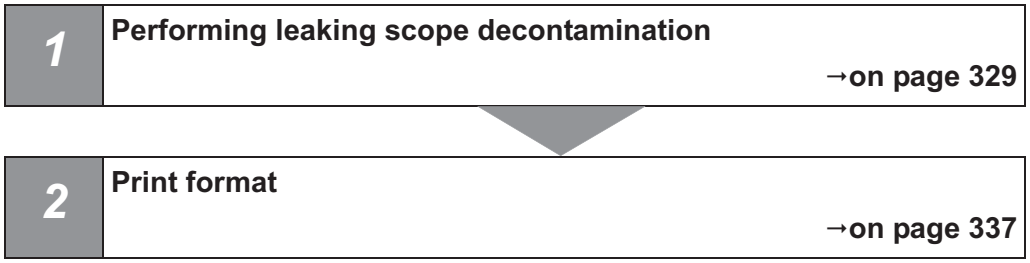
CAUTION

- Only one endoscope can be installed in the leaking scope decontamination. Otherwise, more water may leak into the endoscope during leaking scope decontamination.
- Always install only one endoscope. If two scopes are installed, water may penetrate inside them.

NOTE

If water leak is detected in the auto leak test performed according to the setting for the operation after reprocessing, send the endoscope to repair without performing this process.

■ *Workflow of leaking scope decontamination*



■ *Required items*

Check	Required Item
	FDA-cleared chemical indicator (test strip)
	Connector jig
	Connecting tubes
	Leak test air tube

Table 7.6

NOTE

- For the usable test strips, refer to Section 2.8, “Consumable accessories (Optional)”.
- For connecting tubes required for leaking scope decontamintation, refer to the Connection Guide screen or “List of Compatible Endoscopes/Connecting Tubes <OER-Elite>”.

■ *Performing leaking scope decontamination*

WARNING

Always use the connecting tube MAJ-2113 for endoscope with the auxiliary water channel and do not use connecting tube MAJ-2138 in this process. Otherwise, insufficient fluid supply to them may make their decontamination insufficient.

CAUTION

Before performing the leak scope decontamination, make sure that the leak test air tubes and the connectors of reprocessing basin are free of irregularities such as cracks, breaks, and so on. Otherwise, the endoscopes may malfunction.

1 Press the “Functions” button on the Menu screen.

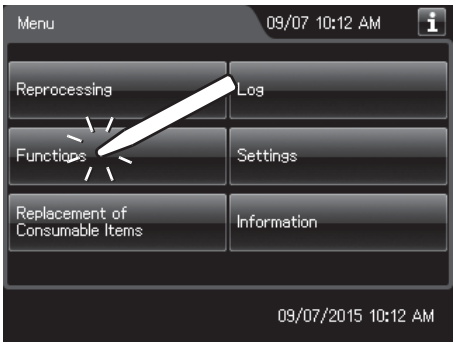


Figure 7.155

2 Press the “Leaking Scope Decontamination” button on the 2nd page of the functions menu screen.

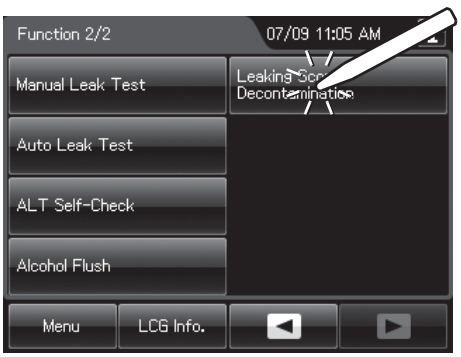


Figure 7.156

3 Press the “LCG Info.” button to display the LCG Info screen.

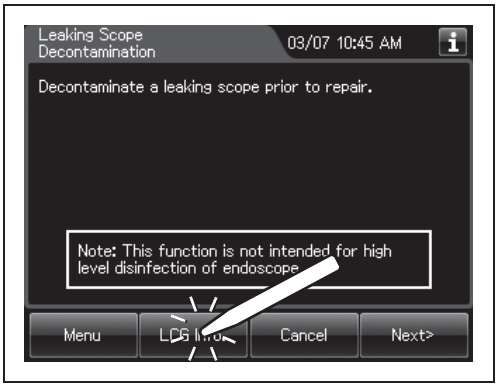


Figure 7.157

4 Check the MRC and input the result by following the instructions given in Section 3.7, “Checking the MRC level and entering the check result”.

5 Press the “Next” button repeatedly until the touch screen display changes as shown below.

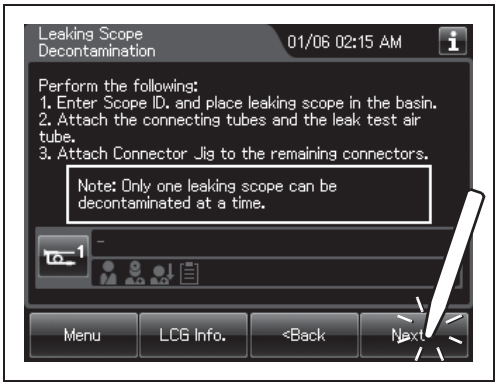


Figure 7.158

6 Input the scope ID of the leaking endoscope. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

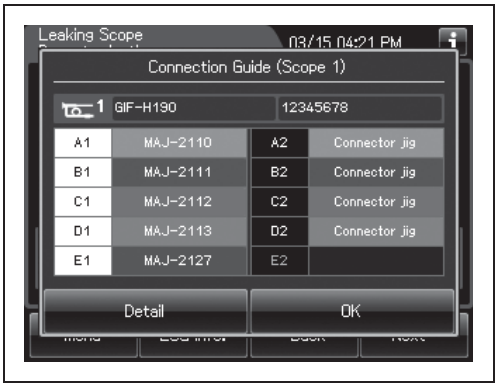


Figure 7.159

7 Place the leaking endoscope in the reprocessing basin. For the detailed procedures, refer to “■ Loading of second endoscopes in the reprocessing basin” on page 197.

8 Connect the connecting tubes by following the instructions given on the connection guide screen. For the connecting tube connection method, refer to “■ Loading of second endoscopes in the reprocessing basin” on page 197.

CAUTION

If the scope ID is input by the software keyboard or input by recalling the pre-registered ID, confirm the connecting tubes to be used in “List of Compatible Endoscopes/Connecting Tubes <OER-Elite>” and connect all of them. Otherwise, disinfectant solution cannot be fed into the scope channels.

9 Wipe the venting connector of the endoscope or that of the waterproof cap with a clean moistened with 70% ethyl alcohol or 70% isoproply alcohol.

10 If the leak test connector E1 in the reprocessing basin is wet, wipe the entire connector with a clean cloth.

11 Connect the MAJ-2127 leak test air tubes to the venting connector or the water resistant cap of the first endoscope and leak test connector E1 in the reprocessing basin.

12 Connect the connector jig to remaining connectors in the reprocessing basin.

13 Place unused connectors of connector jig as shown in the figure.

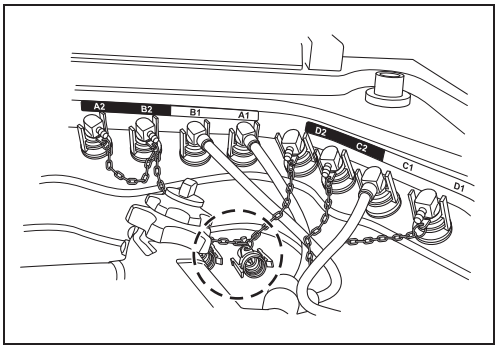


Figure 7.160

14 Press the “OK” button on the Connection Guide screen.

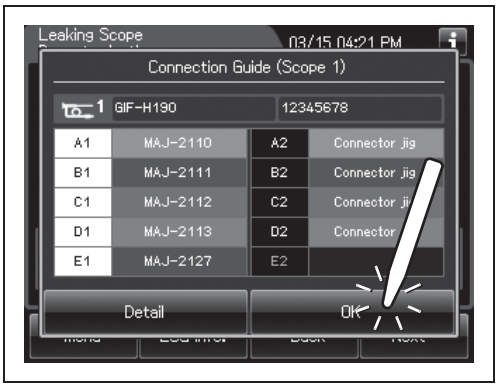


Figure 7.161

15 Check that connector jig is connected to remaining connectors in the reprocessing basin and then press the “Yes” button.

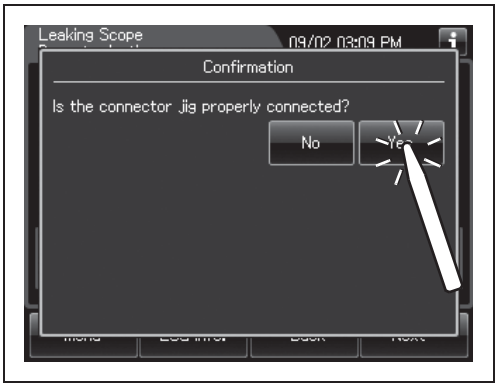


Figure 7.162

16 Select whether or not the endoscope has been cleaned manually and whether or not leak was found, and press the “OK” button.

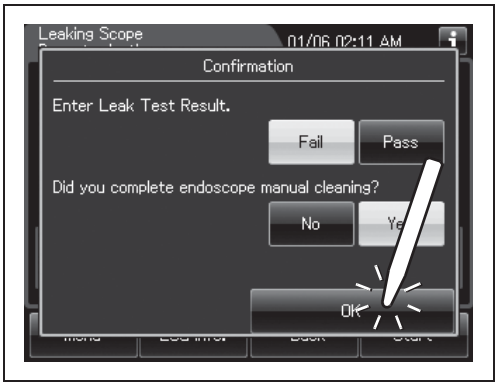


Figure 7.163

CAUTION

Connect the connector jig to all of the reprocessing basin’s connectors to which the connecting tubes are not connected except for connector E2. If the connector jig are not connected or connected improperly, water may leak into the endoscope.

NOTE

The input of the result of manual cleaning and leak test can be disabled by changing a setting. For details, refer to Section 4.4, “Manual cleaning and leak test setting”.

17 Check the connection between endoscope and the OER-Elite.

- The connecting tubes and leak test air tube are not kinked and bent.
- The unnecessary connecting tubes are not connected to the OER-Elite except for the connector jig.

18 When the touch screen display changes as shown below, input the user ID (load), physician ID and patient ID and procedure ID. For the ID input procedure, refer to Section 3.6, “Entering ID” (If applicable).

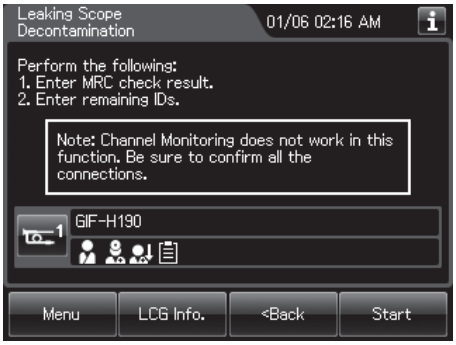


Figure 7.164

NOTE

- The user ID (load) input can be omitted by changing the user ID setting. For the user ID setting, refer to Section 4.5, “User ID Setting”.
- The physician ID input can be omitted by changing the physician ID setting. For the physician ID setting, refer to Section 4.6, “Physician ID setting”.
- The patient ID input can be omitted by changing the patient ID setting. For the patient ID setting, refer to Section 4.7, “Patient ID setting”.
- The procedure ID input can be omitted by changing the procedure ID setting. For the procedure ID setting, refer to Section 4.9, “Procedure ID setting”.

19 Close the lid by pushing until it clicks.

20 Press the “Start” button. The process starts and the touch screen displays the remaining time, which will count down every minute.

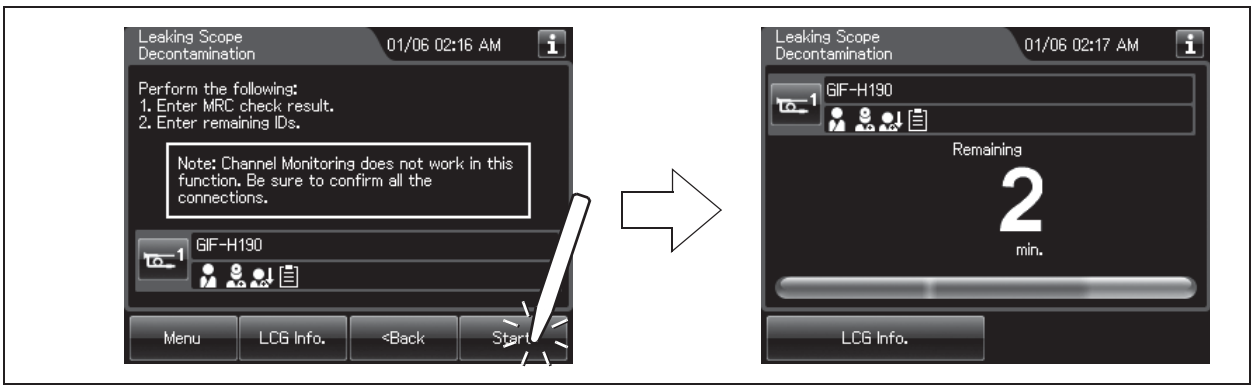


Figure 7.165

NOTE

When the disinfectant solution temperature is below 20°C (68°F), it is heated to 20°C (68°F). During heating, the remaining time countdown and progress bar on the touch screen stops and turns gray. The remaining time countdown restarts after completion of heating.

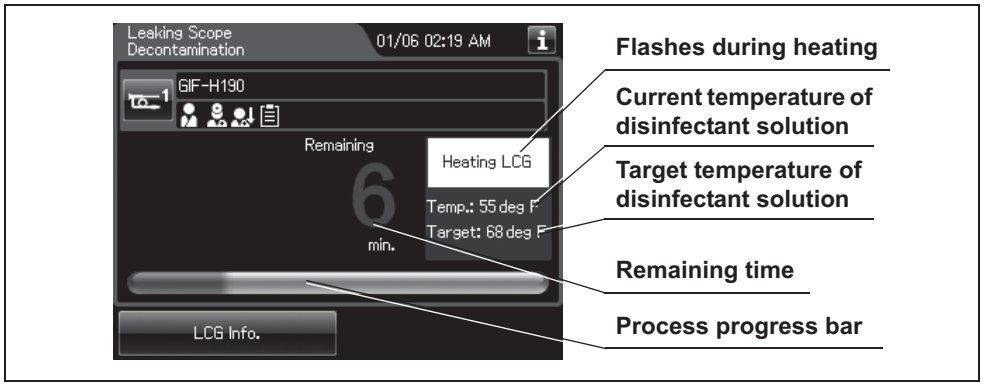


Figure 7.166

21 When the user ID (remove) setting for end of reprocessing is activated, enter the operator's user ID as instructed in Section 3.6, "Entering ID" (If applicable). When the user ID (remove) is input from the RFID, the touch screen switches to the next screen. When the input is performed manually or from the previous registration, press the "OK" button to switch the screen.

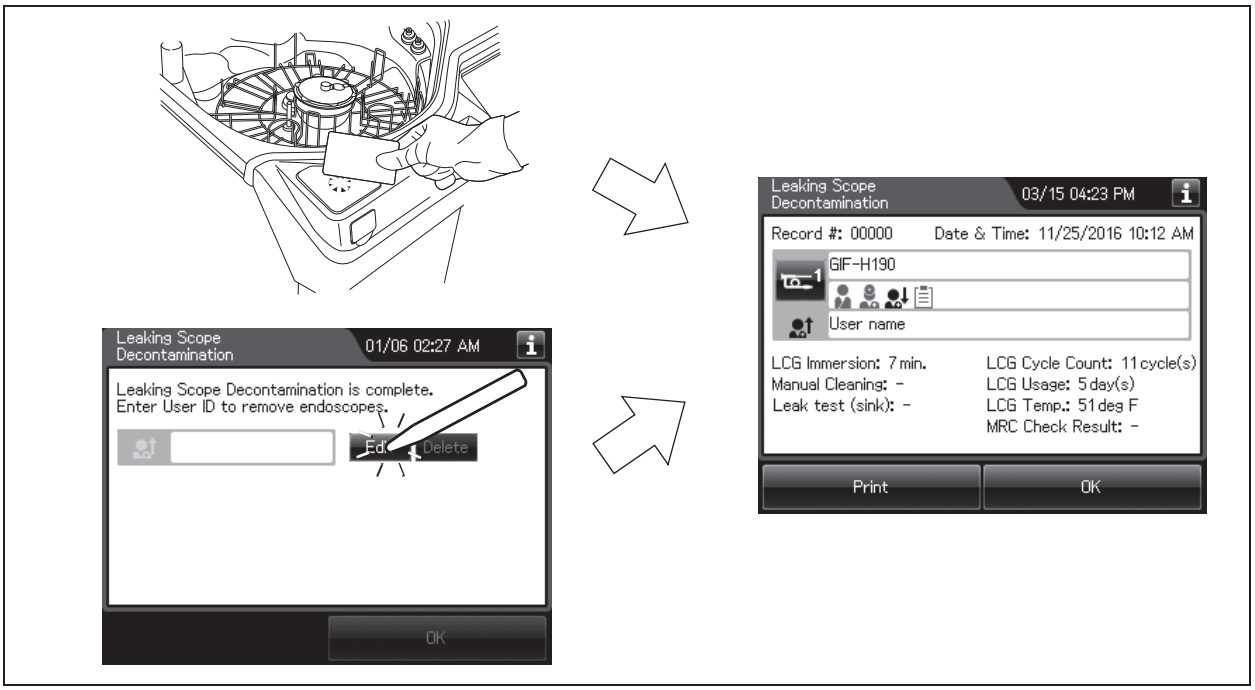


Figure 7.167

22 When this process completes, the reprocessor generates three buzzer beeps and the touch screen shows the following screen.

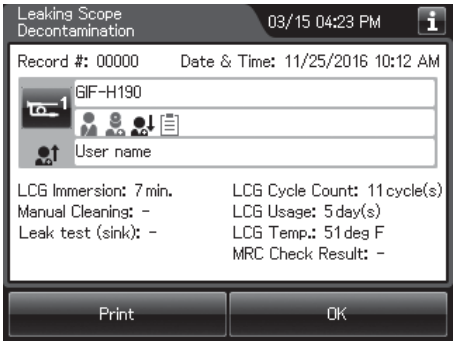


Figure 7.168

NOTE

- When the MAJ-1937 printer included in the optional MAJ-2144 printer set is connected and the auto print setting is activated, the result of leaking scope decontamination is printed automatically. For the setting changes of the auto print setting, refer to Section 4.17, “Print option”.
- To print the leaking scope decontamination result without using the auto print setting, press the “Print” button.

23 Press the foot switch to open the lid.

24 Check the connecting tubes and Leak test air tube status.

- if the tubes are bent,
- if they are connected securely to the connectors,
- if they are free of abnormality such as a crack.

CAUTION

The endoscope may fail when the tube is used the next time.

25 Disconnect the connecting tubes and leak test air tube from the endoscope.

26 Take the endoscope out of the reprocessing basin. Wipe off any water using a piece of clean gauze.

27 Take the connecting tubes, leak test air tube and connector jig out of the reprocessing basin, wipe off any water using a piece of clean gauze, and store them in a clean place.

28 Press the “OK” button twice to finish.

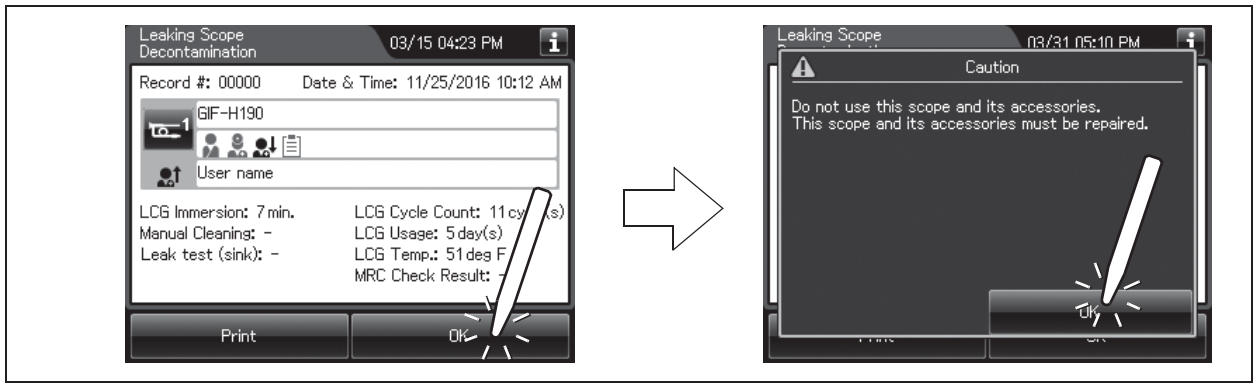


Figure 7.169

NOTE

Be sure to have the decontaminated endoscope serviced.

❍ Print format

(a) Normal

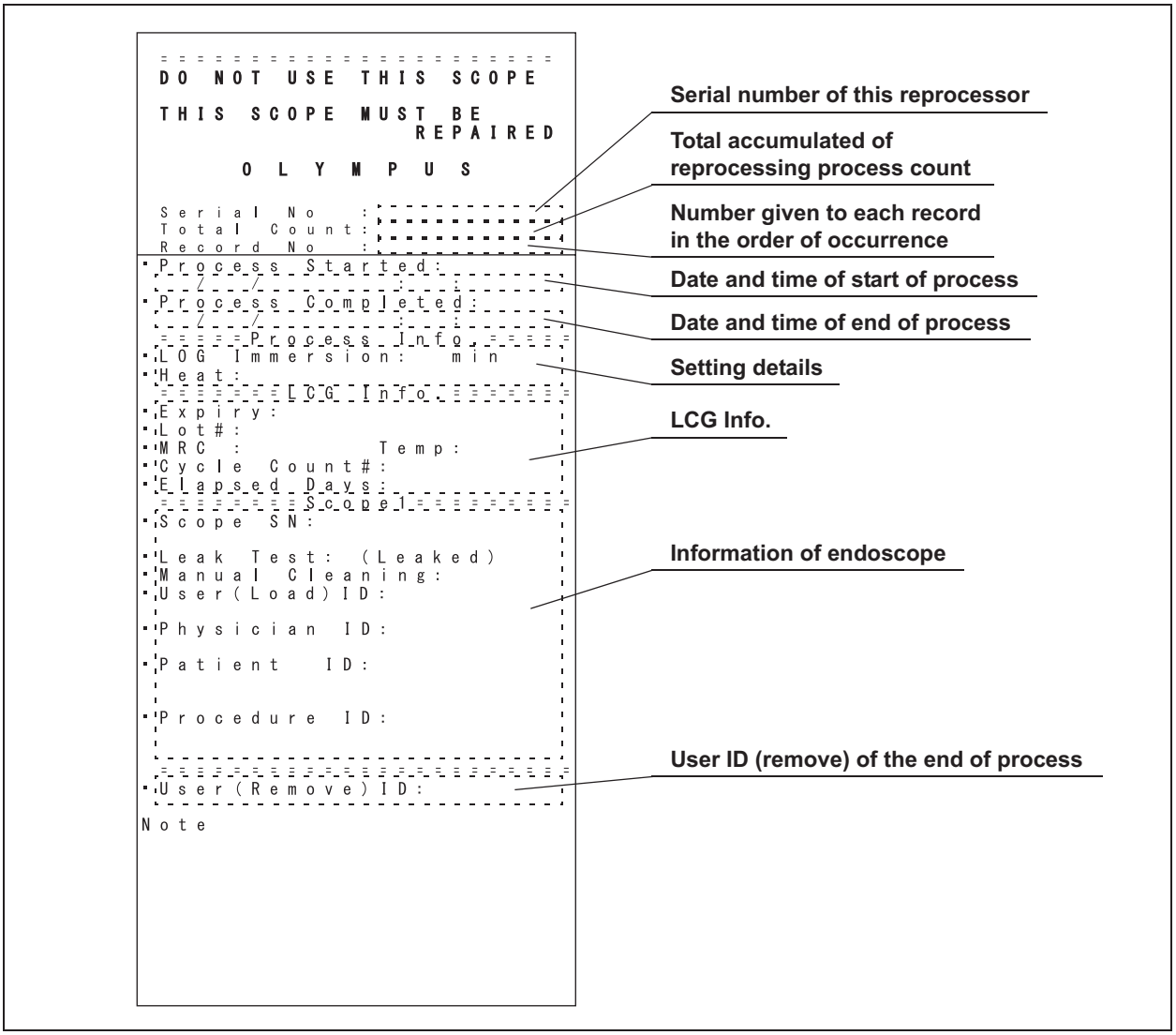


Figure 7.170

(b) Error

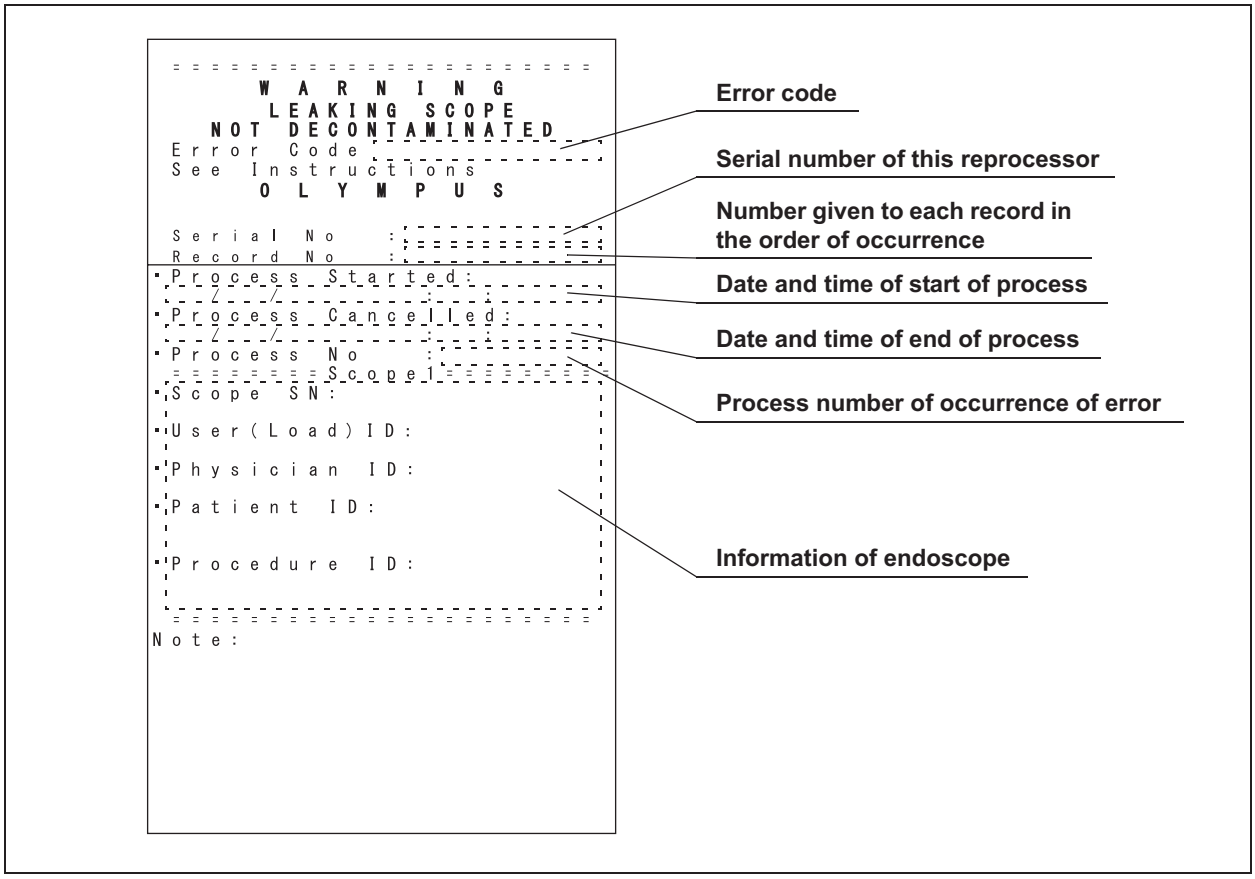
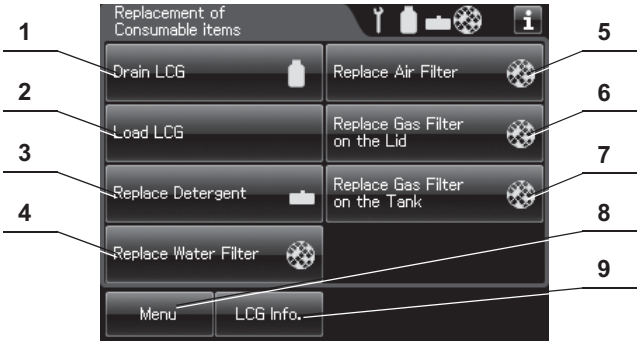


Figure 7.171

Chapter 8 Replacement of Consumable Items

8.1 Replacement of consumable items menu



No.	Button	Description
1	Drain LCG button	Press to drain the disinfectant solution in the disinfectant solution tank. When the usage count setting of the disinfectant solution counter or the shelf life of the disinfectant solution is reached, the disinfectant solution replacement indicator appears in the button.
2	Load LCG button	Press to prepare a new disinfectant solution.
3	Replace Detergent button	Press to load the detergent tank. When the usage count setting of the detergent counter or the shelf life of the detergent is reached, the detergent replacement indicator appears in the button.
4	Replace Water Filter button	Press to replace the water filter. When the usage count setting of the water filter counter, the water filter replacement indicator appears in the button.
5	Replace Air Filter button	Press to replace the air filter. When the usage count setting of the air filter counter, the air filter replacement indicator appears in the button.
6	Replace Gas Filter on the Lid button	Press to replace the gas filter on the lid. When the usage count setting of the lid's gas filter counter, the filter replacement indicator appears in the button.
7	Replace the Gas Filter on the Tank button	Press to replace the gas filter on the disinfectant solution tank. When the usage count setting of the disinfectant solution tank's gas filter counter, the filter replacement indicator appears in the button.
8	Menu button	Press to display the Menu screen.
9	LCG Info. button	Press to display the LCG Info. screen.

NOTE

There is no button for replenishing alcohol. For replenishing alcohol, refer to Section 5.9, "Inspecting and replenishing alcohol".

8.2 Replacing the disinfectant solution

When the disinfectant solution in the reprocessor is no longer effective, or beyond the specified use life, drain the disinfectant solution completely and replace with fresh disinfectant solution. Expired disinfectant solution should be treated as directed in the documents supplied with the disinfectant solution.

WARNING

- Remove all endoscopes, valves, and connecting tubes from the reprocessing basin before draining the disinfectant solution. Otherwise, the disinfectant solution cannot be drained properly, it cannot be mixed sufficiently, and the endoscopes and valves may be unable to be rinsed sufficiently.
- Before handling the disinfectant solution, read the cautions carefully and use it as instructed. Be sure that you fully understand what measures need to be taken if you get any disinfectant solution on your skin and eyes.
- Always use a disinfectant that has been validated by Olympus. High-level disinfectants that are not validated by Olympus for use in the OER-Elite may be unsafe and ineffective due to improper dilution, incorrect contact time and temperature, excessive foaming, inadequate rinse, and therefore may compromise patient safety. Use of a high-level disinfectant that has not been validated by Olympus may also damage internal OER-Elite components (e.g., seals, valves, etc.) and the endoscopes being reprocessed.
- When handling the disinfectant solution, wear appropriate personal protective equipment to prevent direct contact with your skin and eyes or excessive inhalation of the vapor. The disinfectant solution and its vapor may adversely affect the human body. If you get disinfectant solution in your eyes, immediately rinse with a large quantity of water and then call the doctor. Wear 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.

CAUTION

Expired disinfectant solution should be treated in accordance with the instructions supplied with the disinfectant solution. It is recommended to treat the waste fluid properly and to dispose of it according to local wastewater standards defined by law, or temporarily collect and store the waste fluid and have it treated by a waste disposal firm.

NOTE

When the disinfectant solution counter setting and/or shelf life setting is activated, the disinfectant solution replacement indicator can be displayed on the top right of the touch screen and on the “Drain LCG” button on the Replacement of Consumable Items menu when the counter setting value or shelf life setting value is reached. For the disinfectant solution counter setting, refer to Section 4.12, “LCG replacement indicator”. For the shelf life setting, refer to Section 4.13, “LCG lot number and shelf-life management”.

■ *Workflow of replacement the disinfectant solution*

See the replacement of the disinfectant solution workflow below.

1	**Drain the disinfectant solution.** • Draining through the disinfectant collection hose→on page 342 • Draining through the drain hose→on page 350
2	**Load the disinfectant solution.** **→on page 354**

■ *Draining the disinfectant solution*

	Drainage disinfectant solution
Drainage volume	Approximately 24 L (6.4 gallons)

Table 8.1

❍ Draining through the disinfectant collection hose

WARNING

- Do not push the disinfectant removal port when the rubber cap is not attached. To do so may cause the disinfectant solution to flow out.
- To prevent peripheral device and areas near the reprocessor from being damaged by leaking disinfectant solution, do not remove the rubber cap from the disinfectant removal port except when the disinfectant removal tube is connected.
- When handling the disinfectant solution, wear appropriate personal protective equipment to prevent it from making direct contact with your skin and eyes and to prevent excessive inhalation of the vapor. The disinfectant solution and its vapor may adversely affect the human body. If you get disinfectant solution in your eyes, immediately rinse with a large quantity of water and then call the doctor. Wear 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.
- Be sure to disconnect the drain connector except when collecting the disinfectant solution or checking its strength. Otherwise, disinfectant solution may leak and damage the reprocessor and areas near the equipment.
- Be sure to attach the disinfectant solution nozzle cap on the disinfectant solution nozzle. Otherwise, the disinfectant solution may spill out.

(a) Required item

Check	Required items
	Disinfectant collection hose
	Disinfectant removal tube
	Containers (large) with 24 L (6.4 gallons) or larger capacity such as PVC tanks (×2)
	Beaker (small) with 200 ml or larger capacity (wide-mouthed beaker such as a beaker)
	Clean cloth

Table 8.2

NOTE

Prepare more than one tank when using a tank of smaller capacity than that of the containers (large) listed in Table 8.2 or a tank with some liquid inside. Pressing the “Pause” button on the touch screen while draining LCG interrupts the process of draining LCG. Then you can exchange the tanks. For details, refer to Step 11 of “(b) Draining through the disinfectant collection hose” on page 344.

(b) Draining through the disinfectant collection hose

1 Press the “Replacement of Consumable items” button on the Menu screen.

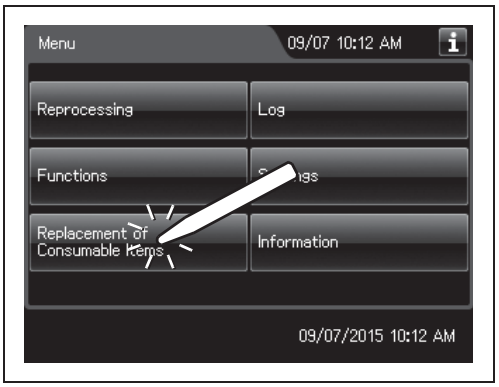


Figure 8.1

2 Press the “Drain LCG” button.

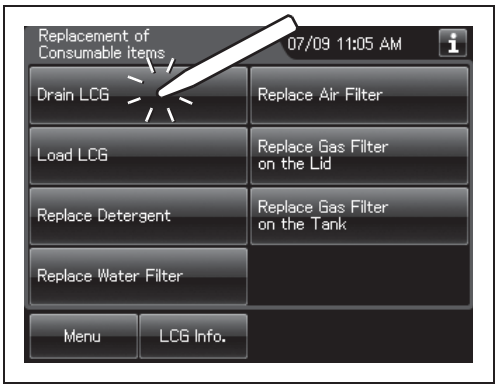


Figure 8.2

3 Press the “Through the Disinfectant Collection Hose” button.

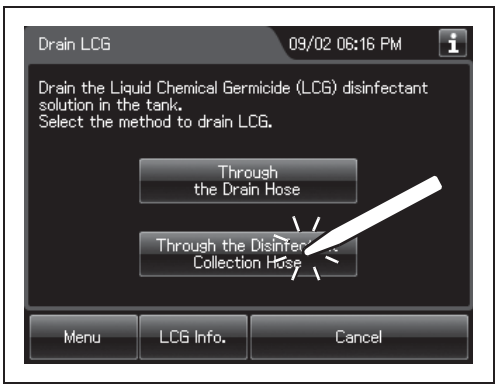


Figure 8.3

4 Step on the foot pedal to open the lid.

5 While pulling the sleeve on the connector of the disinfectant collection hose, connect the connector into the disinfectant solution nozzle inside the reprocessing basin. After connection, pull the hose gently to make sure it is properly attached.

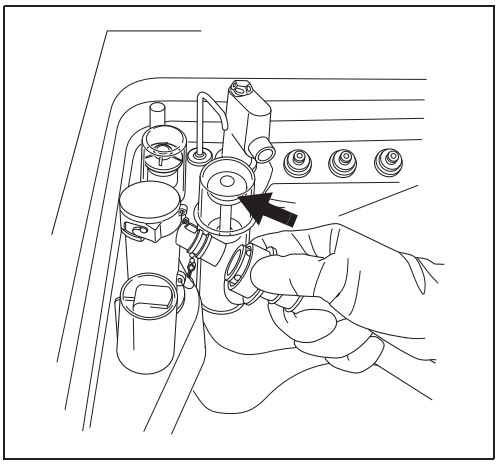


Figure 8.4

WARNING

Be sure to attach the disinfectant solution nozzle cap to the original position. Otherwise, the disinfectant solution will spatter.

NOTE

- If “DRAIN LCG” is selected and the FUNC START button is pressed without connecting the disinfectant collection hose, the buzzer repeats short beeps, disinfectant solution will fill the reprocessing basin and error code [E72] is displayed. In this case, treat it by following the procedure in Section 13.2, “Troubleshooting guide”.
- Make sure that the disinfectant collection hose is not kinked and the end of hose in container is not clogged. Otherwise, the disinfectant solution will be spattered.

6 Put the other end of the disinfectant collection hose (the end without a connector) in a large container that can hold up to 24 liters.

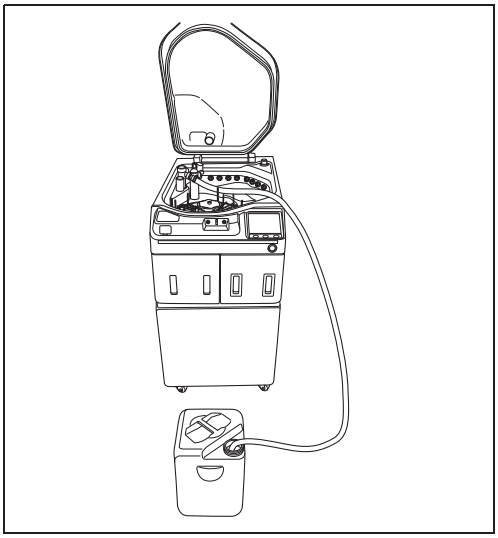


Figure 8.5

7 Press the “Next” button repeatedly until the touch screen display changes as shown below.

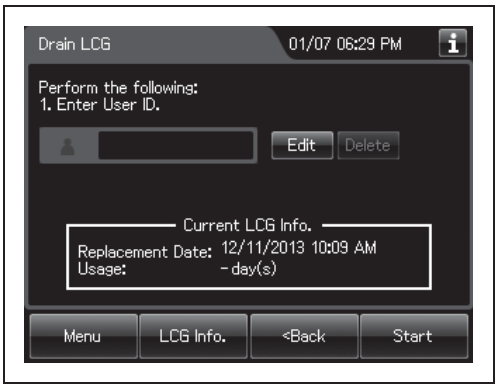


Figure 8.6

8 Input the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

9 Press the “Start” button. The buzzer repeats short beeps to indicate that the disinfectant solution drain process is underway, the touch screen changes the following screen, and the disinfectant solution begins draining.

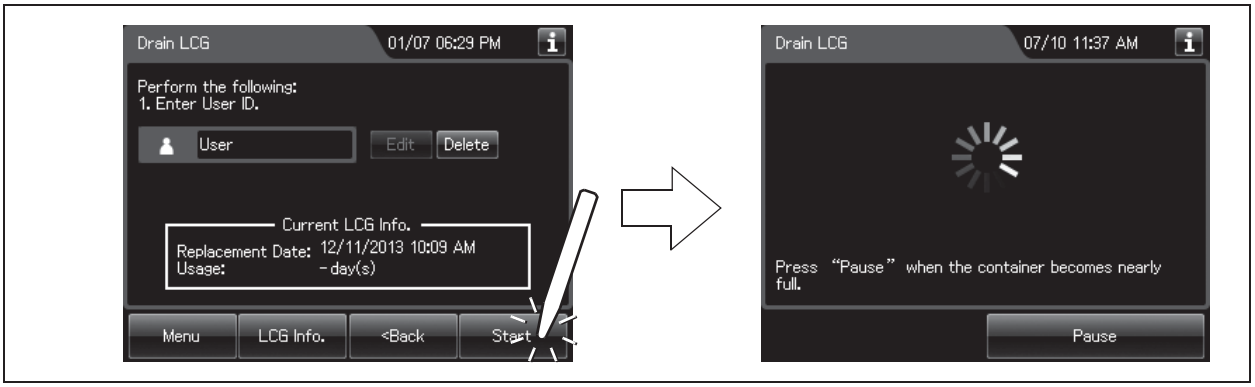


Figure 8.7

10 When the container (large) becomes nearly full, press the “Pause” button on the touch screen to interrupt the disinfectant solution collection.

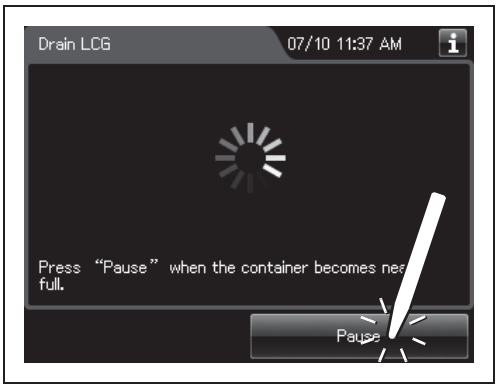


Figure 8.8

11 Prepare a new container (large) and put the other end of the disinfectant collection hose in it.

12 Hold the disinfectant collection hose so that it does not move, then press the “Continue” button on the touch screen, and then press the “OK” button to restart draining of the disinfectant solution.

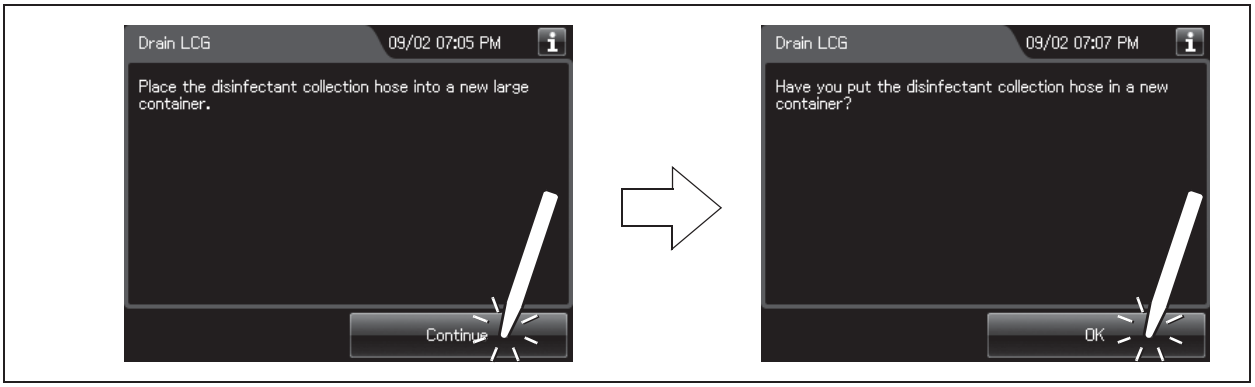


Figure 8.9

13 When draining is stopped, the long buzzer beeps, and the touch screen displays the following screen.

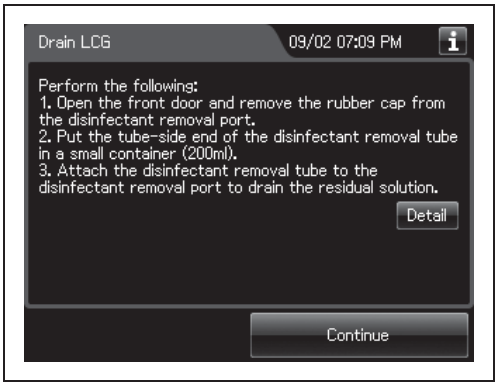


Figure 8.10

14 Pull the sleeve on the connector of the disinfectant collection hose to disconnect it from the disinfectant solution nozzle. Be sure to drain the disinfectant solution that remains in the disinfectant collection hose into the container (large).

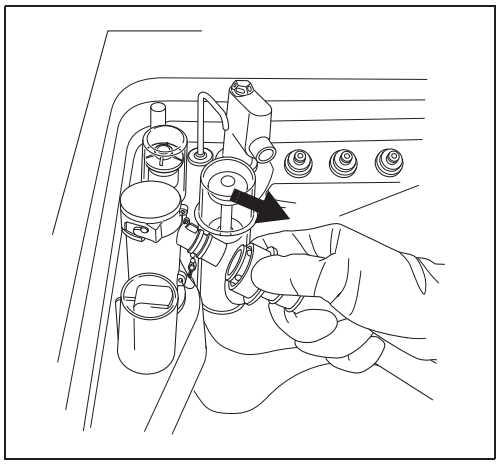


Figure 8.11

15 Rinse both the outside and inside of the disinfectant collection hose thoroughly in running water, dry it thoroughly, and store it in a clean place.

16 Open the front door and remove the rubber cap from the disinfectant removal port.

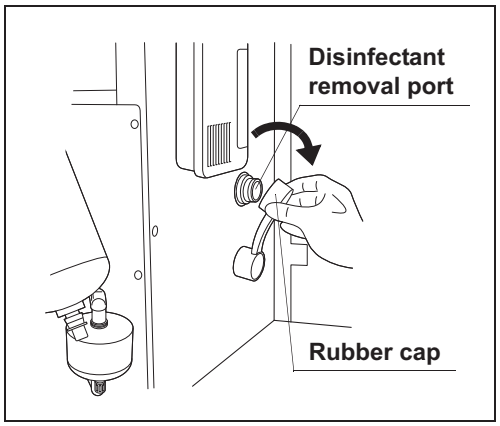


Figure 8.12

17 Put the tube-side end of the disinfectant removal tube in the beaker (small), and connect the disinfectant removal tube to the disinfectant removal port to drain the small amount of residual disinfectant solution from the disinfectant solution tank.

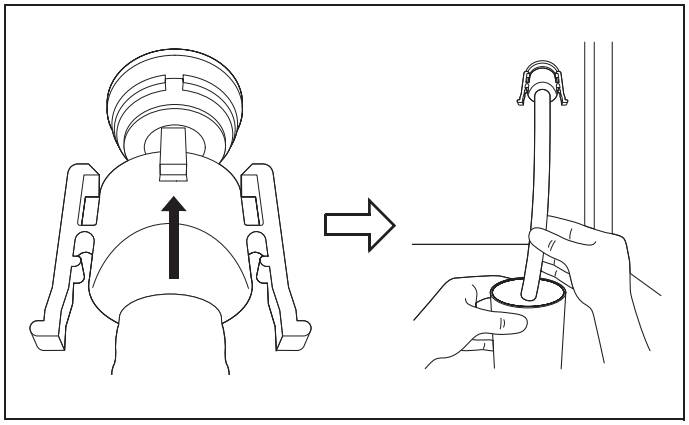


Figure 8.13

18 Hold the lock levers and slowly disconnect the tube.

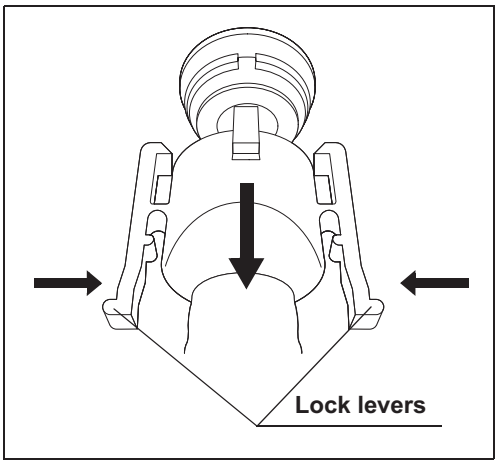


Figure 8.14

19 Rinse the disinfectant removal tube thoroughly under running water, dry it completely, and store it in a clean place.

20 Wipe the disinfectant removal port with the clean cloth and attach the rubber cap to it.

21 Close the front door.

NOTE

The front door cannot be closed unless the rubber cap is attached.

22 Press the “Continue” button. Then, press the “OK” button.

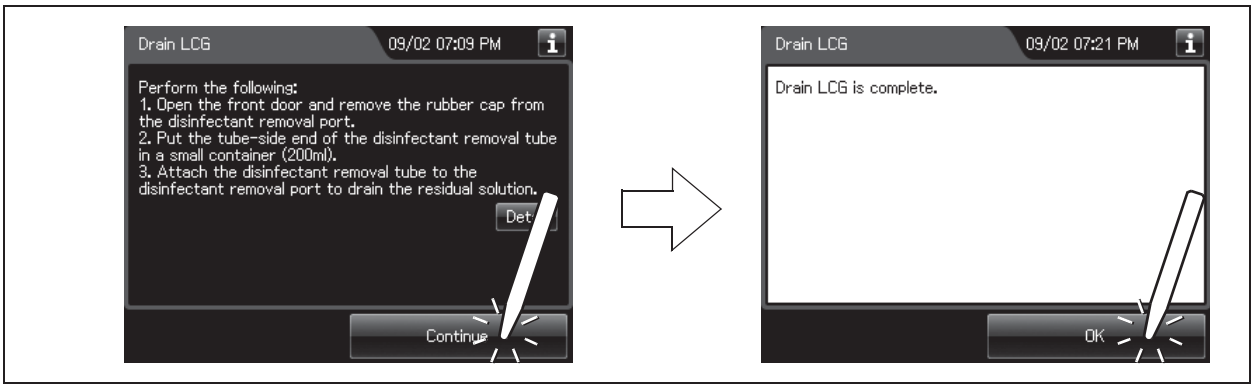


Figure 8.15

❍ Draining through the drain hose

WARNING

- Do not push the disinfectant removal port with a finger while the rubber cap is not attached. Otherwise, the disinfectant solution may flow out.
- To prevent peripheral device and facilities near the reprocessor from being damaged by leaked disinfectant solution, do not remove the rubber cap from the disinfectant removal port except when the disinfectant removal tube is connected.

(a) Required items

Check	Required items
	Disinfectant removal tube
	Beaker (small) with a capacity of about 200 ml, such as a beaker
	Clean cloth

Table 8.3

(b) Draining through the disinfectant collection hose

1 Press the “Replacement of Consumable items” button on the Menu screen.

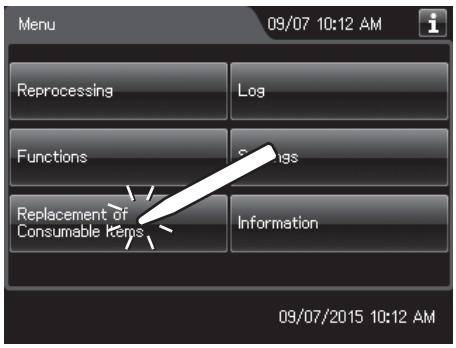


Figure 8.16

2 Press the “Drain LCG” button.

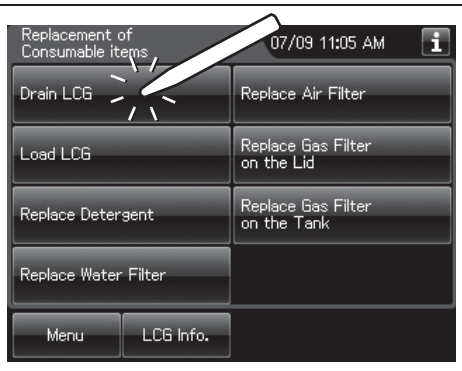


Figure 8.17

3 Press the “Through the Drain Hose” button.

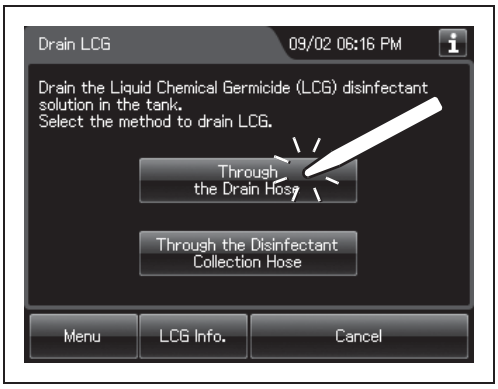


Figure 8.18

4 Close the lid by pushing it until it clicks.

5 Slowly open the water faucet.

6 Input the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

Ch.8

7 Press the “Start” button. The buzzer beeps, the disinfectant solution begins draining, and the reprocessing basin is rinsed. The touch screen displays the following screen to indicate that the process is underway.

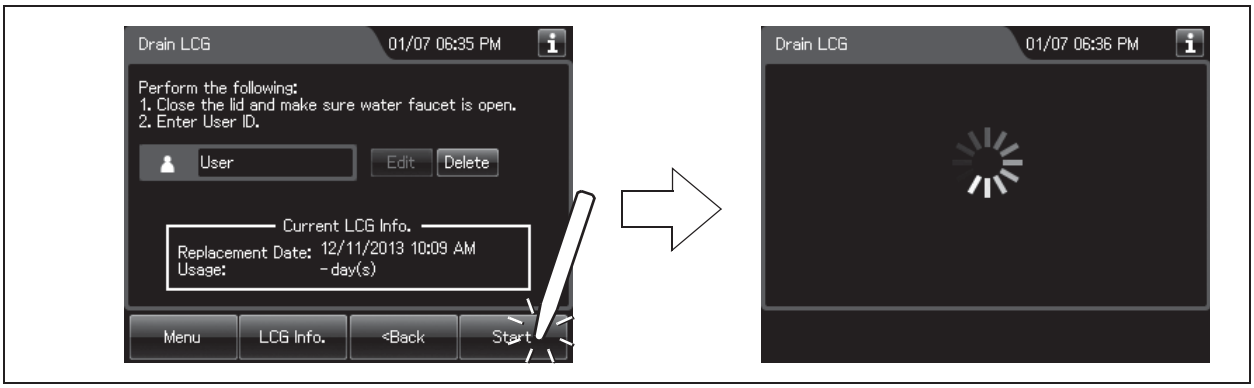


Figure 8.19

8 When draining is stopped, the long buzzer beeps, and the touch screen displays the following screen.

Figure 8.20

9 Open the front door and remove the rubber cap from the disinfectant removal port.

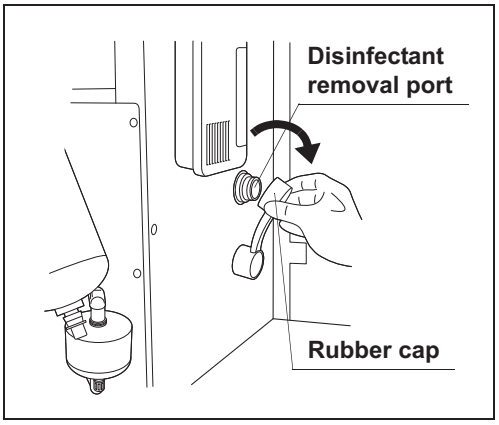


Figure 8.21

10 Put the tube-side end of the disinfectant removal tube in the beaker (small), and connect the disinfectant removal tube to the disinfectant removal port to drain the small amount of residual disinfectant solution from the disinfectant solution tank.

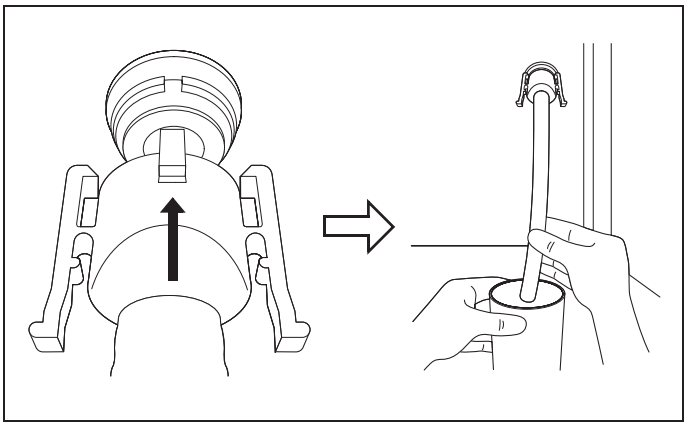


Figure 8.22

11 Hold the lock levers and slowly disconnect the tube.

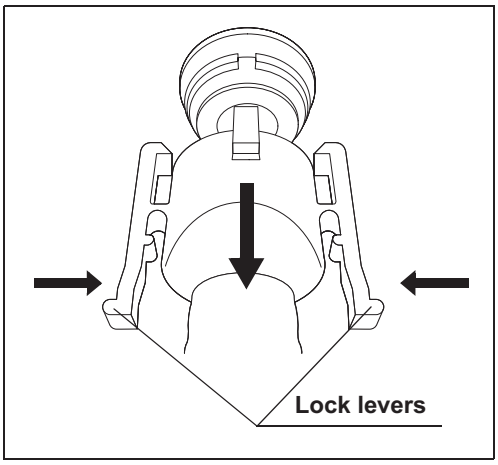


Figure 8.23

12 Rinse the disinfectant removal tube thoroughly under running water, dry it completely, and store it in a clean place.

13 Wipe the disinfectant removal port with the clean cloth and attach the rubber cap to it.

14 Close the front door.

NOTE

The front door cannot be closed unless the rubber cap is attached.

15 Press the “Continue” button, and then press the “OK” button.

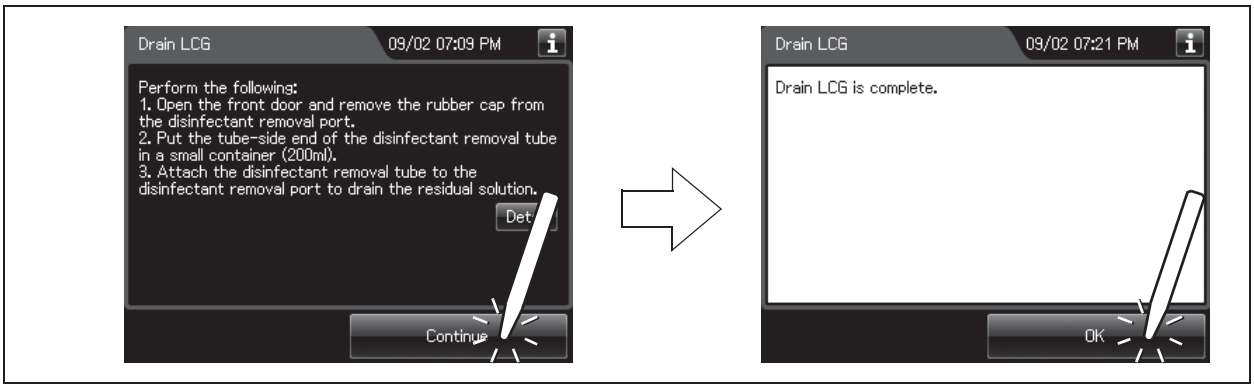


Figure 8.24

■ *Load the disinfectant solution*

WARNING

- Before handling the disinfectant solution, read the cautions carefully and use as instructed. It is especially important to know what to do if the disinfectant solution comes in contact with your skin and eyes.
- Always use disinfectant that has been validated by Olympus. High-level disinfectants that are not validated by Olympus for use in the OER-Elite may be unsafe and ineffective due to improper dilution, incorrect contact time and temperature, excessive foaming, inadequate rinse, and therefore may compromise patient safety. Use of a high-level disinfectant that has not been validated by Olympus may also damage internal OER-Elite components (e.g., seals, valves, etc.) and the endoscopes being reprocessed.
- When handling the disinfectant solution, wear personal protective equipment to prevent any disinfectant from getting on your skin and eyes or being inhaled. 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. Wear 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.
- 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.

WARNING

- Effective reprocessing cannot be guaranteed when a nonvalidated disinfectant solution is used. Reprocessor malfunction may also result.
- Follow the disinfectant manufacturer's instructions for any preparation or activation required prior to loading into the OER-Elite.
- If the disinfectant solution in the cassette bottles has not completely drained after preparation of disinfectant solution, do not use the reprocessor and contact Olympus. Inappropriate preparation of disinfectant solution will prevent proper endoscope reprocessing.
- Do not touch inside the caps of cassette bottles. Do not push or apply strong pressure to the bottle. Otherwise, disinfectant solution may leak from the bottle.

CAUTION

- To avoid malfunction, do not attempt to pull out the disinfectant bottle drawer while it is locked.
- Do not put your hand into the disinfectant bottle drawer or near the cassette bottle cutters. Irritation of skin due to contact with concentrated disinfectant solution, injury by touching a projection, or malfunction of this reprocessor may result.

■ *Required items*

Check	Required items
	Acecide-C high level disinfectant solution

Table 8.4

NOTE

For Acecide-C high level disinfectant solution, refer to Section 2.8, "Consumable accessories (Optional)".

■ *Setting the disinfectant solution*

1 Press the “Replacement of Consumable Items” button on the Menu screen.

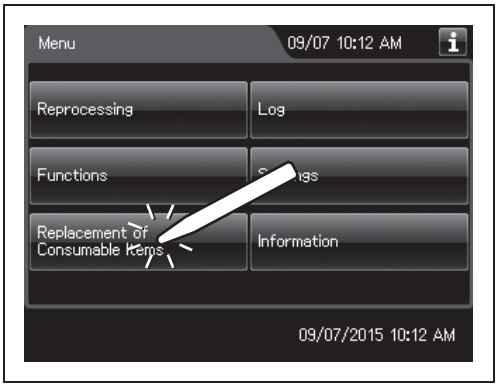


Figure 8.25

2 Press the “Load LCG” button.

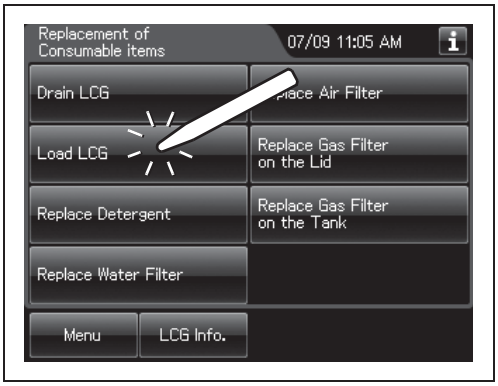


Figure 8.26

3 Close the lid by pushing until it clicks.

4 Make sure that the water faucet is open.

5 Input the operator’s user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

6 Press the “Start” button to unlock the disinfectant bottle drawer.

Figure 8.27

NOTE

- The Load LCG cannot be started unless the disinfectant solution tank is empty.
- If the shelf-life and/or lot number management of the disinfectant solution are activated, the shelf-life and/or lot number of the disinfectant solution can be entered after pressing the “Next” button. For entering the shelf-life and/or lot number of the disinfectant solution, refer to “❍ When entering the shelf-life and/or lot number of the disinfectant solution:” on page 361.

7 Pull out the disinfectant bottle drawer.

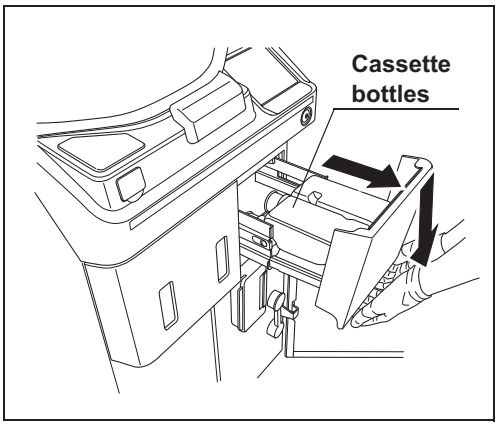


Figure 8.28

8 To remove the empty cassette bottles from the disinfectant bottle drawer, position the bottle mouths upward so that the disinfectant solution does not come out.

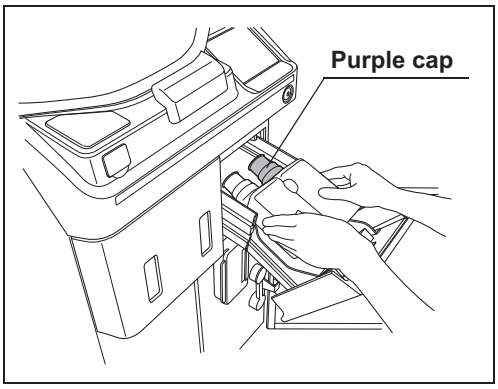


Figure 8.29

9 If any disinfectant solution spills, wipe it away with a clean cloth. If the disinfectant bottle drawer is dirty, clean using a clean cloth moistened with neutral detergent solution and then wipe with a clean cloth.

WARNING

- Do not put your hand behind the disinfectant bottle drawer. Irritation of skin due to contact with concentrated disinfectant solution, injury by touching a projection, or malfunction of this reprocessor may result.
- If the cassette cutters are abnormal, do not use the reprocessor and contact Olympus. If the cassette cutters are abnormal, the disinfectant solution cannot be properly prepared. This will prevent effective endoscope reprocessing and may cause the reprocessor to malfunction.

10 Check the two cassette cutters (blades for ripping caps on disinfectant cassette bottles) placed at the back of the disinfectant bottle drawer. Compare the two blades and make sure that neither cutter is bent, cracked, or deformed. Changes in color are not a malfunction.

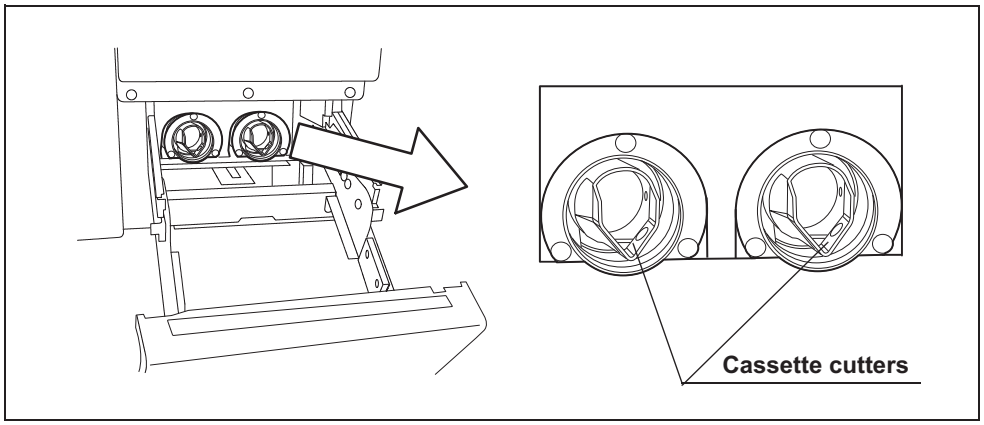


Figure 8.30

11 Hold the new disinfectant cassette bottles together and place them on the disinfectant bottle drawer so that the bottle with the purple cap is on the right.

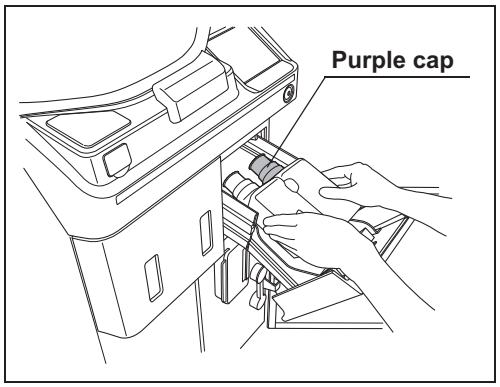


Figure 8.31

CAUTION

When pushing in the disinfectant bottle tray, hold the disinfectant drawer horizontally and push it all the way in. Otherwise, the disinfectant cassette bottle would be unable to be opened and the disinfectant solution would be unable to be prepared normally.

12 Lift the disinfectant bottle drawer so that it is level, and insert it all the way. The buzzer should beep, the drawer should lock, and the disinfectant cassette bottles should open automatically.

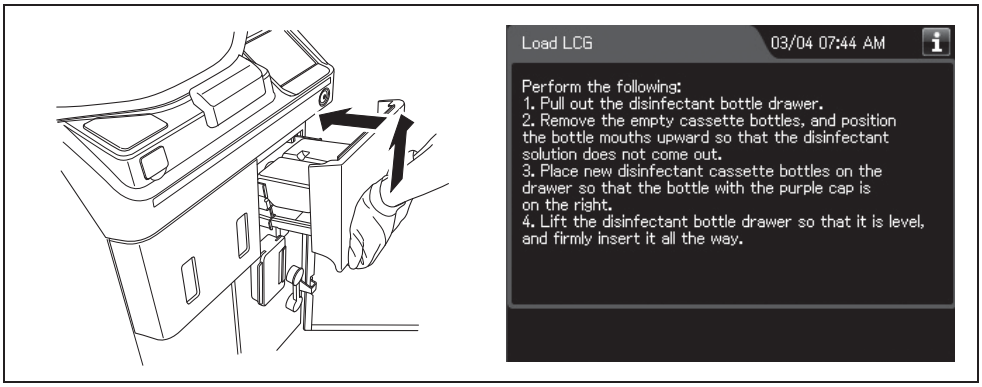


Figure 8.32

13 Look at the disinfectant bottle drawer and check the windows to verify that the disinfectant solution in both bottles has decreased.

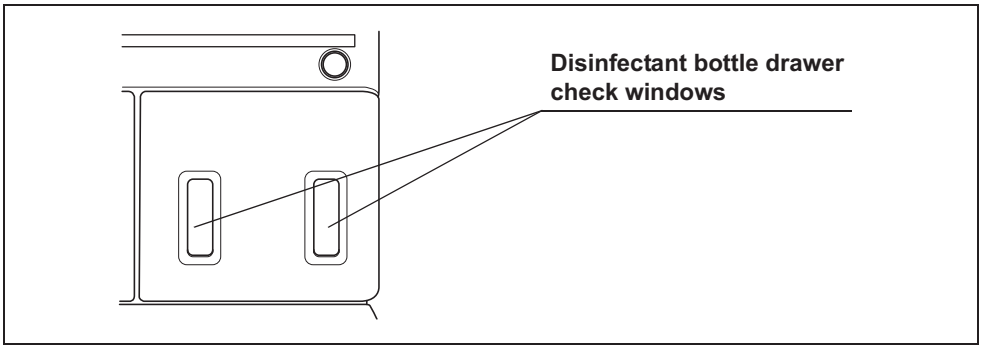


Figure 8.33

14 The buzzer generates short beeps and the touch screen displays a screen indicating that the disinfectant solution is being prepared.

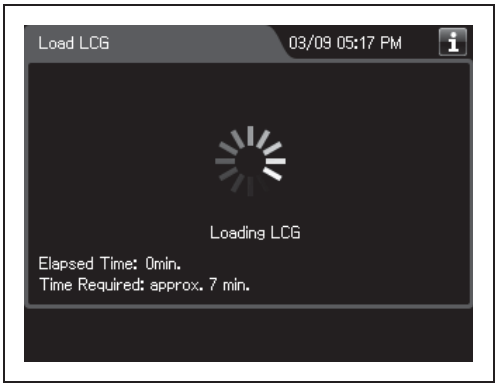


Figure 8.34

NOTE

- Preparation of disinfectant solution includes single rinse process to rinse the reprocessing basin. While executing the preparation of disinfectant solution, buzzer beeps intermittently and the main control panel displays as shown in Figure 8.34. STOP button is deactivated during the process.
- The required time for preparation of disinfectant solution may vary depending on the water supply condition.

15 The touch screen displays the following screen. This screen indicates the process is completed. Press the “OK” button.

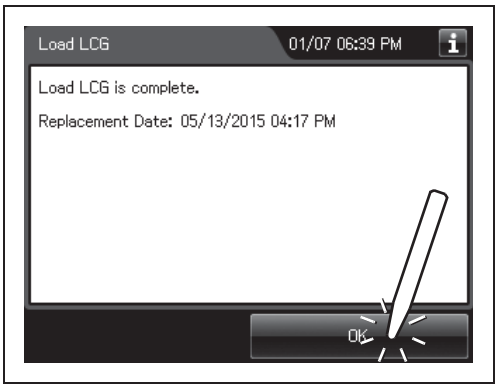


Figure 8.35

When entering the shelf-life and/or lot number of the disinfectant solution:

If the shelf-life and lot number management is activated, enter the shelf-life and/or lot number according to the following procedure.

NOTE

- The lot number and shelf-life are printed on the bottle.
- The shelf life and lot number of the disinfectant solution can be recorded. For the setting change method, refer to Section 4.13, “LCG lot number and shelf-life management”.

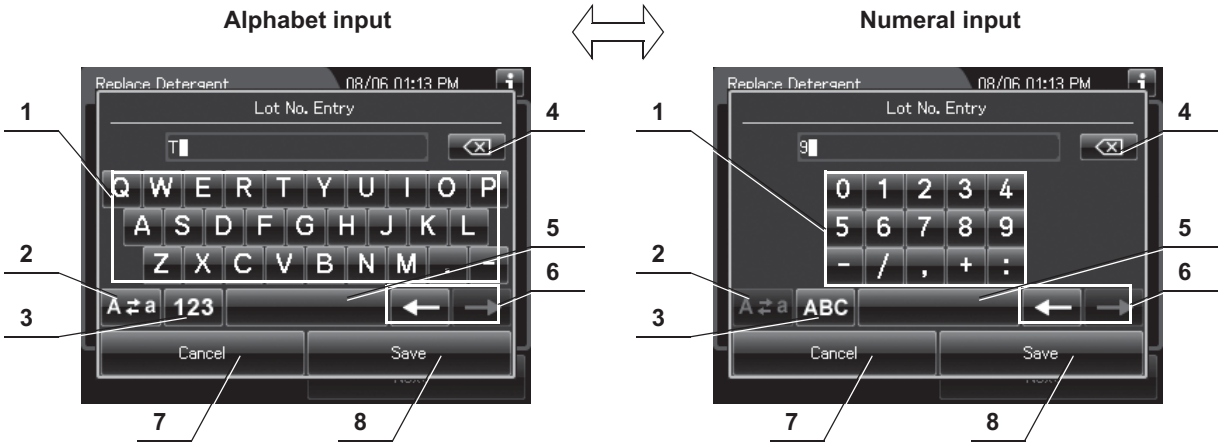
1 If the shelf-life and/or lot number management of the disinfectant solution are activated, the touch screen displays a screen as shown in following figure at Step 6 in “■ Setting the disinfectant solution” on page 357. Press the “Next” button. When the lot number management of the disinfectant solution is activated, go to Step 2. When the lot number management of the disinfectant solution is inactivated, go to Step 5.

Figure 8.36

2 Press the “Edit” button to display the Lot No. Entry screen.

Figure 8.37

3 Enter the lot number of the disinfectant solution by operating the software keyboard on the touch screen and press the “Save” button.



No.	Button	Note
1	Alphabet/ Numeral key	Enter an alphabet or a numeral.
2	Uppercase/ Lowercase button	Press “Uppercase/lowercase” button to switch alphabet character on the soft keyboard between uppercase and lowercase characters.
3	Numeric/ Alphabetic button	Press “Numeric or Alphabetic” button to switch the input mode between numeric and alphabetic.
4	Backspace button	Press the “Backspace” button to delete the character to the left of the 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 button	Press the cursor move button to move the cursor the left or right.
7	Cancel button	Return to the previous screen without saving the setting value.
8	Save button	Return to the previous screen and save the entered value.

4 Press the “Next” button. If the Expiration Date management of the disinfectant solution is activated, go to Step 5. If the Expiration Date management of the disinfectant solution is inactivated, go to Step 6.

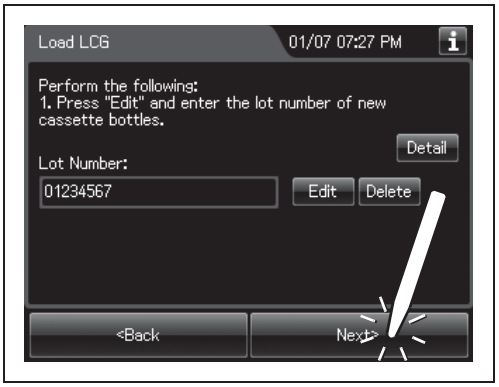


Figure 8.38

5 Enter the Expiration Date of the disinfectant solution. Press the “+” button to increase or the “–” button to decrease. And then press the “Next” button.

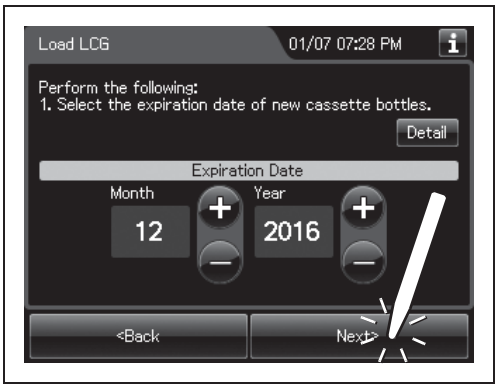


Figure 8.39

6 Check the displayed lot number and the expiration date, and press the “Start” button. Go to Step 7 in “■ Setting the disinfectant solution” on page 357.

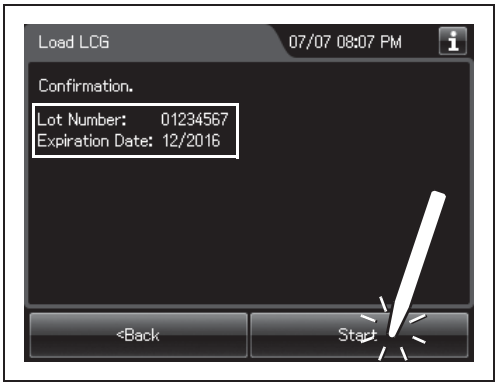


Figure 8.40

8.3 Replacing the detergent tank

When the detergent level can no longer be visualized through the detergent tank check window or the touch screen displays the message screen “Detergent cannot be supplied” after the start of a process, replace the detergent tank.

To create the record of the replacement of the detergent tank, select “Replace Detergent” in the Replacement of Consumable Items menu.

WARNING

- Before handling the detergent, read the cautions carefully and use it as instructed. It is especially important to know what to do if the detergent solution comes in contact with your skin and eyes.
- Always use an Olympus-validated detergent. Otherwise, the endoscope may not be properly cleaned and as a result, the endoscope may not achieve reprocessing.
- When handling the detergent, 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.
- To prevent the detergent from leaking, do not tilt the detergent tank when there is detergent inside.

CAUTION

Do not attempt to detergent into the detergent tank. The detergent tank is disposable and it is not intended to be reused.

NOTE

- When the detergent counter setting and/or detergent shelf life setting is activated, the detergent replacement indicator can be displayed on the top right of the touch screen and on the “Replace Detergent” button on the Replacement of Consumable Items menu when the counter setting value or shelf life setting value is reached. For the detergent counter setting, refer to Section 4.10, “Detergent replacement indicator”. For the shelf life setting, refer to Section 4.11, “Detergent lot number and shelf-life management”.
- If reprocessing is initiated without detergent, the reprocessing is stopped with displaying the message and the detergent replacement indicator.

NOTE

- The detergent tank can hold about 2.8 L (95 ounces) of detergent (which can be used for approximately 30 reprocessing operations).
- When reprocessing is performed with newly-installed reprocessor or with reprocessor after Section 9.9, “Preparing the reprocessor for long-term storage” is performed, reprocessing may stop with the message screen “Detergent cannot be supplied” even though there is enough detergent in the tank. To solve this problem, refer to Section 13.2, “Troubleshooting guide”, “❍ Message, caution, and warning screens” on page 621.
- The shelf life and lot number of the detergent tank can be recorded. For the setting change method, refer to Section 4.11, “Detergent lot number and shelf-life management”.
- If reprocessing is initiated without detergent, error code [E095] is displayed and the reprocessing is stopped. The detergent replacement indicator on the main panel blinks.
- When reprocessing is performed with newly-installed reprocessor or with reprocessor after Section 9.9, “Preparing the reprocessor for long-term storage” is performed, reprocessing may stop with error code [E095] displayed even though there is enough detergent in the tank. Refer to “■ When the “Message 093” is displayed” on page 635 to solve this problem.

■ *Required item*

Check	Required items
	Olympus-validated detergent
	Clean gauze or similar cloth.

Table 8.5

NOTE

For Olympus-validated detergent, refer to Section 2.8, “Consumable accessories (Optional)”.

■ *Replacing the detergent tank*

NOTE

If you do not need to create the record of the replacement of the detergent tank, the following operations of GUI can be skipped.

1 Press the “Replacement of Consumable Items” button on the Menu screen.

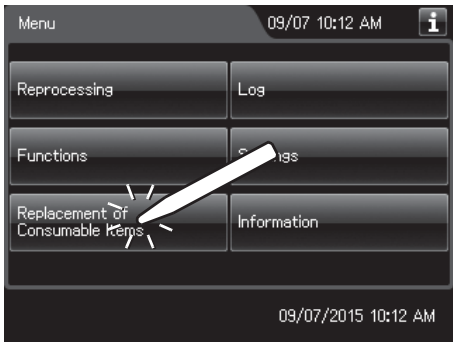


Figure 8.41

2 Press the “Replace Detergent” button.

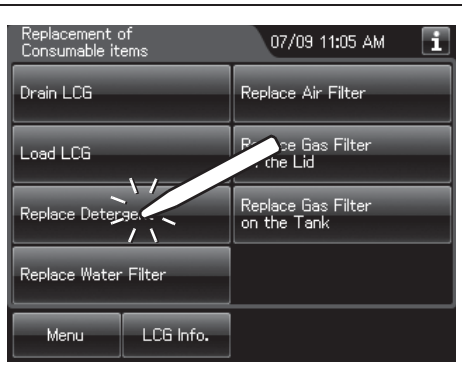


Figure 8.42

3 Input the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

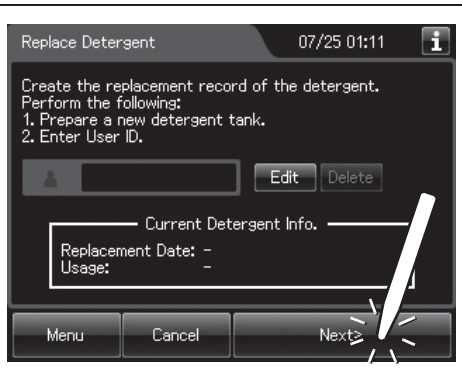


Figure 8.43

NOTE

- The shelf life and lot number of the detergent tank can be recorded. For the setting change method, refer to Section 4.11, “Detergent lot number and shelf-life management”.
- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

NOTE

When the detergent shelf life and lot number management is activated, the shelf and lot number of detergent tank are entered after Step 14. For details, refer to “❍ When entering the lot number of detergent and shelf life:” on page 372.

4 Hold the section marked “PULL” of the detergent/alcohol drawer and pull it out.

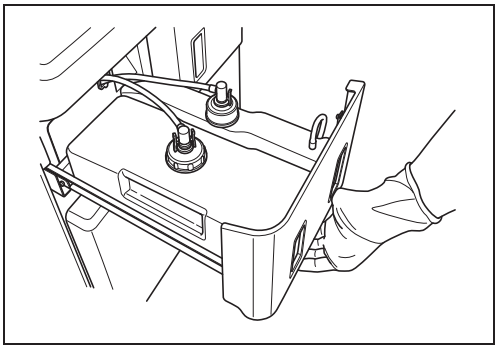


Figure 8.44

5 Push the lock lever on the connector of the tube connected to the detergent tank to detach the tube.

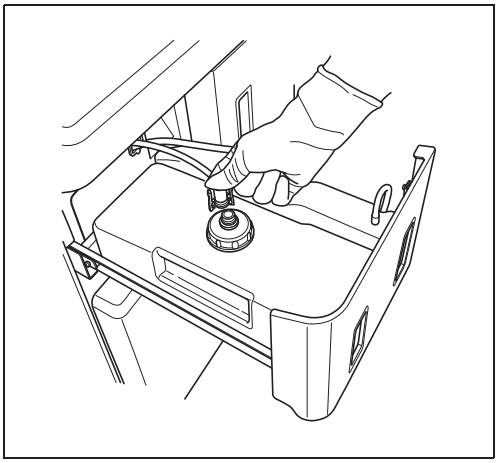


Figure 8.45

NOTE

If a few drops of detergent drip from the connector, wipe it with a piece of clean gauze or similar cloth.

6 Remove the detergent tank.

7 Place a new detergent tank on the left side of the detergent/alcohol drawer.

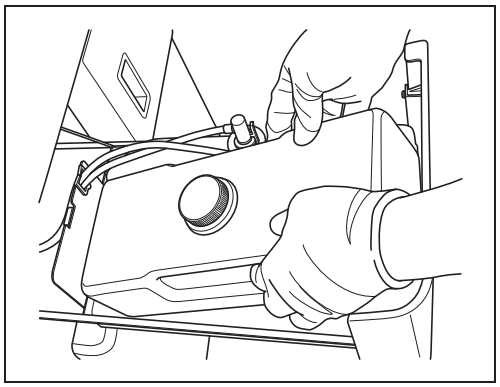


Figure 8.46

NOTE

Refer the lot number of new detergent tank. Press “Edit” and enter the lot number and expiration date.

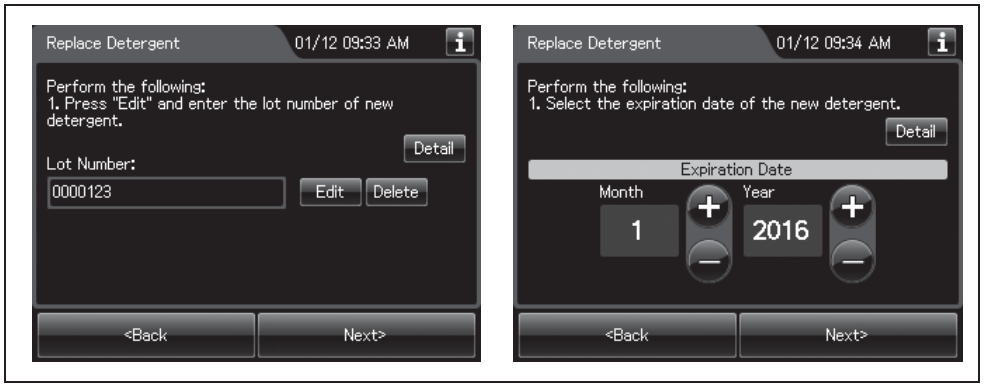


Figure 8.47

8 Detach the cap of the new detergent tank.

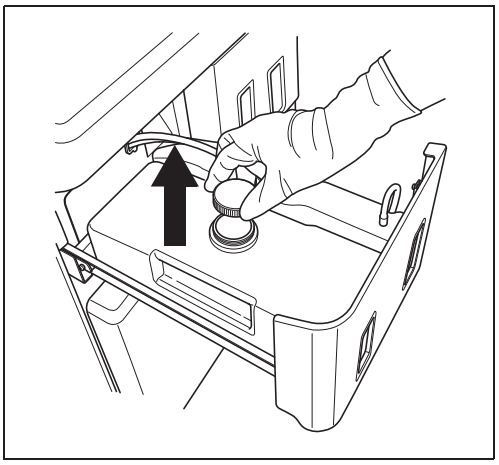


Figure 8.48

9 Remove the seal on the new detergent tank.

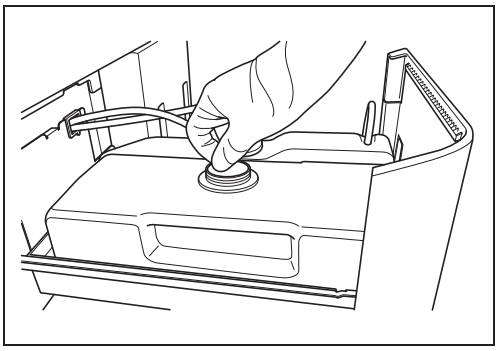


Figure 8.49

10 Attach the cap with connector to the new detergent tank.

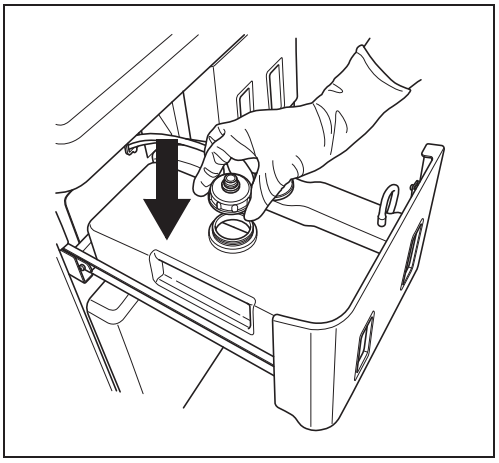


Figure 8.50

11 Insert the white connector into the connector on the detergent tank until it clicks.

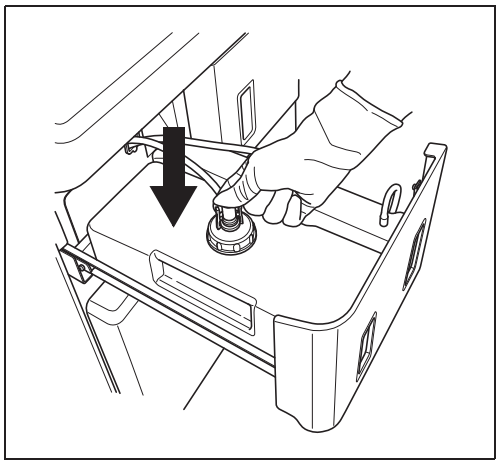


Figure 8.51

12 Turn the connector to correct tube orientation as shown below. Confirm that the tube is not bent.

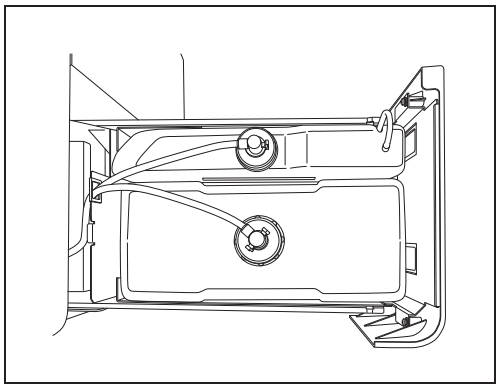


Figure 8.52

13 Close the detergent/alcohol drawer.

14 Press the “Next” button on the touch screen.

Figure 8.53

15 Press the “OK” button.

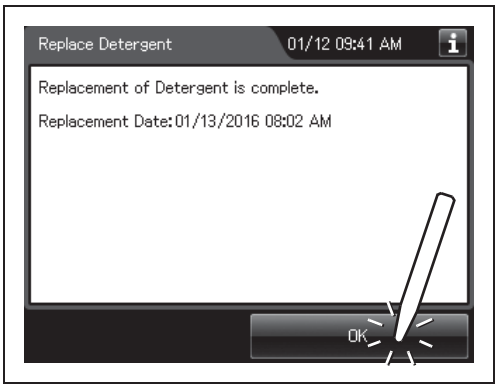


Figure 8.54

When entering the lot number of detergent and shelf life:

If the lot number of detergent and Shelf life management is activated, enter the lot number and/or shelf life according to the following procedure.

NOTE

- The shelf life and lot number of the detergent tank can be recorded. For the setting change method, refer to Section 4.11, “Detergent lot number and shelf-life management”.
- The lot number and shelf life are printed on the detergent tank.

1 If the lot number management of detergent is activated, the touch screen displays the screen as shown in following figure after Step 14 in “■ Replacing the detergent tank” on page 370. If the lot number management of the detergent is inactivated, go to Step 5.

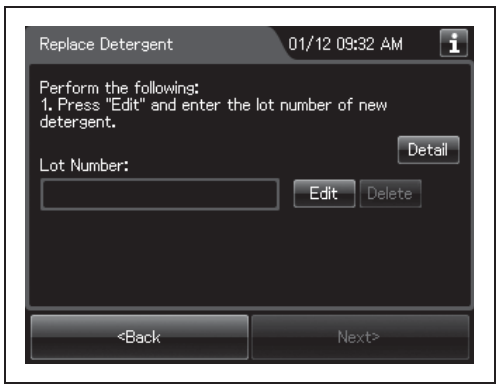


Figure 8.55

2 Press the “Edit” button to display the lot number entry screen.

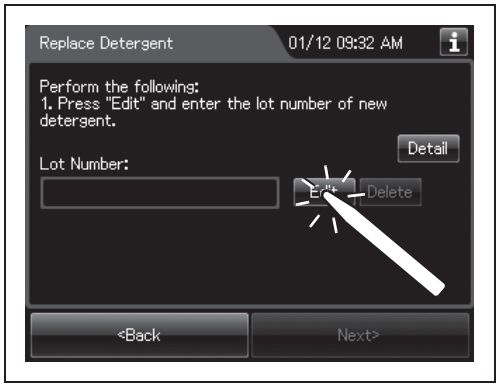
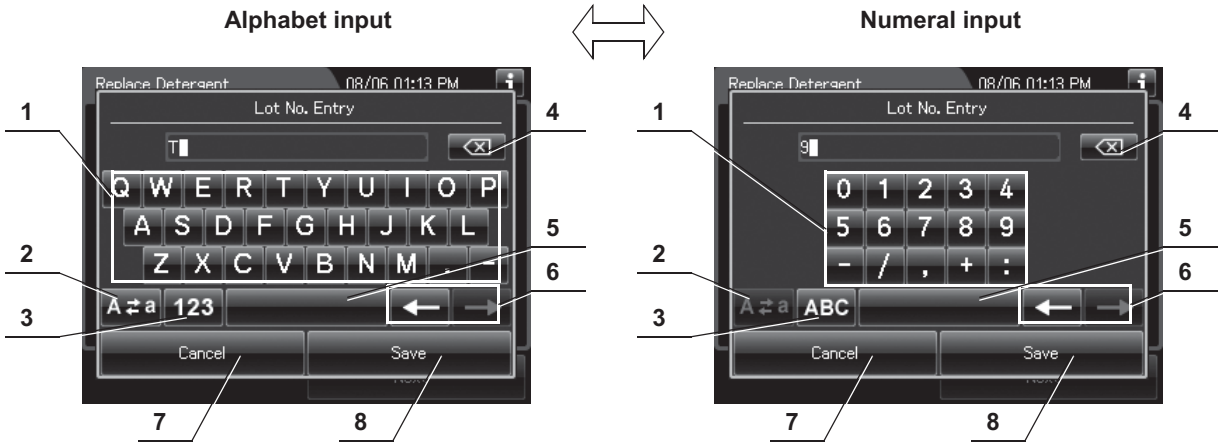


Figure 8.56

3 Enter the lot number of the new detergent by operating the software keyboard on the touch screen and press the “Save” button.



No.	Button	Note
1	Alphabet/ Numeral key	Enter the alphabet or a numeral.
2	Uppercase/ Lowercase button	Press “Uppercase/lowercase” button to switch alphabet character on the soft keyboard between uppercase characters and lowercase characters.
3	Numeric/ Alphabetic button	Press “Numeric or Alphabetic” button to switch the input mode between a numeral and the alphabet.
4	Backspace button	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 button	Press the cursor move button to move the cursor left or right.
7	Cancel button	Return to the previous screen without saving the setting value.
8	Save button	Return to the previous screen and save the entered value.

4 Press the “Next” button. If the Expiration Date management of the detergent is activated, go to Step 5. If the Expiration Date management of the detergent is inactivated, go to Step 6.

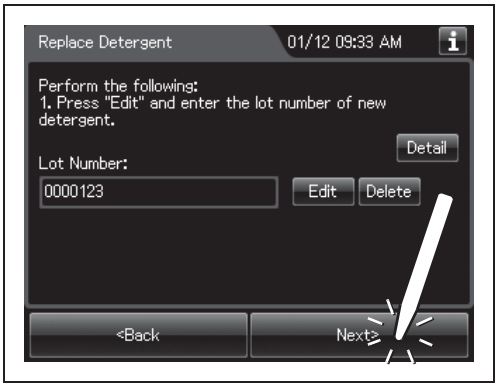


Figure 8.57

5 Enter the Expiration Date of the detergent. Press the “Plus” button to increase or the “Minus” button to decrease. Then press the “Next” button.

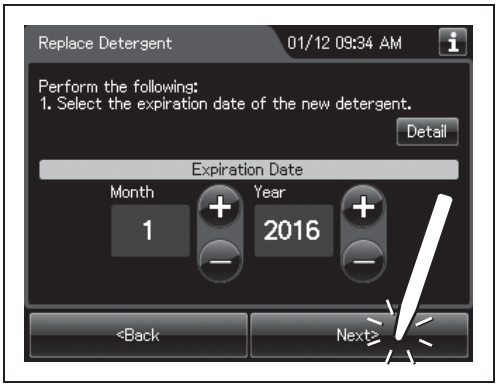


Figure 8.58

6 Check the displayed lot number and the expiration date, and press the “Next” button. Then, press the “OK” button. For detail of GUI, refer to Figure 8.54.

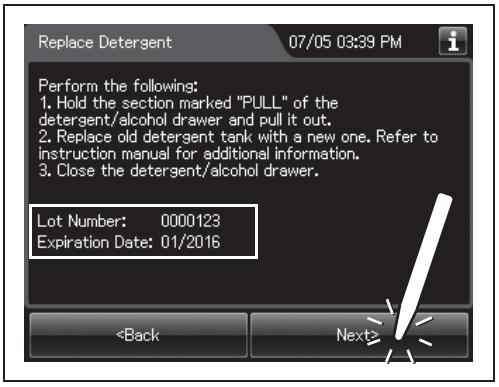


Figure 8.59

8.4 Replacing the water filter (MAJ-824 or MAJ-2318)

To prevent contamination of the rinse water, the water filter should be replaced every month when the prefilter is not used or every six months when the prefilter is used. The water filter should also be replaced whenever an error code indicating water supply insufficiency [E001] is displayed.

To create the record of the replacement of the water filter, select “Replace Water Filter” in the Replacement of Consumable Items menu.

WARNING

- Replace the water filter in a clean environment. Do not touch the inner side of the water filter or allow dust to get in it.
- Replace the water filter at least every month and pre-water filter at least every six month. If the performance of the water filter drops, insufficient elimination of miscellaneous bacteria in the tap water may cause contamination of the instrument and scopes and make the reprocessing insufficient.
- After replacing the water filter, be sure to perform the water line disinfection to prevent the growth of water-borne microorganisms. Failure to perform this operation could result in contamination of the reprocessor piping and ineffective reprocessing of the endoscope.
- Always be sure to attach the specified water filter. Otherwise, water-borne microorganisms and particulates in the water may contaminate the reprocessor piping and prevent effective reprocessing of the endoscope.
- 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 personal protective equipment to prevent any disinfectant from getting on your skin and eyes or being inhaled. 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. Wear 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.

CAUTION

- Hold the water filter wrench at a point below the projection on the grip. If you hold it at a point closer to the water filter housing connector than the projection, you might catch your finger in the reprocessor.
- If air gets in the water filter housing, it may extend the process time. In case of an irregularity such as extension of the process time or lack of water supply, drain the air as described in “■ Draining air in the water filter housing” on page 389.
- Do not to drop the removed water filter housing to avoid damaging the connector below the water filter housing. Make sure that the O-ring at the head of the water filter housing is free of irregularities such as cracks, breaks, rips, scratches, or stains. Water leakage may result if the O-ring is not attached or is abnormal.

NOTE

- When replacing water filter, select the “Replace water filter” in the Replacement of Consumable Items screen. Otherwise, the record of the replacement of the water filter will not be created.
- Filter life varies depending on a number of factors including incoming water quality and use volume.
- Using at least a prefilter (0.45 micron or less) can extend the life of the water filter. If the prefilter is properly installed, the water filter and the prefilter should be replaced at least once every 6 months. For information on the water pre-filtration system, contact Olympus.
- After disinfection of the water supply piping, the quantity and/or concentration of the disinfectant solution might be reduced, which prevents additional reprocessing cycles from being performed. Do not add fresh disinfectant solution to the used disinfectant solution. Except for the case of performing water line disinfection with fresh new disinfectant solution, do not add fresh disinfectant solution to increase the volume of the disinfectant solution in the OER-Elite. Drain the disinfectant solution completely and replace with fresh disinfectant solution after disinfection of the water supply piping. It is recommended to perform disinfection of the water supply piping immediately before routine replacement of the disinfectant solution.
- Disinfecting the water supply piping also disinfects the water filter and other components in the piping.

■ *Replacing the water filter workflow (when performing the water line disinfection followed by the replacement of the water filter)*

See the replacement of the water filter workflow below.

1 **MRC check, check result input.**
→on page 378

2 **Replacing the water filter.**
→on page 380

3 **Disinfecting the water line.**
→on page 392

■ *Required items*

Check	Required items
	FDA-cleared chemical indicator (test strip)
	Water filter (MAJ-824 or MAJ-2318)
	Water filter wrench
	Water filter tubes (× 2)
	Container with 2 L or larger capacity (wide-mouthed container such as a vat)
	Water supply piping disinfection hose

Table 8.6

NOTE

- The test strip and water supply piping disinfection hose are required only when the water line disinfection is performed after the water filter replacement.
- For the test strip, refer to Section 2.8, “Consumable accessories (Optional)”.

■ *MRC check, check result input*

Before proceeding to the water line disinfection, always be sure to check using a test strip that the concentration of the disinfectant solution is no less than the minimum recommended concentration. For the MRC check, refer to Section 3.7, “Checking the MRC level and entering the check result”. The disinfectant should be replaced when the concentration falls below the minimum recommended concentration or the shelf life of the disinfectant has expired.

1 Press the “Replacement of Consumable Items” button on the Menu screen.

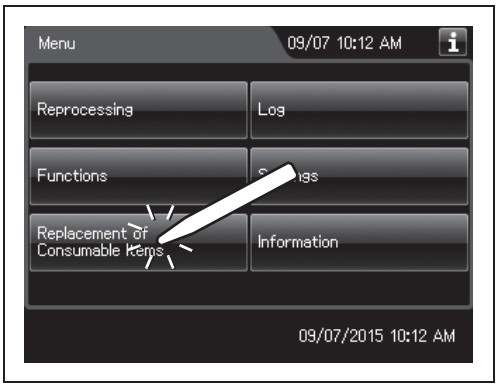


Figure 8.60

2 Press the “Replace Water Filter” button on the Replacement of Consumable Items menu.

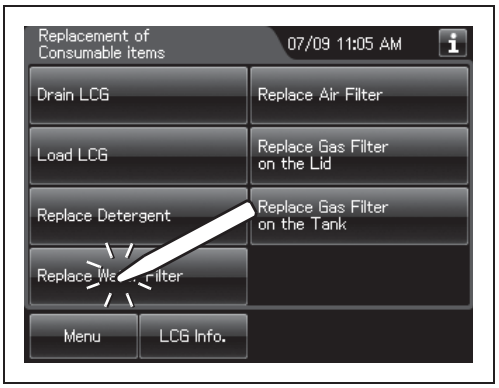


Figure 8.61

3 Press the “YES” button.

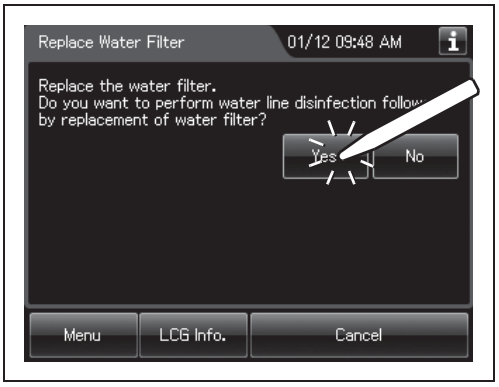


Figure 8.62

NOTE

If water lines are not to be disinfected immediately after the water filter replacement, press “No” and go to “■ Replacing the water filter” on page 380. However, the water line disinfection must be executed even if it is not immediately after the water filter replacement. Refer to Section 7.7, “Water line disinfection”.

4 Press the “Next” button repeatedly until the touch screen display changes as shown below.

5 Press the “LCG Info.” button to display the LCG Info screen.

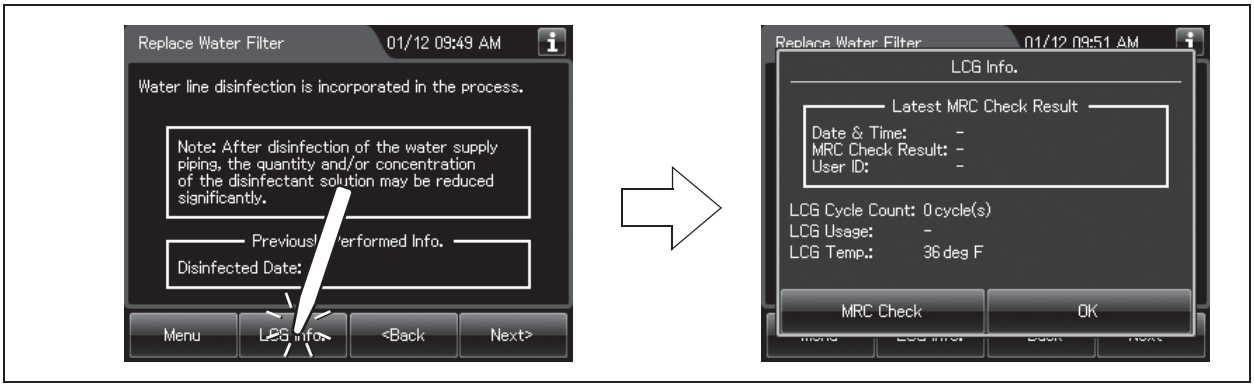


Figure 8.63

6 Check the concentration of the disinfectant solution with the test strip, and entering the result of the concentration of the disinfectant solution as described in Section 3.7, “Checking the MRC level and entering the check result”.

7 Press the “OK” button to close the LCG Info screen.

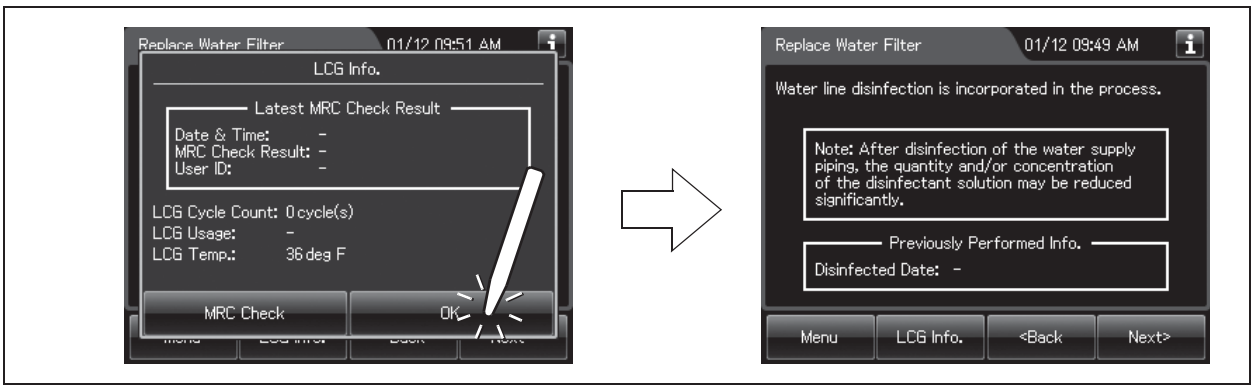


Figure 8.64

■ *Replacing the water filter*

1 Close the lid by pushing it until it clicks.

2 Input the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

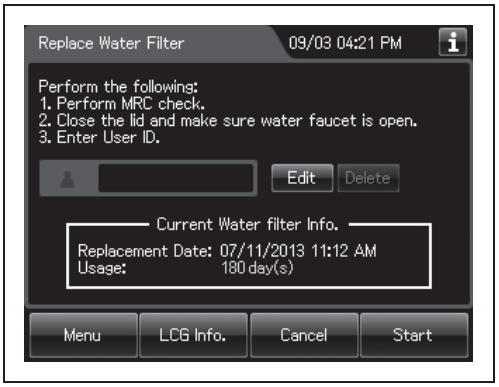


Figure 8.65

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.

3 Press the “Next” or “Start” button.

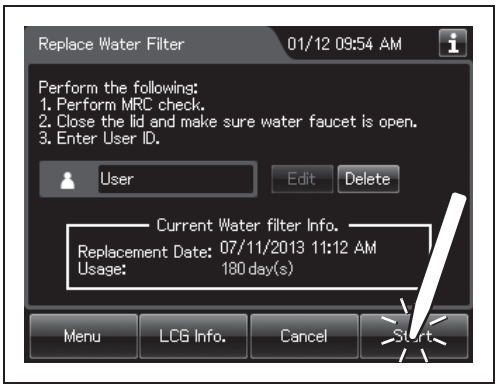


Figure 8.66

NOTE

When the lot number management of the water filter is activated, the lot number of the water filter is entered after Step 3. For details, refer to “❍ When entering the lot number of the water filter” on page 400.

4 Open the Front door. Place a container with a capacity of 2 L or more in front of the reprocessor.

5 Put the tube-side ends of the two filter tubes in the container placed above.

6 Insert the connector ends of the two filter tubes into the connector above the water filter housing and the connector below the water filter housing until they click. Water will start to flow from the tube connected to the connector below the water filter housing.

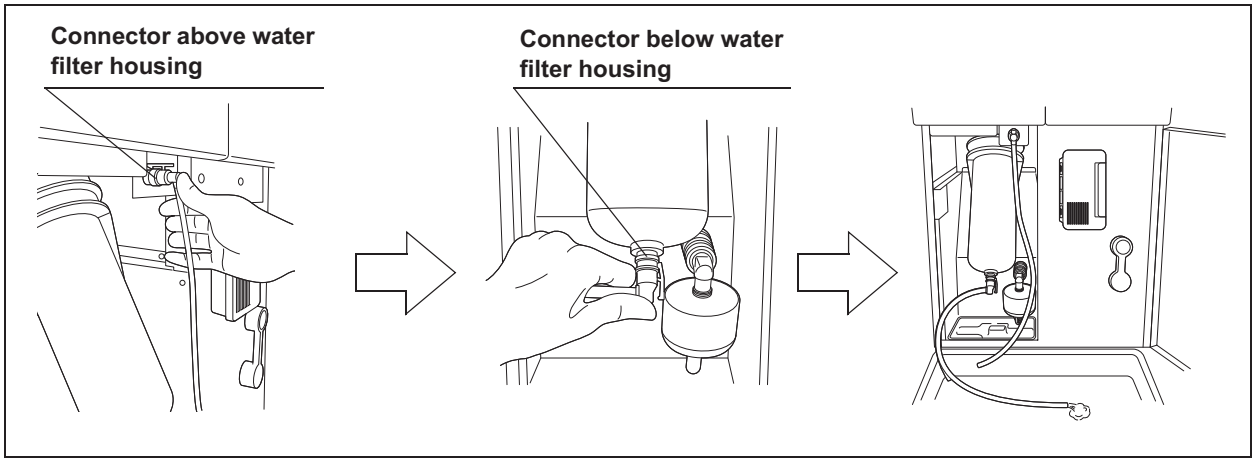


Figure 8.67

7 Press the “Next” button.

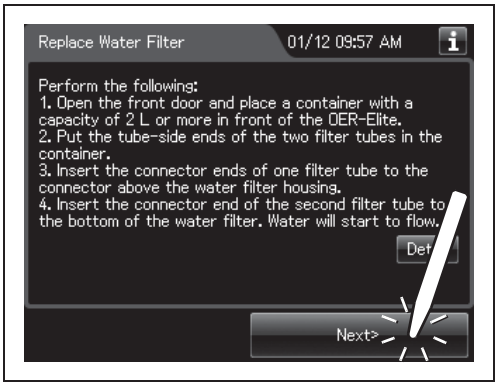


Figure 8.68

8 When the water flow stops, disconnect the two filter tubes by pushing the lock levers on their connectors.

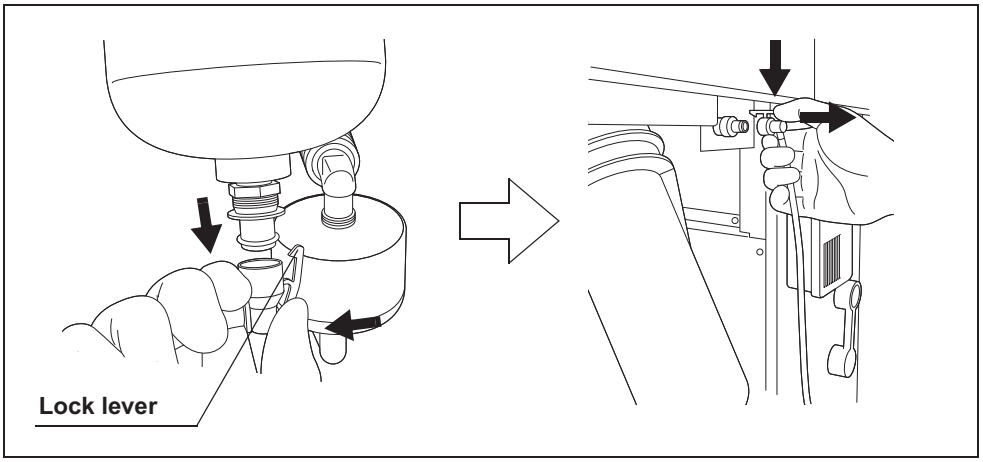


Figure 8.69

9 Press the “Next” button.

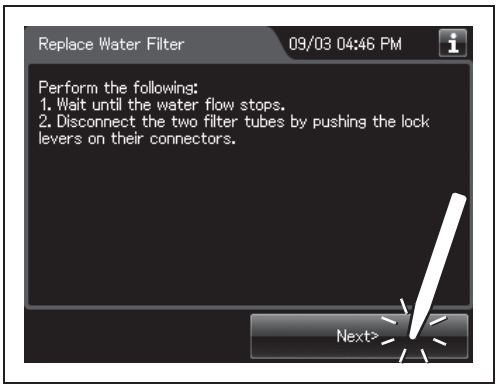


Figure 8.70

10 Insert the water filter wrench from below the water case and rotate the tool as shown below to loosen the water filter housing.

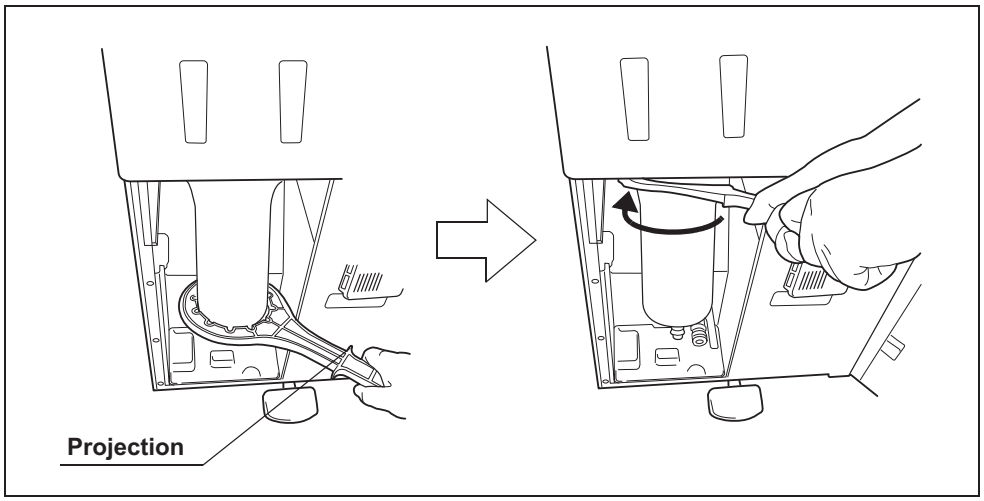


Figure 8.71

CAUTION

Hold the water filter wrench at a point closer to you than to the projection on the grip. If you hold it at a point closer to the water filter housing connector than the projection, you might catch your finger in the mechanism.

11 Hold the water filter housing with both hands and rotate it in the direction shown to remove it.

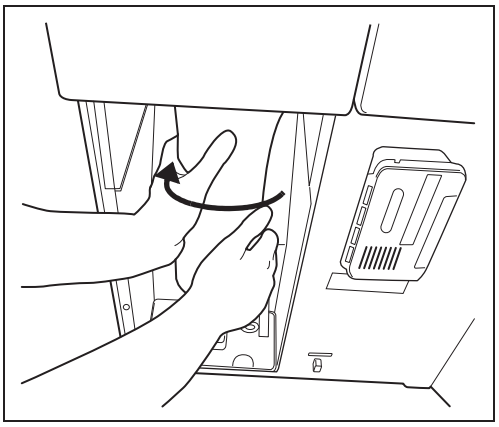


Figure 8.72

CAUTION

- Once the water filter housing has been fully loosened, hold it with both hands and remove it. If the case is not fully loosened, your hands may slip and you could be injured.
- When the water filter is removed, residual water flows from the connectors. Therefore, you should cover the water filter with the water filter housing when removing so that the residual water is caught in the case. If the water tray fills with residual water, remove the water tray and drain it.
- Do not to drop the removed water filter housing to avoid damaging the water housing. Water leakage may result if the water filter housing is cracked, broken, or otherwise damaged.

12 Pull both the water filter housing and the old water filter downward to remove.

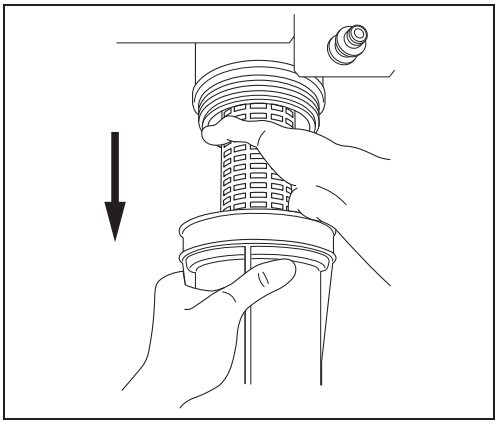


Figure 8.73

NOTE

When the reprocessor is shipped from the factory, the water filter is not mounted in the water filter housing.

13 Open the bottom (the side without the O-ring) of the package containing the new water filter.

14 Place the new water filter directly from the bag into the water filter housing so that O-ring will be positioned upward.

NOTE

Do not touch the inner side of the water filter or allow dust to get in it.

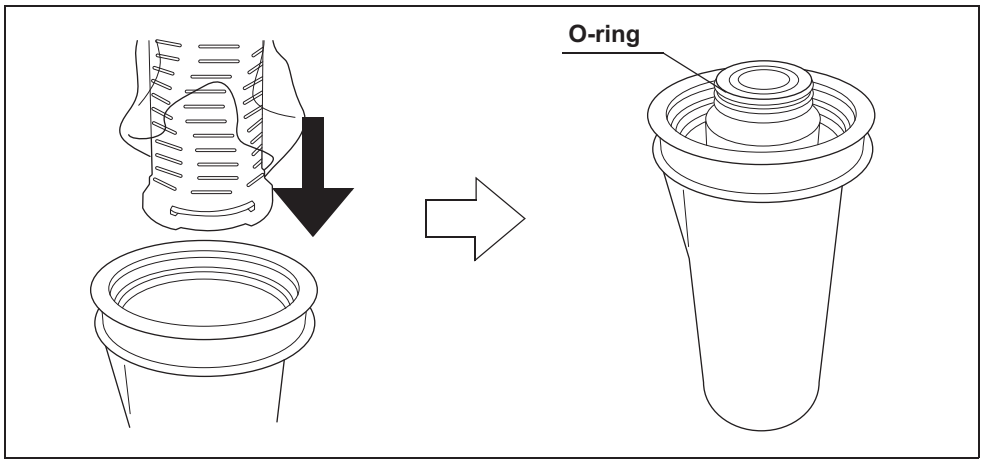


Figure 8.74

15 Rotate the water filter housing in the direction shown.

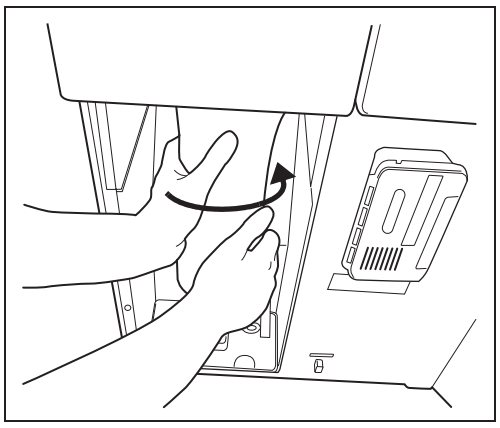


Figure 8.75

NOTE

- To ensure smooth loading, it is recommended to moisten the O-ring at the head of the water filter with clean water or 70% ethyl alcohol or 70% isopropyl alcohol before securing it temporarily.
- The rotation drag increases during temporary securing, but rotate the case all the way until it is stopped.

16 Attach the water filter wrench and rotate it slowly in the direction shown to tighten.

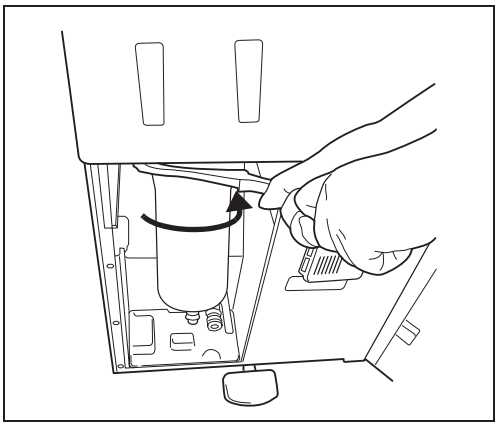


Figure 8.76

CAUTION

Tighten the water filter case securely. Insecure tightening may lead to a risk of water leak.

17 Remove the water filter wrench and place it in the space on the left of the water filter housing.

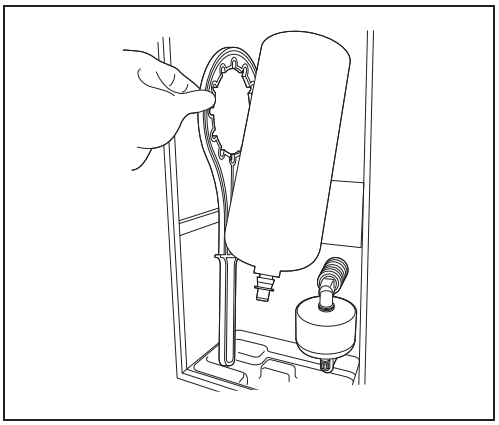


Figure 8.77

18 Press the “Continue” button.

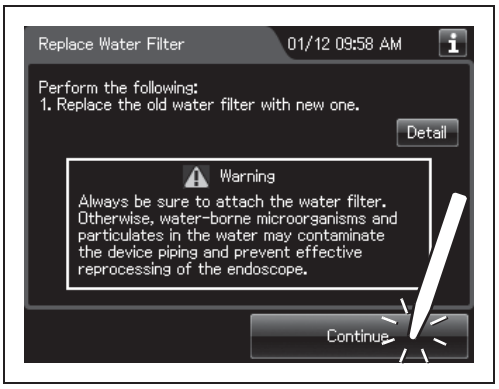


Figure 8.78

19 Put the tube-side end of the filter tube in the container, and insert the connector end of the filter tube into the connector above the water filter housing until it clicks. Do not connect anything to the connector bottom of the water filter housing.

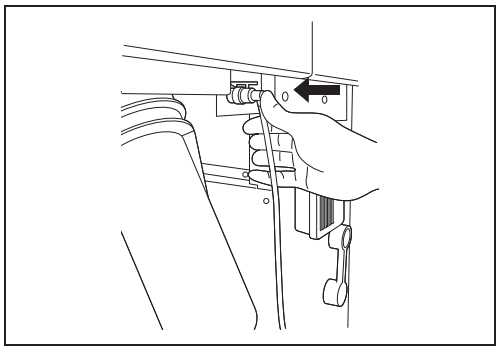


Figure 8.79

CAUTION

Be sure to drain air from the newly attached water filter. If air gets in the water filter housing, the process time may be extended. Air should also be drained from the water filter housing whenever there is an irregularity such as extension of the process time.

20 Make sure that the water faucet is open.

21 Press the “Continue” button.

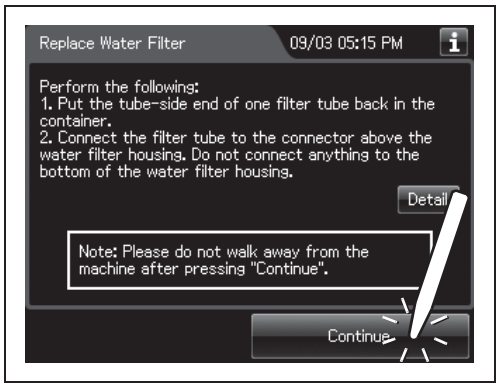


Figure 8.80

22 When water starts to flow continuously from the filter tube, disconnect the tube by pushing its lock lever. Water flow should stop when the filter tube is disconnected.

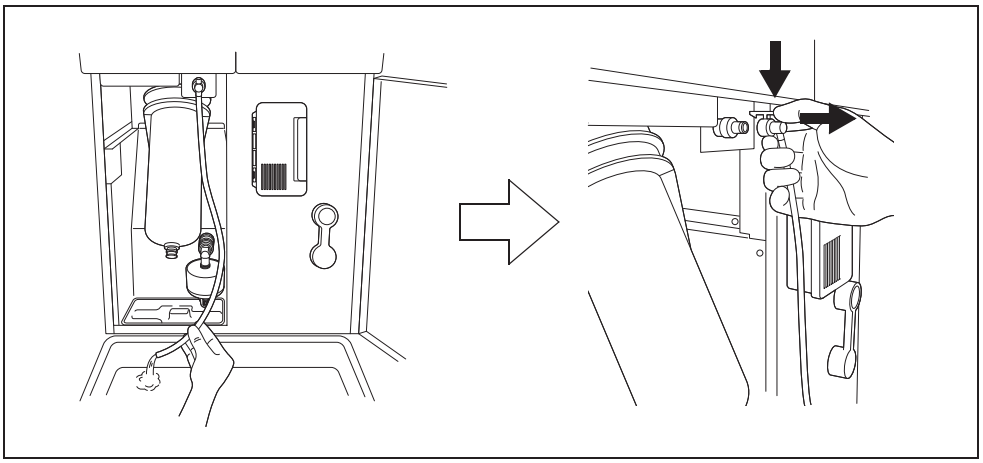


Figure 8.81

23 Make sure that no water leaks from the water filter housing. If no water leaks, press the “Continue” button. If a water leak is observed, immediately press the “STOP” button to stop water supply and reinstall the water filter.

24 Press the “Continue” button.

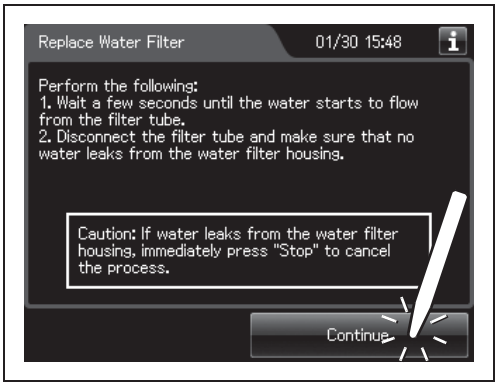


Figure 8.82

NOTE

When disinfecting the water line later is not selected, the following screen is displayed. Close the front door, Rinse the filter tubes with running water, dry it completely and store in a clean place to complete the water filter replacement procedure. In this case, the water lines should be disinfected later.

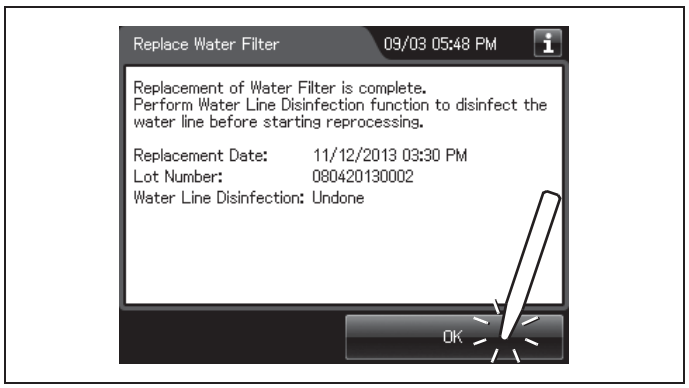


Figure 8.83

25 Press “OK” button to finish.

■ *Draining air in the water filter housing*

CAUTION

Be sure to drain air from the newly attached water filter. If air gets in the water filter housing, the process time may be extended. Air should also be drained from the water filter housing whenever there is an irregularity such as extension of the process time.

1 Close the lid by pushing it until it clicks.

2 Open the Front door. Place a container with a capacity of 2 L or more in front of the reprocessor.

3 Put the tube-side ends of the two filter tubes in the container placed above.

4 Insert the connector ends of the two filter tubes into the connector above the water filter housing and the connector below the water filter housing until they click. Water will start to flow from the tube connected to the connector below the water filter housing.

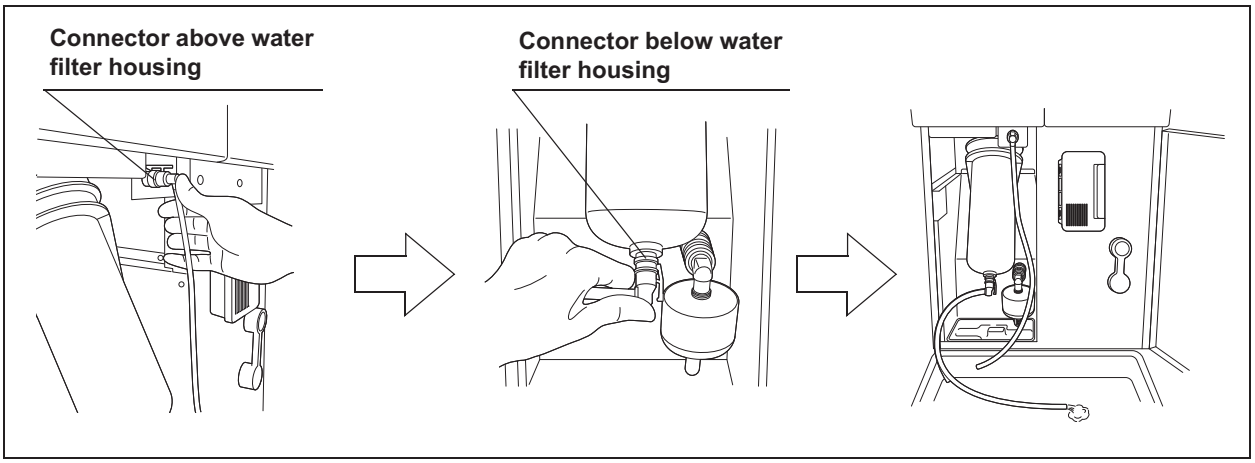


Figure 8.84

5 Press the “Functions” button on the Menu screen.

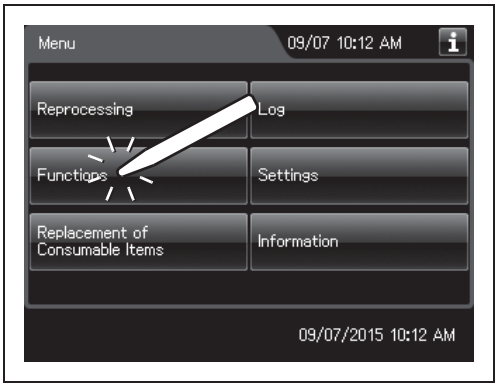


Figure 8.85

6 Press the “Rinse” button on the Function menu.

Figure 8.86

7 Input the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable).

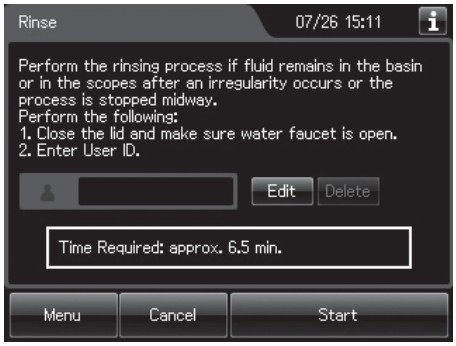


Figure 8.87

8 Press the “Start” button. Rinse starts and the touch screen displays the remaining time, which will count down every minute.

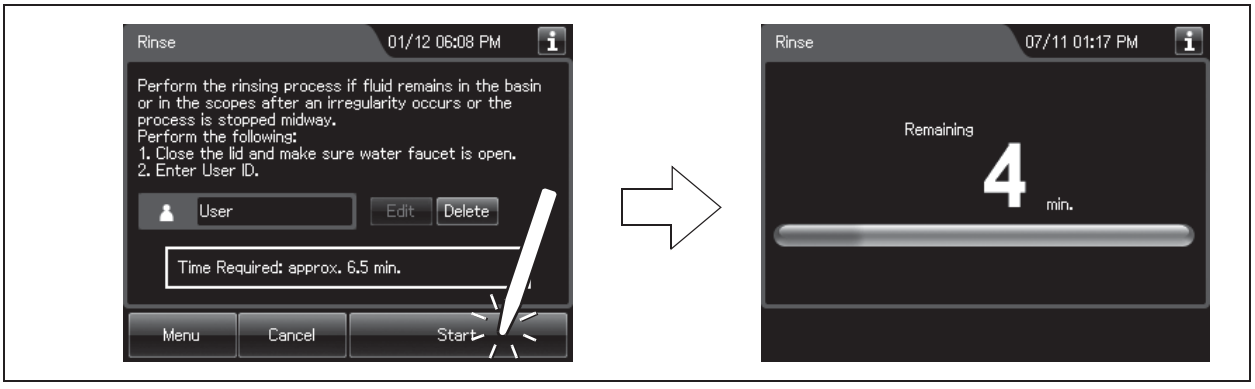


Figure 8.88

9 When water starts to flow continuously from the filter tube, disconnect the tube by pushing its lock lever. Water flow should stop when the filter tube is disconnected.

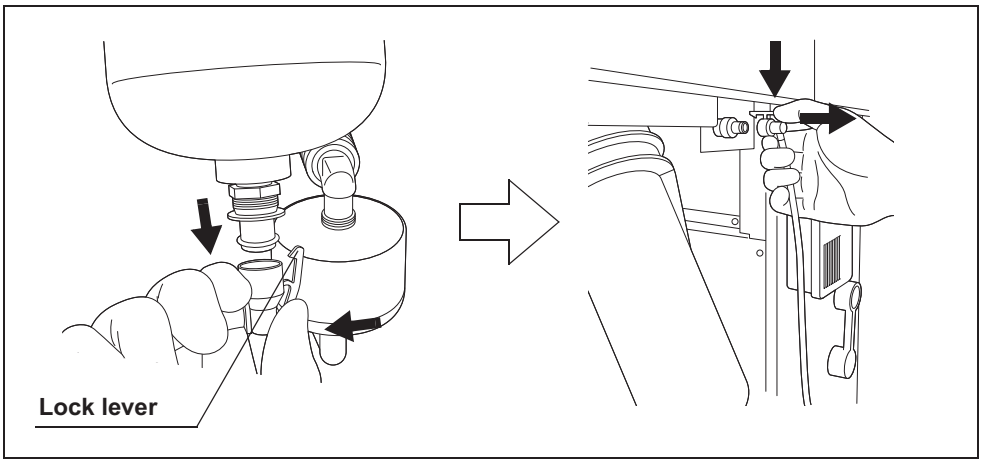


Figure 8.89

10 Press the “STOP” button to drain water from the reprocessing basin.

11 Close the front door.

12 Rinse the filter tube with running water, dry it completely and store in a clean place.

■ *Disinfecting the water line*

WARNING

- Before disinfecting the water supply piping, check the concentration of the disinfectant solution with the test strip, and replace the disinfectant solution if the disinfectant concentration is below the required level. If this check is not performed, disinfection may be insufficient.
- Disinfection of the water supply piping is required each time the water filter is replaced (i.e., at least once a month). There may be other circumstances where this is required, for example a flood or hurricane. Microbiological sampling of the OER-Elite rinse water may indicate disinfection is required.
- Disconnect the connecting tubes from the connectors on the reprocessor before disinfecting the water supply piping. Otherwise, a jet of disinfectant solution may be output from the connecting tubes and leak from a connector such as the gas filter case connector.

1 Place as container with a capacity of 2 L or more in front of the reprocessor.

2 Put the tube-side ends of the two filter tubes in the container placed and insert the connector ends of the two filter tubes into the connector above the water filter housing and the connector below the water filter housing until they click. Water will start to flow from the tube connected to the connector below the water filter housing.

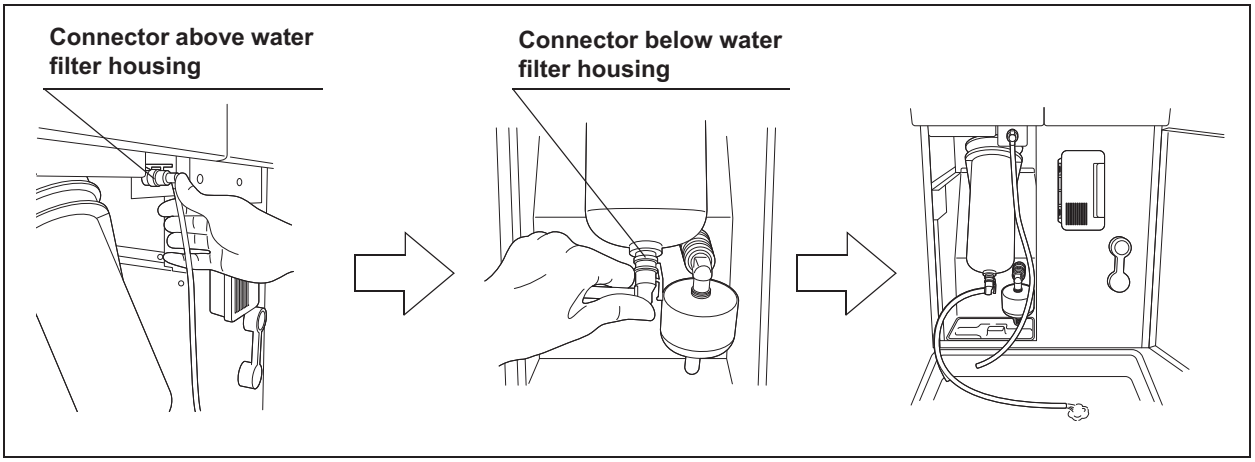


Figure 8.90

3 Press the “Continue” button.

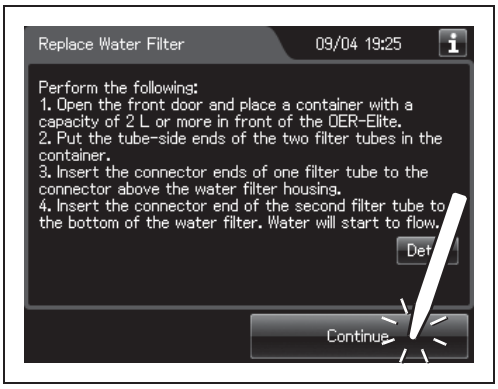


Figure 8.91

4 When water flow stops, disconnect the two filter tubes by pushing the lock levers on their connectors.

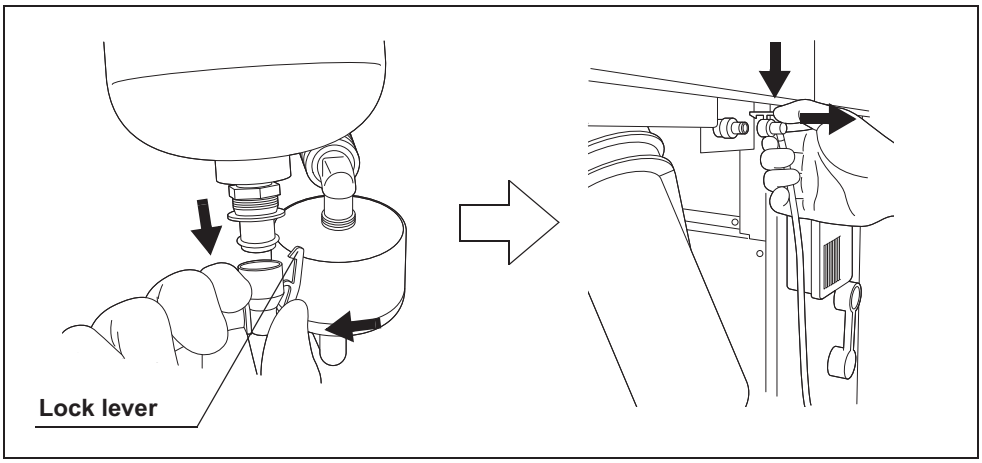


Figure 8.92

5 Press the “Continue” button.

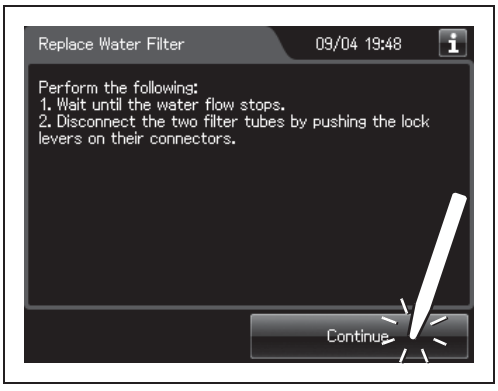


Figure 8.93

6 Step on the foot pedal to open the lid.

7 Connect the water supply piping disinfection hose between the connector C1 in the reprocessing basin and the water supply piping disinfection connector.

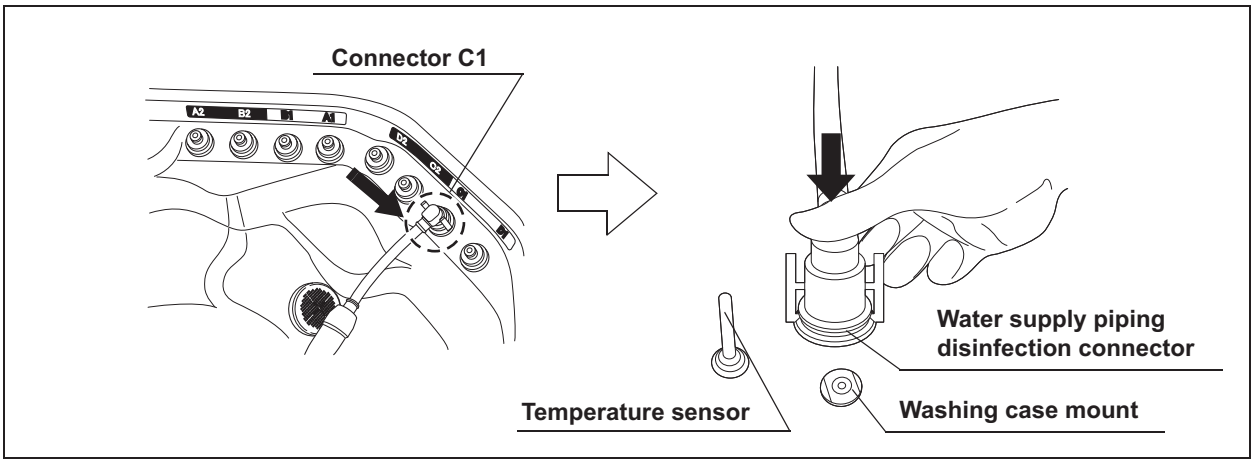


Figure 8.94

8 Close the lid by pushing until it clicks.

9 Press the “Continue” button to supply the disinfectant solution in the reprocessing basin.

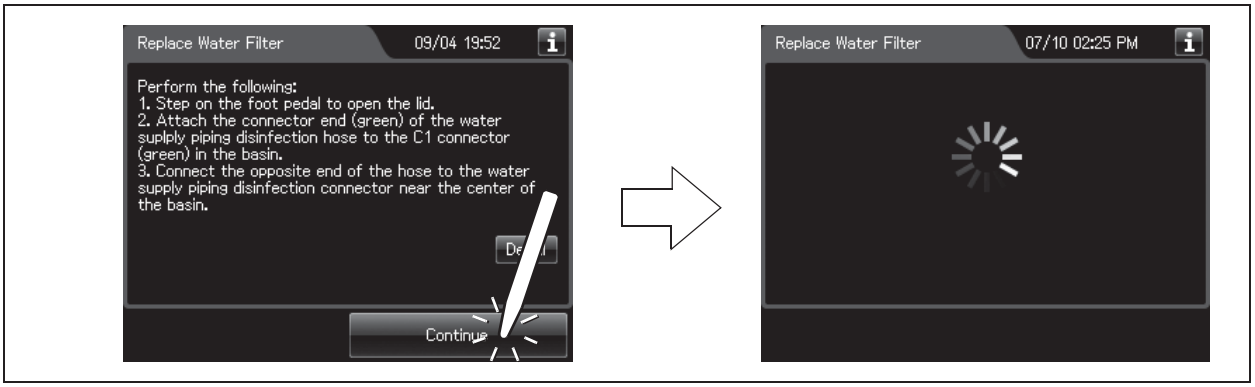


Figure 8.95

10 When the reprocessing basin is filled with disinfectant solution, a buzzer sounds three times and the touch screen displays the follow screen.

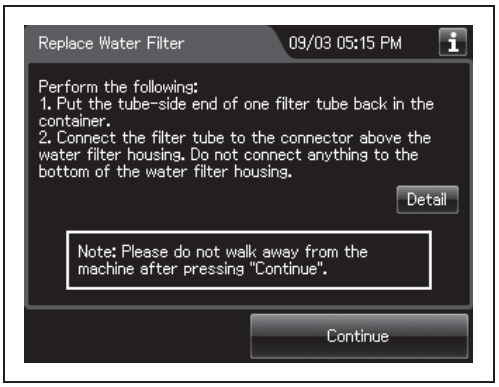


Figure 8.96

11 Put the tube-side end of the filter tube and put it in the container.

12 Insert the connector end of the filter tube into the connector above the water filter housing until it clicks. Do not connect anything to the connector below the water filter housing.

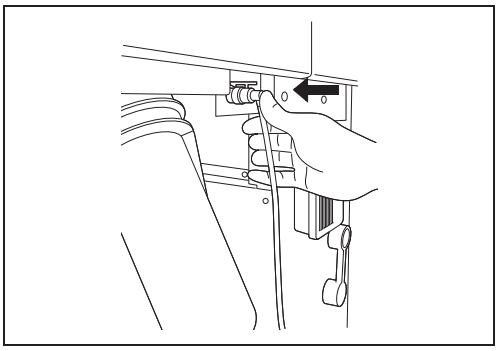


Figure 8.97

13 Press the “Continue” button twice.

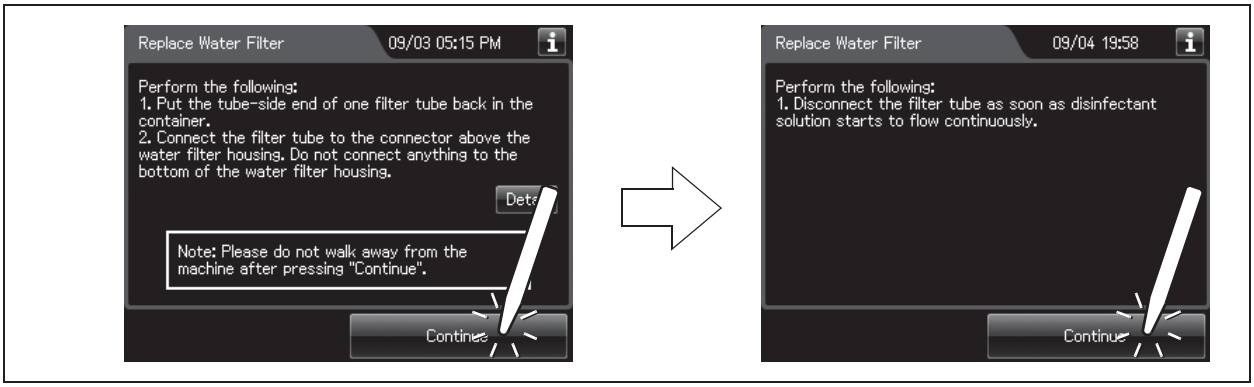


Figure 8.98

14 When the disinfection process starts, the touch screen displays the remaining time and the progress bar.

Figure 8.99

15 When water starts to flow continuously from the filter tube, disconnect the tube by pushing its lock lever. Water flow should stop when the filter tube is disconnected.

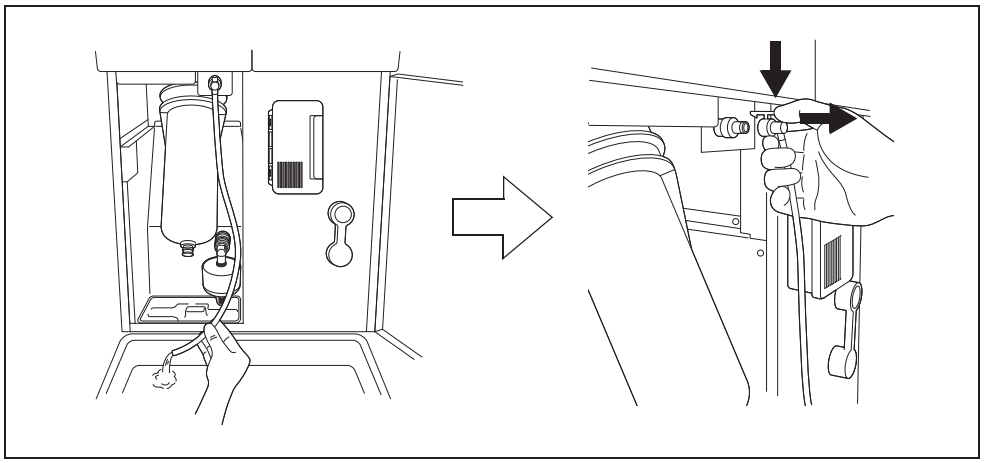


Figure 8.100

NOTE

If the temperature of the disinfectant solution is less than 20°C (68°F), it will be heated to 20°C (68°F). During heating, the remaining time countdown and the progress bar display stop and turn gray. After the completion of heating, the remaining time countdown and progress bar display resume.

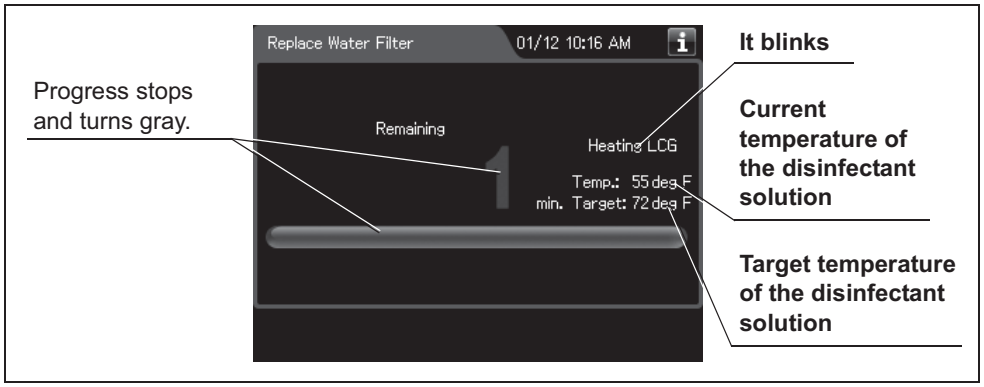


Figure 8.101

16 Make sure that a jet of fluid is output from the water supply/circulation nozzle to the dome of lid during the process.

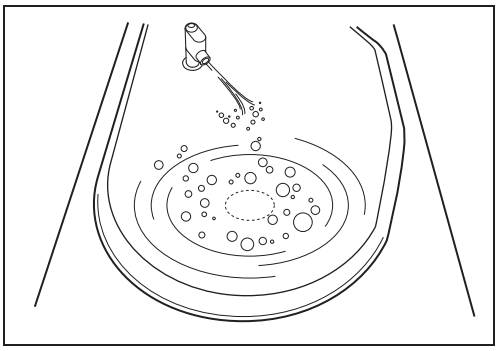


Figure 8.102

17 When the remaining time displayed on the touch screen reaches 0 minute, the buzzer sounds and the touch screen displays the following screen.

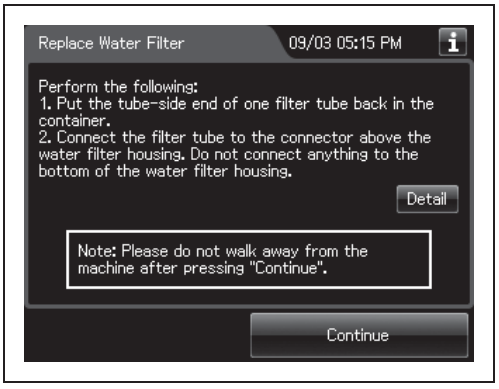


Figure 8.103

18 Put the tube-side end of the filter tube back in the container.

19 Insert the connector end of the filter tube into the connector above the water filter housing. Do not connect a filter tube to the connector below the water filter housing.

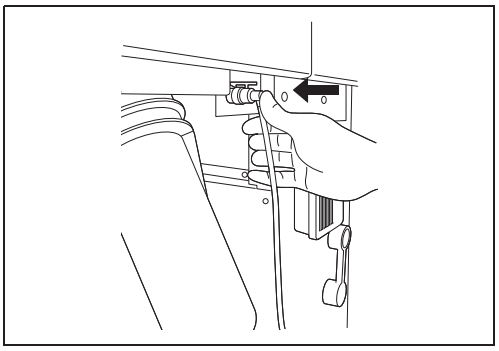


Figure 8.104

20 Press the “Continue” button. The touch screen displays a screen as shown in the following figure and water will flow from the filter tube.

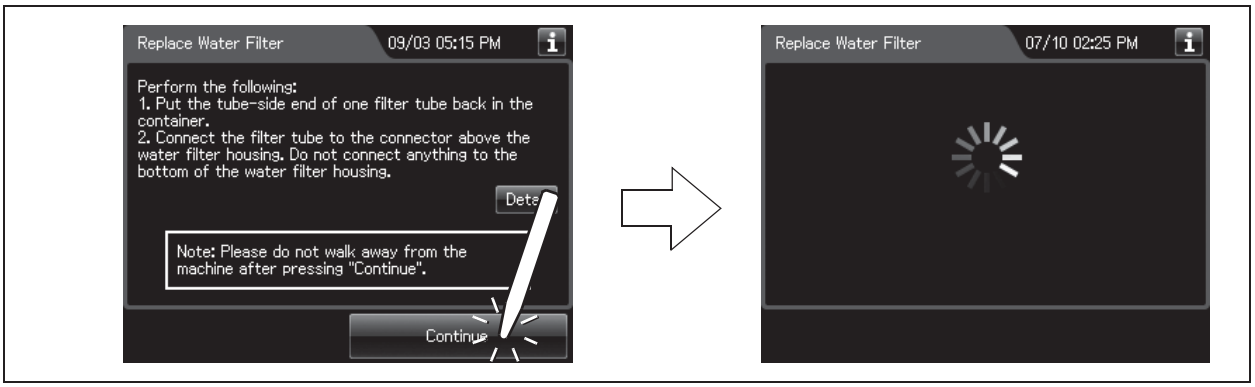


Figure 8.105

21 After several seconds, the buzzer sounds indicating the end of the process and the touch screen displays the following screen.

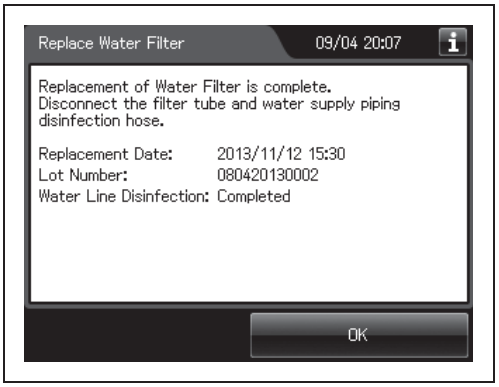


Figure 8.106

22 Disconnect the filter tube by pushing its lock lever.

23 Close the front door.

24 Step on the foot pedal to open the lid.

25 Disconnect the water supply piping disinfection hose and close the by pushing until it clicks.

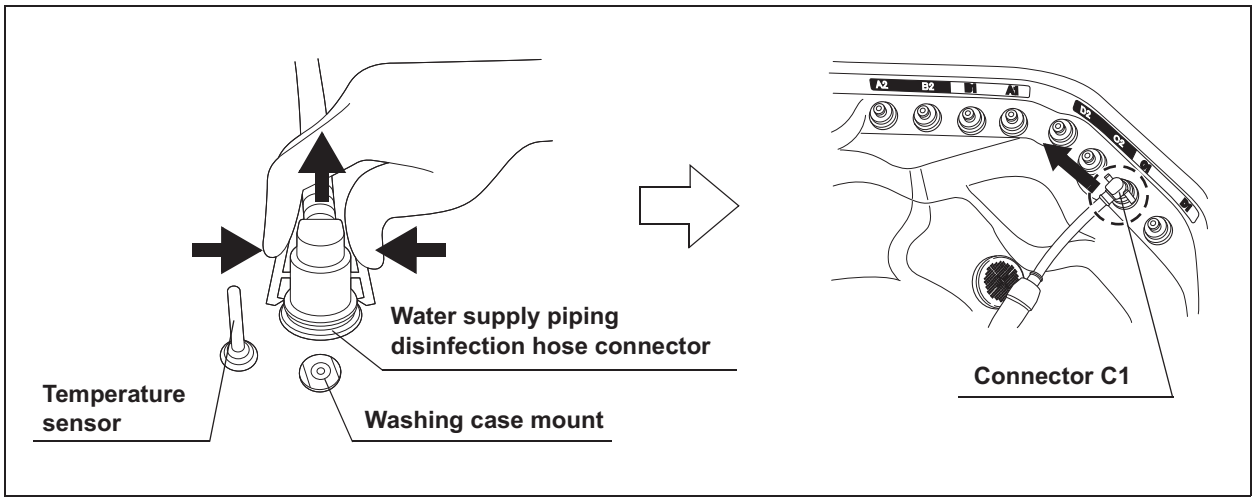


Figure 8.107

26 Rinse the filter tube and water supply piping disinfection hose thoroughly in running water, dry them thoroughly, and store in a clean place.

27 Press the “OK” button to complete the water filter replacement process.

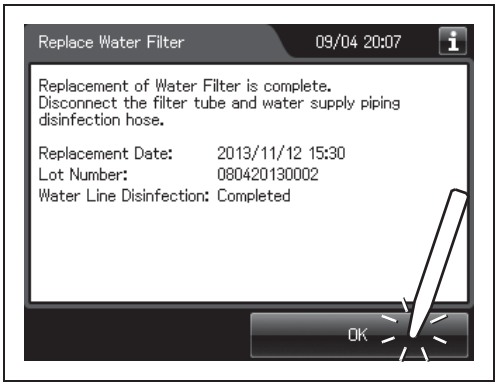


Figure 8.108

When entering the lot number of the water filter

If the lot number management is activated, enter the lot number according to the following procedure.

NOTE

- The lot number is printed on a label affixed to the box containing the water filter.
- The lot number of water filter can be recorded. For the setting change method, refer to Section 4.15, “Filter lot number management”.

1 If the filter lot number management of the water filter is active, the touch screen displays a screen as shown in following figure at Step 3 in “■ Replacing the water filter” on page 380. Press the “Next” button.

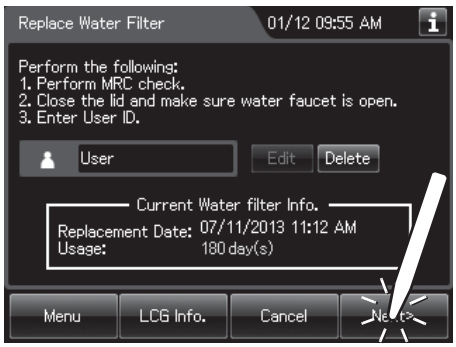


Figure 8.109

2 Press the “Edit” button to display the lot entry screen.

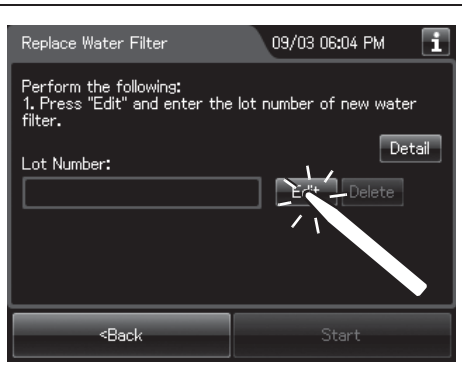
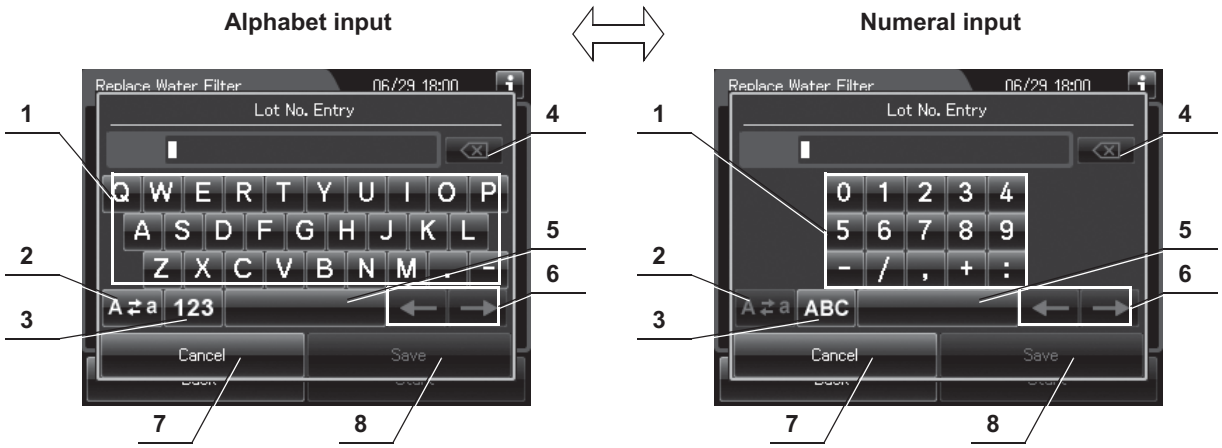


Figure 8.110

NOTE

If the “Delete” button is pressed, the entered lot number can be deleted.

3 Enter the lot number of the new water filter by the software keyboard on the touch screen and press the “Save” button.



No.	Button	Note
1	Alphabet/ Numeral key	Enter the alphabet or a numeral.
2	Uppercase/ Lowercase button	Press “Uppercase/lowercase” button to switch alphabet character on the soft keyboard between uppercase characters and lowercase characters.
3	Numeric/ Alphabetic button	Press “Numeric or Alphabetic” button to switch the input mode between a numeral and the alphabet.
4	Backspace button	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 button	Press the cursor move button to move the cursor left or right.
7	Cancel button	Return to the previous screen without saving the setting value.
8	Save button	Return to the previous screen and save the entered value.

4 Press the “Start” button. Go to Step 4 in “■ Replacing the water filter” on page 380.

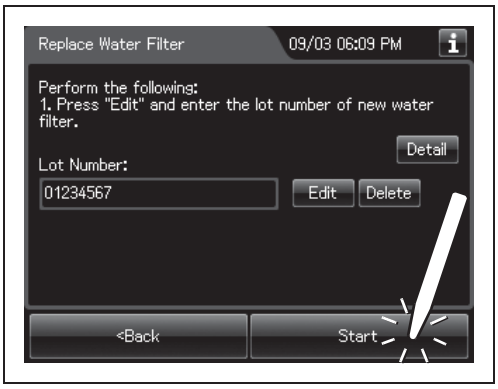


Figure 8.111

8.5 Replacing the air filter (MAJ-823)

Replace the air filter every month.

To create the record of the replacement of the air filter, select “Replace Air Filter” in the Replacement of Consumable Items menu.

WARNING

- Always be sure to attach the specified air filter. Otherwise, the air may contaminate the reprocessor piping and/or the scope and prevent effective reprocessing.
- Replace the air filter at least every month. If the performance of the air filter drops, insufficient elimination of miscellaneous bacteria in air may cause contamination of the instrument and scopes and make the reprocessing insufficient.

NOTE

When the air filter counter setting is activated, the filter replacement indicator can be displayed on the top right of the touch screen and on the “Replace Air Filter” button on the Replacement of Consumable Items menu when the counter setting value is reached.

■ Workflow of replacement of the air filter

See the replacement of air filter workflow below.

1	**Replacing the air filter.** **→on page 403**
2	**Inspecting air leakage from the air filter connectors.** **→on page 408**

■ Required items

Check	Required items
	Air filter (MAJ-823)

Table 8.7

■ *Replacing the air filter*

NOTE

If you do not need to create the record of the replacement of the air filter, the following operations of GUI can be skipped.

1 Press the “Replacement of Consumable items” button on the Menu screen.

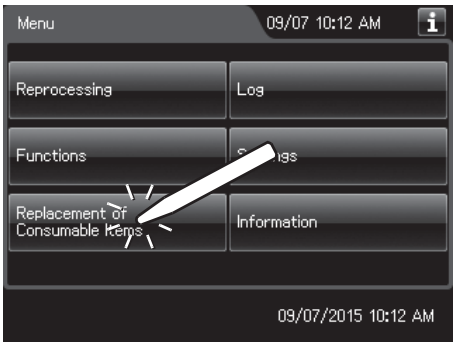


Figure 8.112

2 Press the “Replace Air Filter” button.

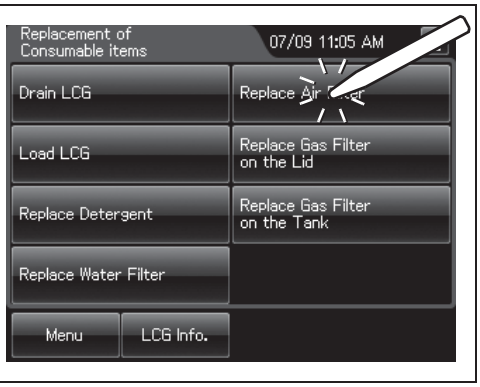


Figure 8.113

3 Enter the operator's user ID. For the detailed procedures, refer to Section 3.6, “Entering ID” (If applicable). Then, press the “Edit” button to display the lot entry screen.

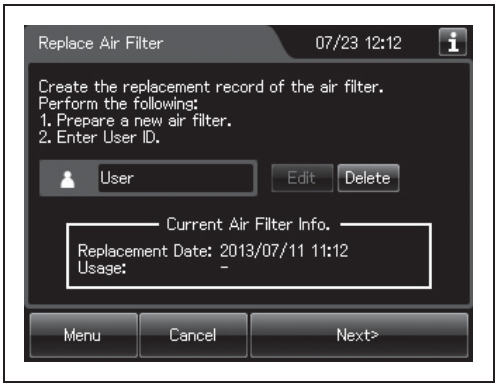


Figure 8.114

Figure 8.115

NOTE

- The input of the user ID can be omitted by modifying the user ID input setting. For details, refer to Section 4.5, “User ID Setting”.
- If the “Delete” button is pressed, the entered ID can be deleted.
- If the “Delete” button is pressed, the entered lot number can be deleted.

4 Open the front door of the reprocessor.

5 Remove the old air filter by pushing the sleeves on the two connectors toward the device.

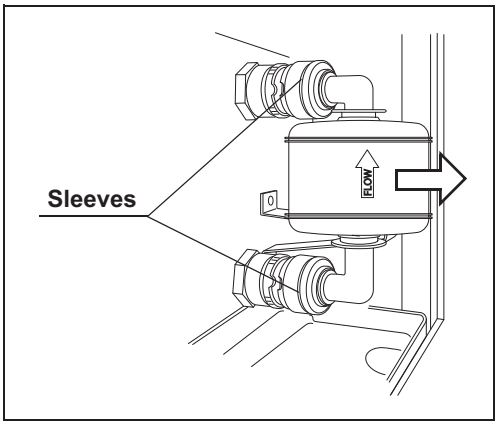


Figure 8.116