



MAINTENANCE MANUAL

OER-Pro

INTRODUCTION

Introduction

Repair and maintenance of this product requires highly specialized training and tools.

We recommended that you contact the Olympus Technical Assistance center if a problem develops with the product.

If repairs or modifications are made by personnel not authorized by Olympus, the warranty is void, and Olympus shall not be liable for damage that occurs to or as a result of use of the modified product.

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Chapter 1: Product Specifications

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1 Product Overview

- (1) Intended Use
This product has been designed to clean and disinfect Olympus endoscopes. Do not use this equipment for any purpose other than that for which it is intended.
- (2) User Qualifications
The operator of this equipment must be a physician or medical personnel under the supervision of physicians and must have received sufficient training in reprocessing of scopes. A person other than above should not use this equipment..
- (3) Contraindications
The product shall not be used for any purpose other than the above.

2 Description

- (1) Endoscope
 - a) Top loading
 - b) Number of reprocessed scopes: A maximum of two scopes meeting compatibility criteria. Certain scope models must be reprocessed individually. (1 with certain model)
- (2) Cleaning
 - a) During the ultrasonic cleaning function, fluid is directed into the crevices of the scope and accessories
 - b) Detergent use is mandatory. Detergent is delivered during the cleaning phase.
- (3) Disinfection
 - a) The applicable endoscope is totally soaked and fluid is sent to all the channels and accessories.
 - b) The disinfectant solution may be heated
- (4) Process time
 - a) The unit is factory programmed with the shortest cleaning and disinfection times using Olympus detergents and disinfectants.
- (5) CDS endoscope history Management
 - a) The unit is equipped with Radio Frequency Identification (RFID) for the endoscope and operator. This function may be enabled or disabled.
 - b) Equipped with a printer
 - c) Olympus engineer only unit is equipped to connect to a laptop PC using the software maintenance tool.
- (7) Other
 - a) Automatic alcohol flush function
 - b) Endoscope leakage test function (visual confirmation)
 - c) Incorporation of a bacteria eradication filter in the water supply and air system in order to prevent the admixture of contamination
 - d) A gas filter is installed in order to reduce disinfectant odors.

3 Installation Requirements

- (1) The environment of use constitutes the following (temperature and humidity)
 - a) Temperature :10~40°C(50 ~ 104 degrees F)
 - b) Humidity :30~85%
 - c) Atmospheric pressure :700~1060hPa
- (2) Electric power conditions
 - a) Electric potential :AC 120 V within plus or minus 10%
 - b) Frequency :60 Hz within plus or minus 1 Hz
 - c) Electric current :Max 5.5A
- (3) Water and sewage conditions
 - a) Water supply volume:17 L/ min or more(4.5 gal/min)
 - b) Water pressure :0.1 MPa or more and 0.5 MPa or less(14.5 psi ~ 72.5 psi)
 - c) Water temperature :28 degrees centigrade or less(82.4 degrees F)

The system shall be connected to a floor drainage system.
- (4) Ventilation conditions

Run this equipment in well-ventilated areas.

 - 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)

4 Specifications

4-1 Specifications of the Main Unit

4-1-1 Applicable scope

Olympus Endoscopes

4-1-2 Method of installation of the endoscope

A maximum of two scopes meeting compatibility criteria. Certain scope models must be reprocessed individually.

4-1-3 Method of cleaning

External surface	:Ultrasound cleaning, Turbulent bath
In the channel	:Fluid flushing
Accessories	:Ultrasound cleaning, Turbulent bath

4-1-4 Method of disinfection

External surface	:Immersion in the disinfectant solution
In the channel	:Fluid feed and pervasion of the disinfectant solution
Accessories	:Immersion in the disinfectant solution

4-1-5 Range of setting of the detergent and ultrasound cycle time

3 to 10 minutes (in increments of 1 minute)

4-1-6 Range of setting of the disinfection time

Top loading mode :10 minutes

4-1-7 Program

Three types of programs may be selected

Program 1	:Process for which effectiveness has been confirmed (setting by the user is not possible)
Program 2 to 3	:Setting of the cleaning time by the user is possible

4-1-8 Method of draining

Forced drainage using a pump
Floor drainage is recommended (draining height is possible under 60 cm(23.6inches))

4-1-9 Method of heating the disinfectant solution

Heating using an incorporated heater.

1. Heating upon commencement of the disinfection process during the processing of cleaning and disinfection
2. Heating prior to the commencement of the process of cleaning and disinfection

4-1-10 Method of loading the disinfectant solution

Top loading mode : loading from the reprocessing basin

4-1-11 Setting the temperature of the disinfectant solution

Top loading mode :20 degrees centigrade

4-1-12 Setting of the number of uses of the disinfectant solution

Top loading mode :0 to 99 (in increments of 1)

4-1-13 Setting the number of days of use of the disinfectant solution

Top loading mode :0 to 99 (in increments of 1 day)

4-1-14 Method of draining the disinfectant solution

1. Drainage by attaching a LCG retrieval hose
2. Drainage from the drain hose out of the unit.

4-1-15 Capacity of the disinfectant solution tank

17.5 liters(4.6 gal)

4-1-16 Disinfectant solution

1. Olympus-validated disinfectant solution

4-1-17 Detergent

Olympus-validated detergent

4-1-18 Leakage detection

Method of confirmation is bubbles in the solution (visual inspection)

4-1-19 Alcohol flush

Automatic feed of alcohol and feed of air by an incorporated pump

4-1-20 Incorporated filter

Prevents the introduction of contaminants:water filter and air filter with pore diameter of 0.2 microns

Reducing from the LCG:Gas filter (installed at two places, the top cover and disinfection solution tank)

4-1-21 Method of disinfection of the supply water piping

By attaching and operating an air supply disinfection fluid hose, it is possible to disinfect and rinse the water supply piping of the secondary part of the water filter

4-1-22 ID identification function

Using the incorporated antenna, from the designated RFID method IC chip it is possible to confirm the ID of the endoscope and the operator without making contact.

4-1-23 Printing function

It is possible to print out the reprocess information of the device (record of action of cleaning and disinfection, content of the setting and device unit number) as well as the ID information of the endoscope an operator from the internal printer.

4-1-24 Data communication

Olympus engineer only possible to communicate with a external converter.

4-1-25 Selectable function

Possible to select the following fuction via maintenance tool.

-RFID enable or RFID disable

-Toploading solution mode or cassette bottle solutio mode

Factory default setting of RFID is "disable".

Factory default setting of disinfectant solution is "Toploading".

4-1-26 External accessories

The connector hanger (MAJ-865) may be installed on both sides.

The pre filter may be installed on the left side or back side.

4-1-27 Display of the external appearance of the main unit

Label in alphabetic letters

4-1-28 Operation panel

The main and sub panel maybe displayed in 7 segments and a tact switch may be installed.

4-1-29 Warning and caution display function

- (1) Problems in the main unit may be self diagnosed and an error code may be displayed in the main panel.
- (2) A low detergent level is indicated by a flashing detergent lamp.
- (3) LCG days of use and frequency is recorded and may be displayed. If the number of days used or frequency exceeds user settings, the LCG indicator will blink.
- (4) It is possible to record and display data on the frequency of use.

- (5) In the event the stipulated number of days or frequency are exceeded, a periodic maintenance display promoting inspection will blink.

4-1-30 External dimensions

450mm(17.7") [width] × 774mm(30.5") (779mm(30.7")) [depth] × 977mm(38.5") [height]
18"W X 31" H X 31" D 62 inches with high the lid open

4-1-31 Weight

120 kg(264.6lbs) (dry condition)

4-1-33 Electric power source

- | | |
|------------------------|------------------------------------|
| (1) Electric potential | :AC 120 V within plus or minus 10% |
| (2) Frequency | :60 Hz within plus or minus 1 Hz |
| (3) Electric current | :Max 5.5A |

4-2 Others

4-2-1 Legal Regulations that Apply

United States	:FCC Part 15 C (Federal Communications Council) Federal Food, Drug and Cosmetic Act
Canada	:IC RSS-210 (Regulations of the Wireless Law) Canada Pharmaceutical Device Regulations Class Category II

4-2-2 Devices that are not included

Common to all countries

- IEC 61010-1: 2001
- IEC 61010-2-040: 2005
- IEC 61326 : 2002
- ISO 14971: 2000 + A1
- ISO/IEC 90003: 2004
- ISO 7000: 2004
- IEC 60417-1 (: 2001, 2; 1998 + A1, A2

United States

- UL 61010-1 (Safety Requirements): 2004
- UL 61010-2-045 (Specific Requirements of Cleaning and Disinfection Devices)
- Guidance on Premarket Notification [510(k)]Submissions for Automated Endoscope Washers, Washer/Disinfectors, and Disinfectors Intended for Use in Health Care Facilities
- Guidance for the Content of Premarket Submissions for Software Contained in Medical Devices
- Radio Frequency Wireless Technology in Medical Devices

Others

- CSA C22.2 No. 61010-1 (Safety Requirements): 2004
- CSA C22.2 No. 61010-2-045 (Specific Requirements of Cleaning and Disinfection Devices): 2004

4-2-3 Capacity of the reprocessing basin and disinfectant solution tank upon detection by sensors

- Basin level sensor (Cleaning):12.8L(3.38gal)
- Basin disinfection level sensor (Disinfection):14.2L(3.75gal)
- Basin level sensor (Error):16.3L(4.31gal)
- Basin float sensor:16.5L(4.35gal)

Disinfectant solution tank

- Tank 1 bottle level sensor:0.32L(0.08gal)
- Tank 2 bottles level sensor:1.55L(0.41gal)
- Tank lower level sensor:16.6L(4.38gal)
- Tank middle level sensor:17.1L(4.52gal)
- Tank overflow sensor:19.5L(5.15gal)
- Tank float sensor:19.5L(5.15gal)

4-3 Accessories

Accessories Name	Qty	REMARKS
Buckling guard	1	
Buckling guard retaining screws	3	
Grommet	4	
Wrench	1	
Power cord	1	120V
Water supply hose	1	
Drain hose	1	
Connecting tubes	2	MAJ-1500
Connecting tubes	2	MAJ-1501
Leak test air tubes	2	
Gas filter cases	2	
Gas filters	2	
Adapter	1	
Washing case	1	
Printer paper roll	1	
Paper roll axle	1	
Water tray	1	
Air filter	1	
Water filter	1	
Retaining rack	1	
Alcohol tank	1	
Detergent / alcohol inner tray	1	
Circulation port mesh filters	1	
Drain port mesh filter	1	
Syringe	1	
Tube	1	
Disinfectant collection hose	1	
Disinfectant removal tube	1	
Water filter wrench	1	
Drain connector	1	
Filter tubes	2	
Spare fuses	2	
Connector jig	1	
Water supply piping disinfection hose	1	
Card holders	2	
Scope ID master card	1	
User ID master card	1	
Endoscope Reprocessor Information Card	1	
Water supply plug	1	
Sampling tube	1	

4-3-2 Connecting Tubes

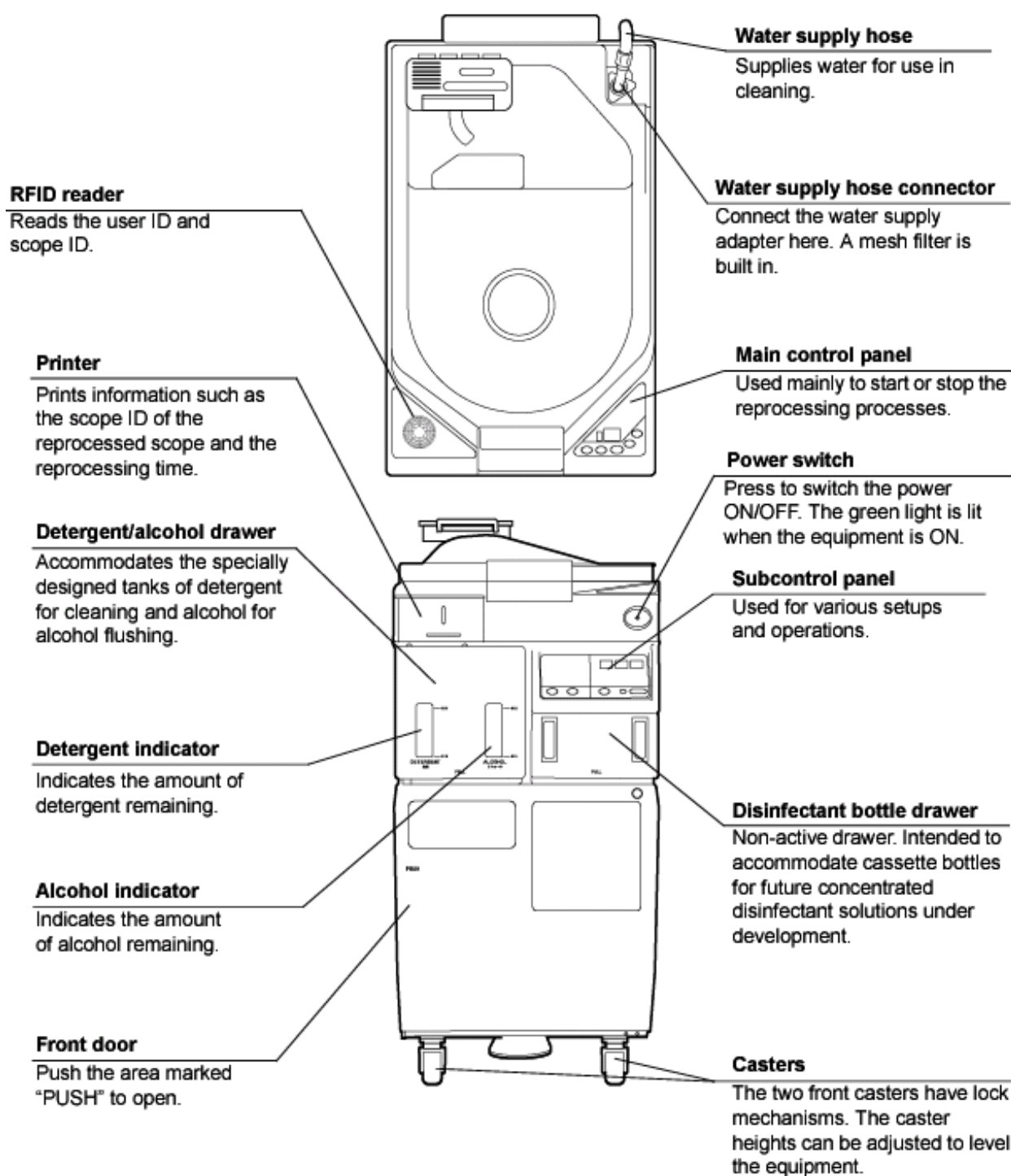
Model number	Name of the tube
MAJ-1500	Connecting tube
MAJ-1501	Connecting tube
MAJ-1503	Monitoring outlet tube
MAJ-1504	Supplementary water supply tube
MAJ-1505	2T200CHTU
MAJ-1508	US cylinder tube
MAJ-1509	Sterilization US tube
MAJ-1511	BF-20TU
MAJ-1512	BF-XT20TU
MAJ-1513	BF-30TU
MAJ-1514	CHF-20TU
MAJ-1515	Lure tube
MAJ-1516	LF-VTU
MAJ-1517	US straight tube

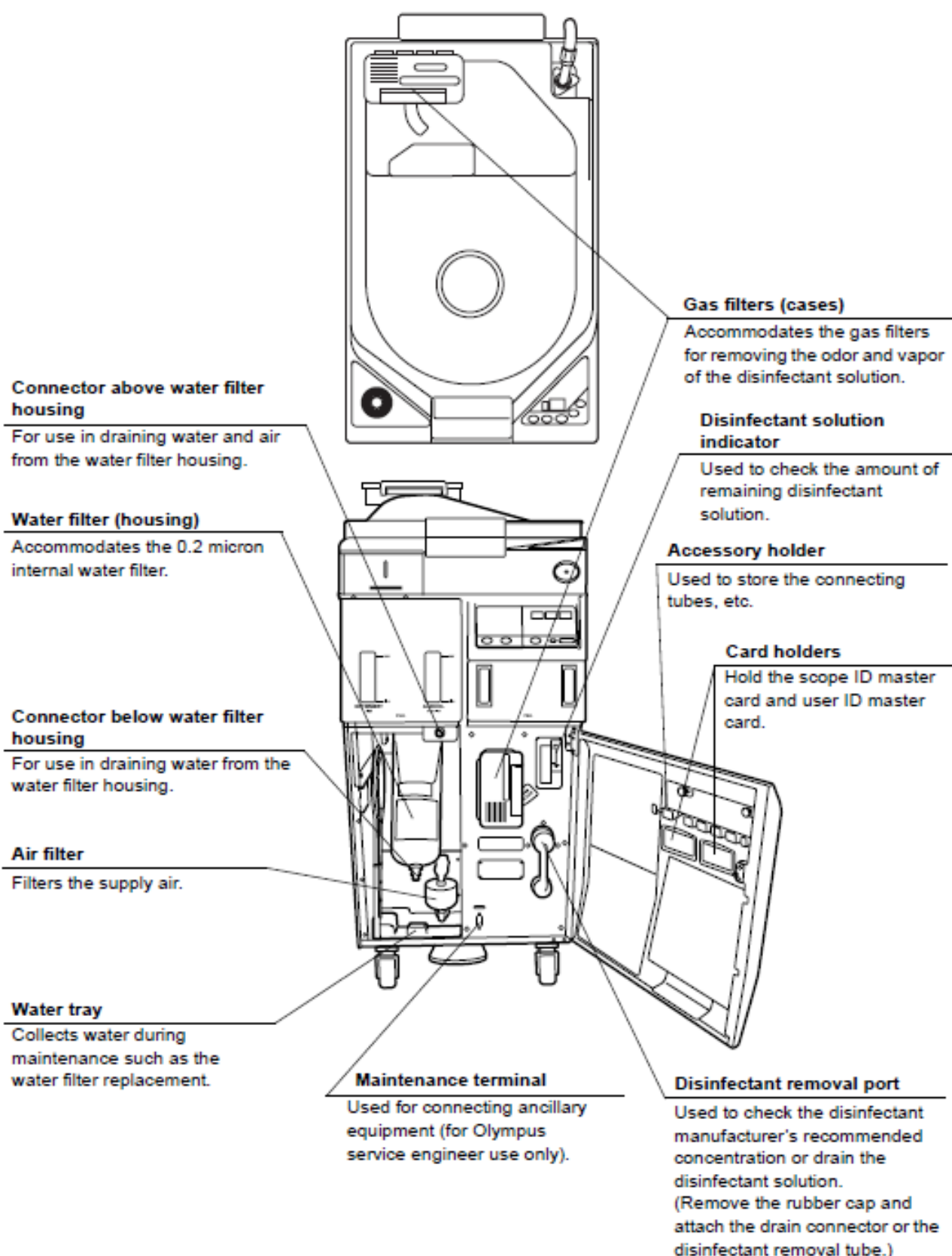
4-6-3 Other Accessories

Model number	name
MAJ-840	Retaining rack for US
MAJ-865	Connector Hanger
MAJ-1545	Scope ID tag for RFID
MAJ-1546	ID chip for RFID

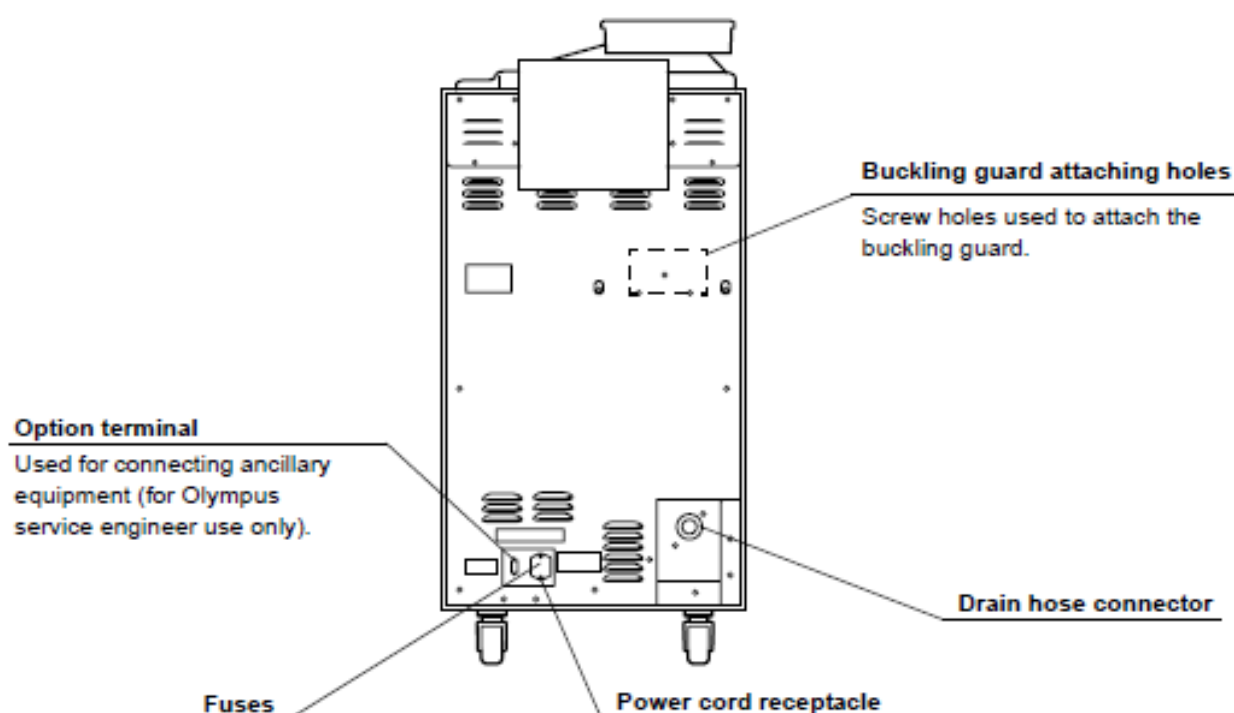
5 Nomenclature and Functions

5-1 Front and top panel

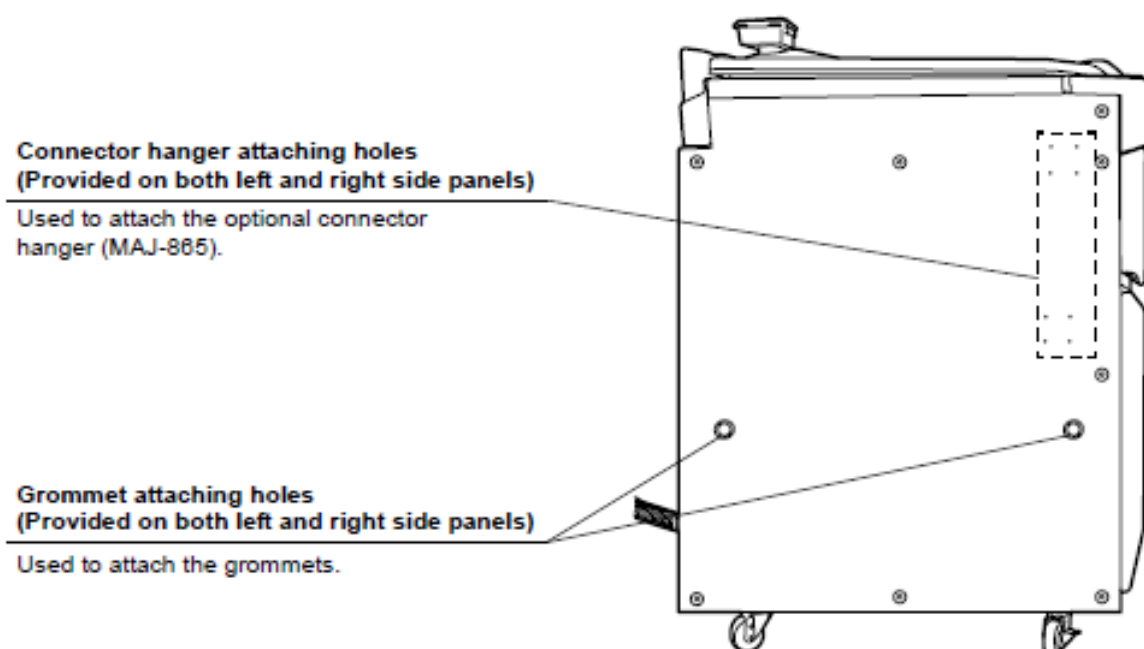




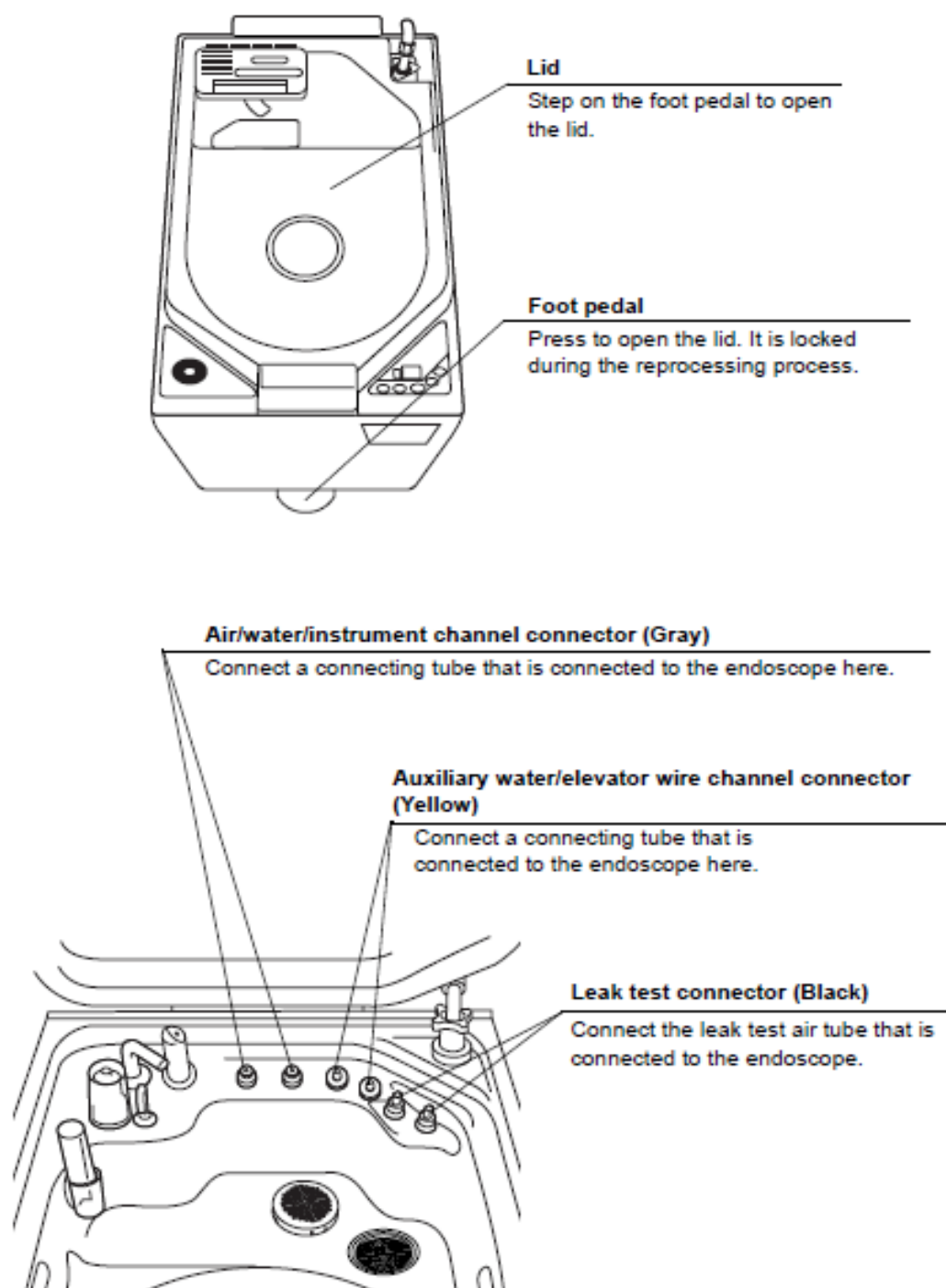
5-2 Rear panel

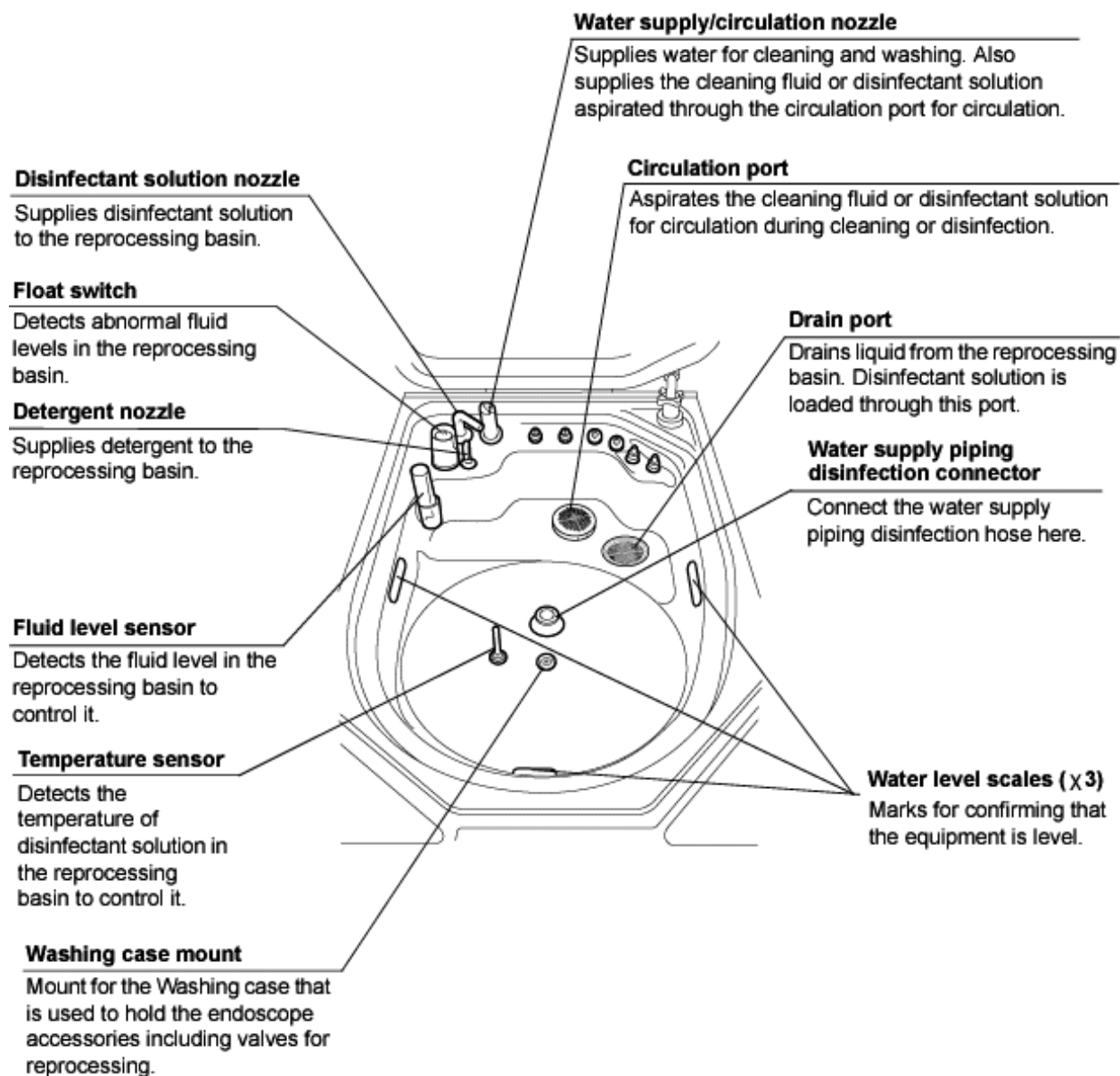


5-3 Side panel



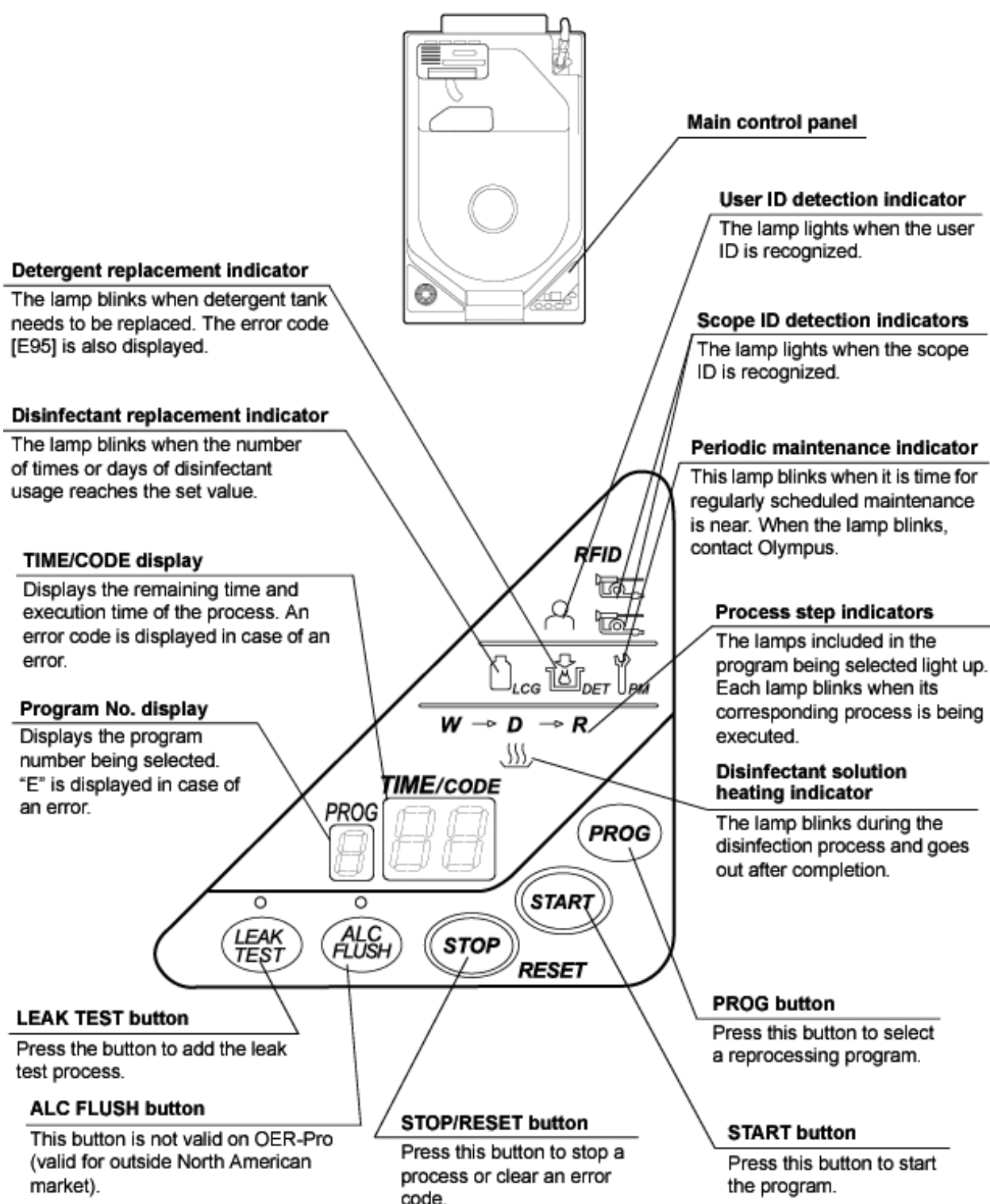
5-4 Reprocessing Basin



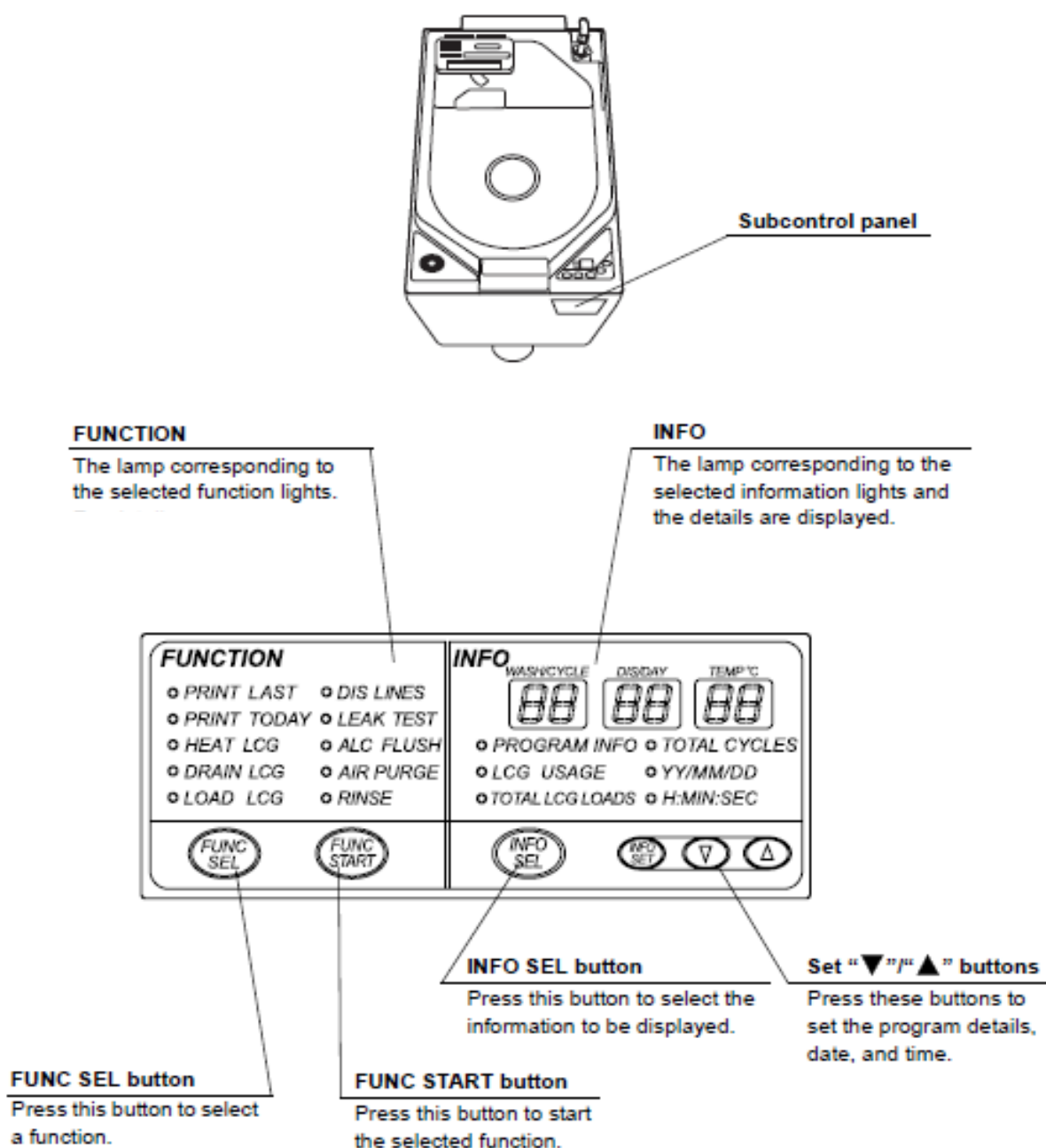


5-5 Control panels

5-5-1 Main control panel



5-5-2 Sub control panel

**FUNCTION****PRINT LAST**

Prints information about the previous reprocessing operation, such as the endoscope ID and cleaning time.

PRINT TODAY

Prints details on all reprocessing operations carried out during the day, including endoscope IDs and cleaning time.

PRINT ALL

Prints details on up to the last 60 reprocessing operations, including scope IDs and cleaning time.

HEAT LCG

Heats the disinfectant solution before starting the disinfection process.

DRAIN LCG

Drain the disinfectant solution from the disinfectant solution tank.

LOAD LCG

Supplies the disinfectant solution from the reprocessing basin.

DIS LINES

Disinfects the supply water piping as well as the inside of the equipment.

LEAK TEST

Performs water leak test on the endoscope.

ALC FLUSH

Performs alcohol flushing of the endoscope channel.

AIR PURGE

Feeds air into the device and endoscope channel to drain residual water.

RINSE

Rinses the inside of the equipment and endoscope.

INFO**WASH/CYCLE display**

Press the INFO SEL button to change the information displayed on the subcontrol panel as shown in Table 1.

DIS/DAY display

Press the INFO SEL button to change the information displayed on the subcontrol panel as shown in Table 1.

TEMP °C display

Press the INFO SEL button to change the information displayed on the subcontrol panel as shown in Table 1.

PROGRAM INFO

Displays the actual measured values for cleaning time, disinfection time, and temperature.

LCG USAGE

Displays the number of times or days the disinfectant solution has been used.

TOTAL LCG LOADS

Displays the total number of times that disinfectant solution has been added (6 digits).

TOTAL CYCLES

Displays the total number of times that the equipment was used (6 digits).

YY/MM/DD

Displays the year, month, and day.

H:MIN:SEC

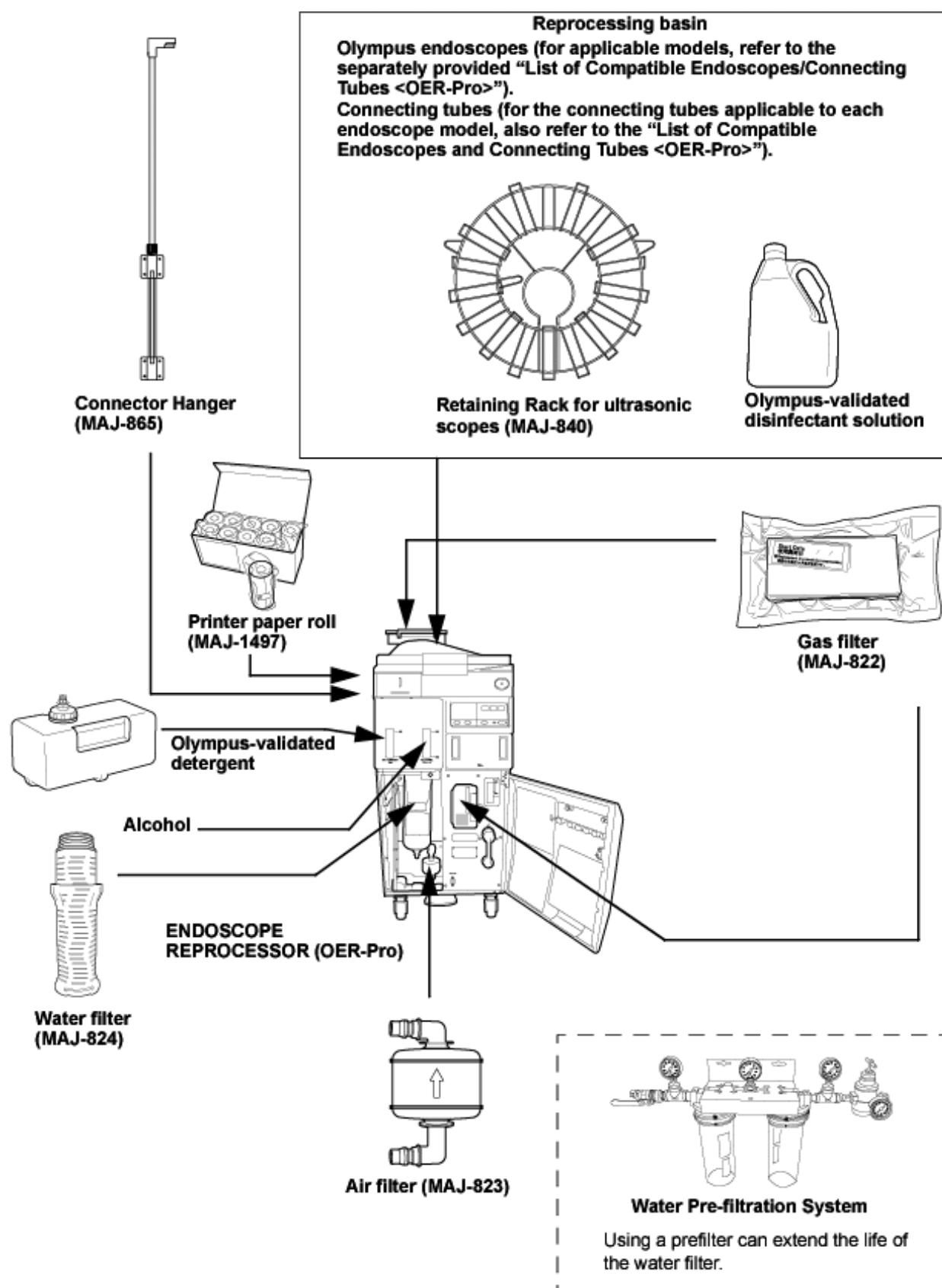
Displays the hour (24 hour system), minute, and second.

Table 1

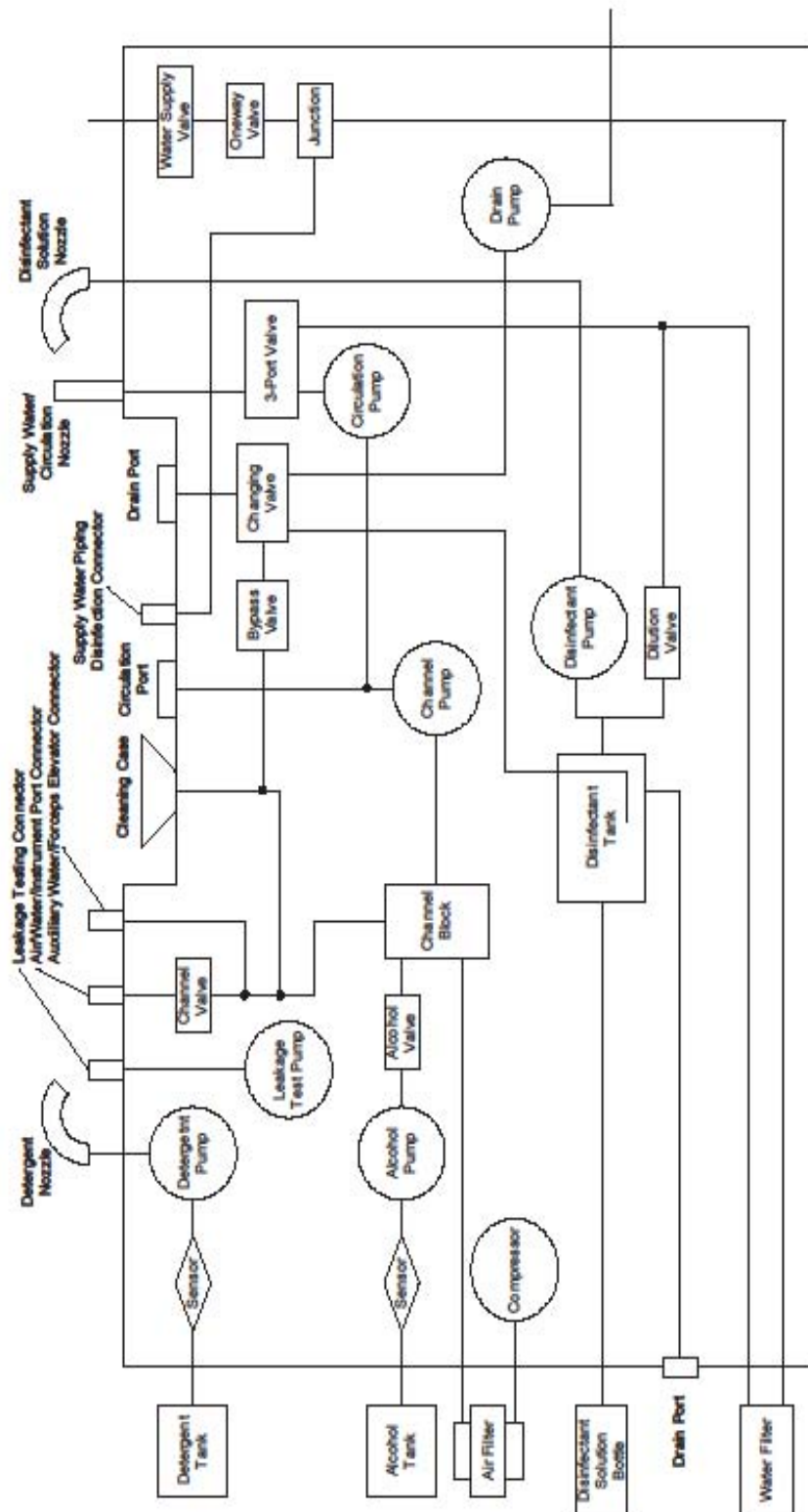
	WASH/CYCLE display	DIS/DAY display	TEMP °C display
PROGRAM INFO	Cleaning time	Disinfection time	Temperature *1
LCG USAGE	Cycle	Days	--
TOTAL LCG LOADS	6-digit display		
TOTAL CYCLES	6-digit display		
YY/MM/DD	Year	Month	Day
H:MIN:SEC	Hour	Minute	Secong

*1 Any temperature equal to or higher than 20 °C is displayed as "20 °C".
"[-]" is displayed when only a small amount of disinfectant solution remains in the disinfectant tank.

6 System Chart



7 Fluid Diagram



Chapter 2: Troubleshooting

1	Precautions.....	2-2
2	Troubleshooting	2-4

1 Precautions

- If an error occurs during a process using a disinfectant solution, execute “Rinse” before taking out the endoscope.
- Follow the precautions given below when taking the endoscope in the disinfectant solution out of the cleaning equipment:
 - Wear gloves while removing the endoscope.
 - Avoid skin contact with the disinfectant solution while taking out the endoscope.
 - Manually reprocess the endoscope after removing it from the unit.
- Before repairing the equipment, review the error log in order to check the process where the error occurred, and time and frequency of the error.
- Make note of the unit configuration before performing maintenance.
- Make sure the unit configuration is correct before clearing it for use.

-LCG-

Follow the precautions given below when it is necessary to use a disinfectant to do trouble shooting.

- (1) Before handling the disinfectant solution, read the precautions carefully and uses it as instructed. It is especially important to know what to do if the disinfectant solution comes in contact with your skin.
- (2) When handling the disinfectant solution, wear appropriate personal protective equipment to prevent any disinfectant from getting on your skin or being inhaled. To avoid adverse physical effects, be careful not to touch the disinfectant solution directly or to inhale too much vapor. 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 goggles, face mask, protective waterproof clothes and chemical-resistant gloves that fit properly so that your skin is not exposed. All personal protective equipment should be inspected for damage before use and replaced periodically.
- (3) Do not handle the equipment if the operator shows any allergic symptoms even while wearing protective gear.
- (4) If it is necessary to use the disinfectant solution during repair, inform the customer and get the customer's consent.
- (5) If it is necessary to drain the disinfectant solution during repair, inform the customer and get the customer's consent.
- (6) Use the disinfectant solution in a well-ventilated room. It is important for the service engineer and the customer to pay attention to inhaling the unnecessary vapor.
- (7) After the repair, make sure that the unit configuration has not changed. Ask the customer to check if the configuration prior to use.

-Other precautions-

To prevent an electric shock, do not check or inspect the equipment with wet hands.

2 Troubleshooting

An error code will be displayed on the main panel when the equipment detects that a problem.

When an error occurs, an error code is displayed on the main panel and the running process is stopped with a beep sound, and then an error process will run automatically.

This chapter describes how to troubleshoot errors.

Take measures to the error.

When the cleaning/disinfection process is interrupted, the scopes will not be properly cleaned and disinfected. In this case, reprocessing should be started again from the beginning.

If any irregularity is detected during an inspection or if the equipment is clearly malfunctioning, do not use it. Contact Olympus for repair.

Some problems that appear to be malfunctions may be correctable by referring to the OER-Pro instruction manual. If the problem cannot be resolved by the described remedial action, do not use the equipment and contact Olympus.

2-1 Troubleshooting guide

WARNING

- When the cleaning/disinfection process is interrupted, the scopes will not be properly cleaned and disinfected. In this case, reprocessing should be started again from the beginning.
 - Before handling the disinfectant solution, read the precautions carefully and use it as instructed. It is especially important to know what to do if the disinfectant solution comes in contact with your skin.
 - When handling the disinfectant solution, wear appropriate personal protective equipment to prevent any disinfectant from getting on your skin or being inhaled. To avoid adverse physical effects, be careful not to touch the disinfectant solution directly or to inhale too much vapor. 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 goggles, face mask, moisture-resistant clothing, and chemical-resistant gloves that fit properly and are long enough so that your skin is not exposed. All personal protective equipment should be inspected before use and replaced periodically before it is damaged.
 - Do not put your hand behind the disinfectant solution bottle drawer. Whitening of skin due to contact with disinfectant solution, injury or malfunction of this equipment may result.
 - Do not open the lid, if the process stops and disinfectant solution remains in the reprocessing basin due to the power failure or the internal irregularly. Otherwise, disinfectant vapor could cause adverse physical effects.
 - When using the disinfectant solution and alcohol, Olympus recommends the use of gas filters and enhanced protection by observing the following recommended ventilation conditions.
 - Maintain the same conditions specified for glutaraldehyde vapor by the American SGNA (Society of Gastroenterology Nurses and Associates) guidelines.* 1
 - Wear a facemask, gloves, and protective clothes to minimize inhalation and skin contact.
 - Wear goggles for eye protection.
- * 1 (1) Use the disinfectant solution in a large room where the vapor can be diluted sufficiently.
- (2) Fully replace the air 10 times per hour. In addition, reserve the air flow of 1 – 2 cubic feet (approximately 28,316 – 56,632 cm³) per square foot (approximately 929 cm²) per minute.
- (3) Ideally, the air discharge system should be located at the point where the vapor is produced. The system should be placed on the floor or on a workbench so that the operator does not breathe in the vapor.

Do not handle the equipment if the operator shows any allergic symptoms even while wearing protective gear.

CAUTION

- If the rinsing process is started during error processing, while disinfectant solution remains in the reprocessing basin, the disinfectant solution will be drained out of the equipment. To prevent discharging fluid, the disinfectant solution should be collected first when an error code is displayed by referring to “Error codes and what to do about them”.
- Do not press the power switch OFF when an error code is displayed. Doing so may result in malfunction. The equipment automatically starts automatic error processing. (The error code will blink during automatic processing.) After the error code starts blinking, follow the instructions in “Error codes and what to do about them”.

□ Error codes and what to do about them

Error Code	Problem	Possible Causes	Remedial Actions
E00	Process is interrupted.	STOP/RESET button is pressed during process.	Wait until automatic processing is finished. During the error processing, the error code may either blink or light steadily. If you want to interrupt automatic processing and discharge fluid inside the equipment, perform air purge. If you want to rinse the basin, perform rinsing.
E01	Filling the basin with water takes too long (water supply time is beyond maximum setting).	• The water faucet is not open enough. • Water leakage or clogging in the water supply piping.	• Open the water faucet all the way. • Check if water is leaking from the water supply hose. • Replace the water filter. • Clean the mesh filter in the water supply hose connector.
E02	Cleaning fluid is not discharged.	• Irregularity in the drain tubing. • Clogging of the mesh filter in the drain port of the reprocessing basin.	• Check the drain hose for improper installation. • Clean the mesh filter in the drain port of the basin. • Close the lid and perform air purge to remove water.
E04	Cleaning fluid decreases during the cleaning process.	Internal problem with the equipment.	Contact Olympus.
E05	Cleaning fluid level is too high.	Irregularity in the fluid level sensor.	Contact Olympus (if water supply will not stop, close the water faucet).
E06	Fluid level sensor malfunctions.	Erroneous detection due to residue attached to the fluid level sensor (middle).	Clean the fluid level sensor.
E07	Fluid level sensor malfunctions.	Erroneous detection due to residue attached to the fluid level sensor (lower).	Clean the fluid level sensor.

Error Code	Problem	Possible Causes	Remedial Actions
E11	There is too much disinfectant solution in the disinfectant solution tank.	- Irregularity in the drain piping. - Irregularity in the disinfectant solution collection piping.	- Close the lid if it is open. Automatic Processing will start after the lid is closed. - Check that the drain hose is installed properly. - Clean the mesh filter in the drain port of the basin. - If you want to continue the use of the equipment, check the disinfectant solution concentration with the test strip and replace the disinfectant solution if it has lost the potency.
E12	There is an insufficient amount of disinfectant solution in the disinfectant solution tank.	Not enough disinfectant solution in the disinfection solution tank.	- Clean the mesh filters in the circulation port. - Drain the disinfectant solution from the disinfectant solution tank and add new disinfectant solution.
E13	It takes very little time for the reprocessing basin to fill with disinfectant solution.	Due to improper discharge, fluid remains in the basin before the disinfection process.	- Check the drain hose for proper installation. - Clean the mesh filter in the drain port of the basin. - Discharge the disinfectant solution remaining in the equipment with the following procedure, prepare new disinfectant solution and restart the process. - Discharging the residual disinfectant solution from the basin: Close the lid and perform the air purge operation to discharge residual disinfectant solution in the basin through the drain hose. If discharge through the drain hose is difficult, contact Olympus. - Discharging disinfectant solution from the disinfectant solution tank: Connect the drain connector to the disinfectant removal port and drain disinfectant solution from the tank. Alternatively, connect the disinfectant collection hose to the disinfectant solution nozzle and perform the "DISINFECTANT DRAIN" operation to drain disinfectant solution from the tank.
E14	Disinfectant solution cannot be recollected.	Clogging of the reprocessing basin's drain port mesh filter.	- Wait until the disinfectant solution is collected. - Remove and clean the mesh filters in both the drain port and circulation port. - If the quantity of the disinfectant solution in the disinfectant solution tank is not sufficient, drain the disinfectant solution from the tank and replace with new disinfectant solution.

Error Code	Problem	Possible Causes	Remedial Actions
E15	Fluid level sensor malfunctions.	• Erroneous detection due to residue attached to the fluid level sensor (middle). • Internal problem with the device.	Clean the fluid level sensor.
E16	It takes too long to fill the reprocessing basin with disinfectant solution.	Internal problem with the device.	Contact Olympus.
E17	Disinfectant solution cannot be heated.	Internal problem with the device.	Contact Olympus.
E18	Temperature sensor malfunctions.	Internal problem with the device.	Contact Olympus.
E21	Air is not purged through scope channels (air purge pressure is low).	• Improper installation of air filter. • Clogging of air filter.	• Check that the air filter is properly installed. • If the air filter has been installed properly, the air filter may be clogged. Replace the air filter.
E22	Insufficient fluid pressure.	Clogging of the mesh filters in the circulation port.	Clean the mesh filters in the circulation port of the basin.
E23	Excessive fluid pressure.	Internal problem with the device.	Contact Olympus.
E31	The lid is open.	At the beginning of the process: START button was pressed while the lid is open.	Close the lid firmly and restart the process.
		During the process: Internal problem with the device.	Contact Olympus.
E41	The power was lost and then restored during the process.	• Power supply was interrupted. • Power cord contact failure.	Check the power cord for proper connection. Disconnect the power cord from the power outlet and check that it is free from scratches or damage. If irregularity are found, replace the power cord.

Error Code	Problem	Possible Causes	Remedial Actions
E51	Water leakage inside the device.	Internal problem with the device.	Close the water faucet and contact Olympus.
E61	Ultrasonic cleaning is not functioning.	Irregularity in the ultrasonic oscillator.	Contact Olympus.
E71	Abnormalities with the disinfectant bottle drawer sensor.	Internal problem with the device.	Contact Olympus.
E72	Disinfectant solution in the disinfectant solution tank cannot be discharged.	Internal problem with the equipment.	If disinfectant solution remains in the basin, perform the same remedial action as [E13]. In other cases, contact Olympus.
E76	Irregularity in the fluid level sensor in the disinfectant tank.	Internal problem with the equipment.	Contact Olympus.
E81	The process cannot be properly controlled.	Internal problem with the device.	Contact Olympus.
E82	Internal irregularity in the device.	Irregularity in the electrical circuitry inside the device.	Contact Olympus.
E83	The process cannot be properly controlled.	Irregularity in the electrical circuitry inside the device.	Contact Olympus.
E84	Malfunction of the RFID reader.	Irregularity in the electrical circuitry inside the device.	Contact Olympus.
E91	ID read error.	- ID is not read. - Multiple IDs are read.	Press the STOP/RESET button, check that the ID detection indicators are not lit on the main control panel, and read the IDs again.
E92	Exceeded leak test time.	Exceeded test time (10 minutes).	Perform leak test again.

Error Code	Problem	Possible Causes	Remedial Actions
E93	No alcohol remains.	- The alcohol has run out. - Alcohol cannot be supplied to the device. - Irregularity in the alcohol sensor. - Clog in the pump or piping.	- Check the amount of alcohol in the tank. - Correct the orientation of the alcohol connector (follow the procedure in instruction manual). - Inspect pump or piping as described in instruction manual.
E94	The equipment is not printing.	- Printer paper roll has run out. - The release lever is raised.	- Install the printer paper roll properly (follow the procedure in instruction manual). - Check that the release lever is set in the proper position.
E95	No detergent remains.	- The detergent has run out. - The detergent cannot be supplied to the equipment. - Irregularity in the detergent sensor. - Clog in the pump or piping.	- Check the amount of detergent in the tank. - Correct the orientation of the detergent connector. Follow the procedure instruction manual. - Inspect pump or piping as described in instruction manual.

□ Other errors and their treatment

Problem	Possible Causes	Remedial Actions
The odor of the disinfectant solution is stronger than before.	- The gas filter has expired. - Disinfectant solution is leaking.	- Replace the gas filter as described in in instruction manual. If the problem persists after replacement, contact Olympus. - Check if the disinfectant solution is leaking. If it is, do not use the device and contact Olympus.
Water leaks from the equipment.	Improper installation of water filter housing. Internal problem with the device.	Stop the current process and reattach the water filter housing as described in instruction manual. The STOP/RESET button may not work , however, if stopping the water might cause a hazardous situation; for example, during disinfectant solution replacement. In this case, close the water faucet, tighten the water filter housing, then open the water faucet again and continue the process. If an error code is displayed, take the appropriate remedial action for that error. Close the water faucet, set the power switch to OFF, disconnect the power cord plug from the wall mains outlet and contact Olympus.
Fluid leaks from the disinfectant removal port.	Something is clogging the disinfectant removal port.	Connect the drain connector as described in instruction manual. Push the head of the connector several times so

that the material stuck in the port is removed. If leakage is still detected, attach the rubber cap to the disinfectant solution drain port and contact Olympus.

Problem	Possible Causes	Remedial Actions
Flow of the water in the reprocessing basin is weaker than before.	Incomplete opening of the water faucet.	Open the water faucet fully.
	Improper installation of water filter.	Reattach the water filter as described in instruction manual.
	Clogging of water filter.	Replace the water filter as described in instruction manual.
	Clogging of the mesh filter in the water supply hose connector.	Clean the mesh filter as described in instruction manual.
Connecting tube cannot be connected.	Not using the appropriate connecting tube.	Consult the List of Compatible Endoscopes/Connecting Tubes <OER-Pro>.
The lid cannot be closed.	The lid is locked.	Step on the foot pedal to unlock the lid.
	Internal components are pressing against the lid.	Check that the lid is not pushed by the fluid level sensor, washing case or scope inside the basin. If it is pushed out of position, correct its positioning.
Ultrasonic endoscopes cannot be placed on the retaining rack.	Retaining rack for ultrasonic scopes is not used.	Use the retaining rack for ultrasonic scopes (optional MAJ-840) and place the ultrasonic scopes on it.
Disinfectant solution remains in the reprocessing basin.	STOP/RESET button was pressed during disinfection process.	If an error code is displayed, take the corresponding remedial action. Collect or drain the disinfectant solution and then rinse the basin as described in instruction manual. Since the scopes may not be properly disinfected, they should be put through the reprocessing process again from the beginning.
Cleaning fluid remains in the reprocessing basin.	STOP/RESET button was pressed during cleaning process.	Rinse the basin as described in instruction manual. Since the scopes may not be properly disinfected, they should be put through the reprocessing process again from the beginning.
Panel display disappears completely during a process.	- Power cord is disconnected from the power outlet. - Circuit breaker is activated. - A power failure occurred.	Perform the checks as described in instruction manual. Error code [E41] will be displayed when the device is turned ON. After checking, press the STOP/RESET button to release the error code. However, if the error code is blinking, the disinfectant solution in the basin is being collected in the tank and pressing the button will have no effect; in this case, wait until the blinking changes to a steady light.
Panel display does not light in sequence when the device is turned on.	Power switch is set to ON less than 5 seconds after it was set to OFF.	Set the power switch to OFF, wait for 5 seconds or more and set the power switch to ON again.
Reprocessing operator feels sick during work.	The operator may be allergic to the disinfectant, detergent or alcohol.	Stop doing any reprocessing and consult a medical specialist.

Disinfectant solution is judged to be ineffective with the test strip.	Expiration of the service life of the disinfectant solution.	Replace the solution as described in instruction manual.
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Problem	Possible Causes	Remedial Actions
Bacteria was detected as a result of culture test of a reprocessed scope.	- Expiration of service life of filters, degradation of disinfectant solution, etc. - Water supply piping is not disinfected.	Inspect the equipment as described in instruction manual. Preclean the scope and put it through the reprocessing process again from the beginning. If bacteria is detected again in the next culture test, contact Olympus.
Bacteria was detected as a result of culture test of rinsing water collected from the device.	- Expiration of service life of filters, degradation of disinfectant solution, etc. - Water supply piping is not disinfected.	Inspect the equipment as described in instruction manual. If bacteria are detected again in the next culture test, contact Olympus.
Endoscopes were not precleaned before being reprocessed.	—	Inspect the equipment as described in instruction manual to confirm that the disinfectant solution has not lost its strength, the mesh filters are not clogged, etc. Next, preclean the scopes and reprocess them again from the beginning.
Printed paper is not output from the printer.	- Printer paper roll has run out. - Paper jam.	Take the remedial action by referring to instruction manual.
Abnormal noise from the device.	Internal problem with the device.	Contact Olympus.

2-2 Returning the endoscope reprocessor for repair

Before returning the equipment for repair, contact Olympus. When you return the equipment, include a description of the malfunction or damage and how it occurred. Olympus will repair the equipment free of charge within the warranty period.

Chapter 3:Disassembly and Reassembly

1	Precautions on Disassembly and Reassembly	3-2
2	Procedures for Disassembly.....	3-3
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1 Precautions on Disassembly and Reassembly

1-1 Warning

- (1) Select a well-ventilated location when using organic solvents.
- (2) Thoroughly and immediately rinse any bodily areas that have come into contact with organic solvents. Not doing so may lead to potentially dangerous health risks.
- (3) Handle organic solvents with caution.
- (4) These solvents may ignite if exposed to flame. In addition, always replace the lids back onto organic solvent containers before leaving the workbench.

1-2 Caution

- (1) Record all settings regarding function/operation before performing maintenance.
- (2) Reassemble parts following the instructions in this manual. (Failure to attach parts in their original configurations, even if it does not impair product functions, poses the risk of noise radiation and reduced electrical safety.)
 - (1) Be sure insulators, both tubes and mylar sheets, are correctly reinstalled to avoid overheating of sensitive devices.
 - (2) Be sure clamped cables have been reclamped to avoid contact with heating parts or high voltage parts.
 - (3) Be sure noise-suppressing toothed washers are reused with cover screws.
 - (4) Be sure to replace binders that clamp cables or harnesses.
- (3) Use extra caution when working around metal parts, as the edges may be sharp.
- (4) Use only the parts and components specified for use with this product. This product is optimized for use under certain anticipated vibration, heat, chemical exposure, and voltage conditions.
- (5) Use only the supplies, tools, and jigs specified in this manual.

The use of any unspecified jigs or tools may damage the system or the components under repair and prevent it from functioning properly or performing optimally. Be sure to comply with the torque rated values that are documented in the manual.
- (6) Avoid electric shock by turning off the power and unplugging the power cord of this unit before beginning disassembly.
- (7) Beware of residual voltages.

The unit may contain residual charges in capacitor components. Avoid electric shock by using caution when opening the top cover.
- (8) Guard against static electricity.

If it is necessary to touch the boards or other electrical components, to prevent damaging them.
- (9) Be careful to not drop parts.

Be sure to immediately pick-up any small parts that fall into the chassis of the unit.
- (10) Do not damage the cables or harnesses.

Carefully pull out the cable connectors. If there is a lock on the connector, release the lock, then pull out the connector. During reassembly, insert the connectors or flexible cables firmly until their contact points are fully seated. Fasten the lock. Also be careful not to pinch cable parts when the cover or shield is assembled.
- (11) Board handling:

Be careful to not damage the boards or cables with tools. Hold board properly to avoid warpage.

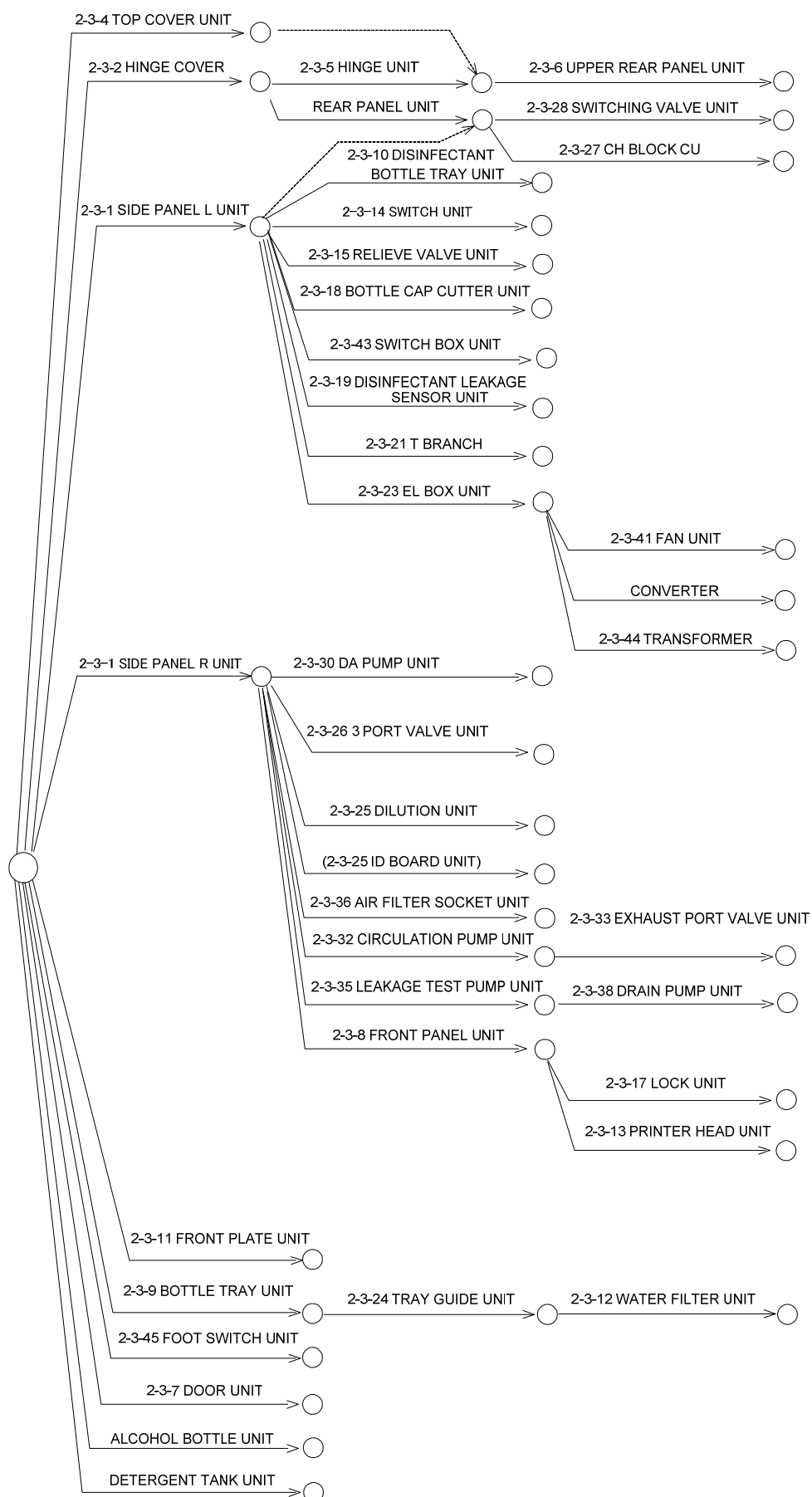
2 Procedure for Disassembly

2-1 Jigs and Tools

No.	Description	Specification	Memo
1	Cutter		
2	Adjustable Wrench	TWN-03	Equivalent also allowed
3	No.2 Phillips screwdriver	200mm	Equivalent also allowed
4	No.1 Phillips screwdriver	200mm	Equivalent also allowed
5	Precision screwdriver	1.4mm	Equivalent also allowed
6	Wire cutter	Precision type	Equivalent also allowed
7	Hexagonal Wrench	3mm	Equivalent also allowed
8	Hexagonal Wrench	4mm	Equivalent also allowed
9	Hexagonal Wrench	6mm	Equivalent also allowed
10	Tweezers		Equivalent also allowed
11	Water filter jig		
12	Long nose pliers	PR-46	Equivalent also allowed
13	Connector A securing jig		
14	Connector rotating jig		
15	Connector B securing jig		
16	Nut spinner handle		
17	Base F wrench		
18	Temperature sensor wrench		
19	Screw cap wrench		
20	Pliers		
21	T branch holding jig		
22	Socket stopper jig		
23	Connector AU securing jig		
24	Spanner	38mm	Equivalent also allowed

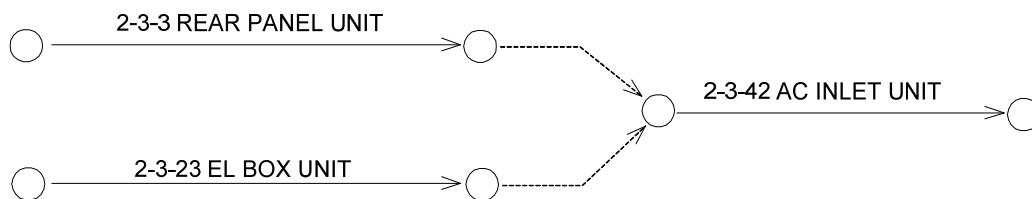
2-2 Disassembly Diagram

2-2-1 Up to the 3rd stage

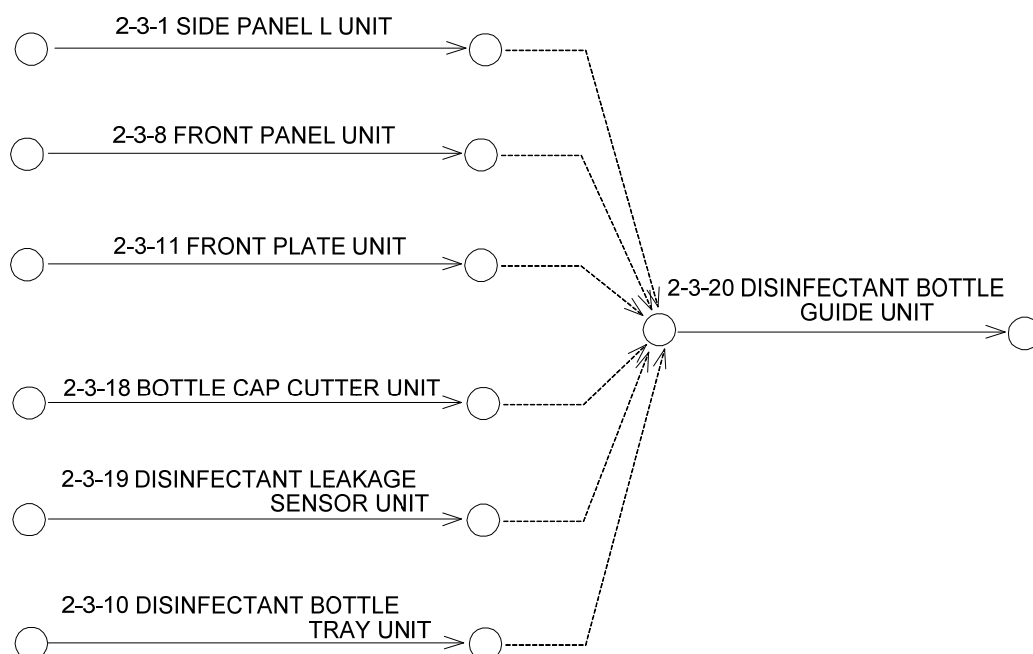


2-2-2 From the 4th stage

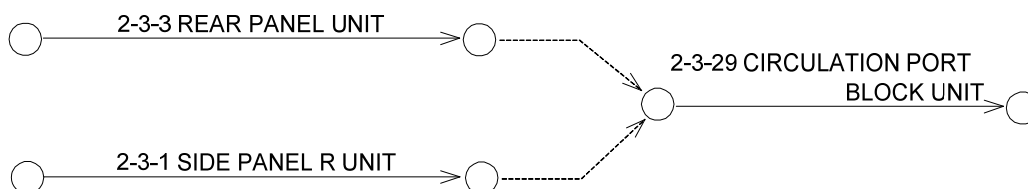
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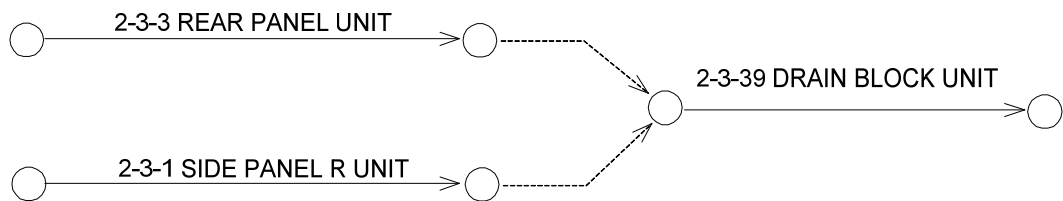
< DISINFECTANT BOTTLE GUIDE UNIT >



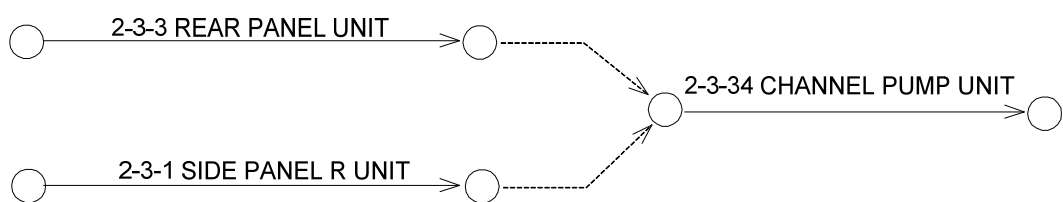
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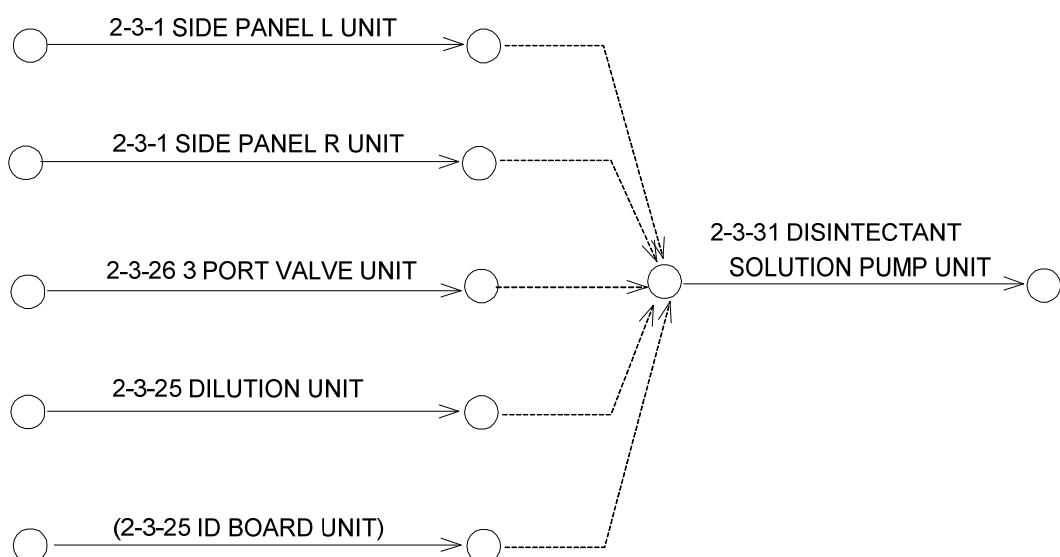
< DRAIN BLOCK UNIT >



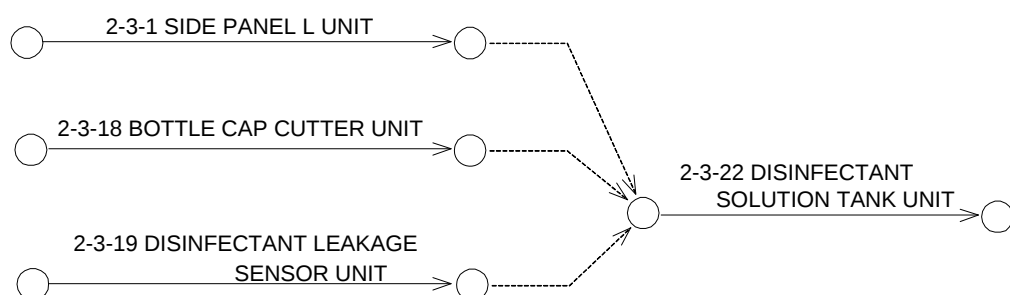
< CHANNEL PUMP UNIT >



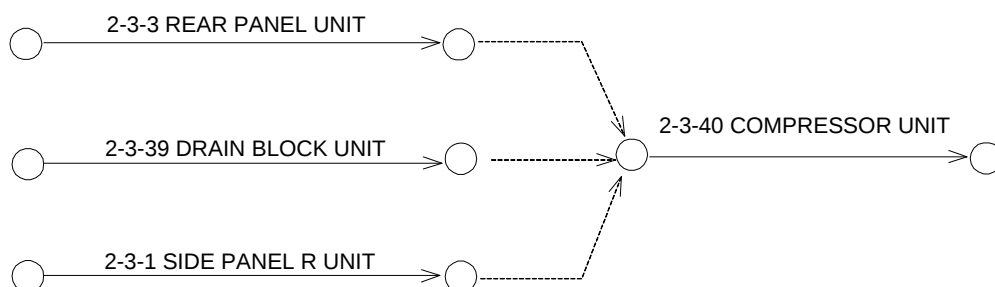
< DISINFECTANT SOLUTION PUMP UNIT >



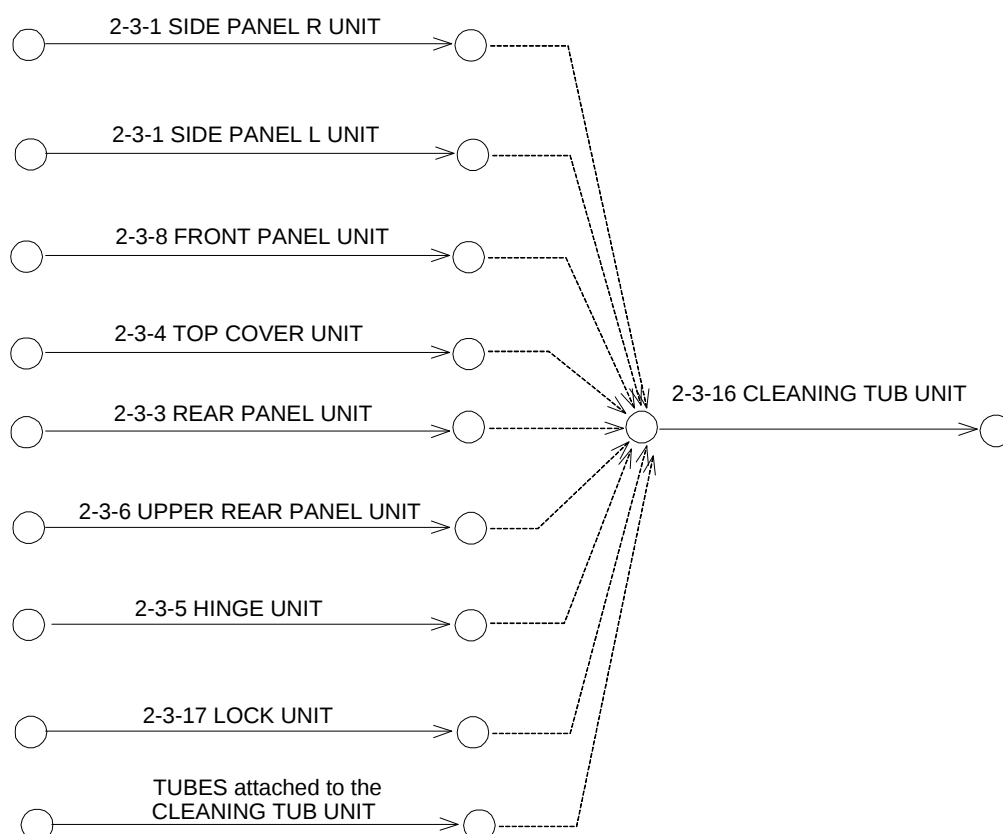
< DISINFECTANT SOLUTION TANK UNIT >



< COMPRESSOR UNIT >



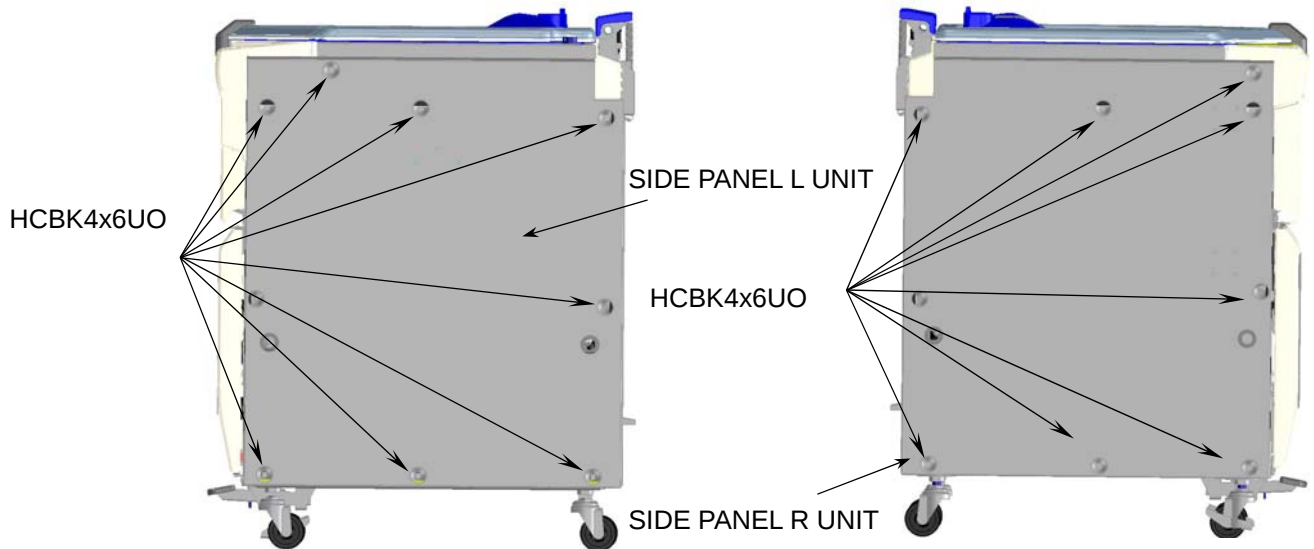
< CLEANING TUB UNIT >



2-3 Overall Disassembly

2-3-1 Side Panel L unit, Side panel R unit

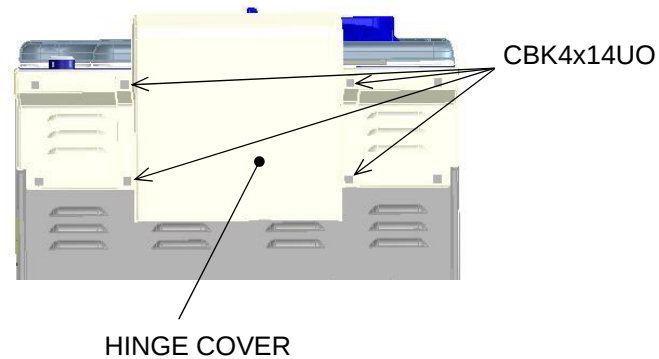
Required tools: No.2 Phillips screwdriver



- (1) Remove 9 screws (HCBK4x6UO) holding SIDE PANEL L UNIT and SIDE PANEL R UNIT respectively (total 18 screws)

2-3-2 Hinge cover

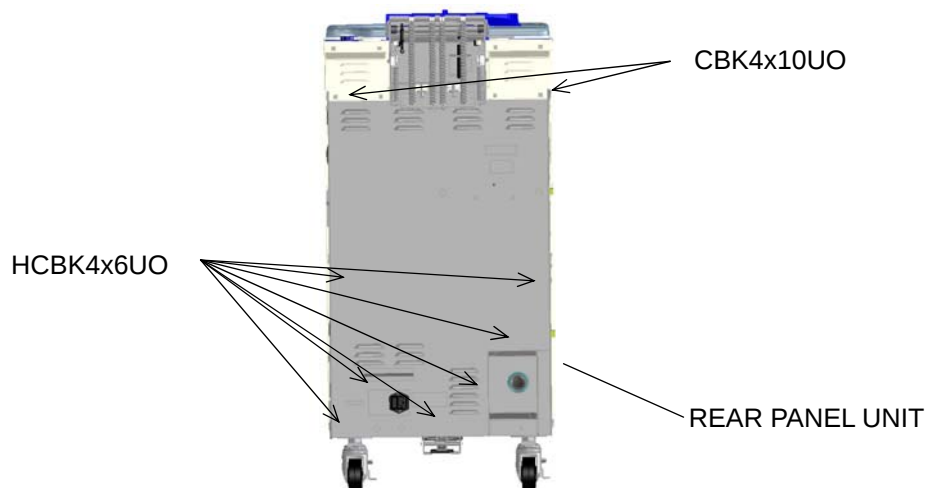
Required tools: No.2 Phillips screwdriver



- (1) Remove 4 screws (CBK4x14UO) holding HINGE COVER and remove hinge cover.

2-3-3 Rear panel unit

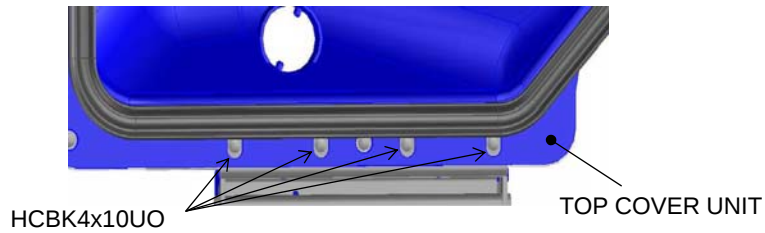
Required tools: No.2 Phillips screwdriver



- (1) Remove 9 screws (HCBK4x6UO):7 screws (CBK4x10UO):2 screws (securing the rear panel top unit together) holding REAR PANEL UNIT

2-3-4 Top cover unit

Required tools: No.2 Phillips screwdriver

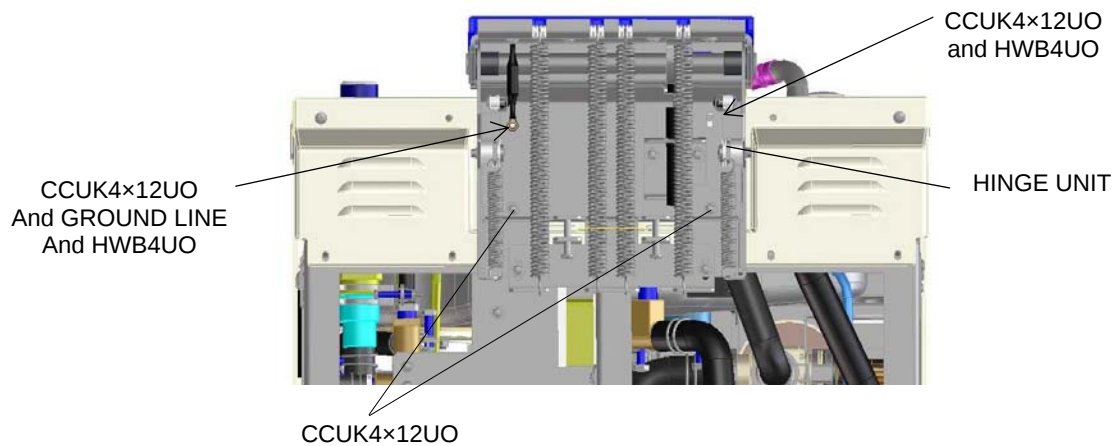


- (1) Remove 4 screws (HCBK4x10UO) holding TOP COVER UNIT

2-3-5 Hinge unit

Required tools: No.2 Phillips screwdriver

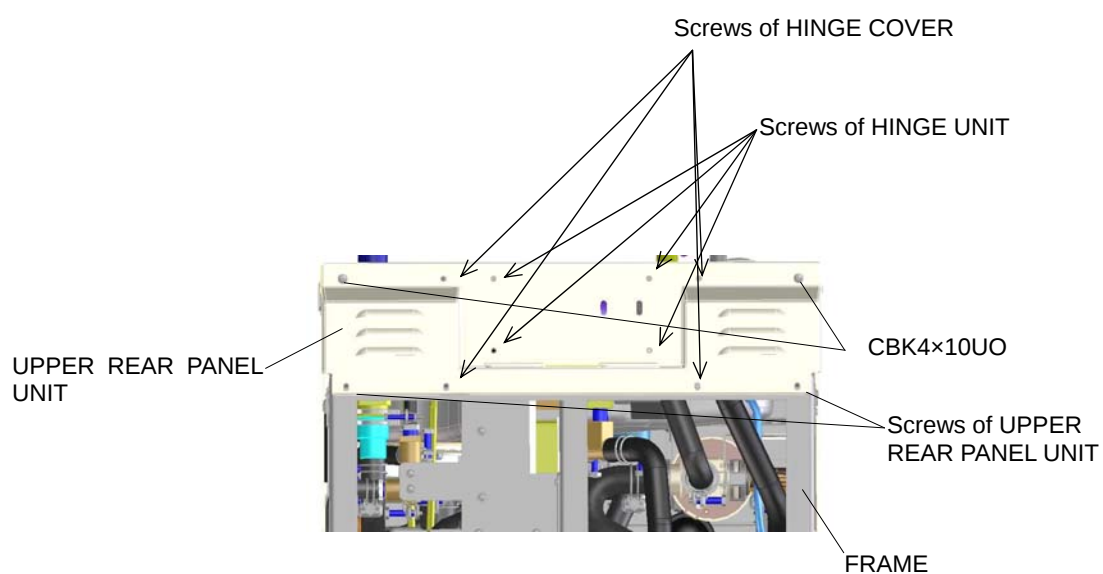
* At removing hinge unit, perform disassembly procedure on the condition of holding top cover unit due to work efficiency.



- (1) Remove Top 2 screws (CCUK4x12UO) and 2 washers (HWB4UO) holding HINGE UNIT
- (2) Remove Bottom 2 Screws (CCUK4x12UO) while supporting Hinge Unit.

2-3-6 Upper rear panel unit

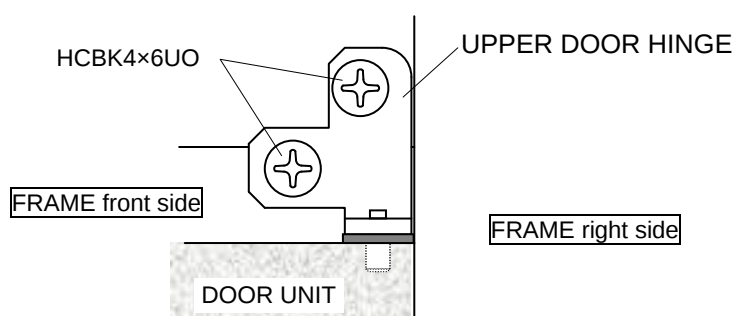
Required tools: No.2 Phillips screwdriver



- (1) Remove 2 screws (CBK4x10UO) holding UPPER REAR PANEL UNIT

2-3-7 Door unit

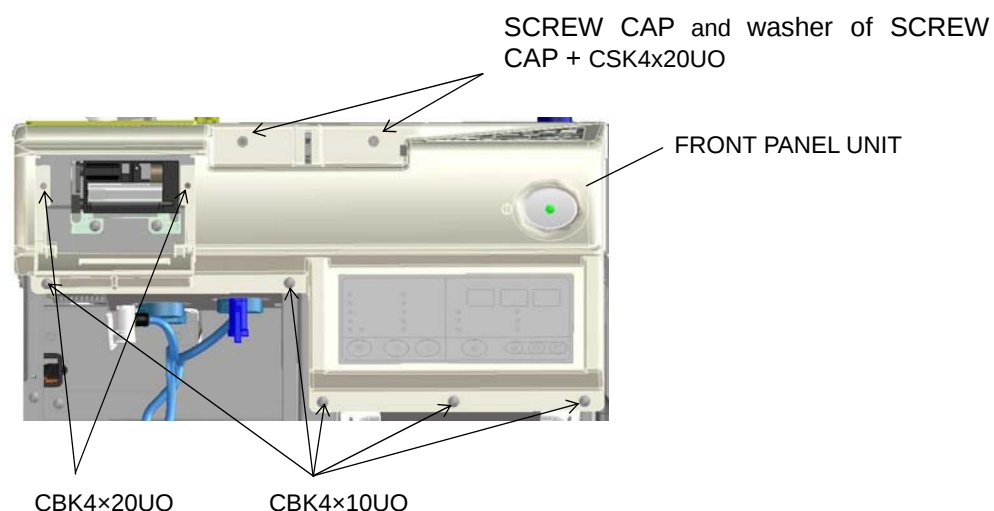
Required tools: No.2 Phillips screwdriver



- (1) Remove 2 screws (HCBK4x6UO) holding DOOR HINGE and then remove DOOR UNIT

2-3-8 Front panel unit

Required tools: Tweezers, No.2 Phillips screwdriver



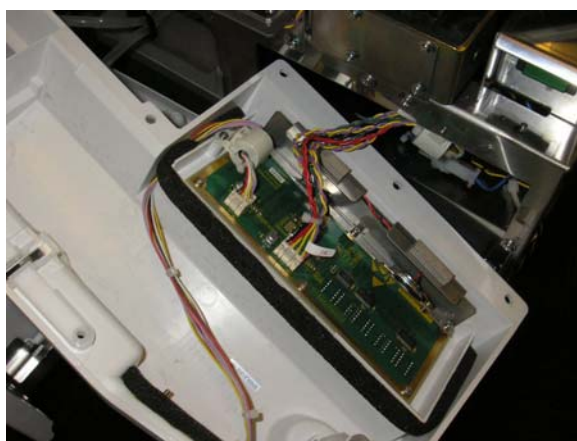
- (1) Open BOTTLE TRAY UNIT, DISINFECTANT TRAY UNIT and PRINTER COVER

Note:

In order to open disinfectant tray unit, it is necessary to remove side panel L, reach around left side of disinfectant bottle guide unit, lift disinfectant lock unit while pulling disinfectant tray unit out. Picture below-left is used for visual purposes only (this view is only possible when bottle tray unit has been removed).

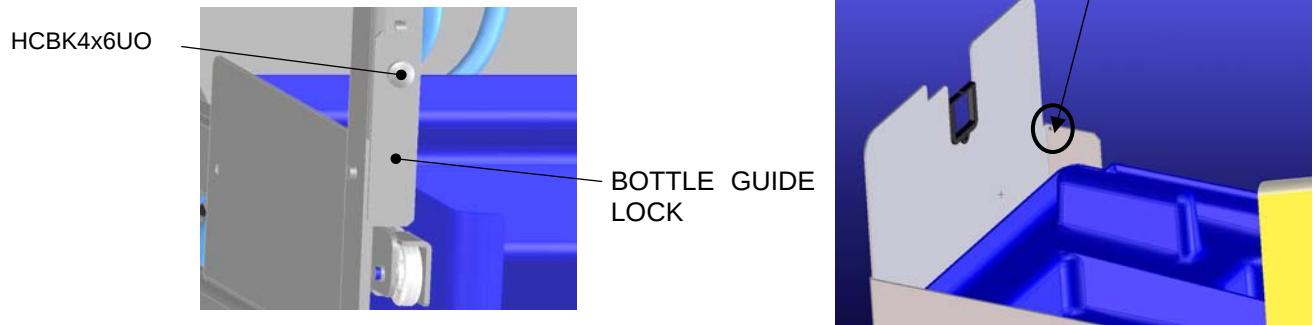


- (2) Remove screw cap on the upper part of FRONT PANEL UNIT
 (3) Remove 9 screws (CSK4x20UO, CBK4x20UO and CBK4x10UO) holding FRONT PANEL UNIT
 (4) Disconnect cable connecting to FRONT PANEL UNIT and then remove FRONT PANEL UNIT



2-3-9 Bottle tray unit

Required tools: No.2 Phillips screwdriver, Tweezers



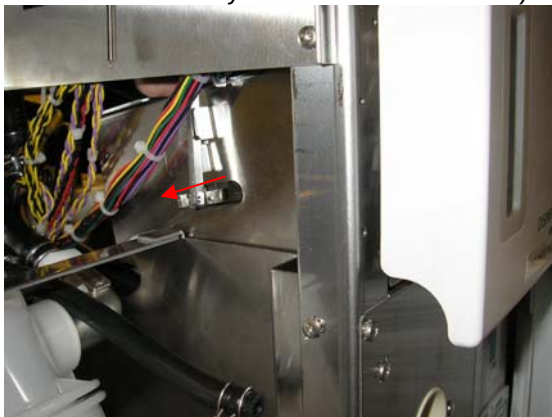
- (1) Open detergent and alcohol drawer
- (2) Remove connectors of ALCOHOL BOTTLE UNIT and DETERGENT BOTTLE UNIT
- (3) Take alcohol and detergent containers out with plastic tray
- (4) Remove screw (HCBK4x6UO) holding BOTTLE GUIDE LOCK
- (5) Remove spring connecting to BOTTLE TRAY UNIT
- (6) Lift and pull BOTTLE TRAY UNIT out

2-3-10 Disinfectant bottle tray unit

Required tools: No.2 Phillips screwdriver

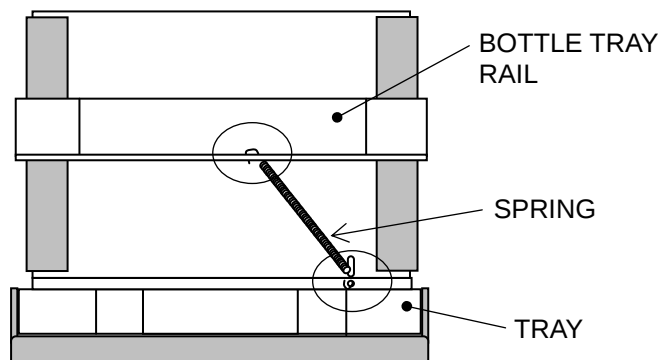
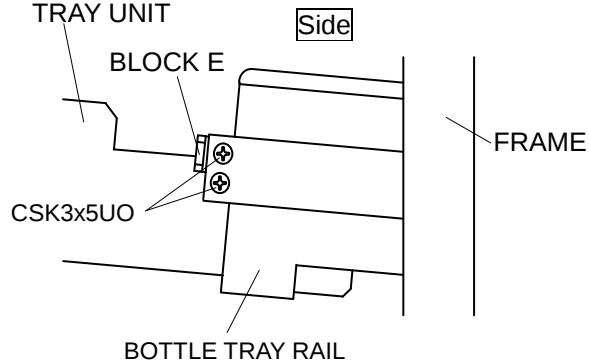
(1) Lift DISINFECTANT LOCK UNIT while pulling disinfectant tray out

*Note: In order to disengage disinfectant lock unit, it will be necessary to reach around the back to the left side of the disinfectant bottle unit. Picture below-left is used for visual purposes only (this view is only possible when bottle tray unit has been removed).



(2) Remove empty disinfectant bottles from DISINFECTANT BOTTLE TRAY UNIT

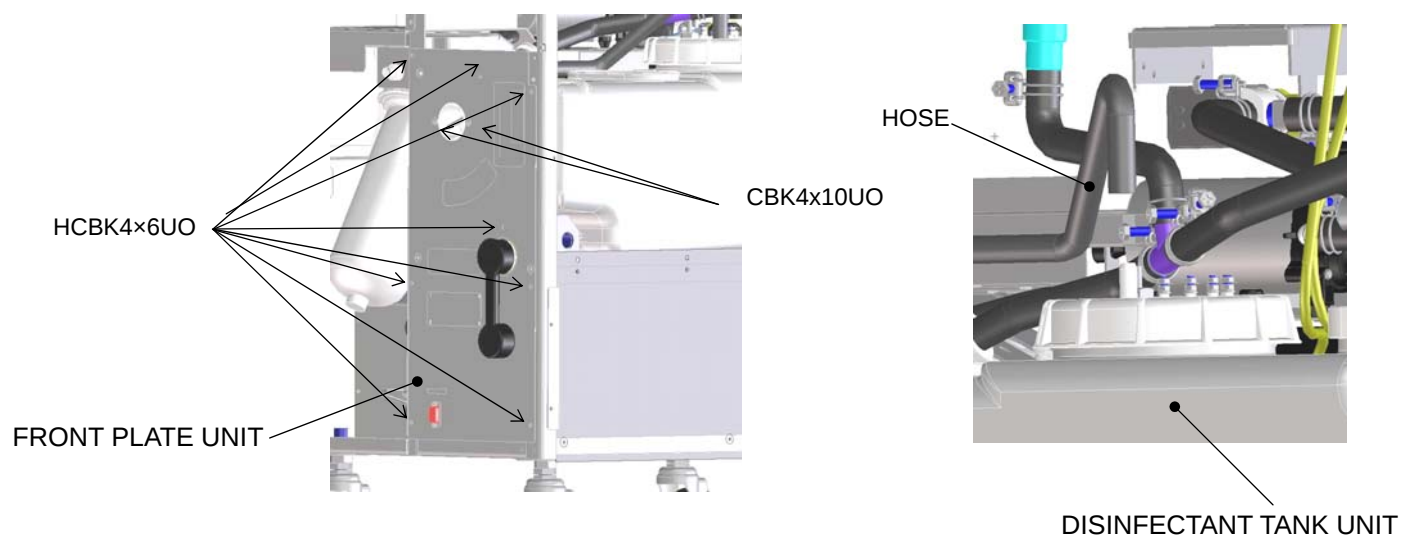
DISINFECTANT BOTTLE TRAY UNIT



- (3) Pull out DISINFECTANT TRAY UNIT and remove 4 screws (CSK3x5UO) holding BLOCK E and BLOCK C from both sides
- (4) Remove SPRING holding to back of DISINFECTANT TRAY UNIT
- (5) Remove DISINFECTANT TRAY UNIT

2-3-11 Front plate unit

Required tools: No.2 Phillips screwdriver



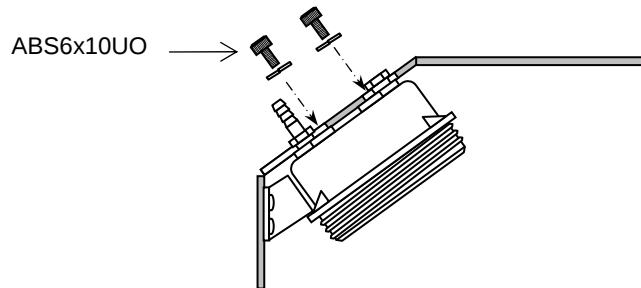
- (1) Open DOOR UNIT
- (2) Remove 8 screws (HCBK4x6UO) holding FRONT PLATE UNIT
- (3) Remove 2 screws (CBK4x10UO) holding GAS VENT UNIT. Or, remove hose of GAS VENT UNIT connecting to WATER LEVEL SENSOR of DISINFECTANT TANK UNIT
- (4) Unplug CAP RUBBER
- (5) Disconnect HARNESS connector of RS232C

2-3-12 Water filter unit

Required tools: Water filter tool, Hexagonal wrench

Remove side panels and tray guide unit

- (1) Remove Right side panels and DA tray & DA tray guide unit
- (2) Open Front Door
- (3) Remove Water Filter Housing
- (4) Loosen H Band Clamps and disconnect hoses on both sides of water filter unit



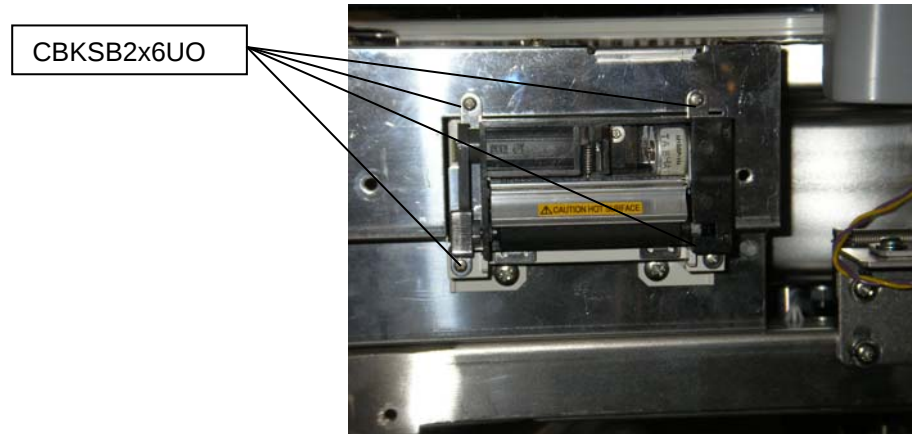
- (5) Remove 4 screws (ABS6x10UO) holding WATER FILTER UNIT
- (6) Loosen H CLAMPS and disconnect hoses on sides of water filter unit
- (7) Pull water filter unit out

2-3-13 Printer head unit

Required tools: No.2 Phillips screwdriver, No.1 Phillips screwdriver, Nippers

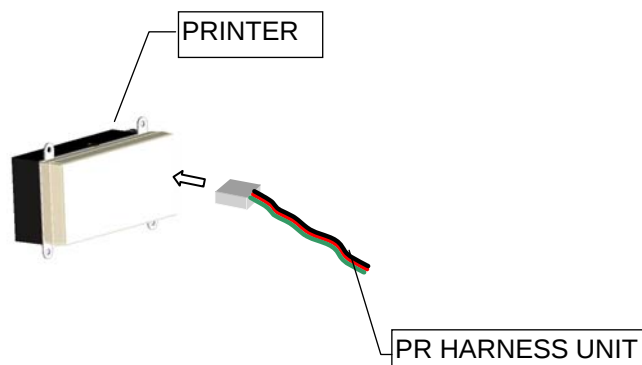
Remove side panels and front panel unit

(1) Remove 4 screws (CBKSB2x6UO) holding PRINTER UNIT



(2) Pull PRINTER UNIT out

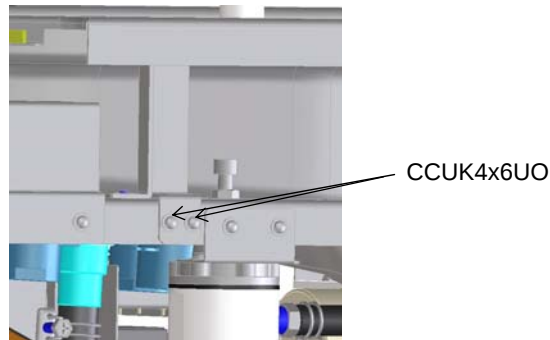
(3) Disconnect PR HARNESS from PRINTER CONNECTOR



2-3-14 Switch unit

Required tools: No.2 Phillips screwdriver

Remove SIDE PANEL

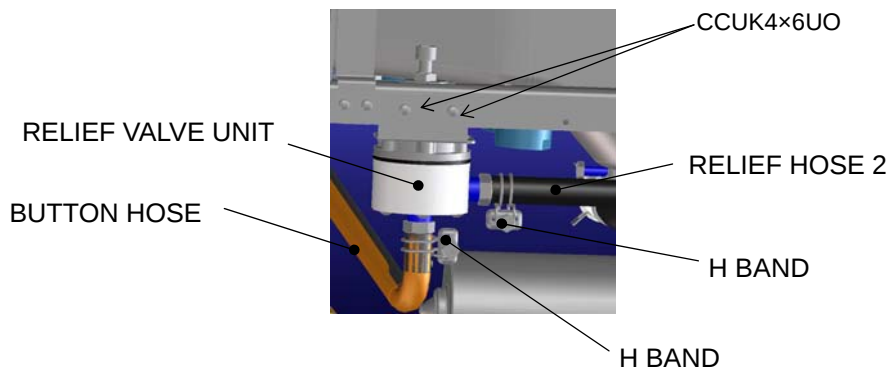


- (1) Remove L SIDE PANEL Remove SWITCH UNIT
- (2) Disconnect Wire Harness #17
- (3) Remove 2 screws (CCUK4x6UO) holding SWITCH UNIT
- (4) Remove SWITCH UNIT

2-3-15 Relief valve unit

Required tools: No.2 Phillips screwdriver

Remove SIDE PANEL

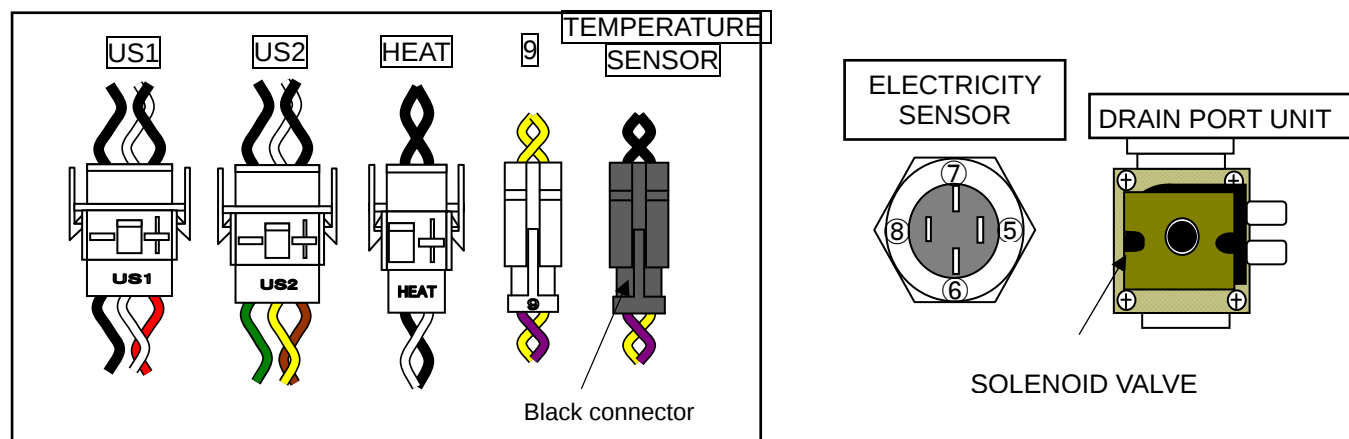


- (1) Loosen H BAND holding RELIEF HOSE 2
- (2) Loosen H BAND holding BUTTON HOSE
- (3) Remove 2 screws (CCUK4x6UO) holding RELIEF VALVE UNIT
- (4) Remove RELIEF VALVE UNIT

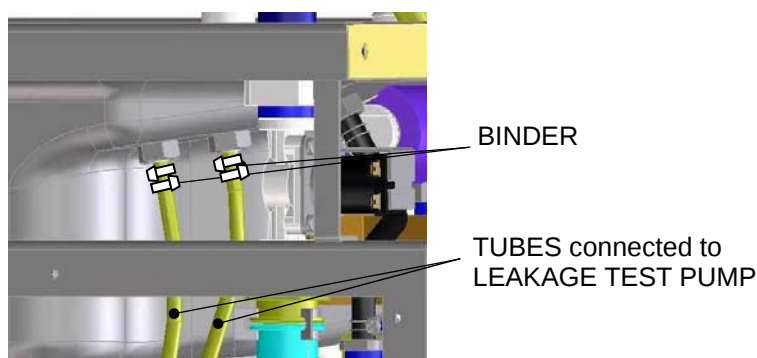
2-3-16 Cleaning Tub unit

Required tools: Long nose pliers, Nippers, No.2 Phillips screwdriver

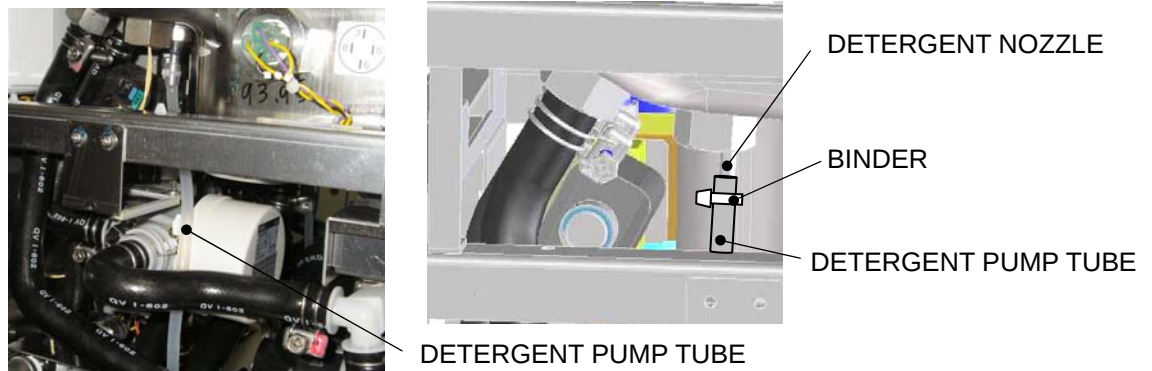
In order to remove the CLEANING TUB from the chassis, it is necessary to remove all hoses connected to CLEANING TUB UNIT. There are two ways to remove all tubes connected directly to the cleaning tub or remove CLEANING TUB UNIT including subassemblies and then disassemble cleaning tub unit. This procedure describes removing the Cleaning Tub as a contained unit without removing subassemblies.



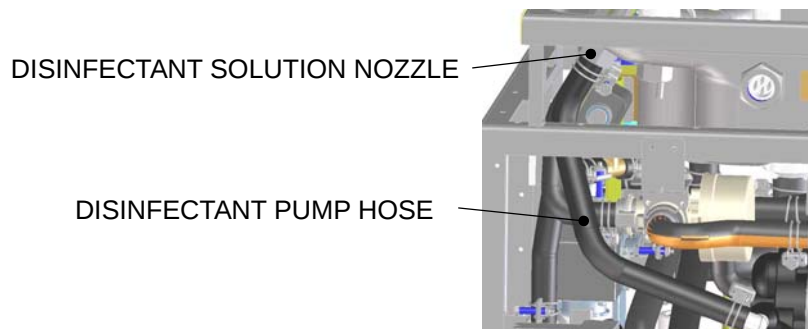
- (1) Disconnect TEMPERATURE SENSOR CONNECTOR, FLOAT SWITCH CONNECTOR, connector of OSCILLATING PLATE UNIT and heater unit on CLEANING TUB UNIT
- (2) Disconnect TERMINAL (green colored with 4 sleeves) of HARNESS to which the ELECTRICITY SENSOR is attached
- (3) Remove LOCK HOOK holding ELECTROMAGNETIC VALVE of DRAIN PORT UNIT and then remove SOLENOID VALVE



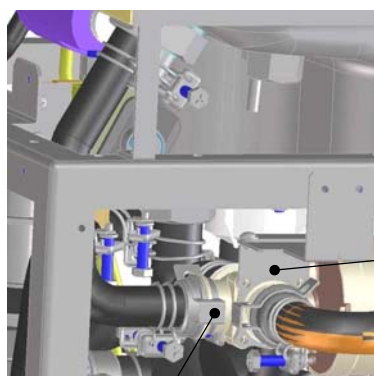
- (4) Cut off TUBES connected to LEAKAGE TEST PUMP and then remove TUBES



- (5) Cut BINDER holding DETERGENT PUMP TUBE on DETERGENT NOZZLE and then remove DETERGENT PUMP TUBE

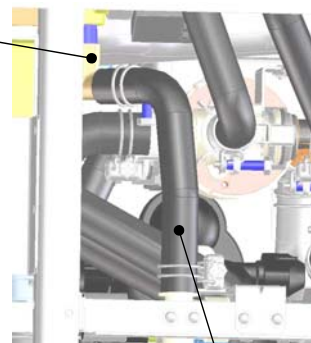


- (6) Remove H BAND holding DISINFECTANT PUMP UNIT on DISINFECTANT NOZZLE and then remove DISINFECTANT PUMP HOSE



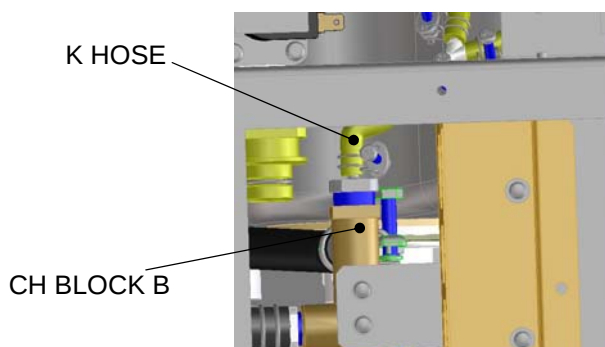
QUICK FASTENER

3 PORT VALVE UNIT



CU BLOCK CH HOSE

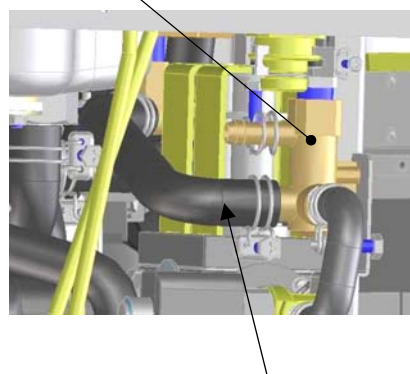
- (7) Remove QUICK FASTENER holding hose on 3 PORT VALVE UNIT and remove HOSE
- (8) Remove H BAND holding CU BLOCK CH HOSE on CH BLOCK AU and remove CH BLOCK CH HOSE



K HOSE

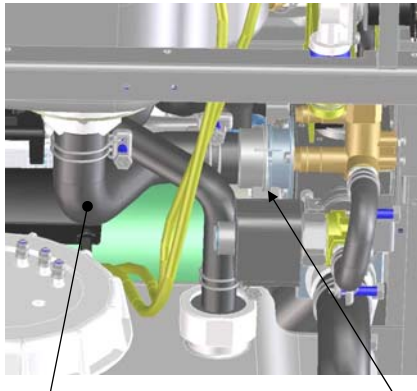
CH BLOCK B

CH BLOCK B



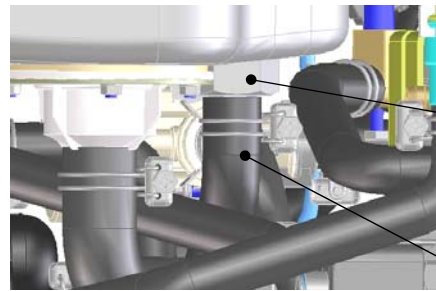
CH BLOCK AU HOSE

- (9) Remove H BAND holding K HOSE to CH BLOCK B and then remove K HOSE
- (10) Remove H BAND holding CH BLOCK AU hose on CH BLOCK B and then remove CH BLOCK AU HOSE



DRAIN PORT HOSE

QUICK FASTENER



CIRCULATION
PORT BLOCK

CIRCULATION HOSE 2

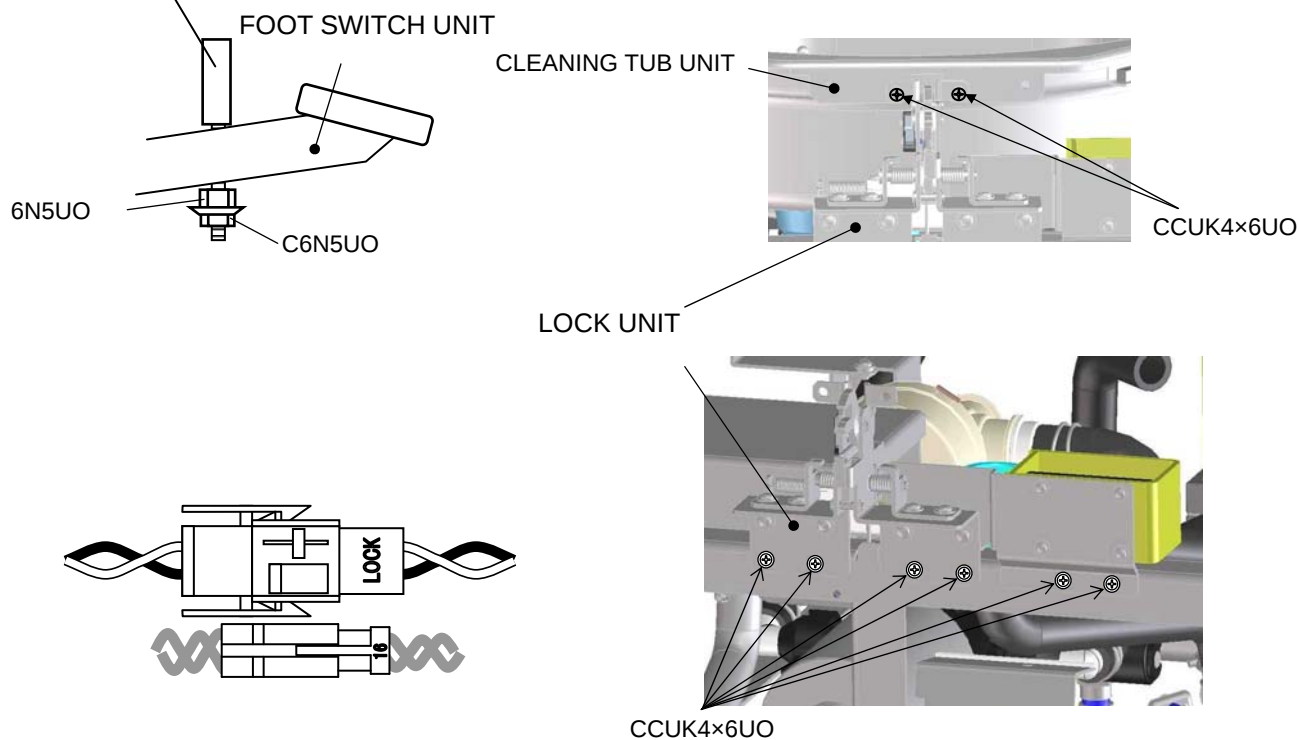
- (11)Unlock QUICK LOCK CONNECTOR FASTENER holding SWITCHING HOSE and then remove DRAIN PORT HOSE
- (12)Unlock H BAND holding CIRCULATION HOSE 2 on CIRCULATION PORT BLOCK UNIT and then remove CIRCULATION HOSE 2

2-3-17 Lock unit

Required tools: Adjustable wrench, No.2 Phillips Screwdriver, Hexagonal wrench (6 mm),

Note:

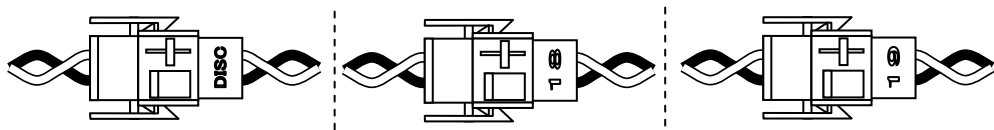
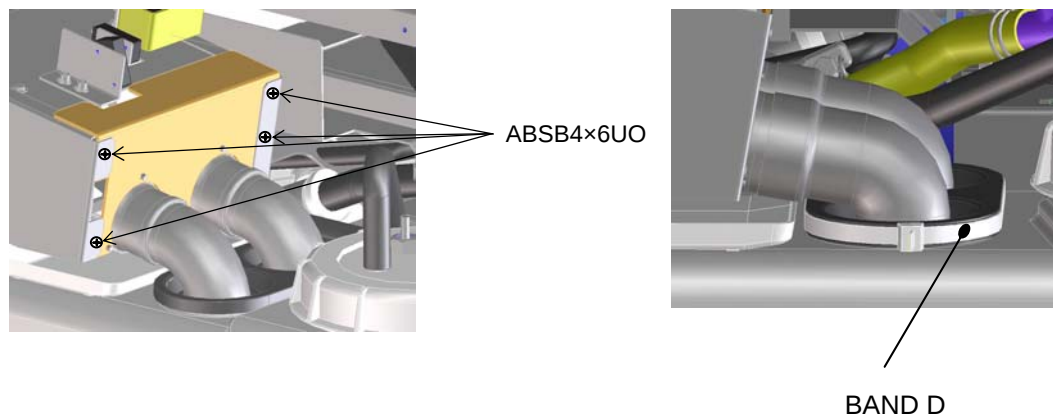
This procedure describes removing the Cleaning Tub as a contained unit without removing subassemblies. Use Adjustable Wrench on flats of Wire Rope to keep rope from twisting.



- (1) Remove 2 nuts (C6N5UO and 6N5UO) holding WIRE ROPE protruding from back of FOOT SWITCH UNIT
- (2) Remove 8 screws (CCUK4x6UO) holding LOCK UNIT
- (3) Disconnect HARNESS CONNECTOR of F COVER SENSOR of LOCK SOLENOID HARNESS
- (4) Remove LOCK UNIT

2-3-18 Bottle cap cutter unit

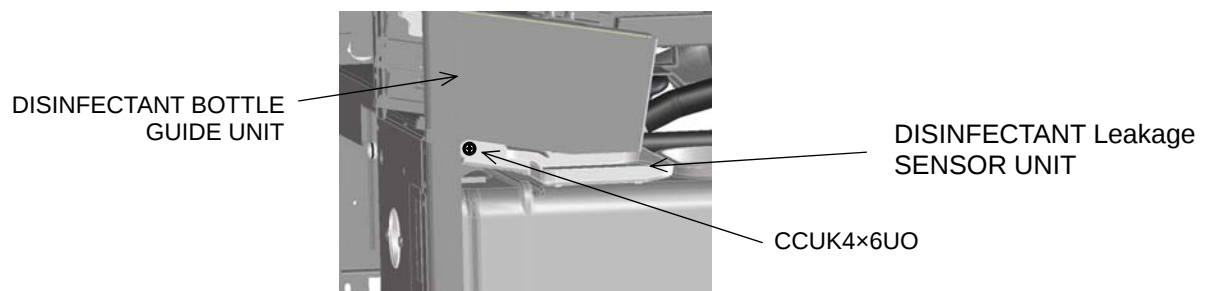
Tools: Hexagonal wrench, Nippers



- (1) Remove Left Side Panel.
- (2) Remove 4 screws (ABSB4x6UO) holding BOTTLE CAP CUTTER UNIT.
- (3) Remove BAND D and remove BOTTLE CAP CUTTER UNIT together with RUBBER JUNCTION.
- (4) Partially lift BOTTLE CAP CUTTER UNIT up until lower edge of mounting plate aligns with bottom edge of clearance notch; pivot BOTTLE CAP CUTTER UNIT away from Disinfectant Bottle Guide Unit.
- (5) Lift and Remove BOTTLE CAP CUTTER UNIT.

2-3-19 Disinfectant leakage sensor unit

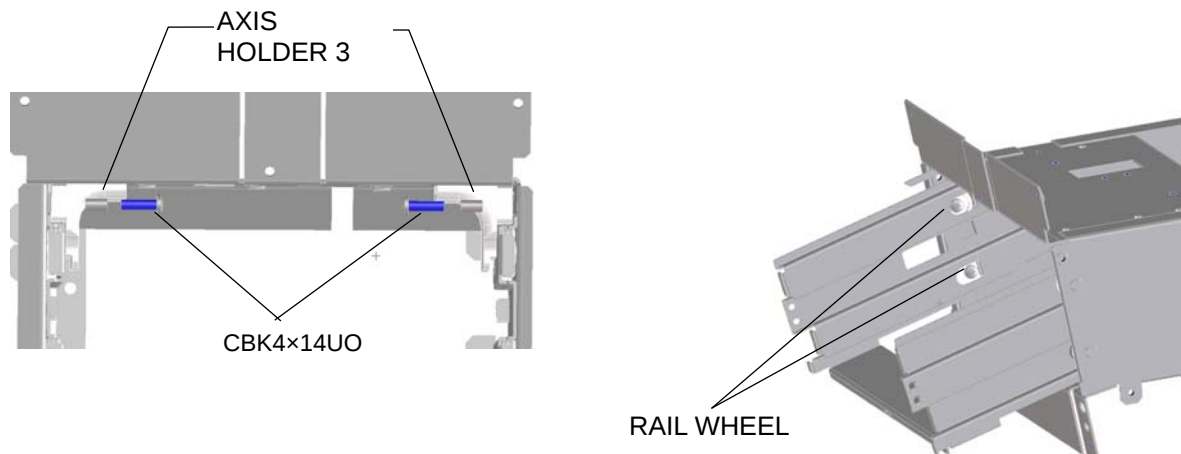
Required tools: No.2 Phillips Screwdriver



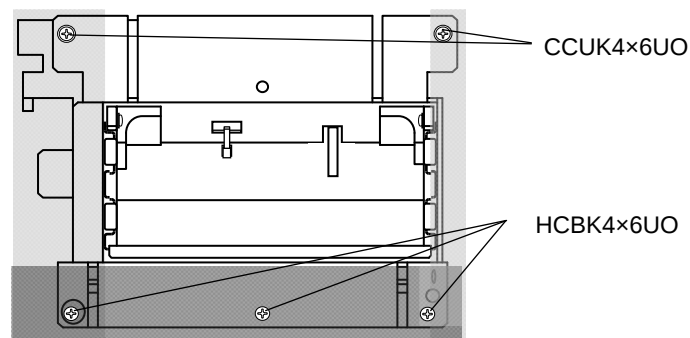
- (1) Open Disinfectant Tray Unit. Loosen 2 screws (CBK4x60) attached to Block C.
- (2) Remove a screw (CCUK4x6UO) holding DISINFECTANT LEAKAGE SENSOR UNIT.
- (3) Remove CONNECTOR of LEAKAGE HARNESS P UNIT.
- (4) Slide out DISINFECTANT LEAKAGE SENSOR UNIT.

2-3-20 Disinfectant bottle guide unit

Required tools: No.2 Phillips Screwdriver



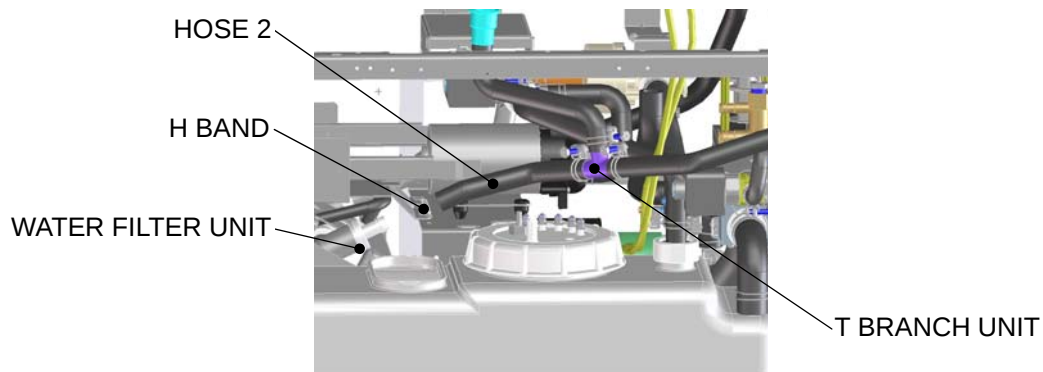
- (1) Remove 2 screws (CBK4x14UO) holding AXIS HOLDER 3 of DISINFECTANT BOTTLE GUIDE UNIT and then remove 4 screws (CBK4x6UO) holding RAIL WHEEL on left and right sides.



- (2) Remove 2 screws (CCUK4x6UO) and 3 screws (HCB4x6UO) holding DISINFECTANT BOTTLE GUIDE UNIT

2-3-21 T branch unit

Required tools: No.2 Phillips Screwdriver



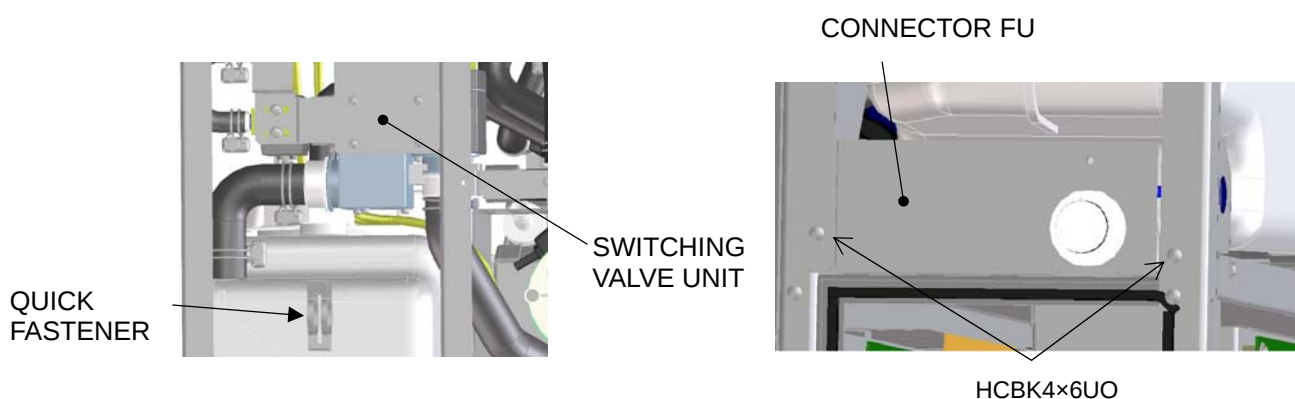
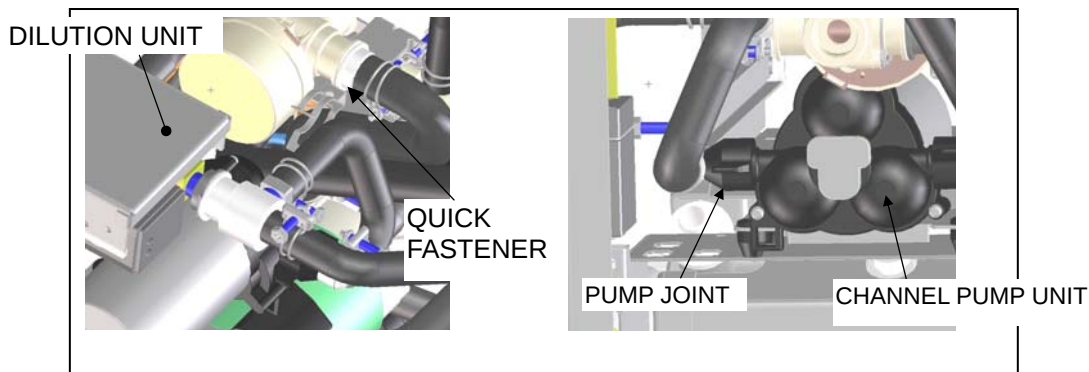
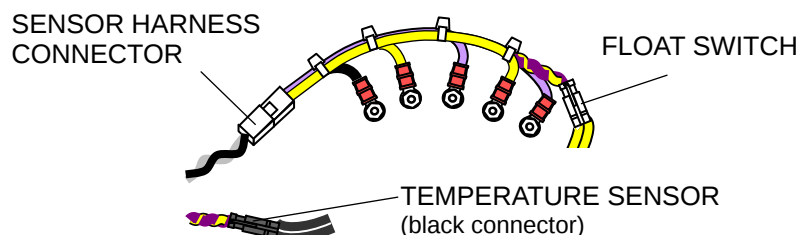
- (1) Remove Left Side Cover.
- (2) Loosen H BAND at connection of HOSE 2 of T BRANCH and WATER FILTER UNIT then remove HOSE.
- (3) Unlock & remove QUICK FASTENER CONNECTING LCG CONNECTOR of T BRANCH unit at DRAIN PORT UNIT and then remove LCG Connector.
- (4) Unlock & remove QUICK FASTENER CONNECTING LCG CONNECTOR of T BRANCH unit at Disinfection Line Connector and then remove LCG Connector

2-3-22 Disinfectant solution tank unit

Required tools: No.2 Phillips Screwdriver

Note: Disinfectant purge must be done prior to start of procedure.

Prepare cloth or paper to wipe fluid from SUPPLY WATER VALVE UNIT.



- (1) Remove Left Side Cover and Bottle Cutter Units
- (2) Unlock QUICK LOCK CONNECTOR of DRAIN PORT under SUPPLY WATER VALVE Inspect the O-ring in the SUPPLY WATER VALVE to determine condition and presence.
- (3) Place T-Branch U hose to the center of machine.
- (4) Remove GAS VENT TUBE on the DISINFECTION SOLUTION TANK COVER.
Note: To ease removal of tubing, apply alcohol to outside diameter of hose near connection.
- (5) Remove 4 Electrode Connectors in the DISINFECTION SOLUTION TANK.
Note: Connectors are secured with SONY BOND adhesive, remove the glue using tweezers or flat-head screwdriver.
- (6) Loosen H BAND screw on DRAIN TUBE and disconnect DRAIN TUBE
Note: To ease removal of tubing, apply alcohol to outside diameter of hose near connection.
- (7) Loosen screw on H BAND of TANK HOSE 2 and disconnect TANK HOSE 2
TANK HOSE 2 Tank FLUID LEVEL SENSOR
GAS VENT TUBE ELECTRODE Connectors
DISINFECTANT SOLUTION TANK COVER
DRAIN TUBE

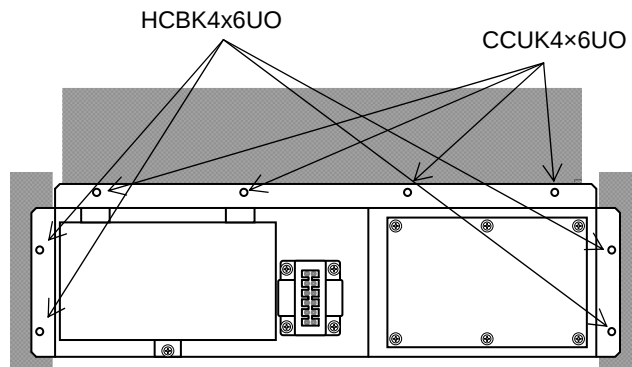
OER-Pro ISSUE1 5-54 Replacement Guide

Note: To ease removal of tubing, apply alcohol to outside diameter of hose near connection

- (8) Open front door of machine, disconnect rubber cap from connector FU. Remove 2 screws (HCBK4x6UO) from Front Plate U. Remove DISINFECTANT TANK. Front Plate U HCBK4x6UO

2-3-23 EL box unit

Required tools: No.2 Phillips Screwdriver

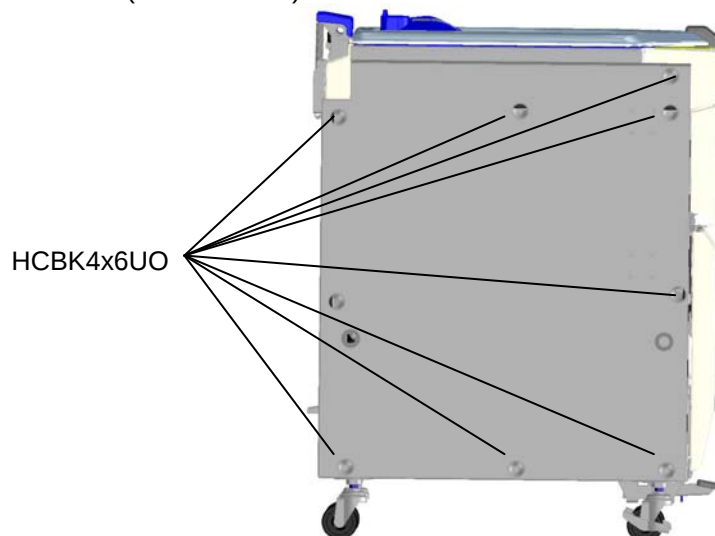


- (1) Disconnect each HARNESS from the CPU BOARD and US BOARD
- (2) Lift Water Proof Cover And Remove 4 screws (CCUK4x6UO)

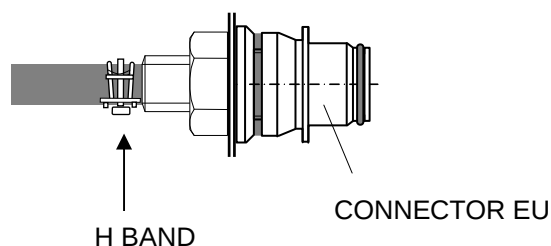
2-3-24 Tray guide unit

Required tools: No.2 Phillips Screwdriver

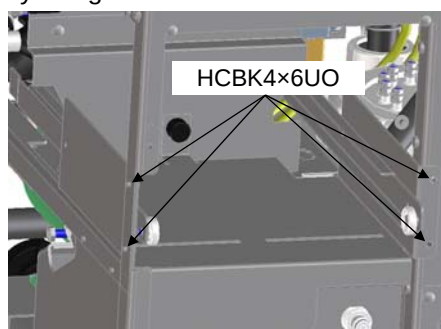
- (1) Remove 8 screws (HCBK4x6UO)



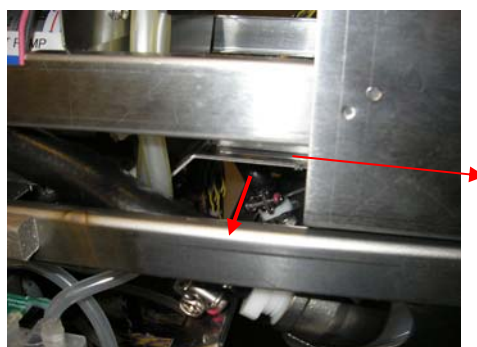
- (2) Remove SIDE PANEL R UNIT



- (1) Loosen H BAND holding DRAIN HOSE to CONNECTOR EU of BOTTLE GUIDE UNIT and disconnect HOSE
 (2) Pull disinfectant tray out by lifting disinfectant LOCK UNIT while pulling disinfectant tray out

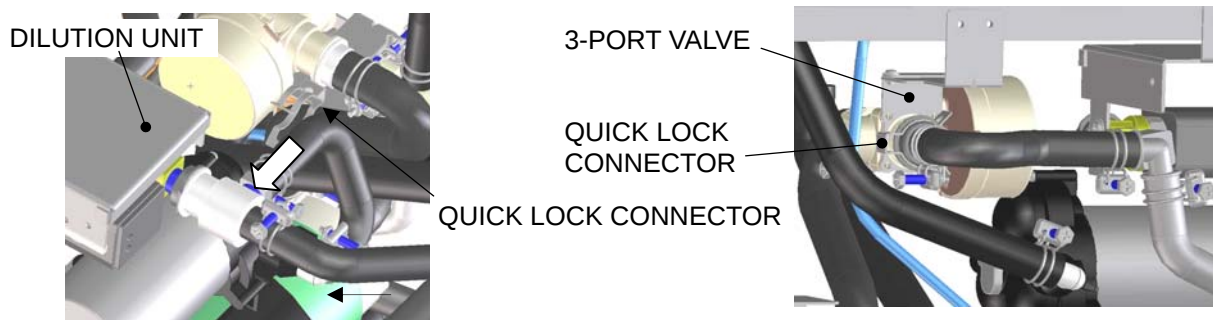
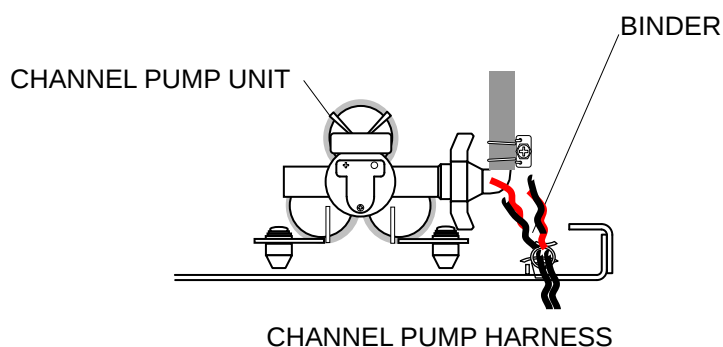


- (3) Remove 4 screws (HCBK4x6UO) holding TRAY GUIDE UNIT
 (4) Push water filter inlet hose down to facilitate pulling TRAY GUIDE UNIT out
 *Note: Pull tray guide unit out by lifting tray guide up, then out.



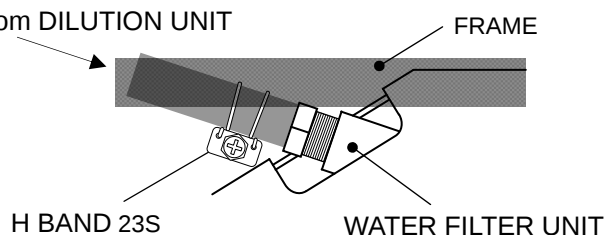
2-3-25 Dilution unit

Required tools: No.2 Phillips screwdriver

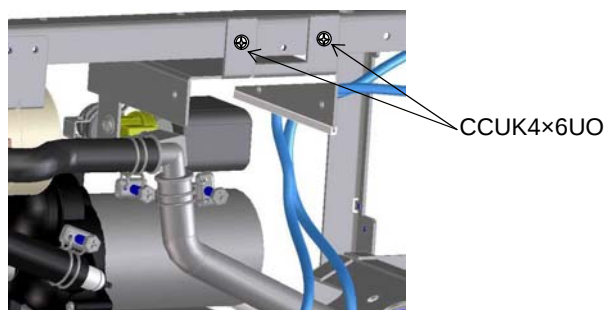


From DISINFECTANT SOLUTION TANK UNIT

From DILUTION UNIT



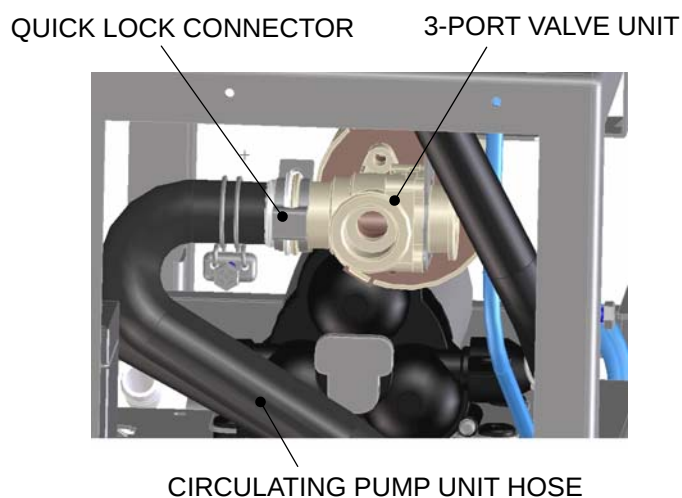
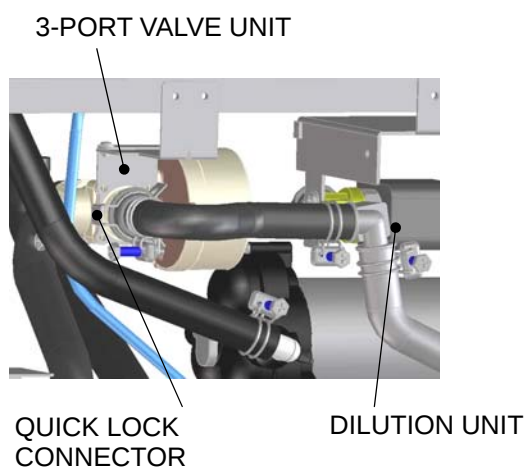
- (1) Cut off BINDER of DILUTION UNIT HARNESSSES and then remove DISINFECTANT PUMP UNIT
- (2) Remove QUICK LOCK CONNECTOR and remove tube from DISINFECTANT SOLUTION TANK UNIT TUBE
- (3) Remove QUICK LOCK CONNECTOR and remove tube connecting to 3-PORT VALVE.
- (4) Remove H BAND holding TUBE CONNECTING to WATER FILTER unit and then remove TUBE



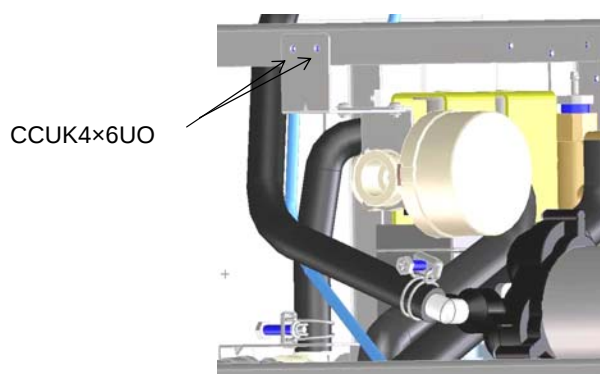
- (5) Remove 2 screws (CCUK4x6UO) holding DILUTION UNIT

2-3-26 3 port valve unit

Required tools: No.2 Phillips screwdriver



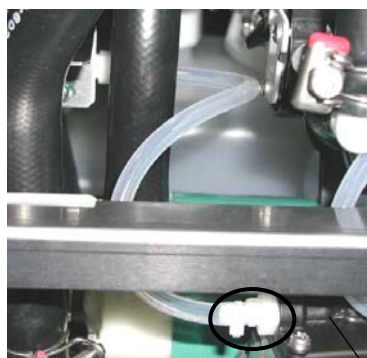
- (1) Remove QUICK LOCK CONNECTOR connecting the HOSE from DILUTION UNIT and than disconnect hose
- (2) Remove QUICK LOCK CONNECTOR connecting the HOSE from CIRCULATING PUMP UNIT and than disconnect hose
- (3) Remove QUICK LOCK CONNECTOR connecting the HOSE from the circulating nozzle and than disconnect hose



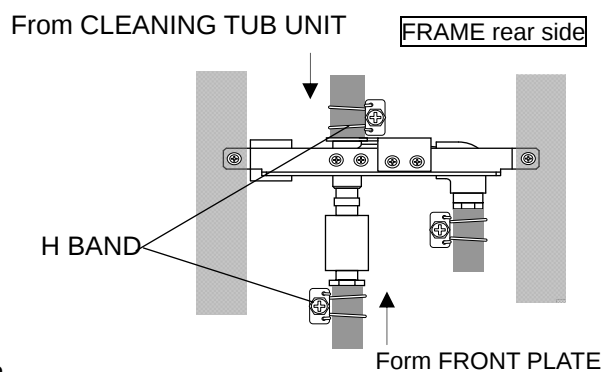
- (4) Remove 2 screws (CCUK4x6UO) holding 3-PORT VALVE UNIT on the bracket
- (5) Move 3-PORT VALVE UNIT to the side

2-3-27 CH block CU

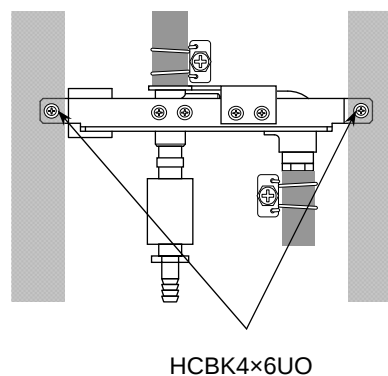
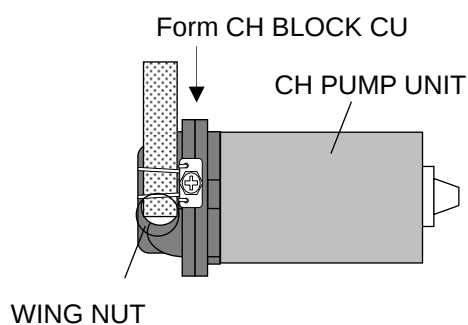
Required tools: Nippers, No.2 Phillips screwdriver



ALCOHOL PUMP



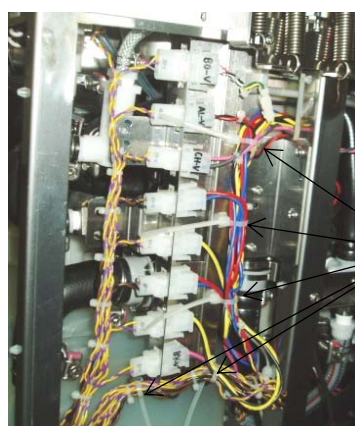
- (1) Remove TUBE connecting to ALCOHOL PUMP
- (2) Remove H BAND holding TUBE from AF SOCKET UNIT of FRONT PLATE and then remove TUBE
- (3) Remove H BAND holding TUBE from CLEANING TUB UNIT and then remove TUBE



- (4) Unscrew WING NUT on CH BLOCK CU connecting to CH PUMP UNIT
- (5) Remove HARNESS CONNECTOR connecting AL VALVE of CH BLOCK CU to PRESSURE SENSOR
- (6) Remove 2 screws (HCBK4x6UO) holding CH BLOCK CU

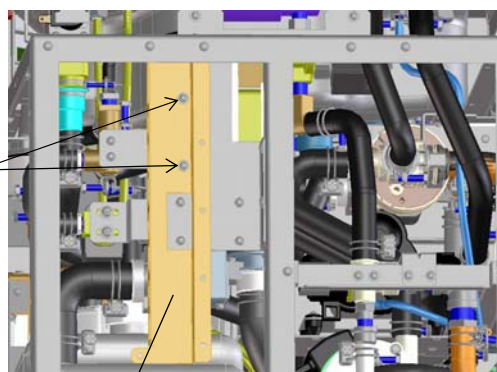
2-3-28 Switching valve unit

Required tools: No.2 Phillips screwdriver

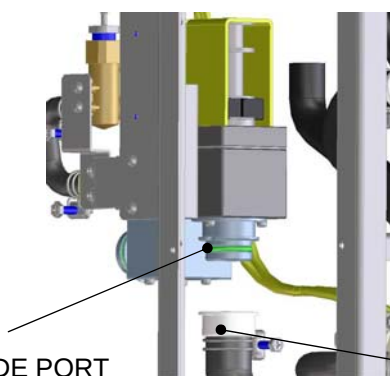


CCUK4×6UO

BINDER



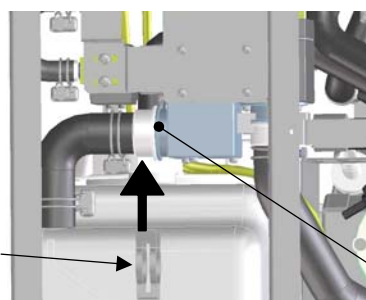
CONNECTOR BRACKET



DRAIN SIDE PORT
of SWITCHING
VALVE UNIT

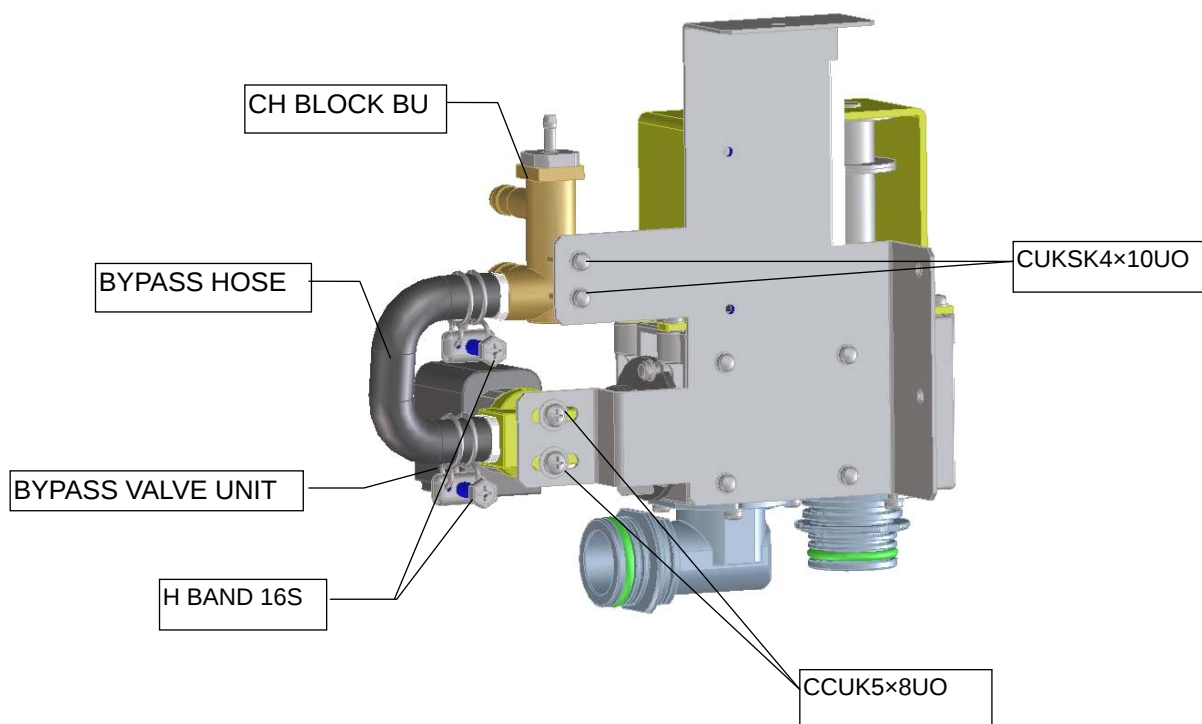
QUICK LOCK
CONNECTOR

QUICK CONNECTOR for
DRAIN PUMP UNIT

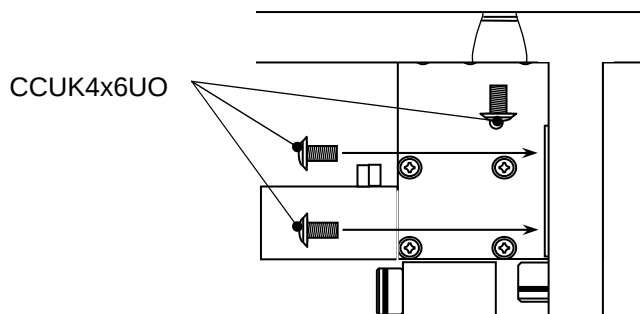


RETRIEVAL SIDE PORT
of SWITCHING
VALVE UNIT

- (1) Disconnect all CONNECTORS from the CONNECTOR BRACKET
- (2) Release the four CABLE BINDERS from the cable CONNECTOR BRACKET wiring harness.
- (3) Remove the 2 screws holding the CONNECTOR BRACKET to the SWITCHING VALVE unit and secure the CONNECTOR BRACKET to the side with zip ties
- (4) Unlock QUICK LOCK CONNECTOR connecting the TUBE from the DRAIN PUMP UNIT to the DRAIN side port of SWITCHING VALVE UNIT and then disconnect the HOSE
- (5) Unlock QUICK LOCK CONNECTOR holding the TUBE from the DISINFECTANT SOLUTION TANK UNIT to the retrieval side port of the SWITCHING VALVE UNIT, and then disconnect the HOSE
- (6) Unlock QUICK LOCK CONNECTOR connecting the TUBE from the SWITCHING VALVE UNIT to the CLEANING TUB UNIT and then disconnect the HOSE
- (7) Unlock QUICK LOCK CONNECTOR that holds BYPASS VALVE UNIT to the SWITCHING VALVE UNIT and disconnect the HOSE from the BYPASS VALVE UNIT to the SWITCHING VALVE UNIT



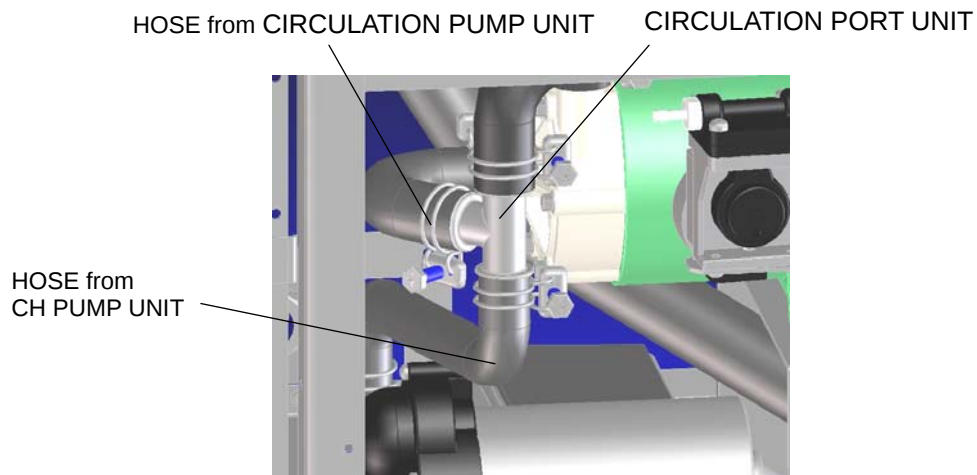
- (8) Remove 2 screws (CUKSK4×10UO) and 2 screws (CCUK5×8UO) holding CH BLOCK BU and BYPASS VALVE UNIT, and remove BYPASS VALVE UNIT and CH BLOCK BU



- (9) Remove 3 screws (CCUK4×6UO) holding SWITCHING VALVE UNIT
(10) Remove SWITCHING VALVE UNIT

2-3-29 Circulation port unit

Required tools: No.2 Phillips screwdriver



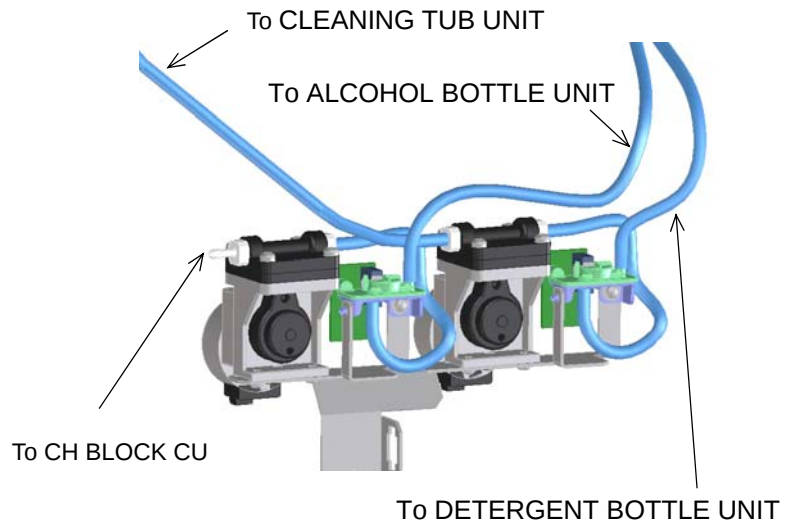
- (1) Unlock H BAND holding HOSE on CIRCULATION PORT unit and then remove HOSE
- (2) Unlock H BAND holding HOSE of CIRCULATING PORT BLOCK of CLEANING TUB UNIT and then remove HOSE

2-3-30 DA pump unit

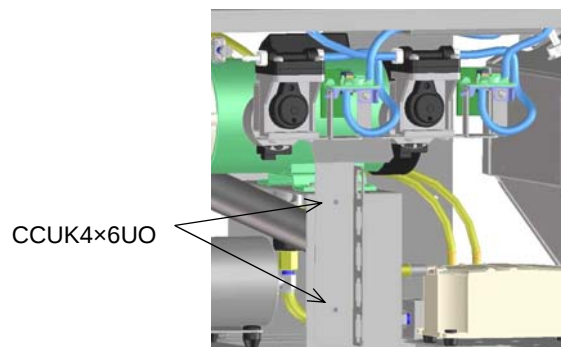
Required tools: Nippers, No.2 Phillips screwdriver



DA PUMP BRACKET



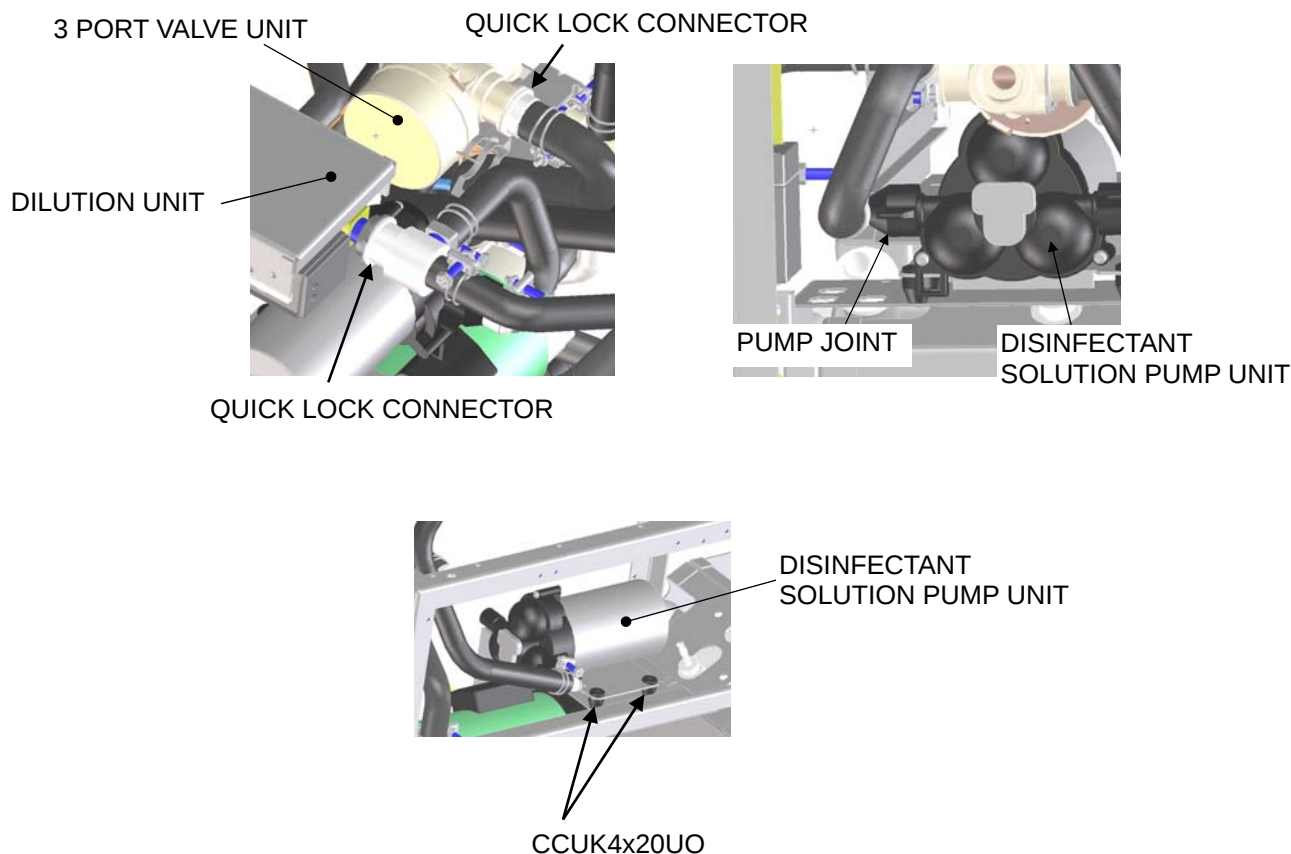
- (1) Remove 5 CONNECTORS holding to DA PUMP BRACKET
- (2) Disconnect HARNESS CONNECTORS both of DA SENSOR UNIT and DA PUMP UNIT
- (3) Cut CABLE BINDER holding TUBE CONNECTING on DA PUMP UNIT and remove TUBE



- (4) Remove 2 screws (CCUK4x6UO) holding DA PUMP UNIT

2-3-31 Disinfectant solution pump unit

Required tools: No.2 Phillips screwdriver (100mm)



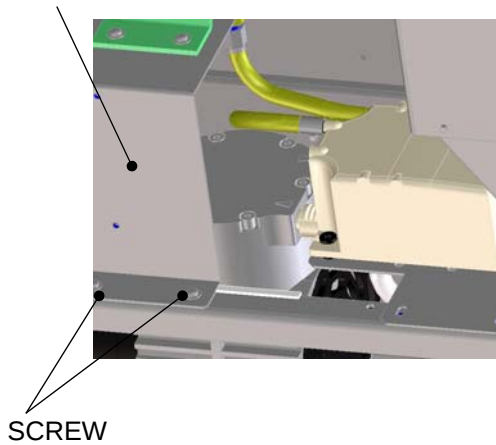
- (1) Cut cable wrap and disconnect CH-P cable from connector bracket
- (2) Remove PUMP JOINT on both sides of CHANNEL PUMP UNIT
- (3) Remove 2 screws on CHANNEL PUMP UNIT bracket
- (4) Slide CHANNEL PUMP UNIT out
- (5) Remove 4 screws (CCUK4x20UO) and 4 washers (BNW5UO) holding CHANNEL PUMP UNIT on CHANNEL PUMP UNIT bracket
- (6) Remove CHANNEL PUMP UNIT

2-3-32 Circulating pump unit

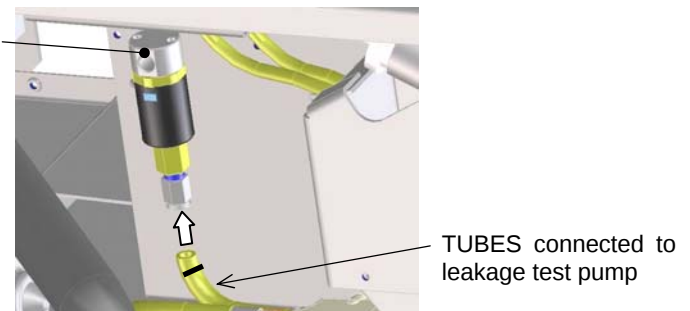
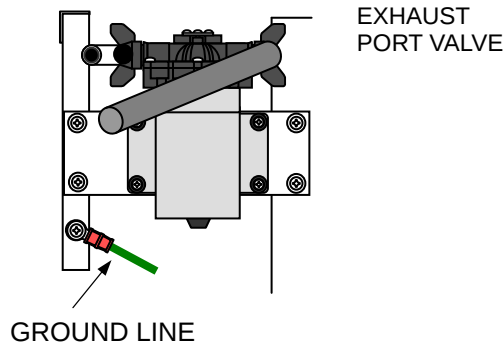
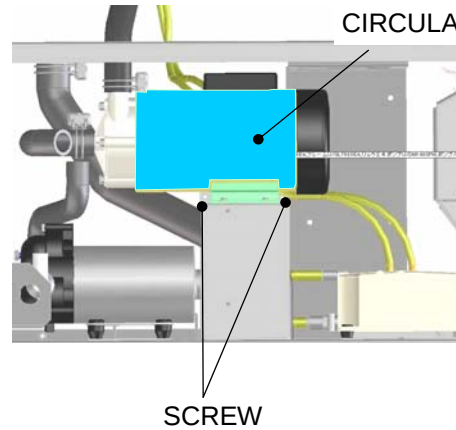
Required tools: No.2 Phillips screwdriver (Long type), No.2 Phillips screwdriver (100mm, Short type)

Remove DA pump unit

BRACKET OF CIRCULATING PUMP

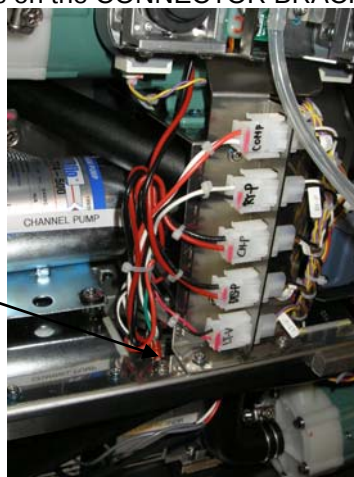


CIRCULATING PUMP UNIT

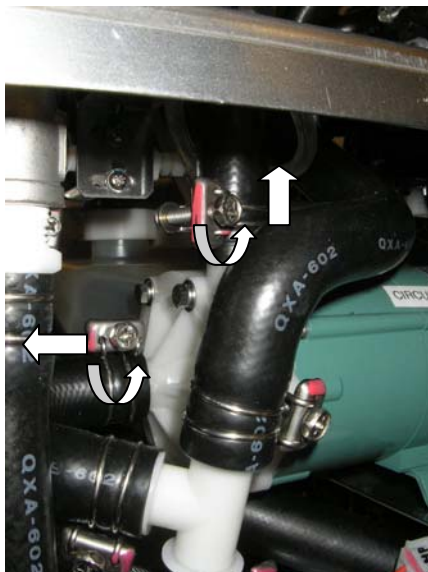


- (1) Cut the ties securing the alcohol and detergent output tubes.
- (2) Disconnect the alcohol and detergent output tubes, as well as the alcohol and detergent pump sensor tubing
- (3) Disconnect all 5 cable connectors on the CONNECTOR BRACKET

CIRCULATION PUMP GND WIRE



- (4) Remove 2 screws securing the CONNECTOR BRACKET
- (5) Loosen and move H CLAMPS up that secure the input and output tubing to the CIRCULATION PUMP



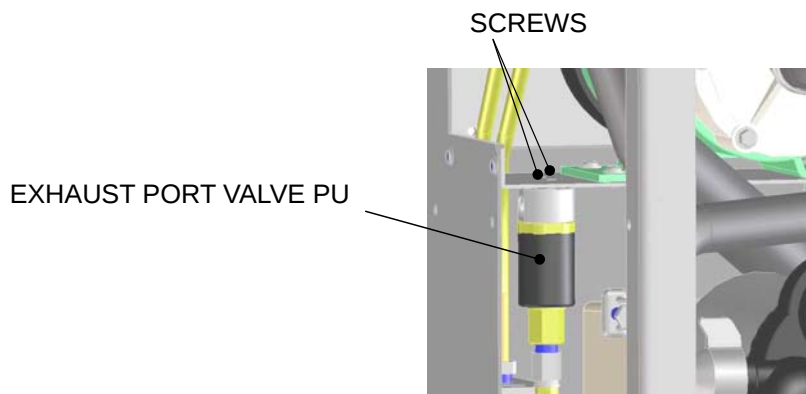
- (6) Remove the input and output HOSES from the CIRCULATION PUMP
- (7) Trace CIRCULATION PUMP wiring harness and cut the cable tie.



- (8) Remove screw (CCUK4x6UO) and washer (HWB4UO) holding CIRCULATING PUMP UNIT to GROUND LINE
- (9) Disconnect LEAK TESTER tube under CIRCULATION PUMP by pushing back on the push-in fitting and pulling tube out
- (10) Remove 4 screws securing CIRCULATION PUMP BRACKET
- (11) Remove 4 screws (CCUK4x6UO) holding CIRCULATION PUMP UNIT to BRACKET
- (12) Remove CIRCULATION PUMP UNIT

2-3-33 Exhaust port valve PU

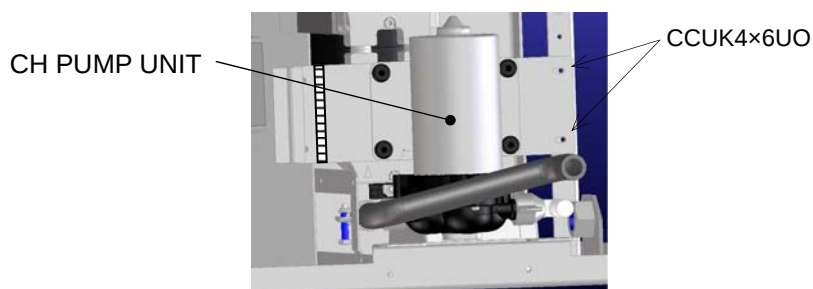
Required tools: No.2 Phillips screwdriver



- (1) Remove TUBE from LEAKAGE DETECTION PUMP connecting to EXHAUST PORT VALVE PU
- (2) Remove 2 screws (CCUK4x6UO) connecting to CIRCULATING PUMP UNIT to EXHAUST PORT VALVE PU

2-3-34 CH pump unit

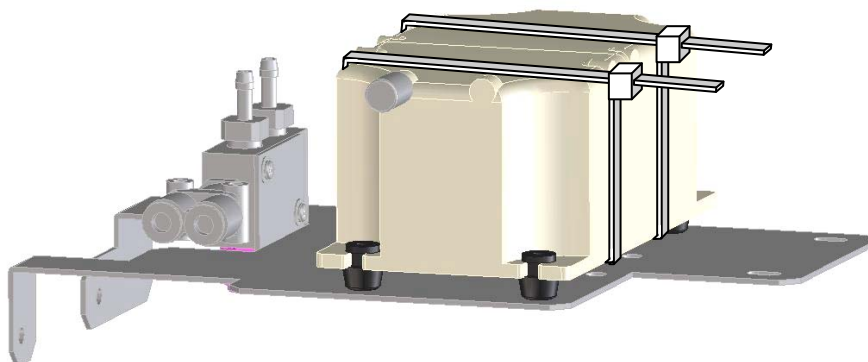
Required tools: No.2 Phillips screwdriver



- (1) Remove PUMP JOINT on both sides of CH PUMP UNIT
- (2) Remove 2 screws (CCUK4x6UO) holding CH PUMP UNIT BRACKET

2-3-35 Leakage test pump 2P unit

Required tools: Precision screwdriver

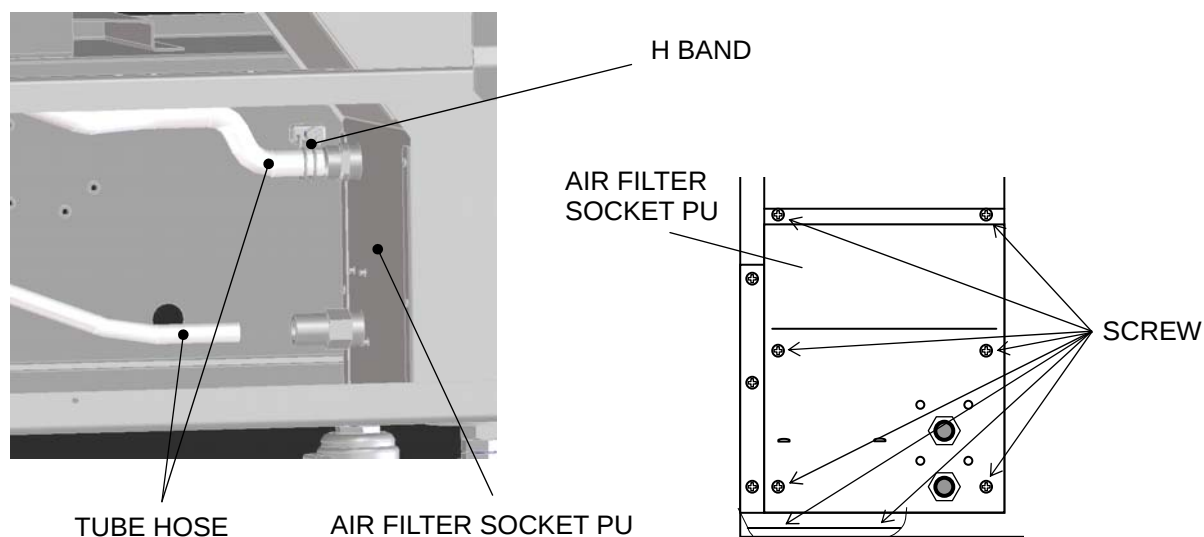


- (1) Disconnect tube from push-in fitting on left side of LEAKAGE TEST PUMP UNIT
- (2) Cut tie wrap binding the calbe
- (3) Disconnect AIR CONNECTOR
- (4) Loosen 2 BINDERS holding LEAKAGE TEST PUMP UNIT
*TWO BINDERS are reusable; do not cut BINDERS
- (5) Remove LEAKAGE TEST PUMP UNIT

2-3-36 Air filter socket PU

Required tools: No.2 Phillips screwdriver

Prior to removing the Air Filter socket PU, remove screws on the sides holding WF bracket R.

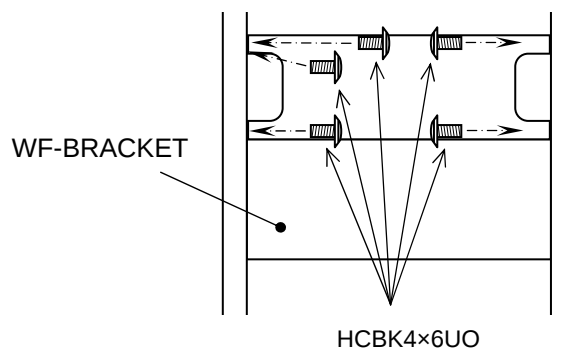
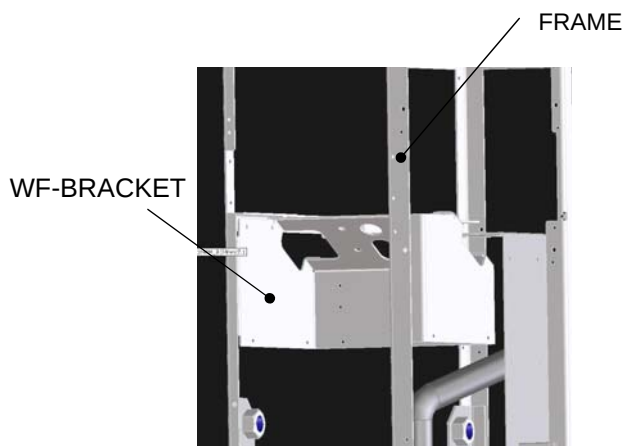
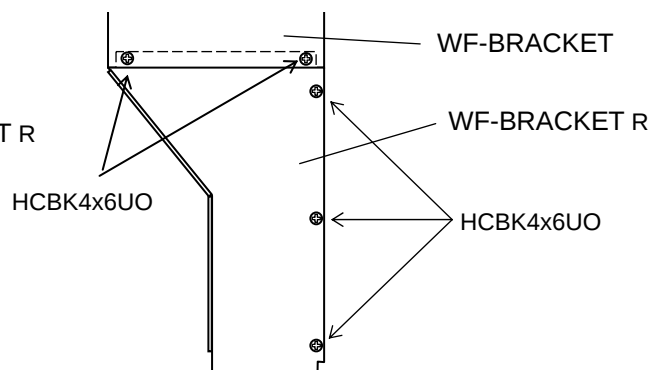
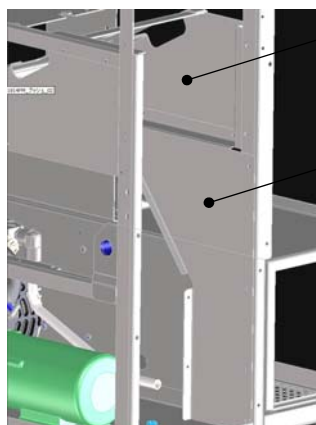
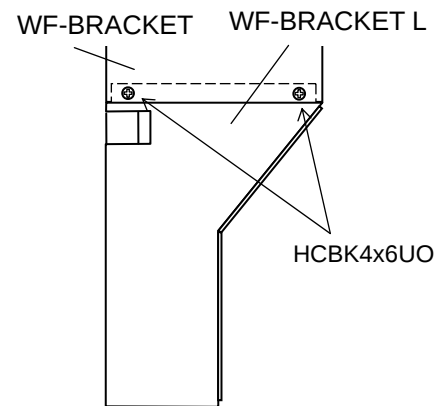
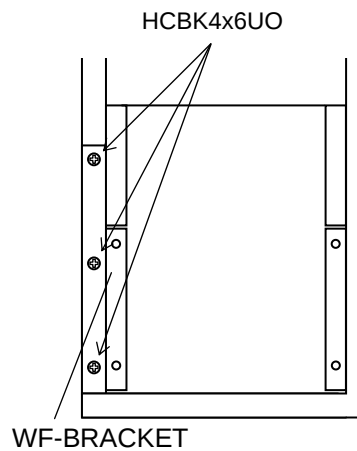
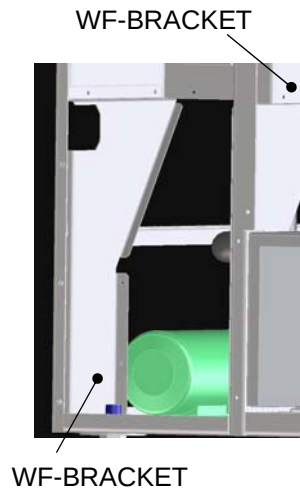


- (1) Unlock H BAND from CH BLOCK CU connecting to AIR FILTER SOCKET PU and then remove TUBE HOSE
- (2) Remove TUBE connecting to AIR FILTER SOCKET PU
- (3) Remove 8 screws (HCBK4x6UO) holding AIR FILTER SOCKET PU

2-3-37 WF-bracket

Required tools: No.2 Phillips screwdriver

Prior to removing WF-BRACKET, remove WATER FILTER UNIT

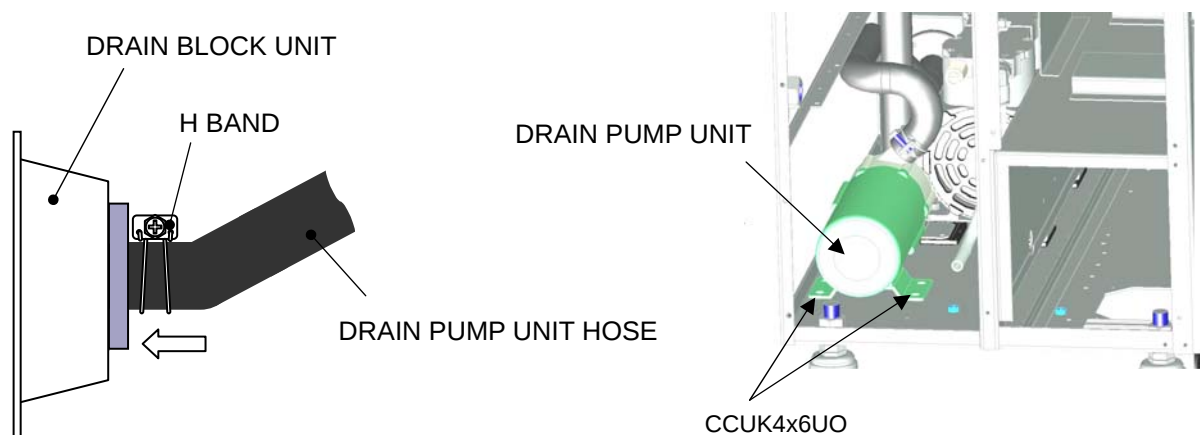


- (1) Remove 5 screws (HCBK4x6UO) holding WF-BRACKET and WF-BRACKET R
- (2) Remove 5 screws (HCBK4x6UO) holding WF-BRACKET

2-3-38 Drain pump unit

Required tools: No.2 Phillips screwdriver

Remove AF SOCKET PU



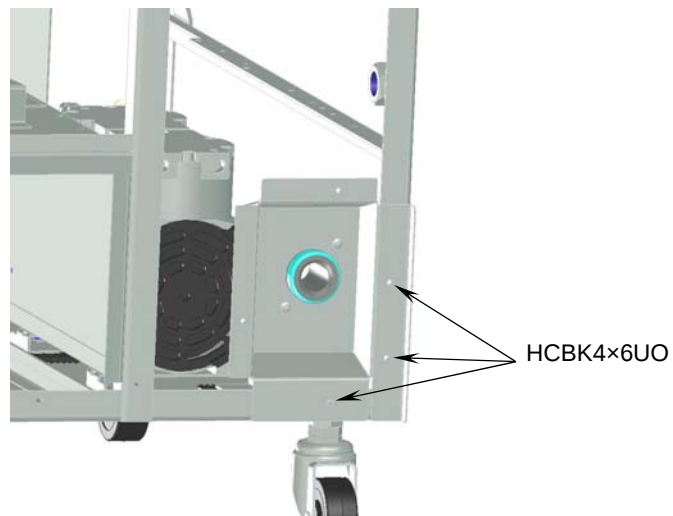
- (1) Loosen the H CLAMP securing the input hose to the DRAIN PUMP UNIT



- (2) Disconnect the input hose from the DRAIN PUMP UNIT
- (3) Loosen the H CLAMP securing the output hose to the DRAIN PUMP UNIT
- (4) Disconnect the output hose from the DRAIN PUMP UNIT
- (5) Cut the tie wrap and remove the DRAIN PUMP HARNESS CONNECTOR, and GROUND WIRE of DRAIN PUMP UNIT
- (6) Remove 4 screws (CCUK4x6UO) holding DRAIN PUMP UNIT
- (7) Remove DRAIN PUMP UNIT

2-3-39 Drain block unit

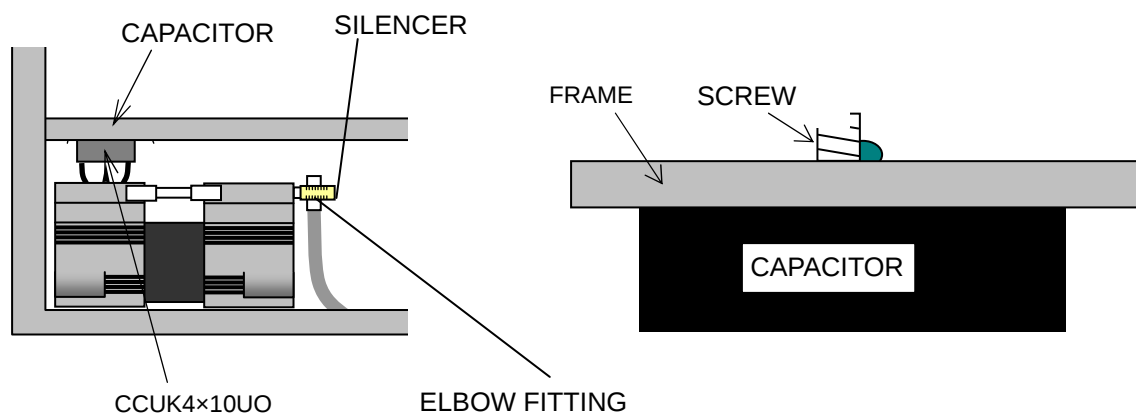
Required tools: No.2 Phillips screwdriver



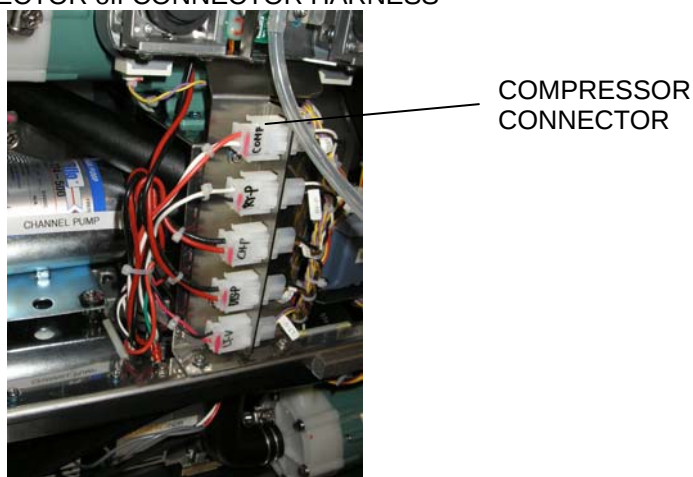
- (1) Remove 3 screws (HCBK4x6UO) holding DRAIN BLOCK UNIT

2-3-40 Compressor unit

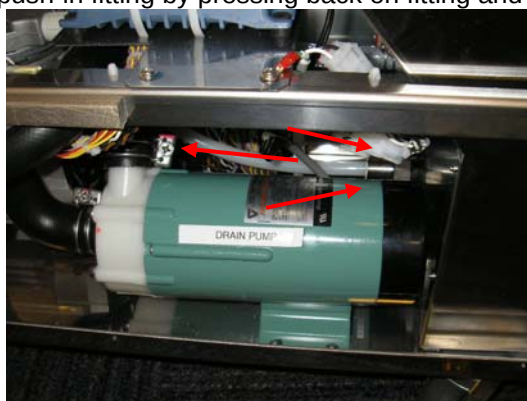
Required tools: No.2 Phillips screwdriver



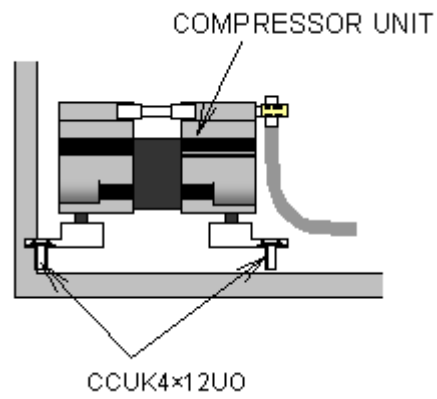
- (1) Remove screw (CCUK4x10UO) holding CAPACITOR on COMPRESSOR UNIT
- (2) Remove COMPRESSOR CONNECTOR off CONNECTOR HARNESS



- (3) Remove AIR HOSE from push-in fitting by pressing back on fitting and pulling AIR HOSE out.



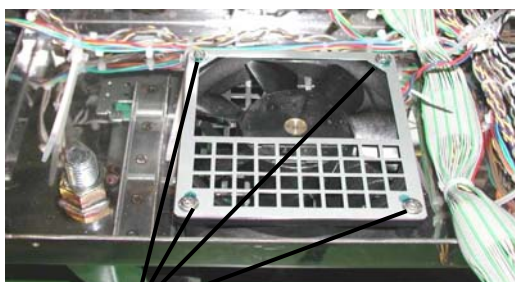
- (4) Remove 4 screws (CCUK4x12UO) holding COMPRESSOR UNIT



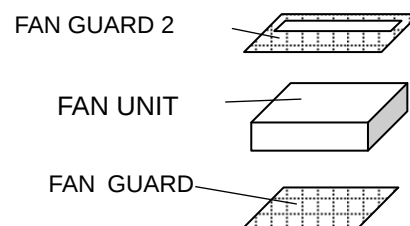
- (5) Remove COMPRESSOR
- (6) Unscrew and remove SILENCER
- (7) Unscrew and remove ELBOW FITTING

2-3-41 Fan unit

Required tools: No.2 Phillips screwdriver



CCUK4x30UO



- (1) Remove HARNESS CONNECTOR of FAN UNIT
- (2) Remove 4 screws (CCUK4x30UO) holding FAN UNIT

2-3-42 AC inlet unit

Required tools: No.2 Phillips screwdriver

AC INLET UNIT



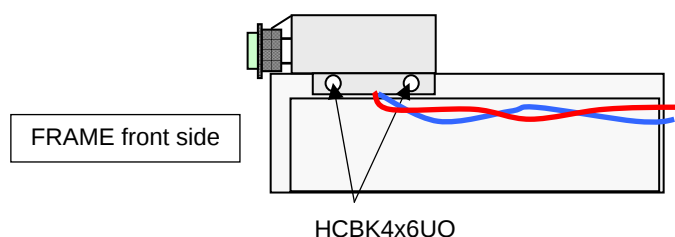
HCBK4x6UO



- (1) Remove 2 screws (HCBK4x6UO) holding AC INLET UNIT
- (2) Remove TERMINAL from HARNESS connecting to AC INLET UNIT

2-3-43 Switch box

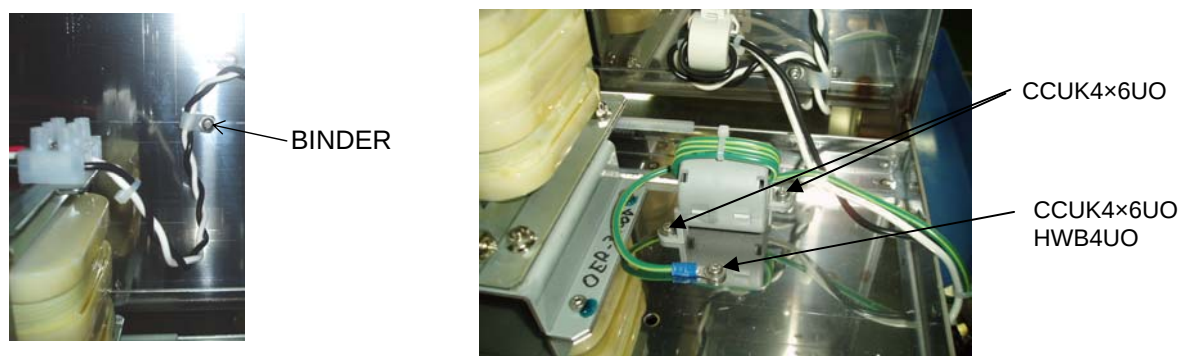
Required tools: No.2 Phillips screwdriver



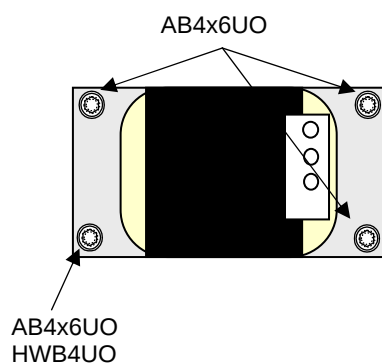
- (1) Remove 2 screws (HCBK4x6UO) holding SWITCH BOX

2-3-44 Transformer

Required tools: No.2 Phillips screwdriver, Hexagonal wrench, Precision screwdriver



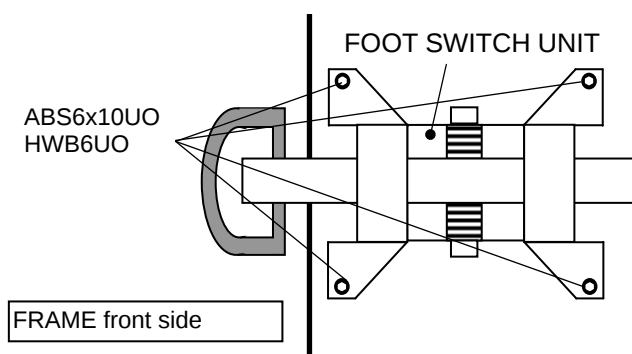
- (1) Remove a screw (CCUK4x6UO) holding BINDER connecting HARNESS from TERMINAL BOARD of TRANSFORMER
- (2) Remove HARNESS connecting to TERMINAL BOARD of TRANSFORMER
- (3) Remove 2 screws (CCUK4x6UO) holding FERRITE CHOKE CORE
- (4) Remove a screw (CCUK4x6UO) and a washer (HWB4UO) holding GROUND HARNESS



- (5) Remove 4 screws (AB4x6UO) and a washer (HWB4UO) holding TRANSFORMER PANEL

2-3-45 Foot switch unit

Required tools: Hexagonal Wrench (6mm)

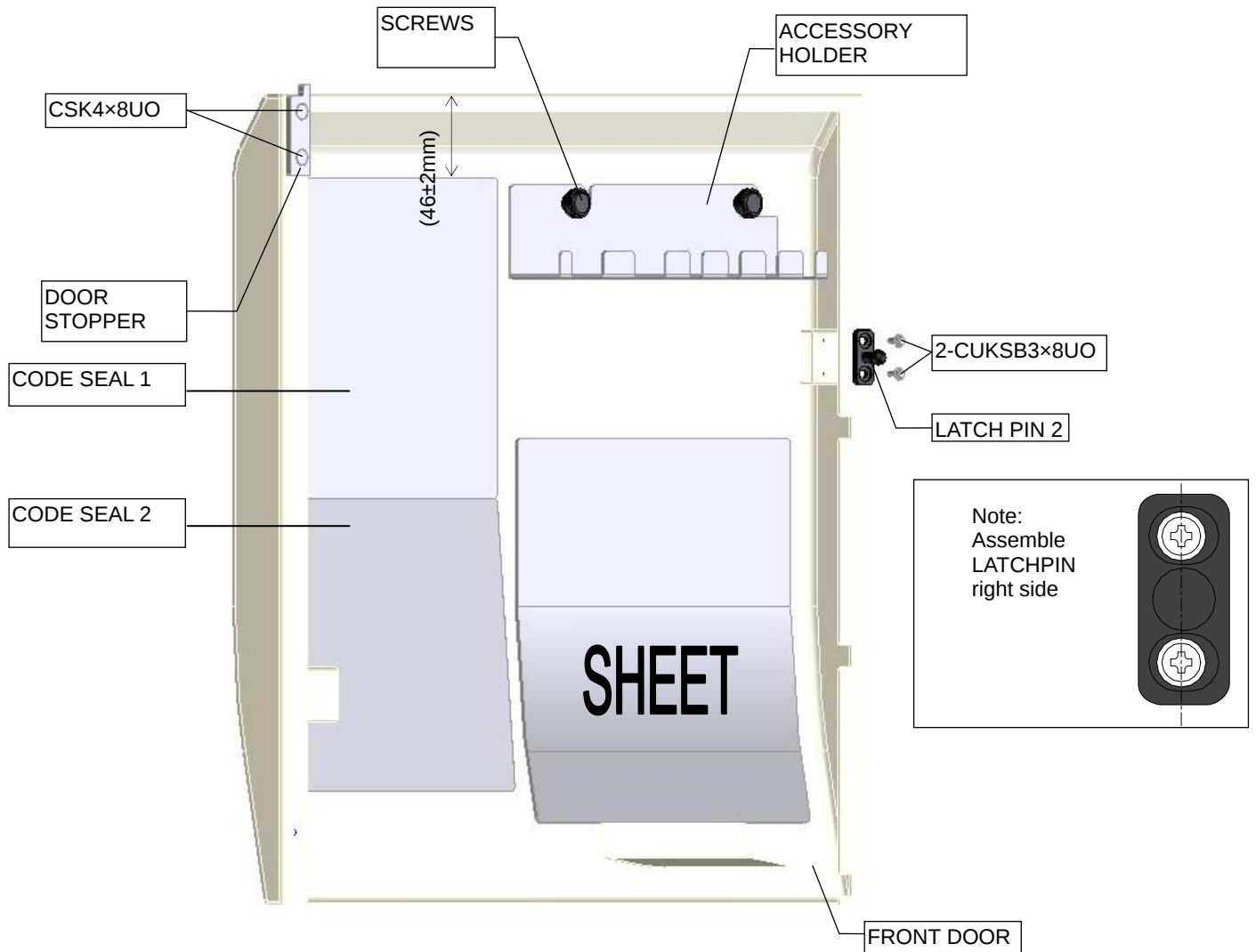


- (1) Remove 4 screws (ABS6x10UO) and 4 washers (HWB6UO) holding FOOT SWITCH UNIT

2-4 Unit Disassembly

2-4-1 Door unit

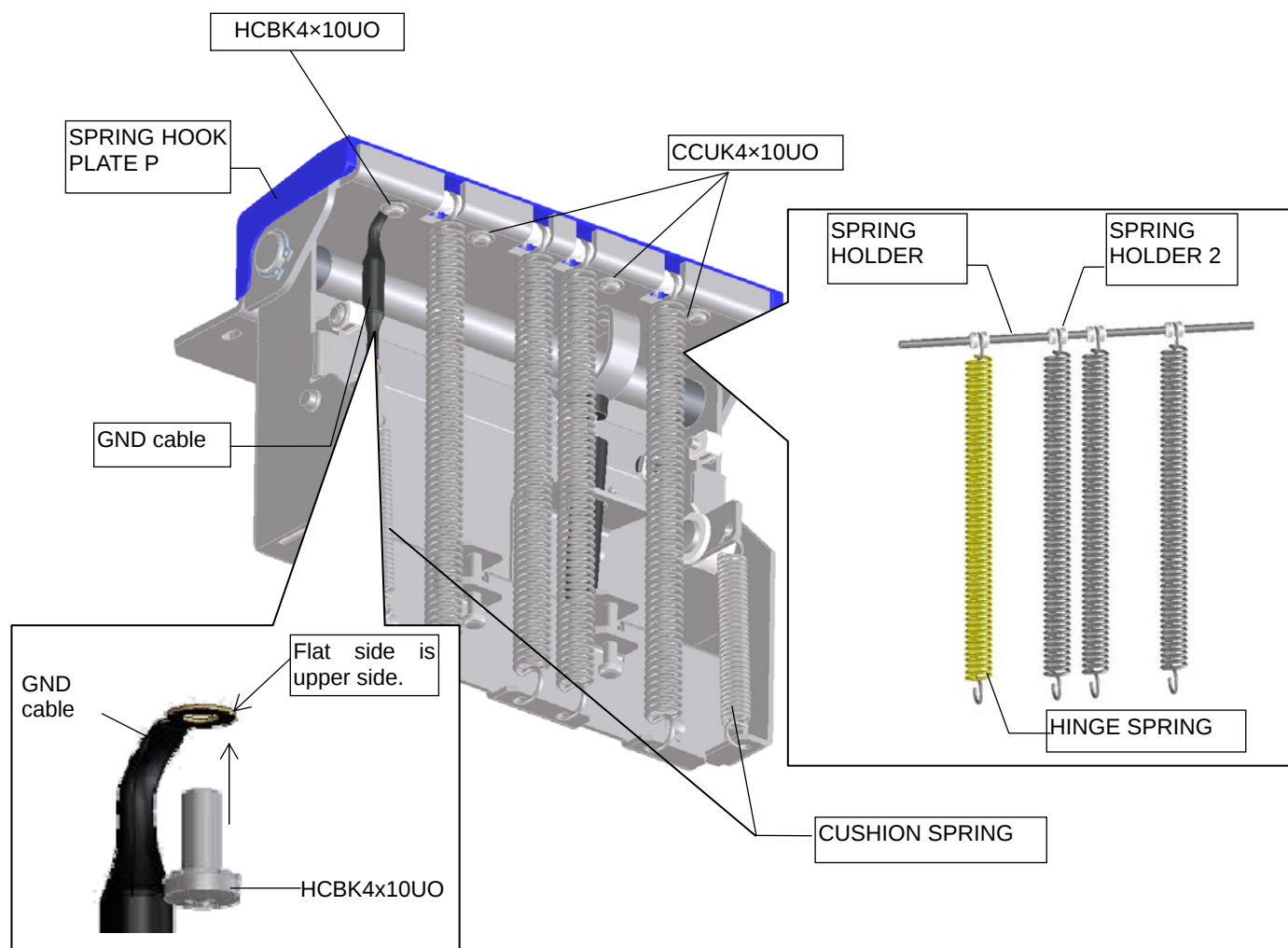
Required tools: No.2 Phillips screwdriver



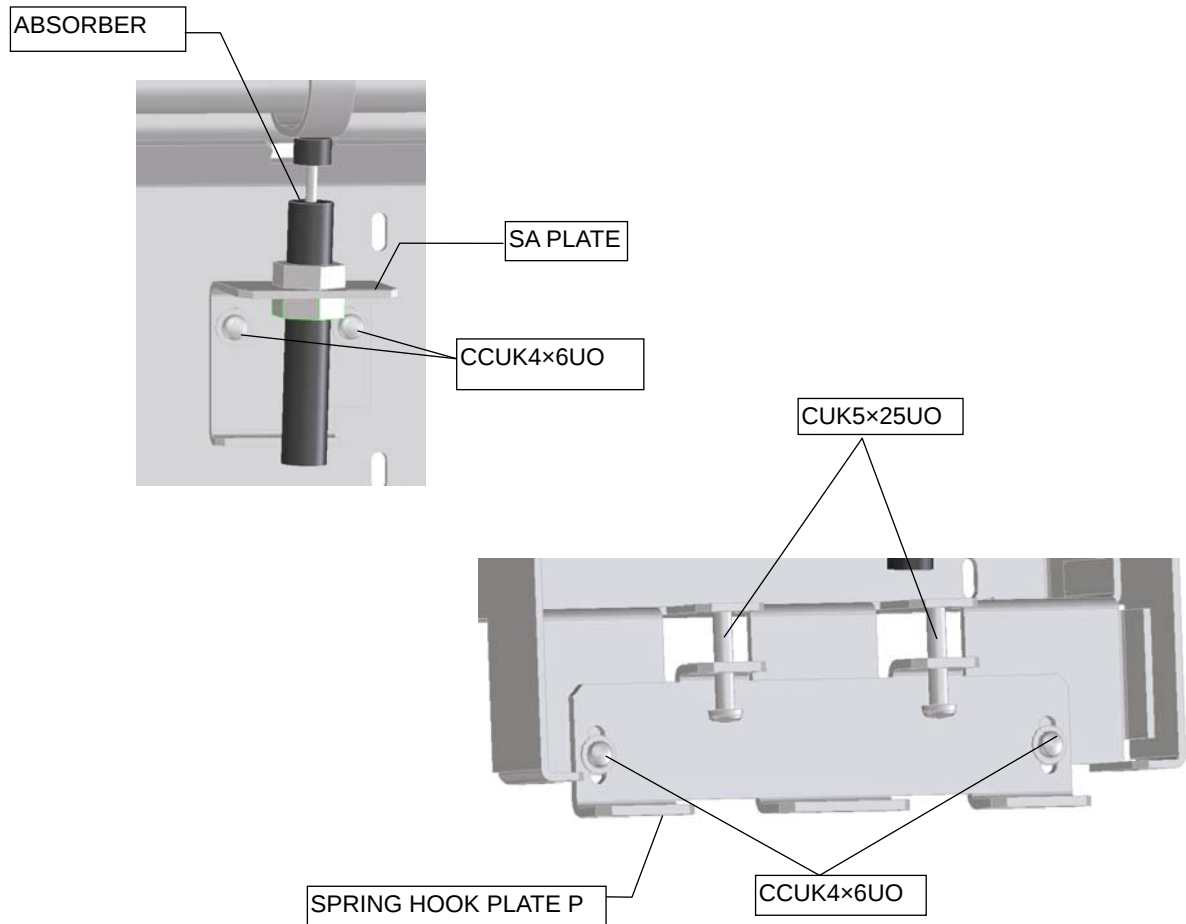
- (1) Remove 2 screws of ACCESSORY HOLDER
- (2) Remove 2 screws (CUKSB3×8UO) of the LATCH PIN 2
- (3) Remove 2 screws (CSK4×8UO) of DOOR STOPPER
- (4) Remove AXIS HOLDER of FRONT DOOR in 2 places

2-4-2 Hinge unit

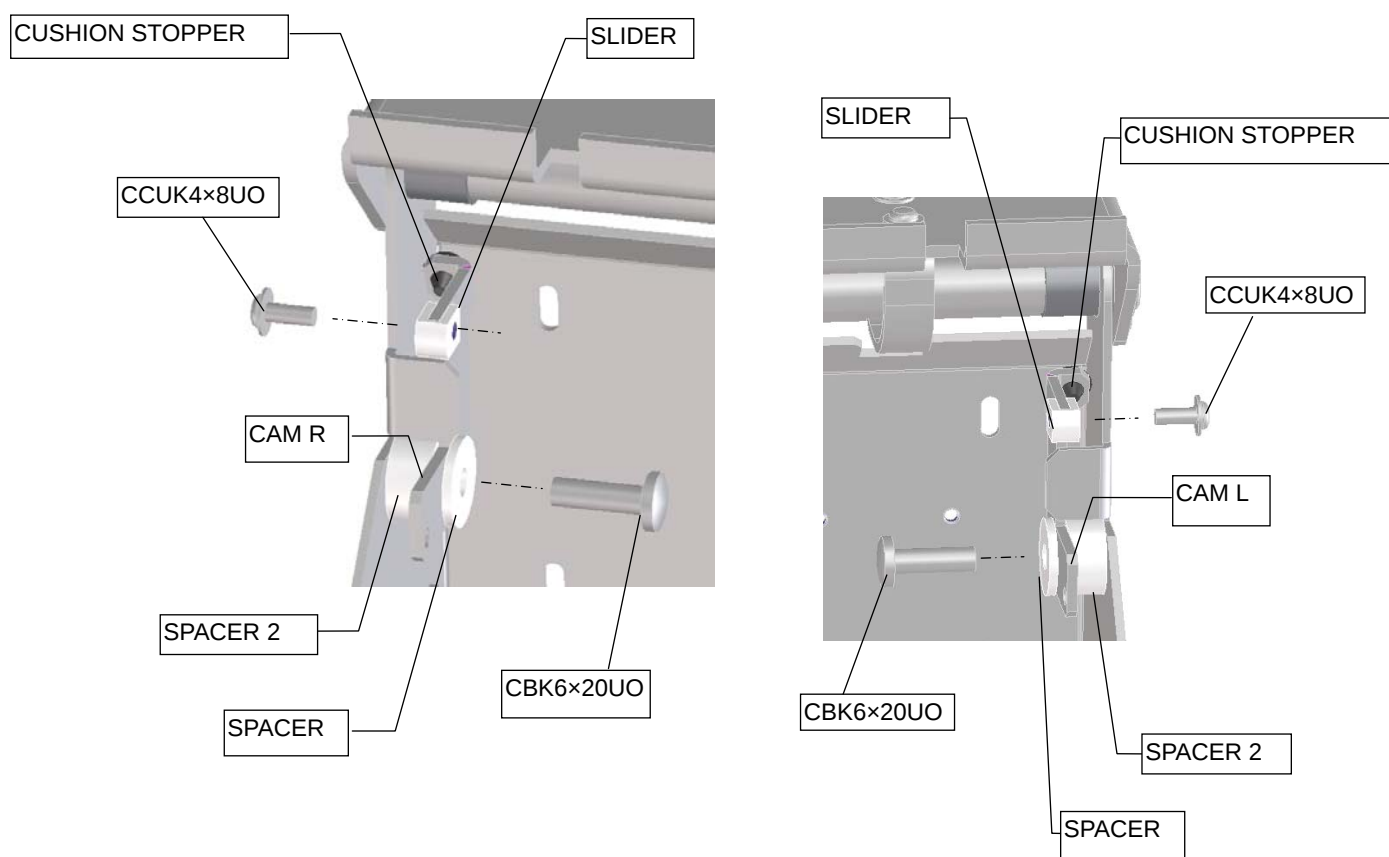
Required tools: No.2 Phillips screwdriver



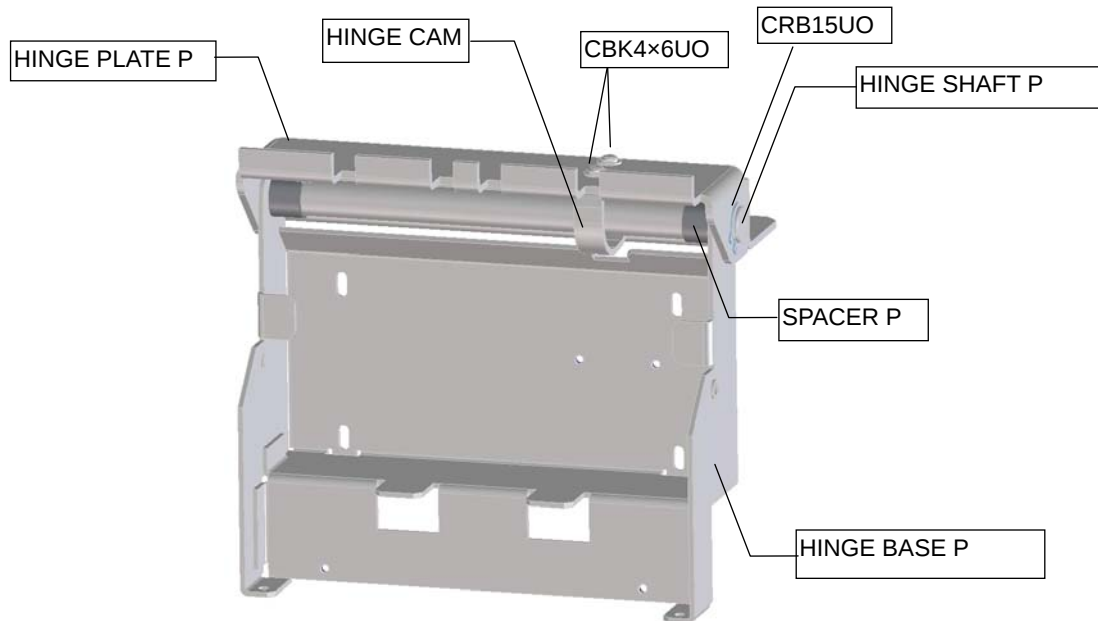
- (1) Remove CUSHION SPRING from the OVER CAM and SPRING HOOK PLATE P
- (2) Remove 3 screws (CCUK4x10UO) from the back of UPPER HINGE P
- (3) Remove 4 HINGE SPRING P from the SPRING HOOK PLATE P
- (4) Remove a screw (HCBK4x10UO) and GROUND CABLE as well as a washer (HWB4UO)
- (5) Remove SPRING HOLDER P.



- (6) Remove 4 screws (CCUK4x6UO, CUK5x25UO) and remove SPRING HOOK PLATE P
- (7) Remove 2 screws (CCUK4x6UO) from HINGE TIE and SA PLATE



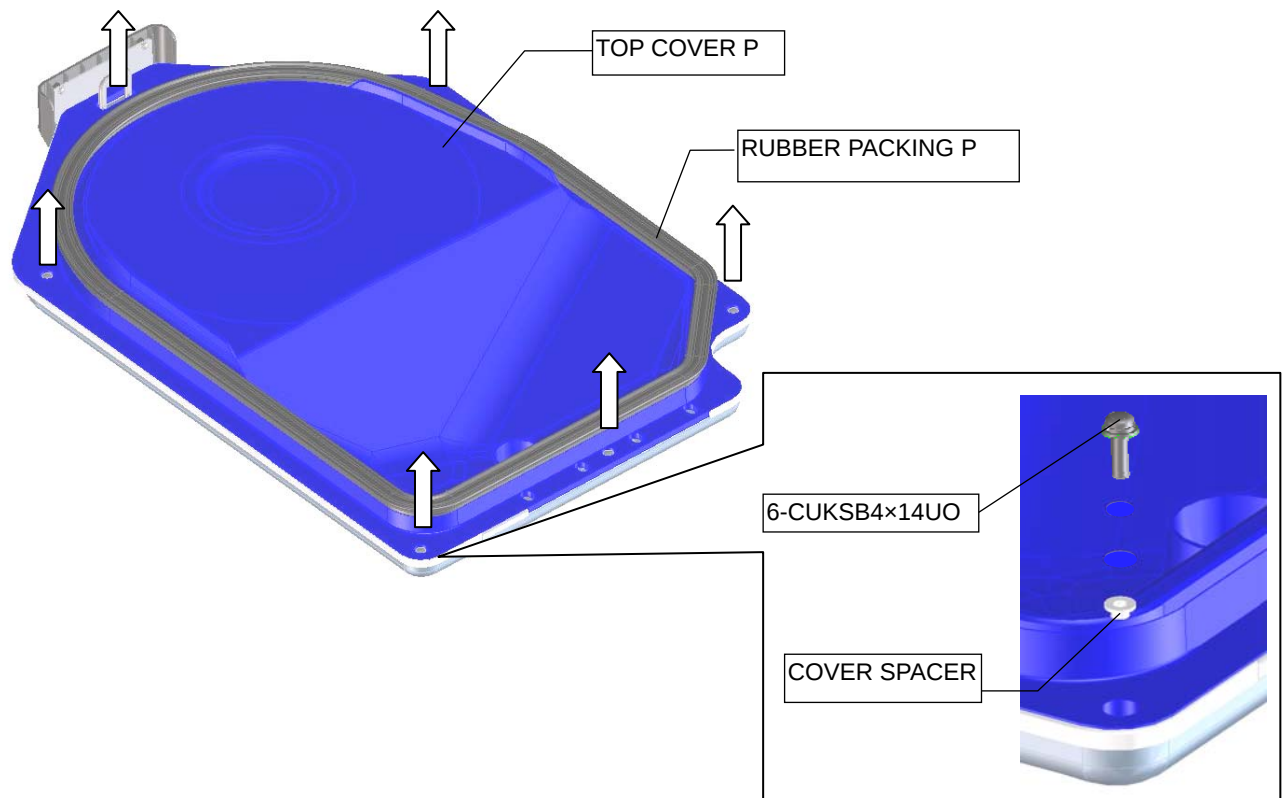
- (8) Remove screw (CBK6x20UO) holding SPACER of HINGE TIE
- (9) Remove SPACER and SPACER 2
- (10) Remove screw (CCUK4x8UO) holding SLIDER
- (11) Remove CUSHION STOPPER from CAM L
- (12) Remove screw (CBK6x20UO) holding HINGE TIE P and SPACER
- (13) Remove SPACER and SPACER 2 from both sides
- (14) Remove screw (CCUK4x8UO) holding SLIDER to CAM R
- (15) Remove BUMP STOPPER from CAM R



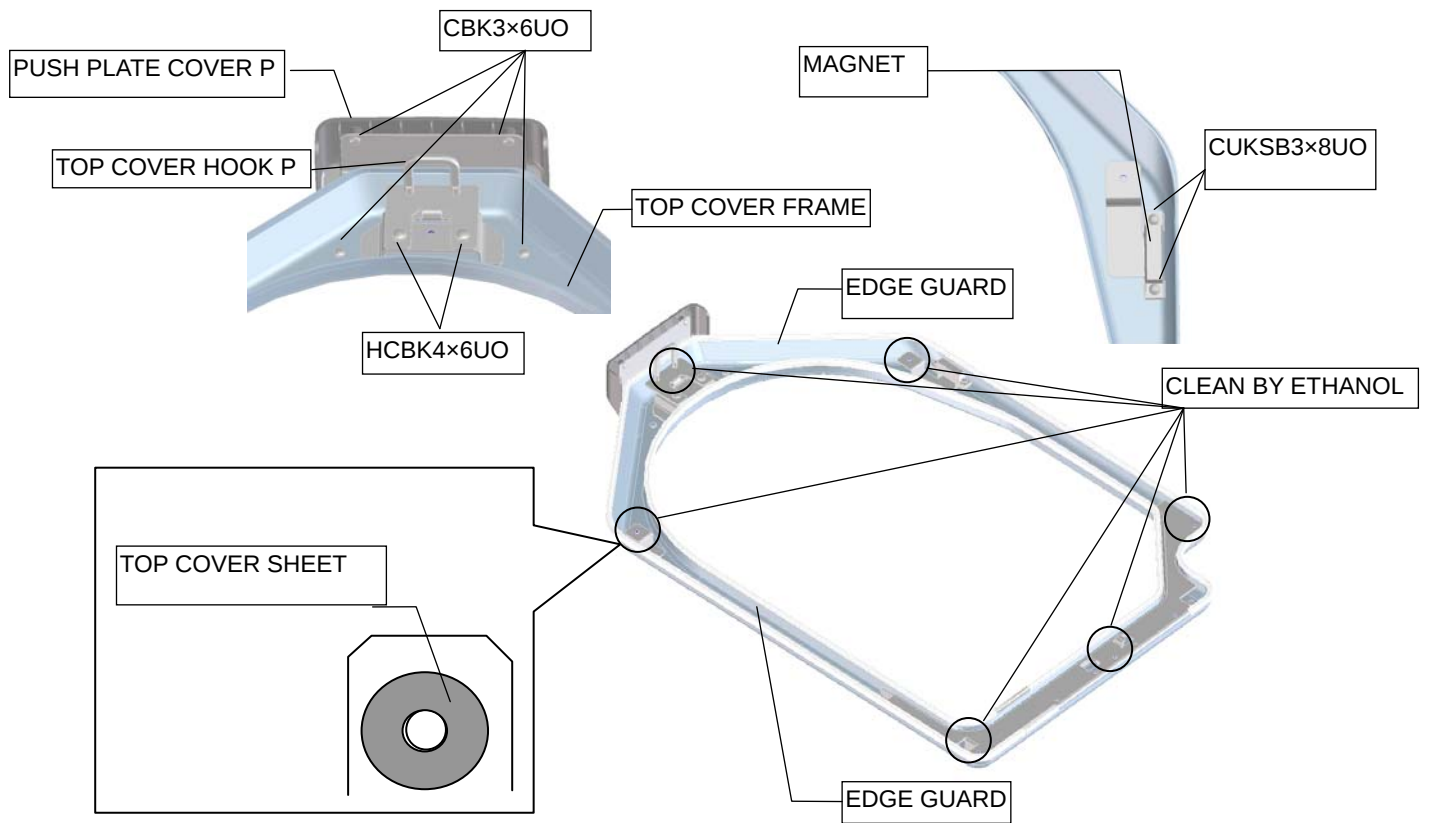
- (16) Remove an E RING (CRB15UO) and then remove HINGE BASE and HINGE PLATE
- (17) Remove 2 screws (CBK4x6UO) and then remove HINGE PLATE P and HINGE CAM
- (18) Remove SPACER P from both sides of HINGE BASE P

2-4-3 Top cover unit

Required tools: No.2 Phillips screwdriver



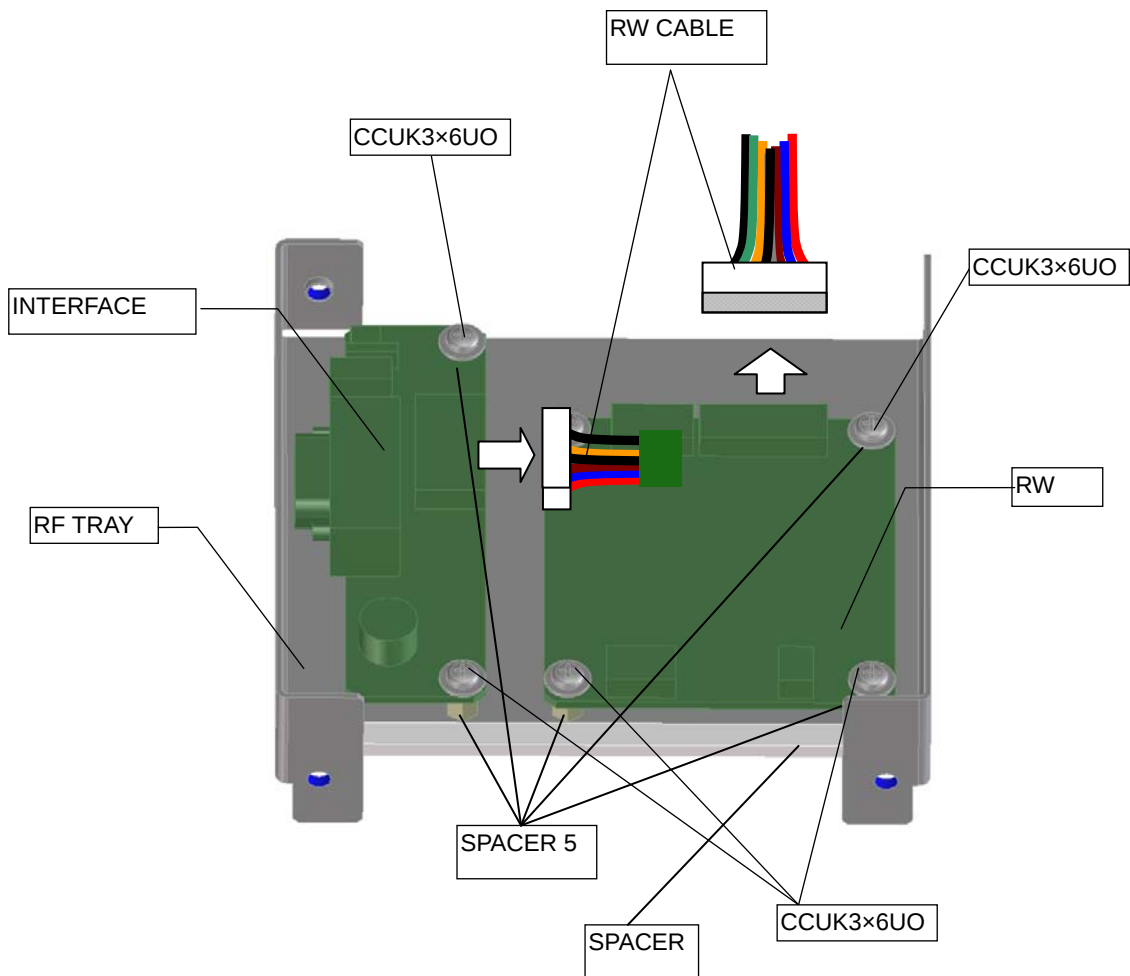
- (1) Remove rubber PACKING P from TOP COVER P
- (2) Remove a screw (CUKSB4x14UO) of 6 screws holding TOP COVER P at COVER SPACER



- (3) Remove 2 screws (CUKSB3x8UO) holding TOP COVER FRAME and MAGNET
- (4) Remove 2 screws (HCBK4x6UO) holding COVER CASING and COVER HOOK P
- (5) Remove 4 screws (CBK3x6UO) holding COVER CASING and then push PLATE COVER P

2-4-4 ID PCB unit

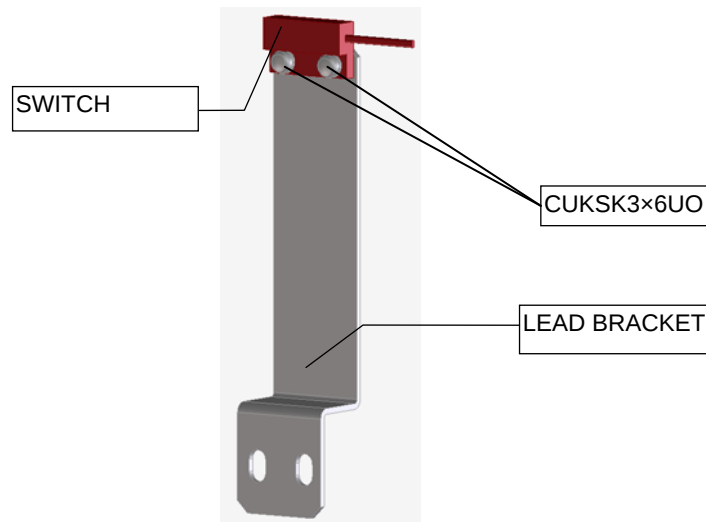
Required tools: No.2 Phillips screwdriver



- (1) Remove RW CABLE from INTERFACE and RW CONNECTOR
- (2) Remove 2 screws (CCUK3x6UO) holding INTERFACE
- (3) Remove 4 screws (CCUK3x6UO) holding RW
- (4) Remove spacer 5 (6 locations) from RF TRAY

2-4-5 Switch unit

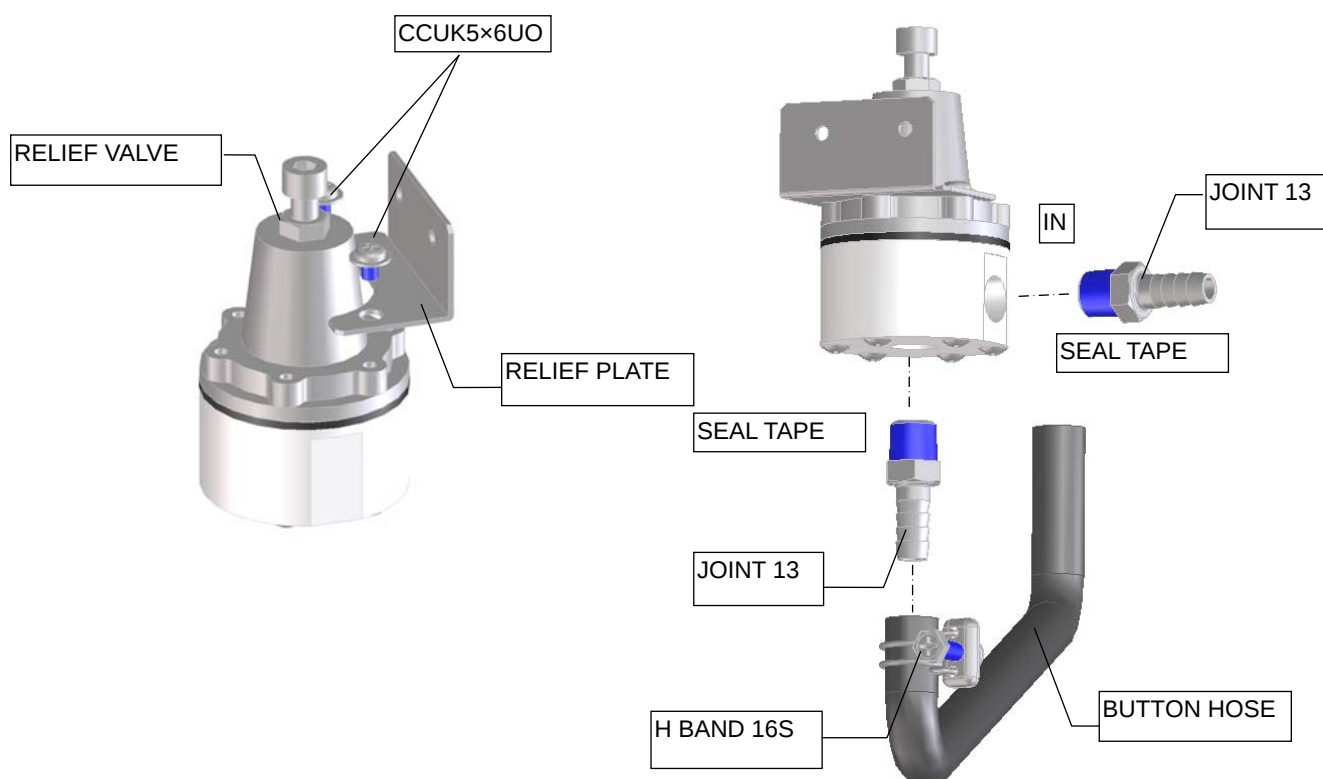
Required tools: No.2 Phillips screwdriver



- (1) Remove 2 screws (CUKSK3x6UO) holding SWITCH UNIT to SWITCH BRACKET

2-4-6 Relieve valve unit

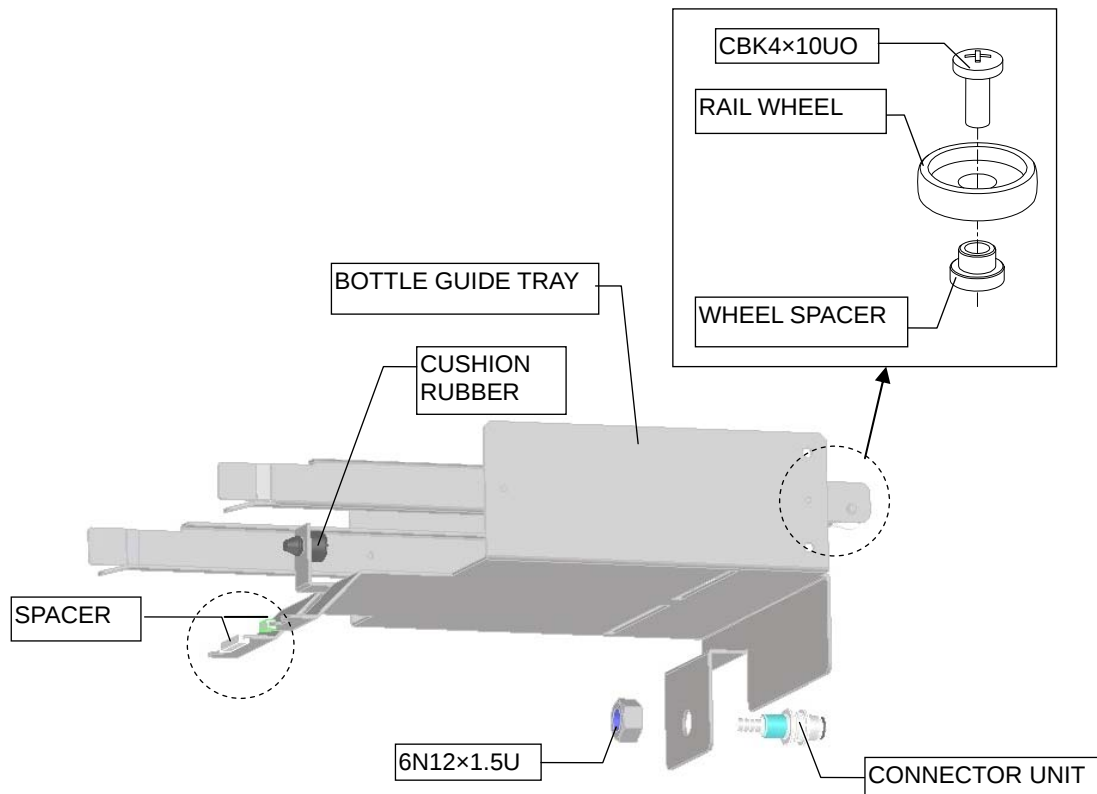
Required tools: Adjustable wrench, No.2 Phillips screwdriver



- (1) Remove screws on H BAND holding BUTTON HOSE
- (2) Remove BUTTON HOSE from JOINT
- (3) Remove HOSE JOINT 13 from RELIEF VALVE
- (4) Remove 2 screws (CCUK5x6UO) holding RELIEF PLATE to RELIEF VALVE

2-4-7 Tray guide unit

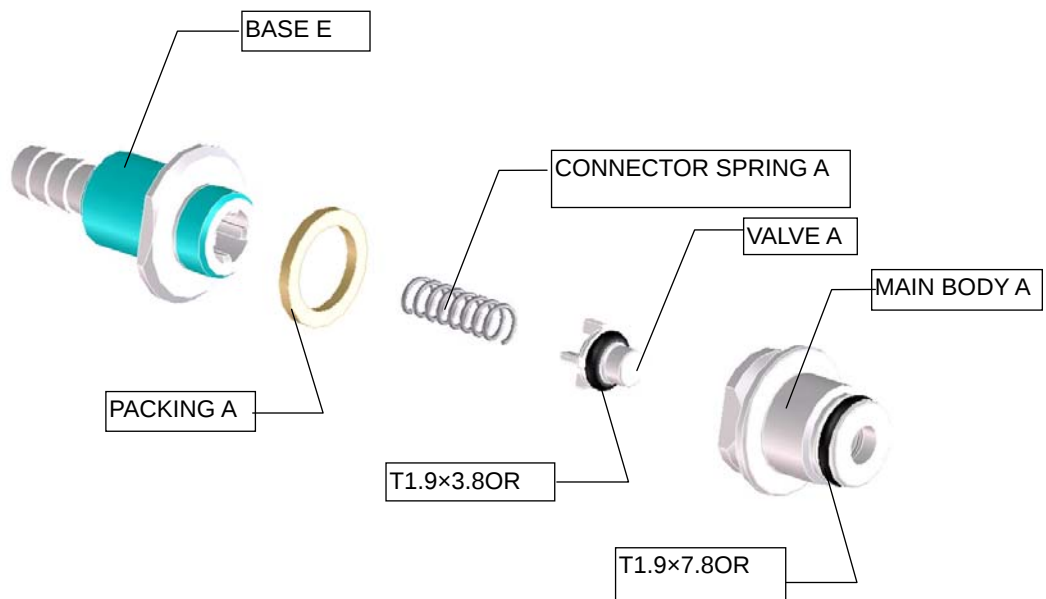
Required tools: Adjustable wrench, No.2 Phillips screwdriver



- (1) Remove a screw (CBK4x10UO) holding RAIL WHEEL and then remove WHEEL SPACER
- (2) Remove a nut (6N12x1.5UO) holding CONNECTOR UNIT
- (3) Remove CUSHION RUBBER from BOTTLE GUIDE TRAY

2-4-8 Connector E unit

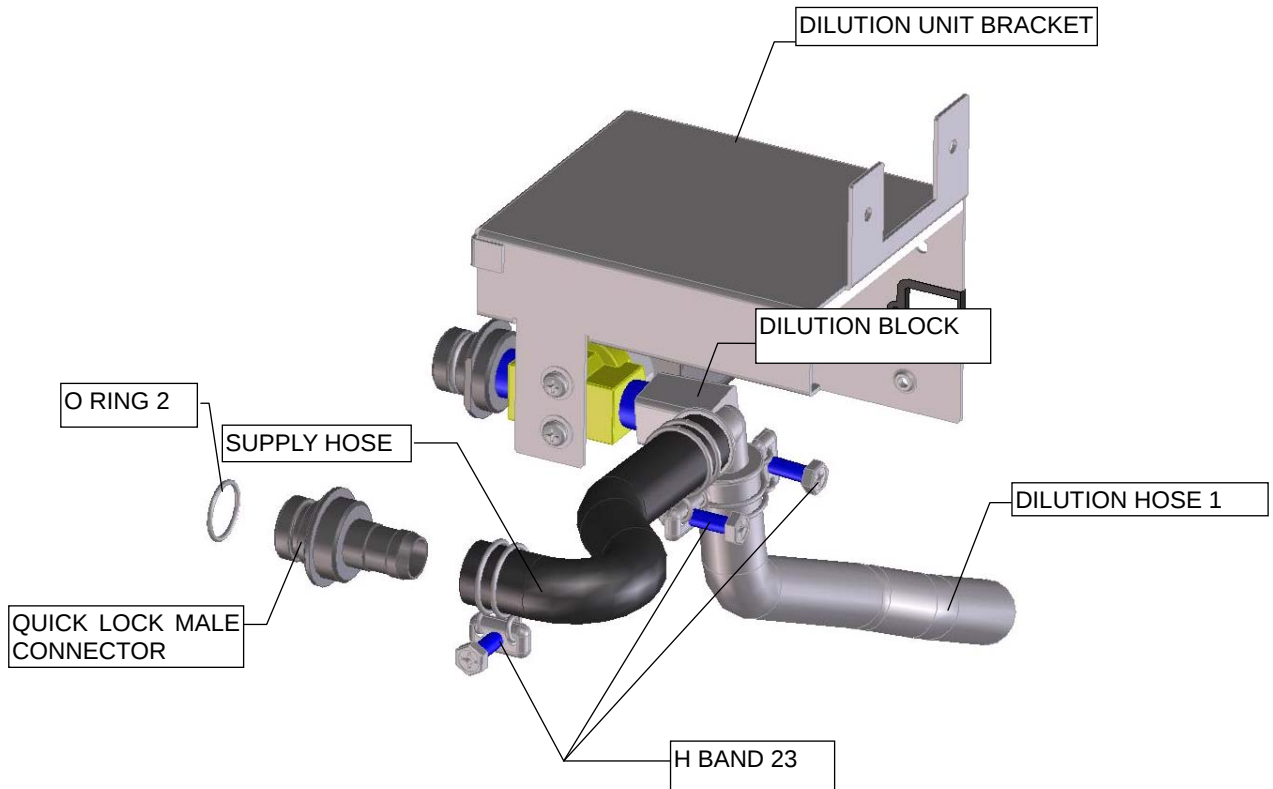
Required tools: Connector A securing jig (JA9822), Connector rotating jig (JA7697)



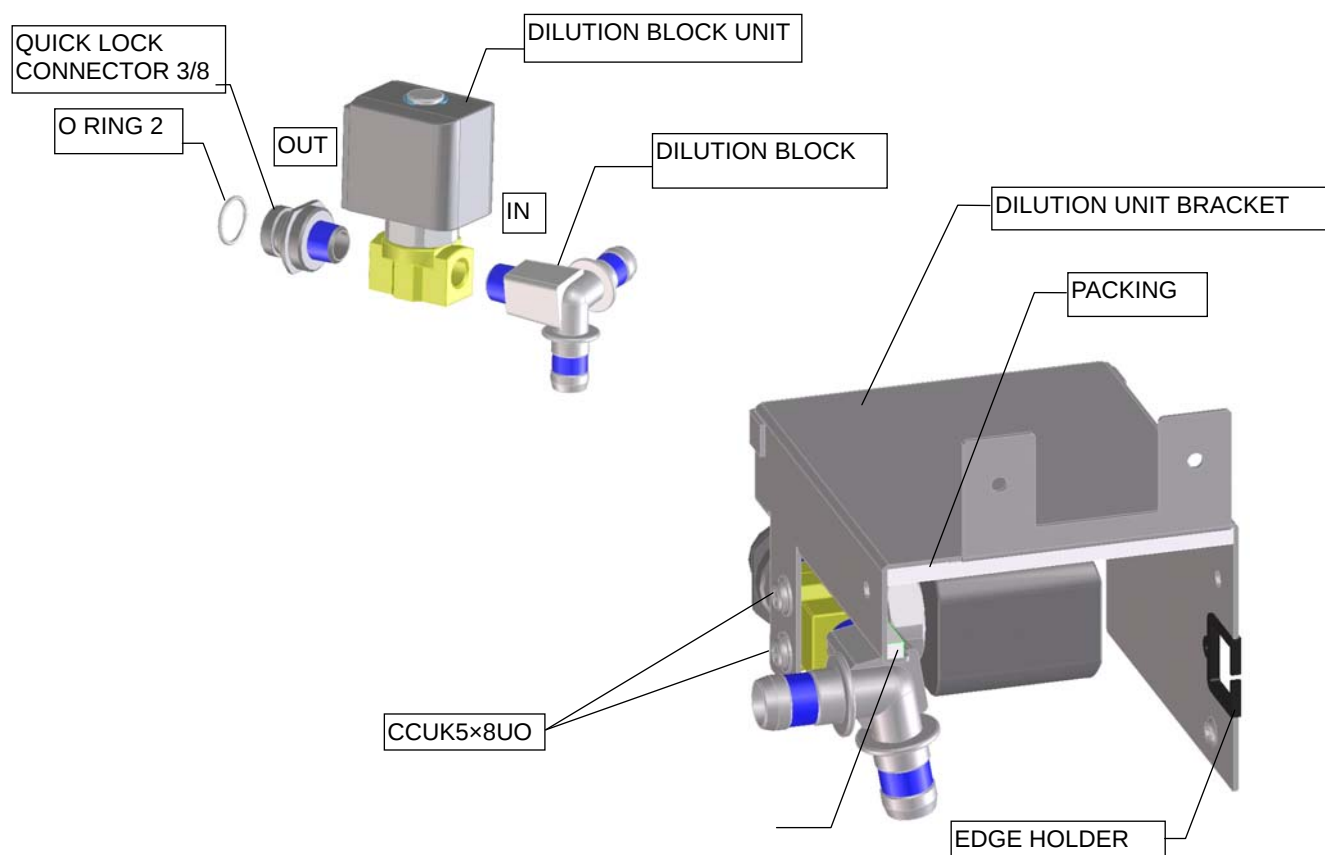
- (1) Unscrew MAIN BODY A
- (2) Remove MAIN BODY A, VALVE A, CONNECTOR SPRING A and PACKING A from BASE E

2-4-9 Dilution unit

Required tools: No.2 Phillips screwdriver



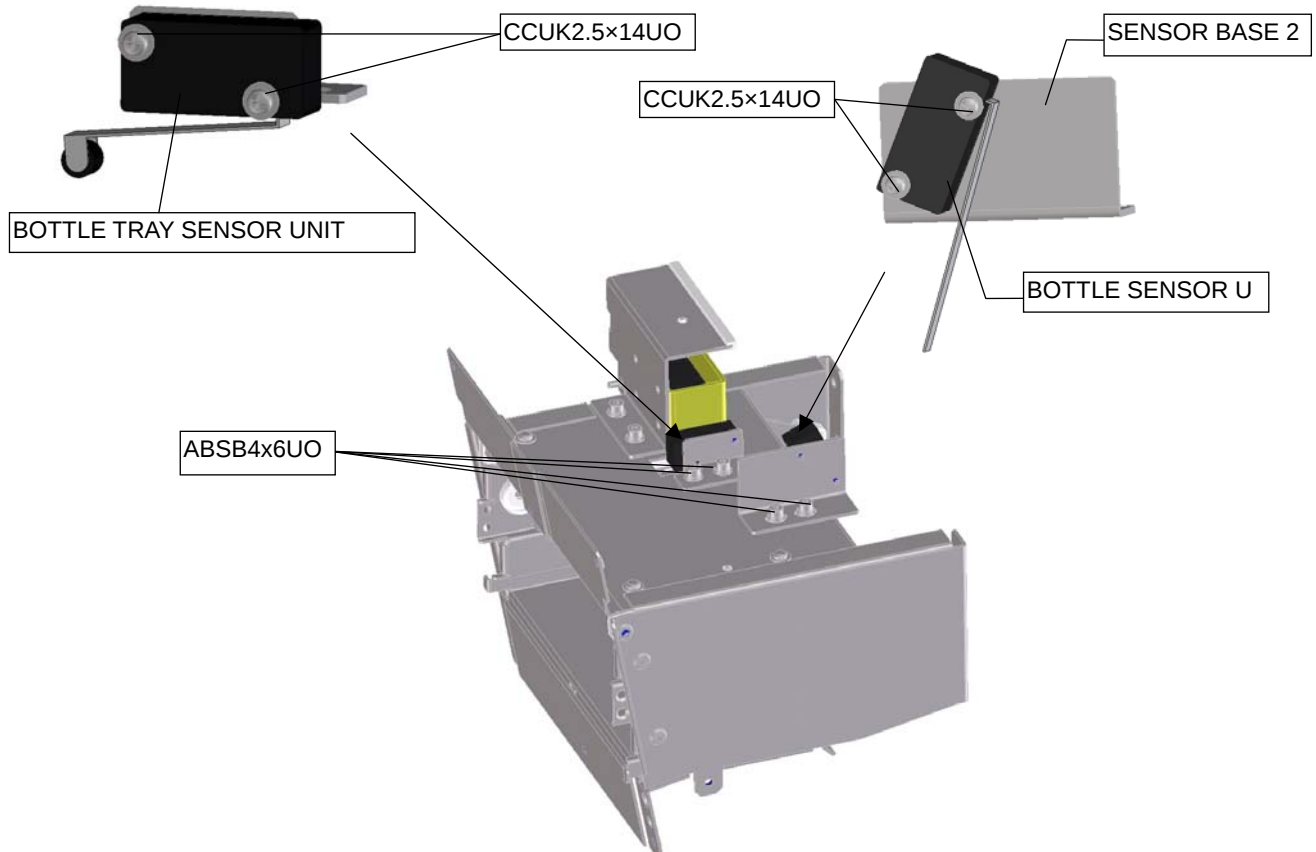
- (1) Remove O RING 2 from QUICK LOCK MALE CONNECTOR
- (2) Remove screws on H BAND holding SUPPLY HOSE and DILUTION BLOCK
- (3) Remove supply HOSE from DILUTION BLOCK
- (4) Remove screws on H BAND holding SUPPLY HOSE and QUICK LOCK MALE CONNECTOR
- (5) Remove QUICK LOCK MALE CONNECTOR from SUPPLY HOSE
- (6) Remove screws on H BAND holding DILUTION HOSE 1 to DILUTION BLOCK
- (7) Remove DILUTION HOSE from DILUTION BLOCK



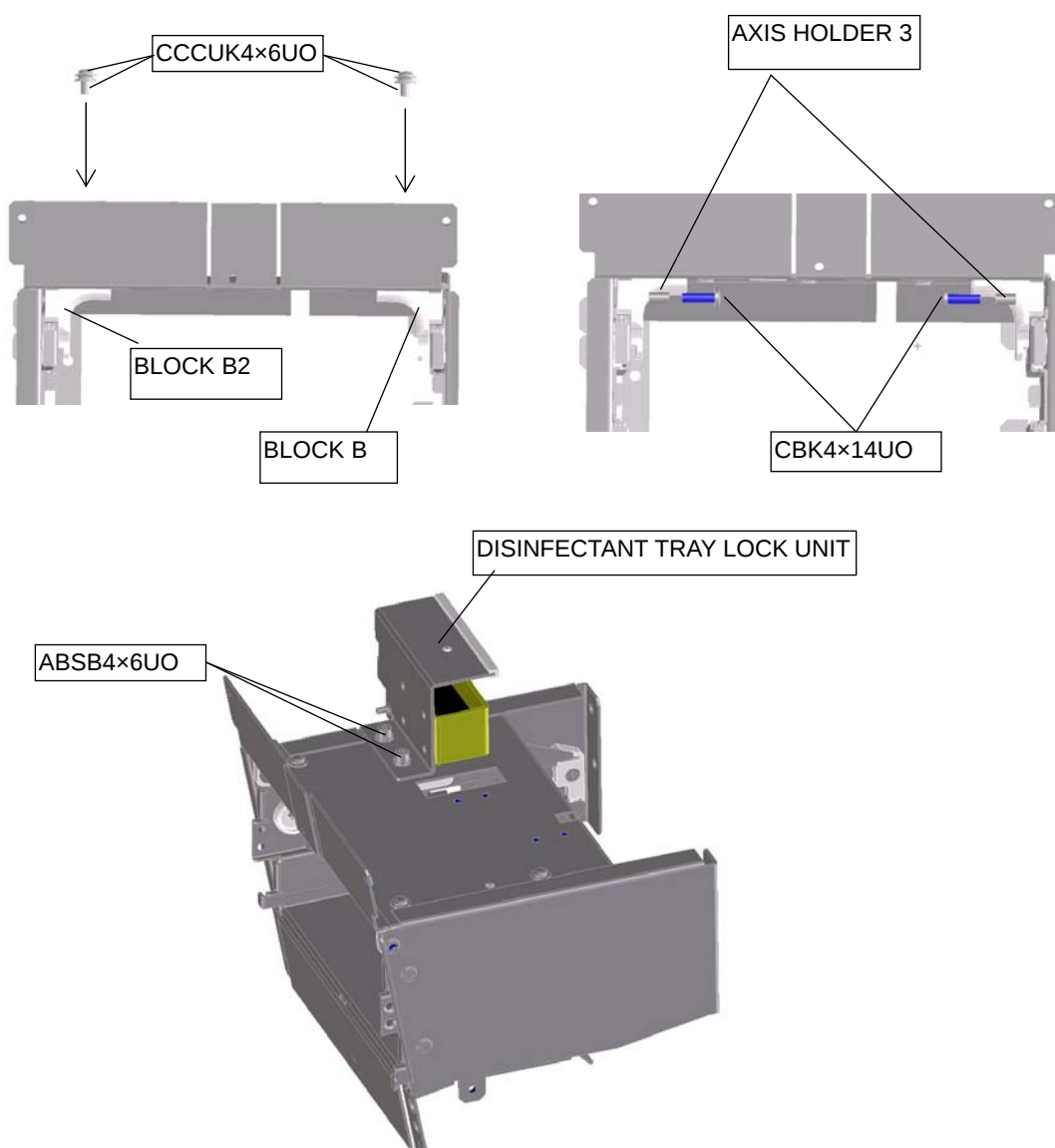
- (8) Remove 2 screws (CCUK5x8UO) holding DILUTION UNIT BRACKET to DILUTION BLOCK UNIT
- (9) Remove EDGE COVER UNIT from DILUTION UNIT BRACKET
- (10) Remove DILUTION BLOCK from DILUTION BLOCK UNIT (N SIDE)
- (11) Assemble O RING 2 onto QUICK LOCK CONNECTOR 3/8 groove
- (12) Remove QUICK LOCK CONNECTOR 3/8 from DILUTION BLOCK UNIT (OUT SIDE)

2-4-10 Disinfectant guide unit

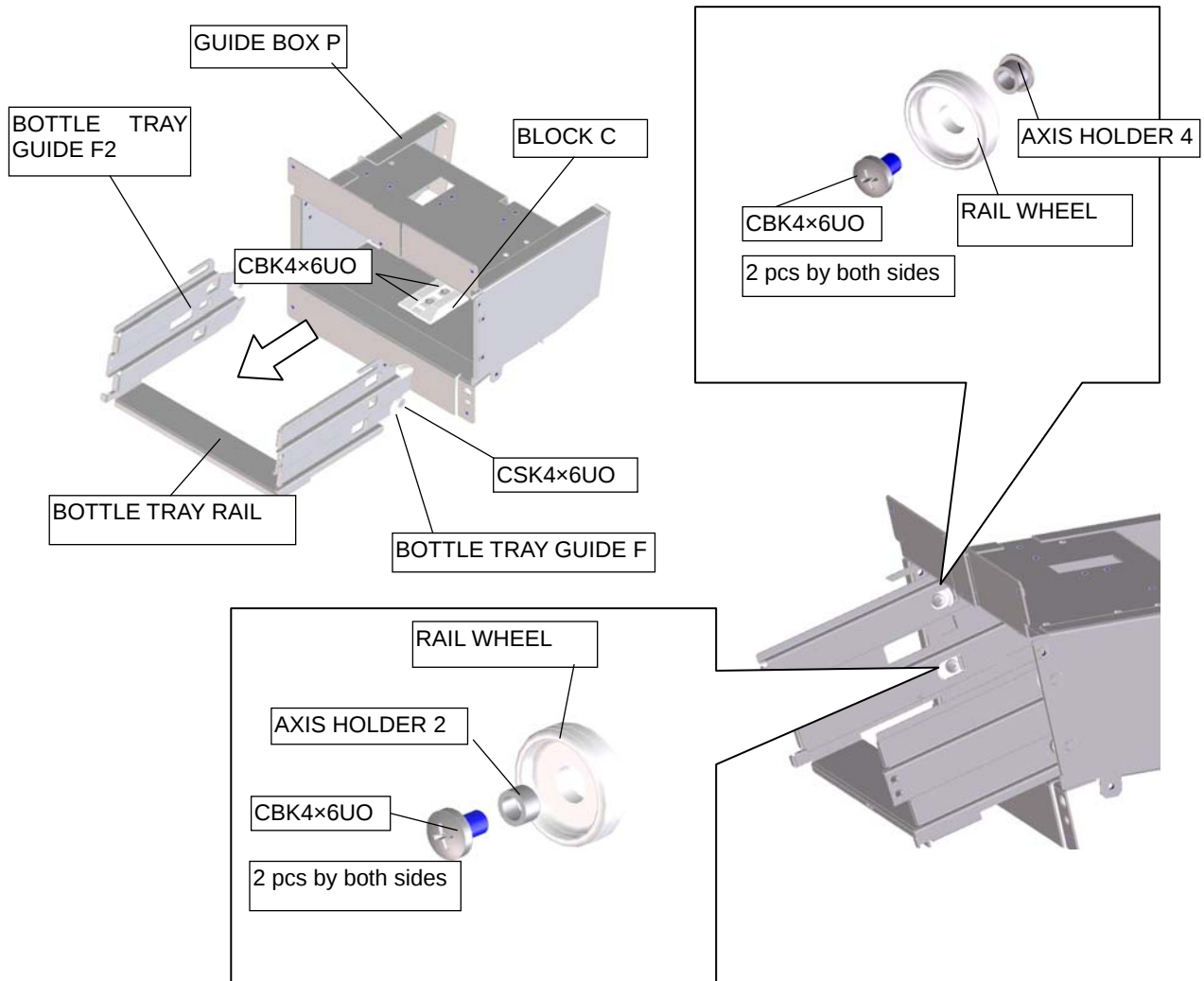
Required tools: No.2 Phillips screwdriver, Hexagonal wrench, No.1 Phillips screwdriver



- (1) Remove 2 screws (ABSB4x6UO) holding upper part of BOTTLE SENSOR side of GUIDE BOX P
- (2) Remove 2 screws (CCUK2.5x14UO) holding SENSOR BASE 2 to BOTTLE SENSOR UNIT
- (3) Remove 2 screws (ABSB4x6UO) holding upper part of BOTTLE TRAY SENSOR side of GUIDE BOX P
- (4) Remove 2 screws (CCUK2.5x15UO) holding SENSOR PLATE to BOTTLE TRAY SENSOR UNIT



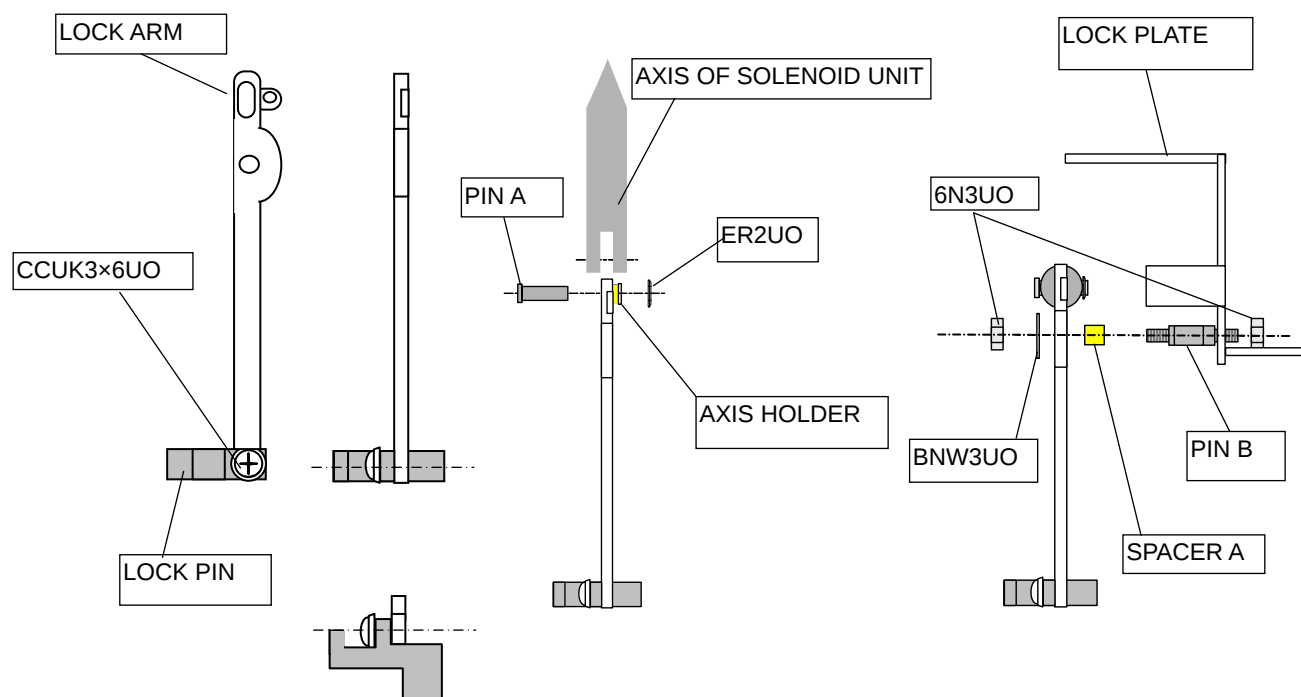
- (5) Remove 2 screws (ABSB4x6UO) holding DISINFECTANT LOCK UNIT
- (6) Remove 4 screws (CCUK14x6UO) holding BLOCK B and BLOCK B2
- (7) Remove 2 screws (CBK4x14UO) holding AXIS HOLDER 3
- (8) Remove BLOCK B and BLOCK B2 from GUIDE BOX P



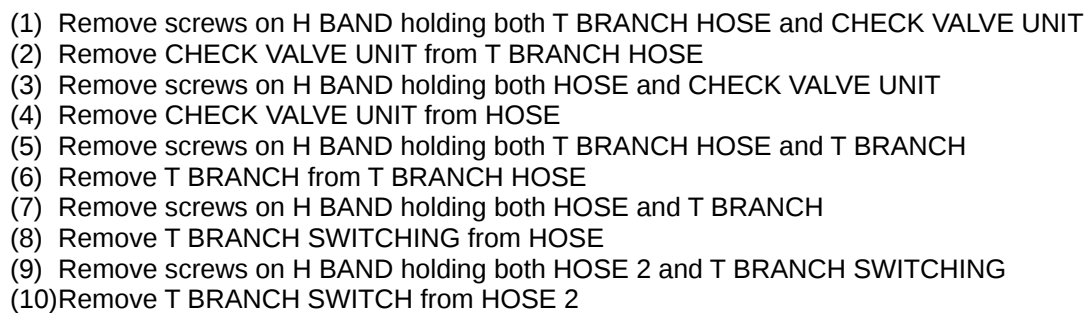
- (9) Remove 2 screws (CSK4x6UO) holding RAIL WHEEL to RAIL WHEEL
- (10) Remove 2 screws (CSK4x6UO) holding RAIL WHEEL to AXIS HOLDER 4
- (11) Remove DISINFECTANT RAIL from GUIDE BOX P

2-4-11 Disinfectant lock unit

Required tools: No.2 Phillips screwdriver, Adjustable wrench

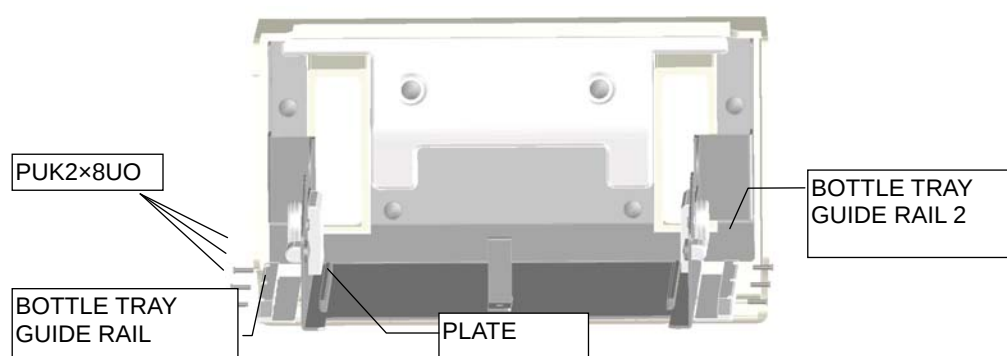


- (1) Remove 4 screws (CCUK3x6UO) LOCKING LOCK PLATE and then remove AXIS OF SOLENOID UNIT from MAIN BODY of SOLENOID UNIT (coil)
- (2) Remove hexagonal nut (BNW3UO) and washer (6N3 UO) holding LOCK ARM and then remove SPACER A and PIN B
- (3) Remove E RING holding AXIS HOLDER, PIN A and Y SOLENOID UNIT (AXIS) to LOCK ARM
- (4) Remove a screw (CCUK3x6UO) holding LOCK PIN to LOCK ARM

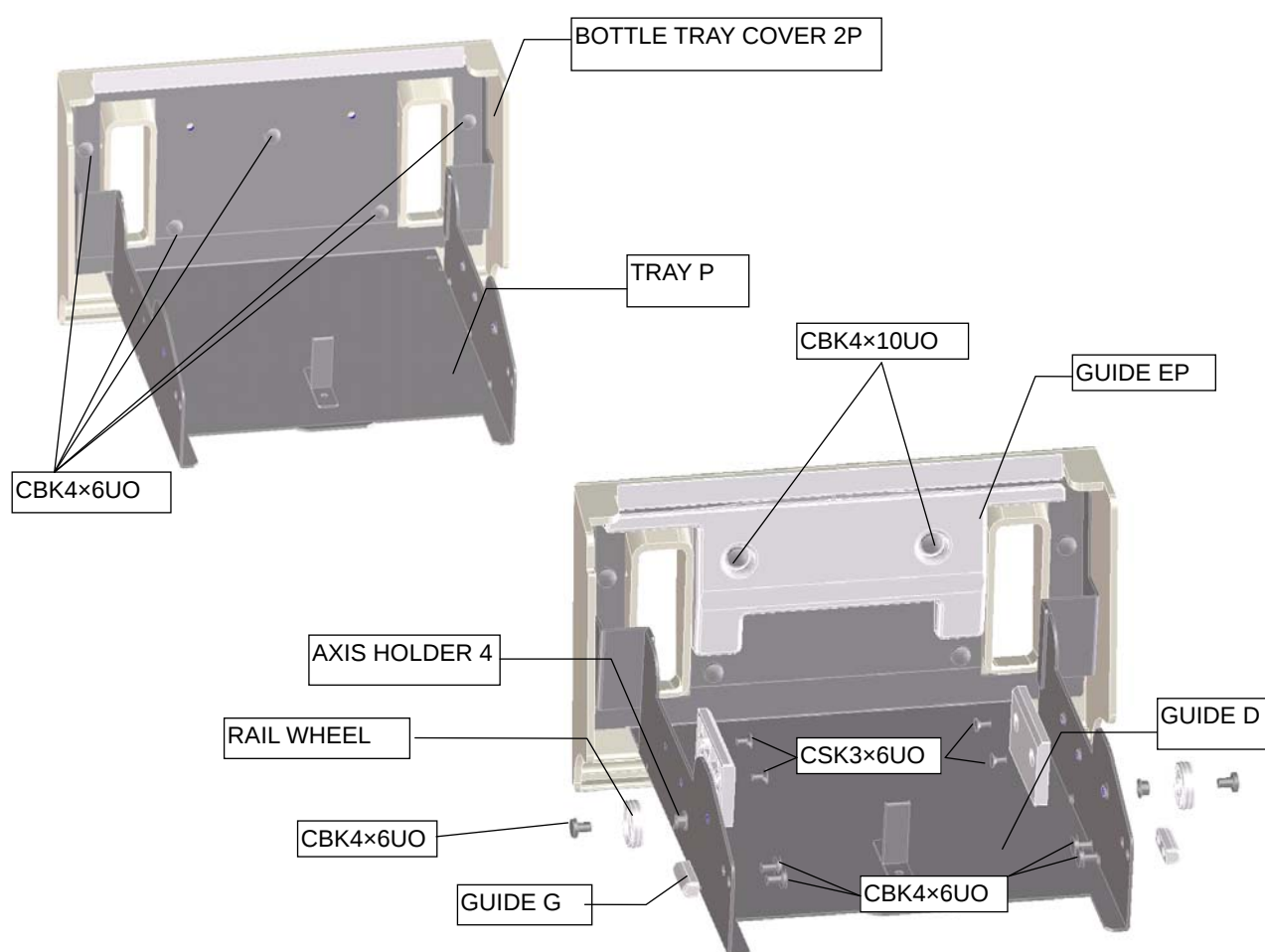


2-4-13 Disinfectant tray unit

Required tools: No.2 Phillips screwdriver



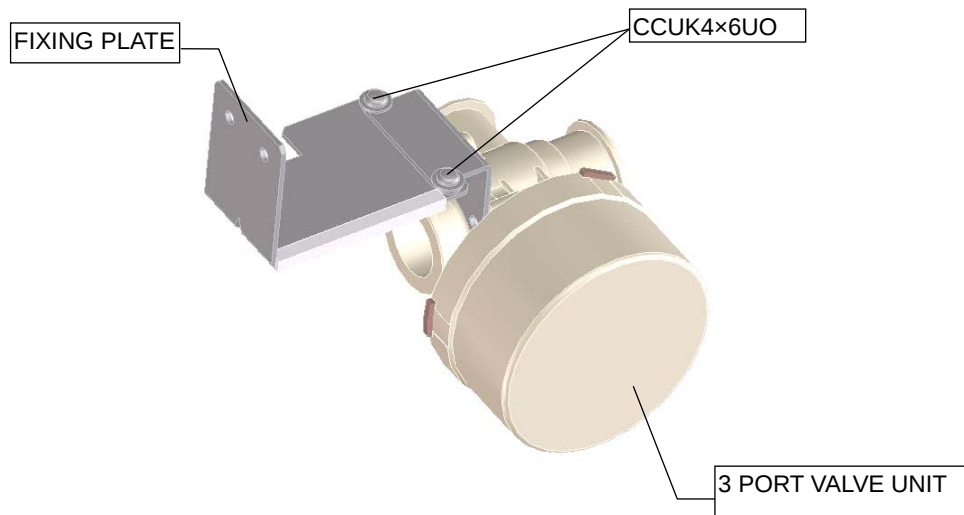
- (1) Remove 4 screws (CBK4x6UO) holding BOTTLE TRAY GUIDE RAIL and PLATE
- (2) Remove 2 screws (CBK4x6UO) holding BOTTLE TRAY GUIDE RAIL 2 and PLATE



- (3) Remove 4 screws (CSK3x6UO) holding both GUIDE G and TRAY P
- (4) Remove 2 screws (CBK4x6UO) holding both AXIS HOLDER 4 and TRAY P and then remove RAIL WHEEL
- (5) Remove 4 screws (CBK3x6UO) holding both GUIDE D and GUIDE EP
- (6) Remove 2 screws (CBK4x10UO) holding both TRAY P and GUIDE EP
- (7) Remove 5 screws (CBK4x6UP) holding both BOTTLE TRAY COVER 2P and TRAY P and then remove TRAY PACKING from BOTTLE TRAY COVER 2P

2-4-14 3-port valve unit

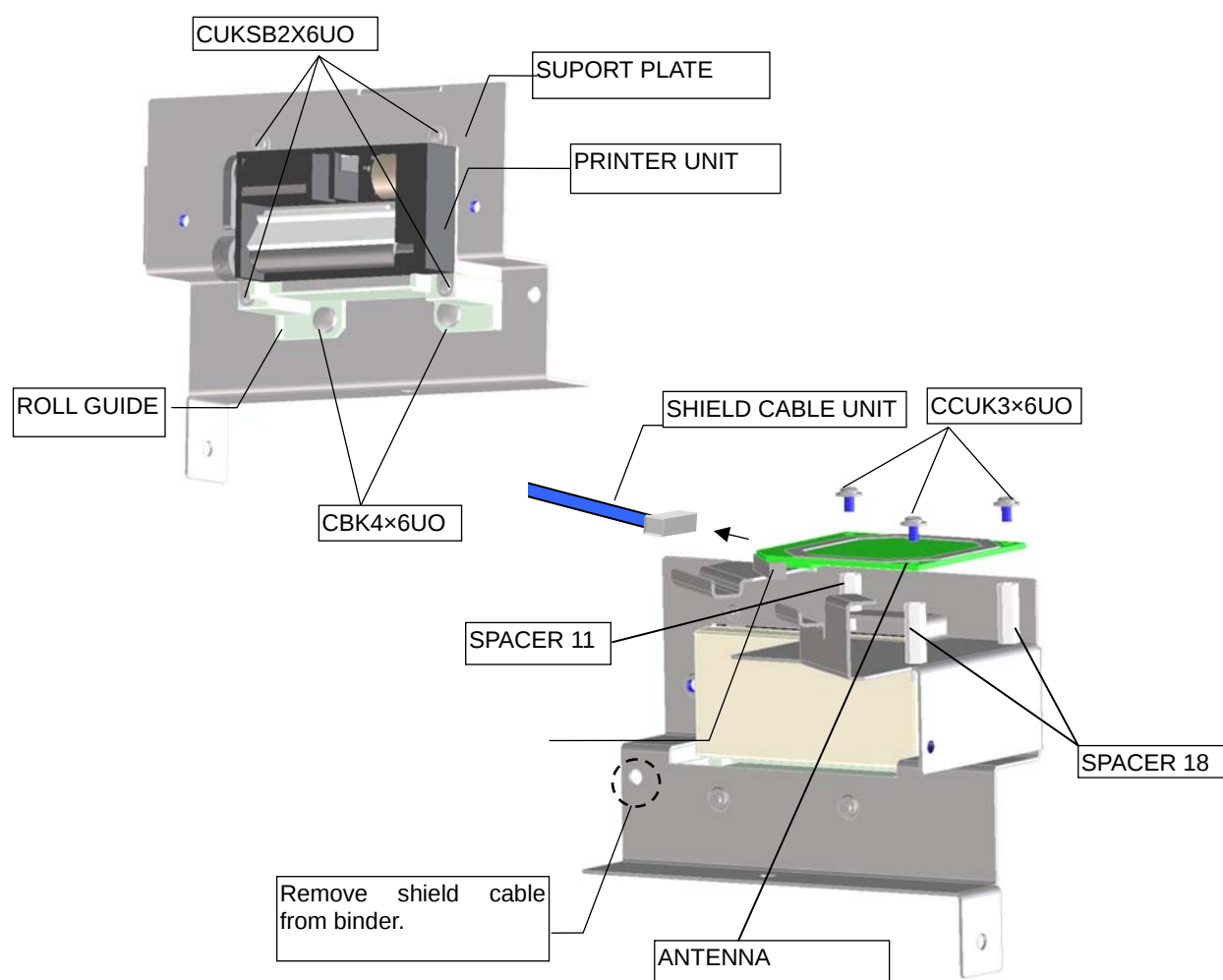
Required tools: No.2 Phillips screwdriver



- (1) Remove 2 screws (CCUK4x6UO) on BRACKET holding FIXING PLATE to 3 PORT VALVE

2-4-15 Printer head unit

Required tools: No.2 Phillips screwdriver, No.1 Phillips screwdriver

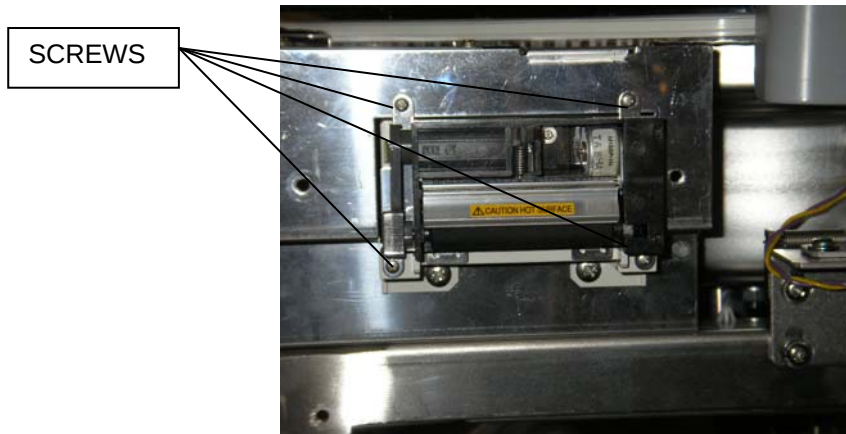


- (1) Remove SHIELD CABLE from BINDER
- (2) Remove 3 screws (CCUK3x6UO) holding ANTENNA
- (3) Remove SPACER 11 and SPACER 18 from SUPPORT PLATE
- (4) Remove 2 screws (CBK4x6UO) holding ROLL GUIDE
- (5) Remove 4 screws (CUKSB2X6UO) holding PRINTER, BACK PANEL, and ROLL GUIDE

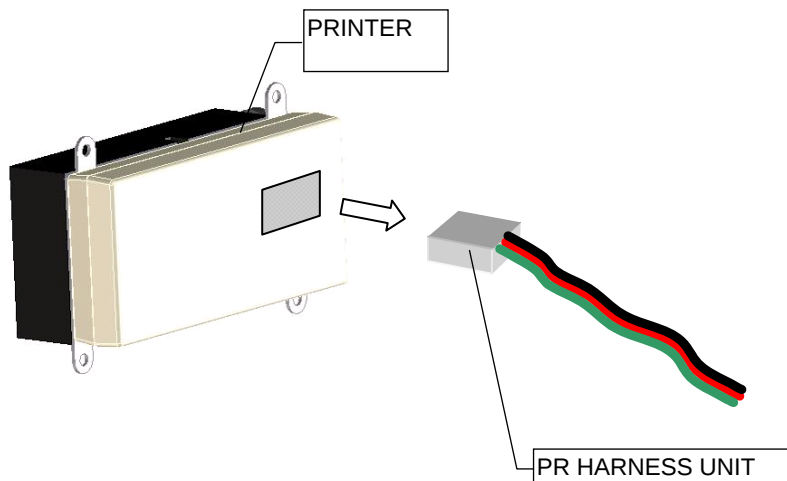
2-4-16 Printer unit

Required tools: No. 2 Phillips screwdriver

- (1) Remove 4 screws holding PRINTER UNIT

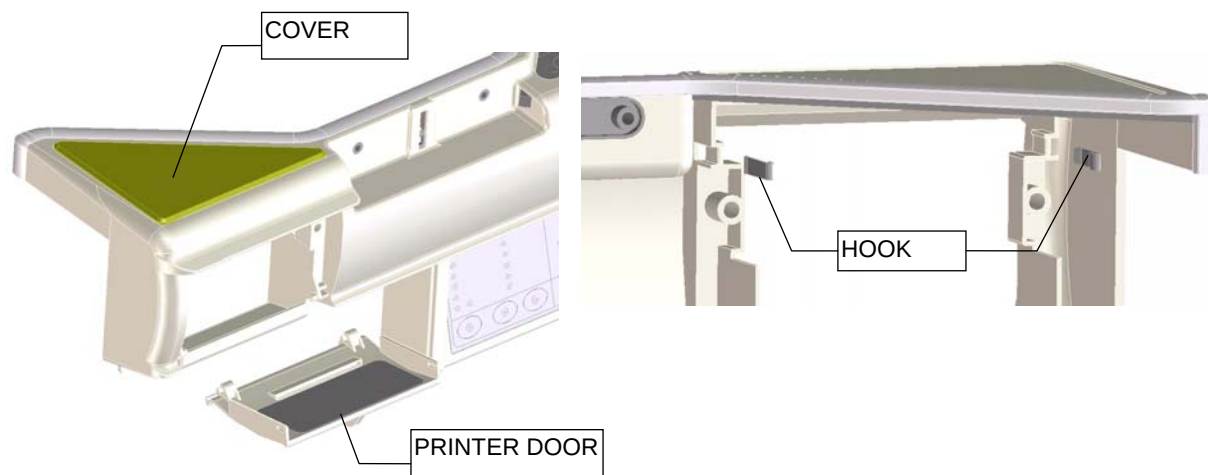


- (2) Pull PRINTER UNIT out
- (3) Disconnect PR HARNESS from PRINTER CONNECTOR

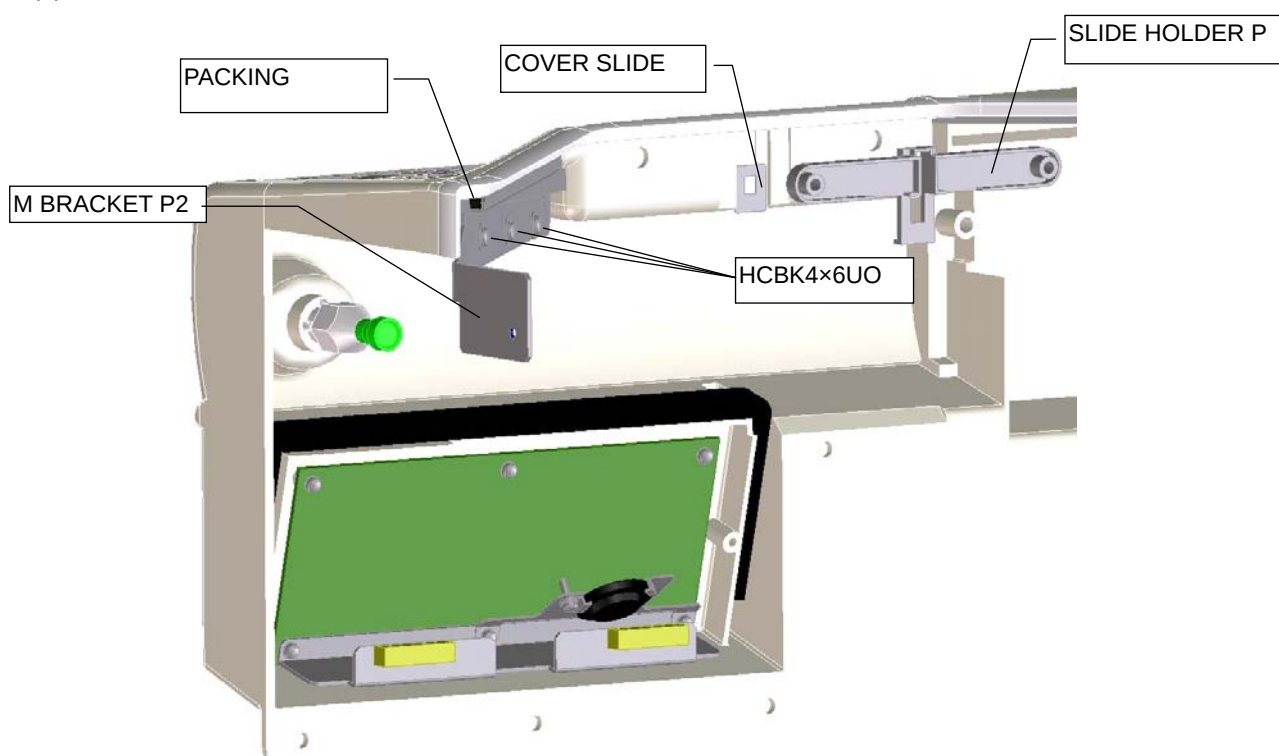


2-4-17 Front panel unit

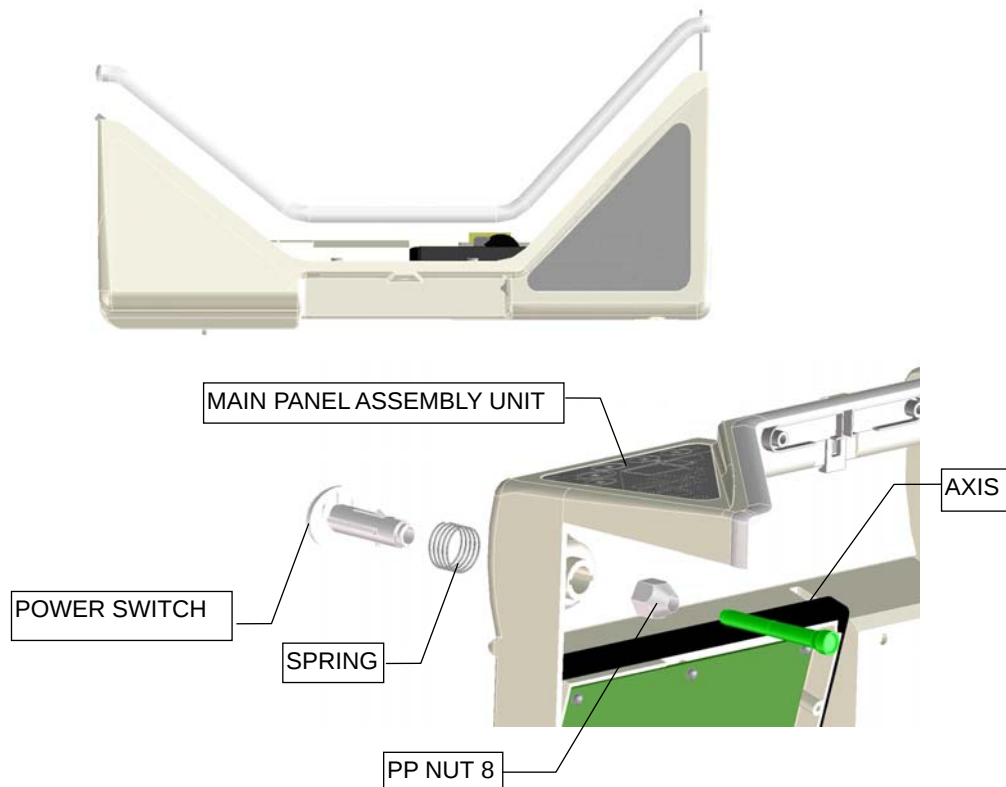
Required tools: No.2 Phillips screwdriver



- (1) Remove COVER from MAIN PANEL ASSEMBLY UNIT
- (2) Remove PRINTER DOOR from MAIN PANEL ASSEMBLY UNIT
- (3) Remove HOOK from back of MAIN PANEL ASSEMBLY UNIT



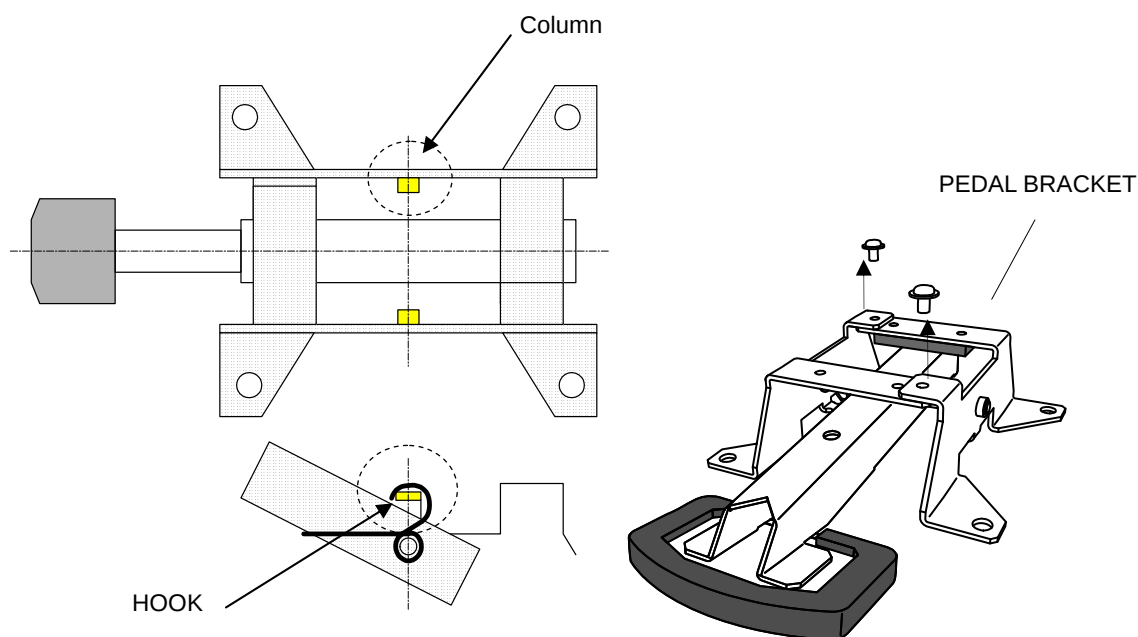
- (4) Remove 3 screws (HCBK4x6UO) holding M BRACKET P2 on MAIN PANEL ASSEMBLY UNIT
- (5) Remove SLIDE STOPPER P and COVER SLIDE



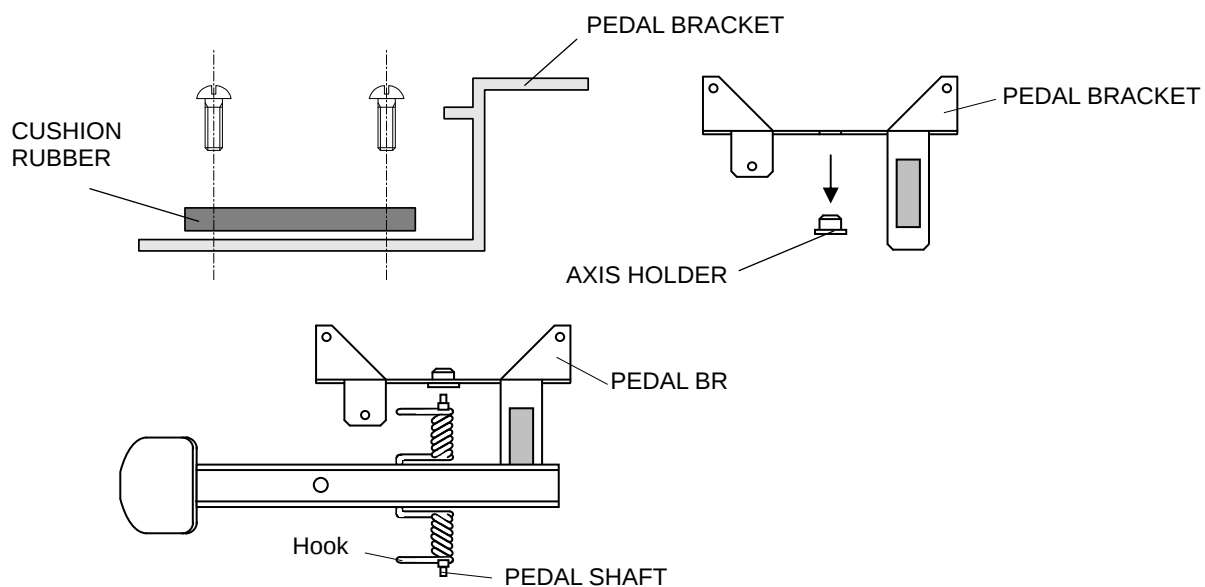
(6) Remove PP NUT and then remove SWITCH, AXIS and SPRING

2-4-18 Foot switch unit

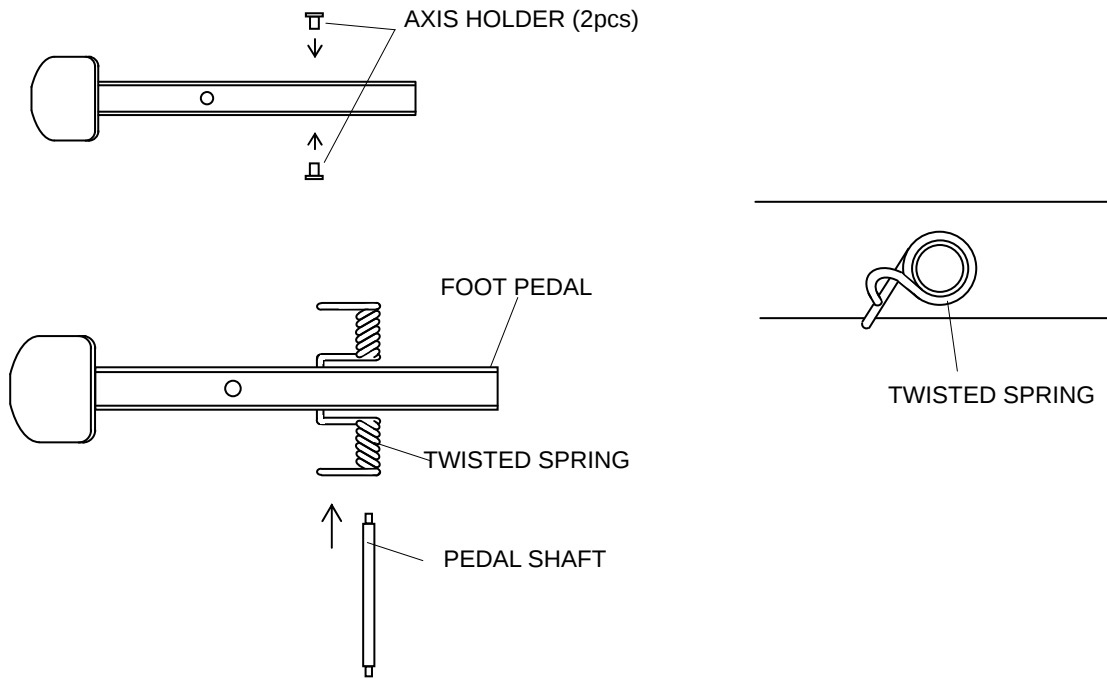
Required tools: No.2 Phillips screwdriver



- (1) Remove 2 screws (CCUK4x6UO) holding two PEDAL BRACKETS
- (2) Remove hook of twisted spring from column of PEDAL BRACKET



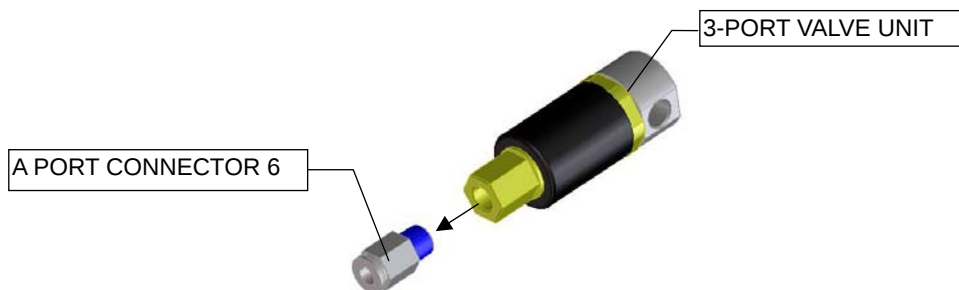
- (3) Remove PEDAL BRACKET from both sides of PEDAL SHAFT
- (4) Remove AXIS HOLDER from holes of PEDAL BRACKET
- (5) Remove 2 screws (CCUK4x6UO) holding CUSHION RUBBER to PEDAL BRACKET



- (6) Remove PEDAL SHAFT from TWISTED SPRING and FOOT PEDAL
- (7) Remove 2 units of AXIS HOLDERS from holes in FOOT PEDAL

2-4-19 Exhaust port valve unit

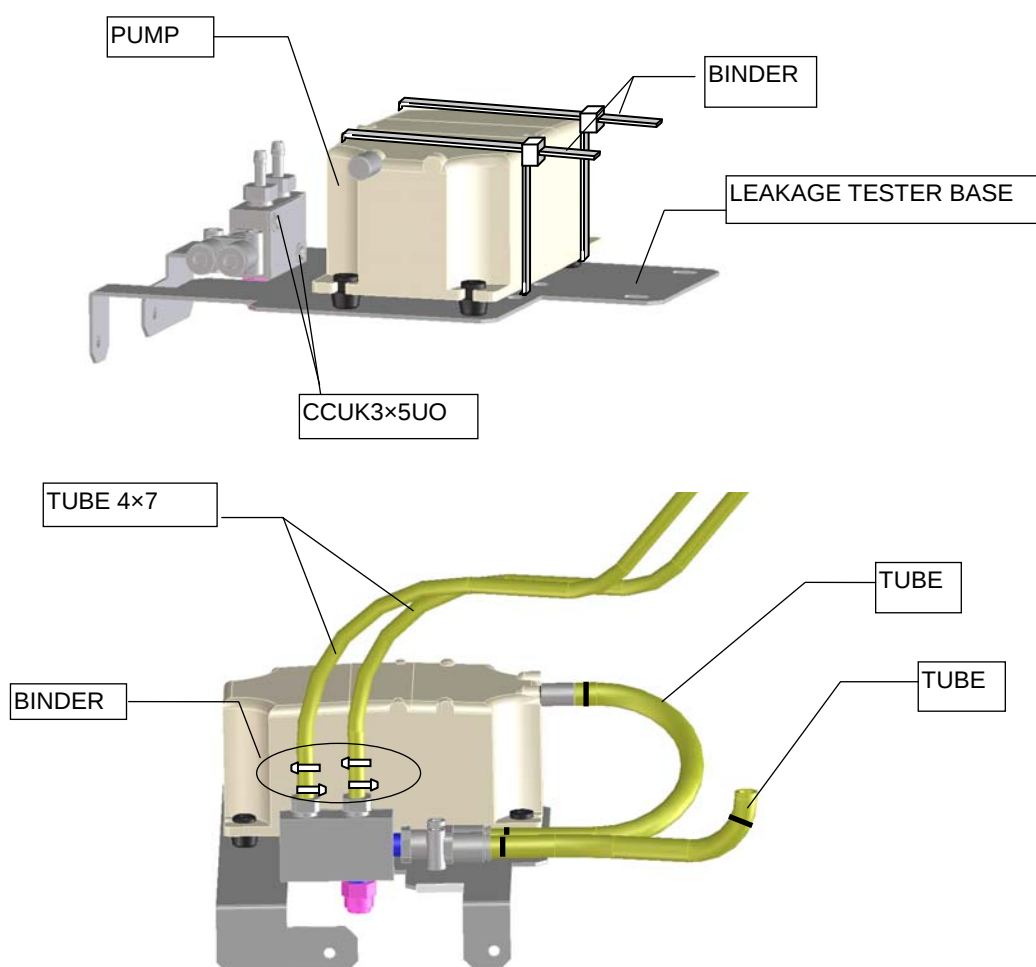
Required tools: Adjustable wrench



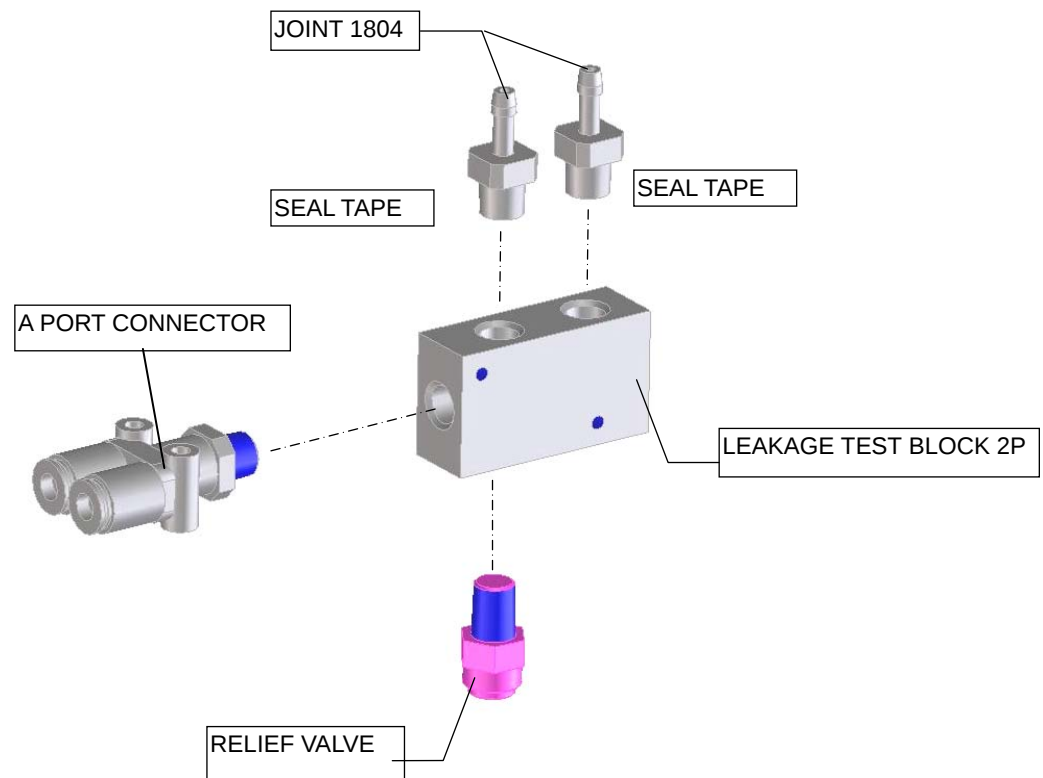
- (1) Remove A PORT CONNECTOR 6 from 3-PORT VALVE UNIT

2-4-20 Leakage detection pump 2 PU

Required tools: No.2 Phillips screwdriver, Nippers, Adjustable wrench



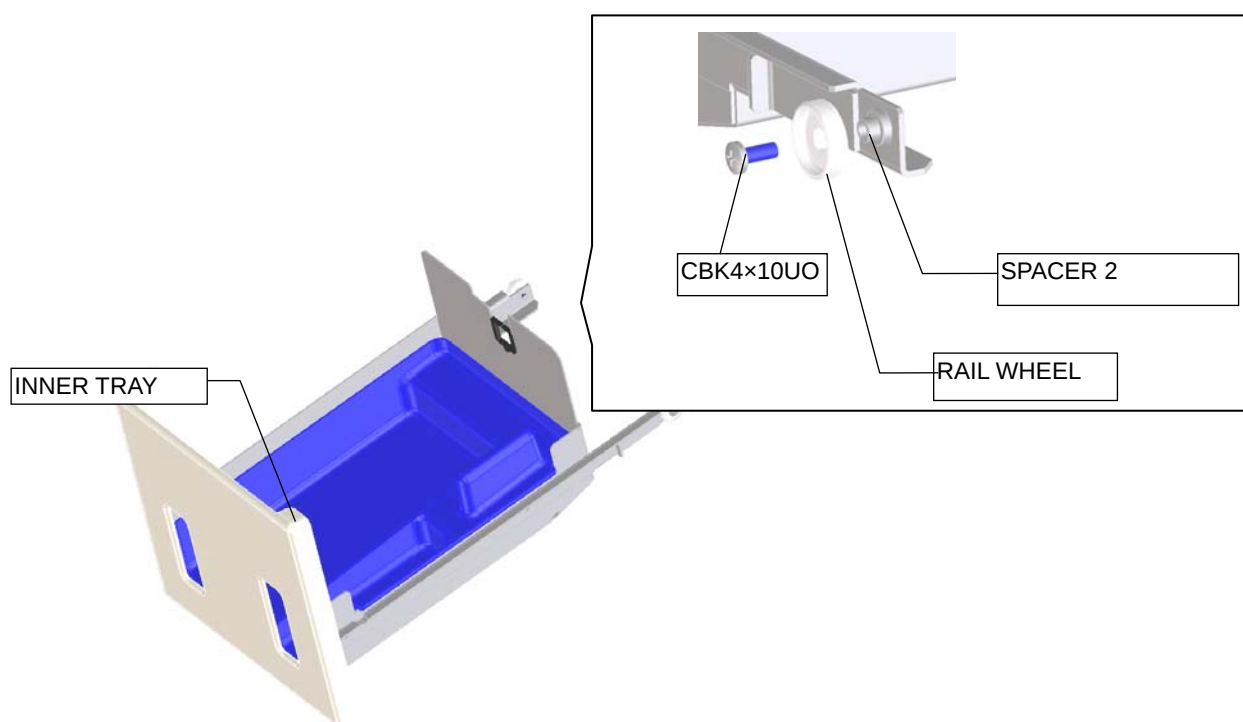
- (1) Insert a flat head precision screwdriver between connection of BINDER HOLDING TUBE 4 x 7 in order to loosen BINDER
- (2) Remove TUBE from PORT CONNECTOR A and PUMP
- (3) Cut BINDER holding LEAK DETECTION PUMP on LEAK DETECTION BASE
- (4) Remove 2 screws (CCUK3x5UO) holding JOINTs and LEAK DETECTION BLOCK 2P on LEAK DETECTION BASE



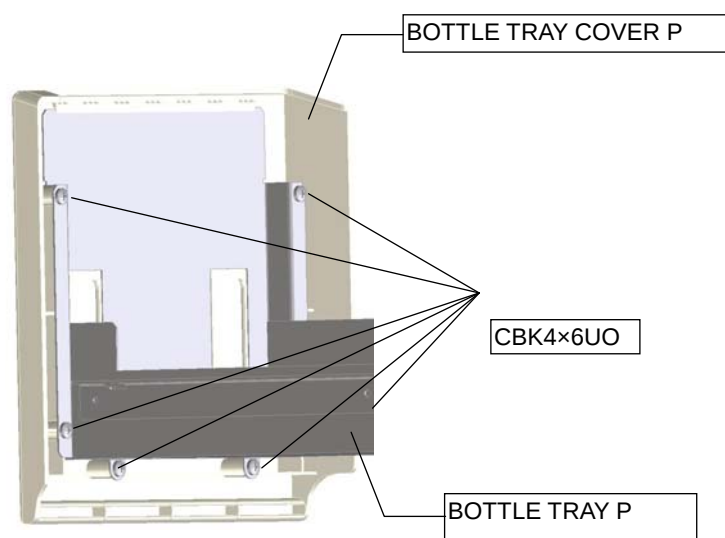
- (5) Remove A PORT CONNECTOR, RELIEF VALVE, JOINT 1804 from LEAK DETECTION BLOCK 2P

2-4-21 Bottle tray unit

Required tools: No.2 Phillips screwdriver



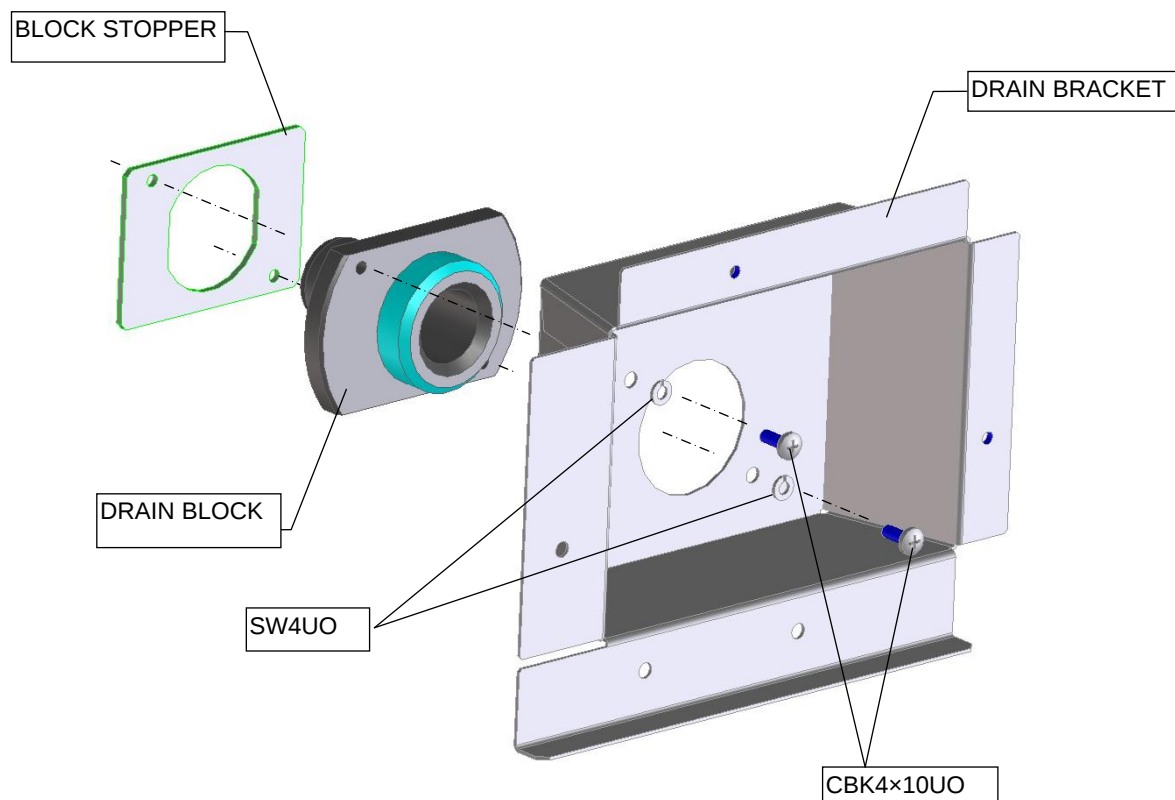
- (1) Remove INNER TRAY from MAIN DRAWER UNIT P
- (2) Remove 2 screws (CBK4x10UO) holding BOTTLE TRAY P



- (3) Remove 6 screws (CBK4x6UO) holding BOTTLE TRAY COVER P and BOTTLE TRAY P
- (4) Remove BOTTLE TRAY P from hook of BOTTLE TRAY COVER P

2-4-22 Drain block unit

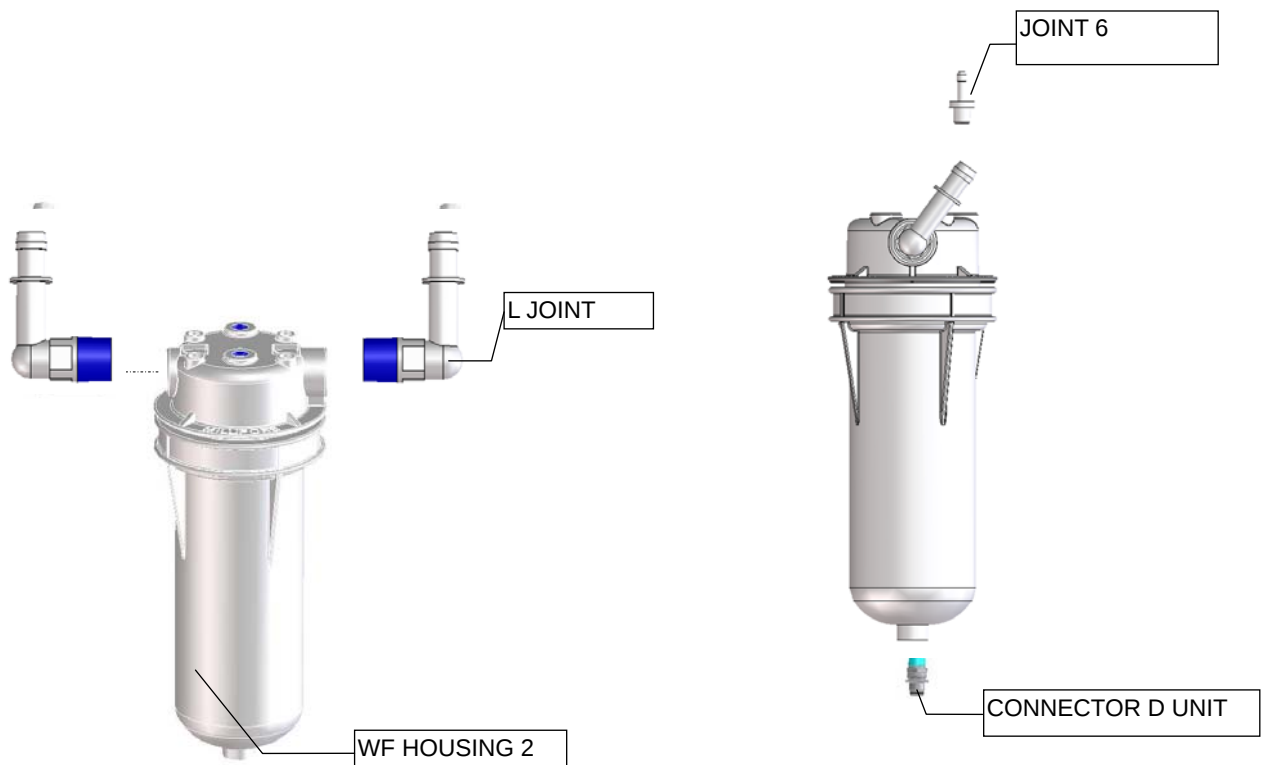
Required tools: No.2 Phillips screwdriver



- (1) Remove 2 screws (CBK4x10UO) holding DRAIN BLOCK, BLOCK STOPPER and DRAIN BRACKET

2-4-23 Water filter unit

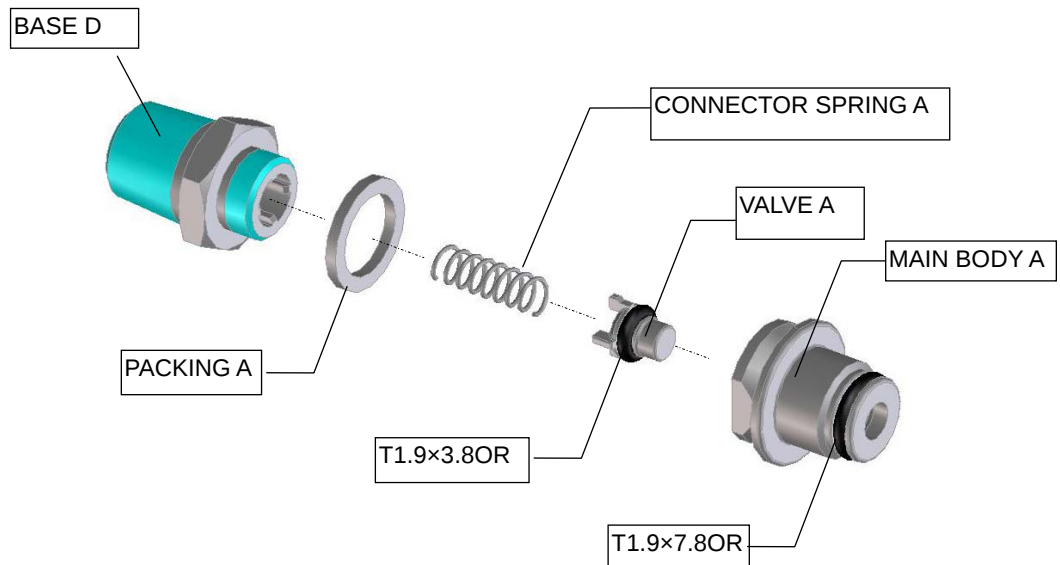
Required tools: Adjustable wrench



- (1) Remove CONNECTOR D UNIT, L JOINT and JOINT 6 from WF HOUSING 2

2-4-24 Connector DU

Required tools: Connector B securing jig (JA9823), Connector rotation jig (JA7697)

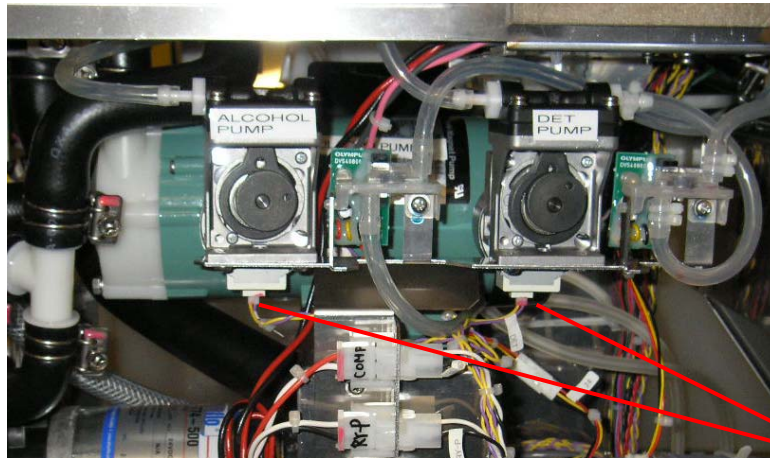


- (1) Remove MAIN BODY A from BASE D and then remove VALVE A, CONNECTOR SPRING A and PACKING A
- (2) Remove O RING from MAIN BODY A
- (3) Remove O RING from VALVE A

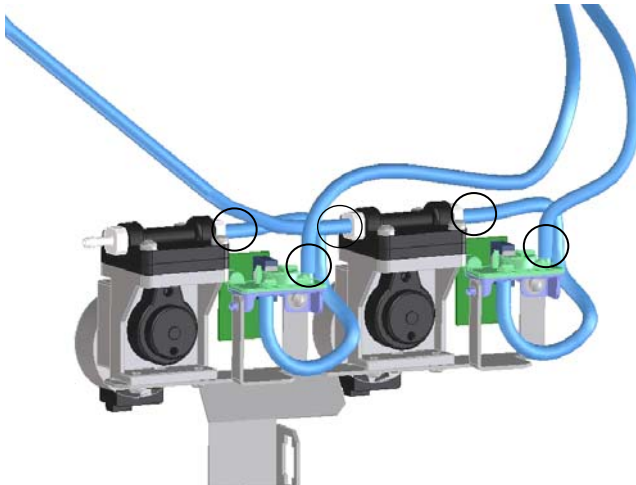
2-4-25 DA pump unit

Required tools: No.2 Phillips screwdriver, Wire cutter

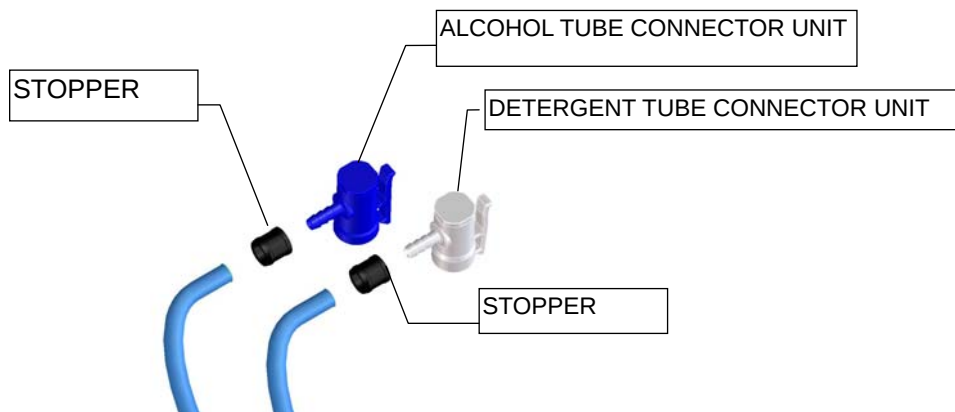
- (1) Remove electrical connectors for DA PUMP UNITS



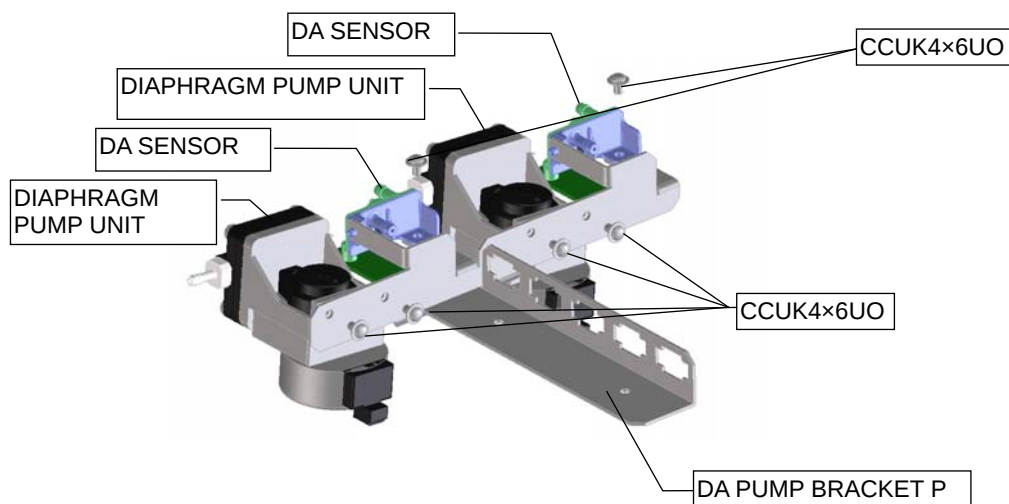
Electrical
connectors



- (2) Remove BINDERS on the various JOINTs secured to the TUBES



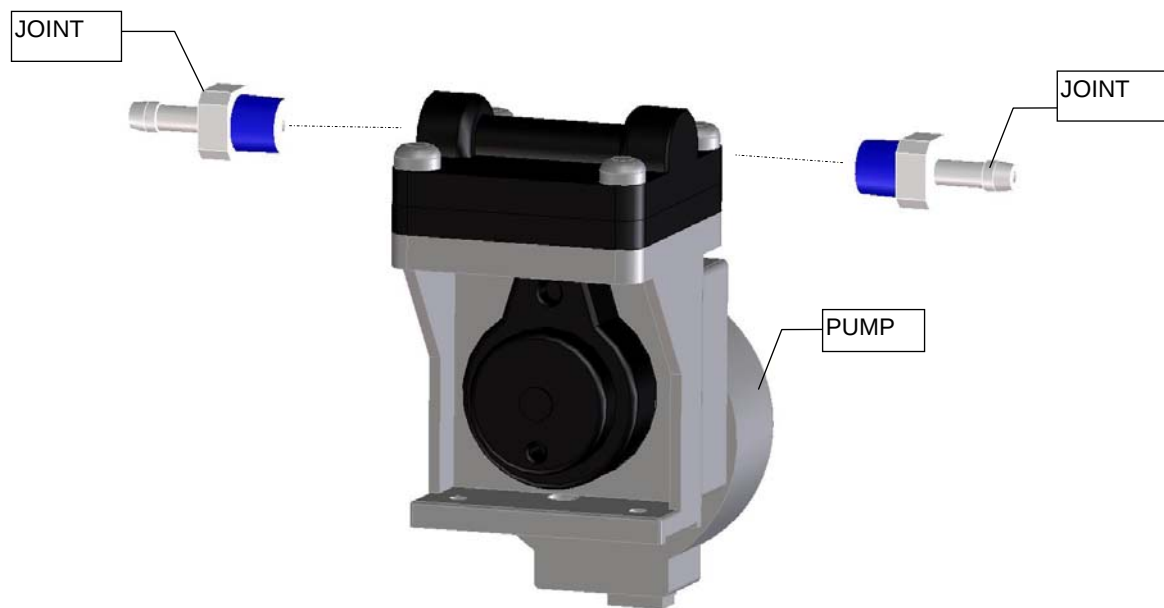
- (3) Remove STOPPERS, and DETERGENT and ALCOHOL TUBE CONNECTOR UNITS



- (4) Remove screws securing (CCUK4x6UO) DA SENSOR UNITS
(5) Remove 4 screws securing (CCUK4x6UO) DA PUMP BRACKET and DIAPHRAGM PUMP UNITS
(6) Remove DA PUMP UNITS

2-4-26 Diaphragm PU

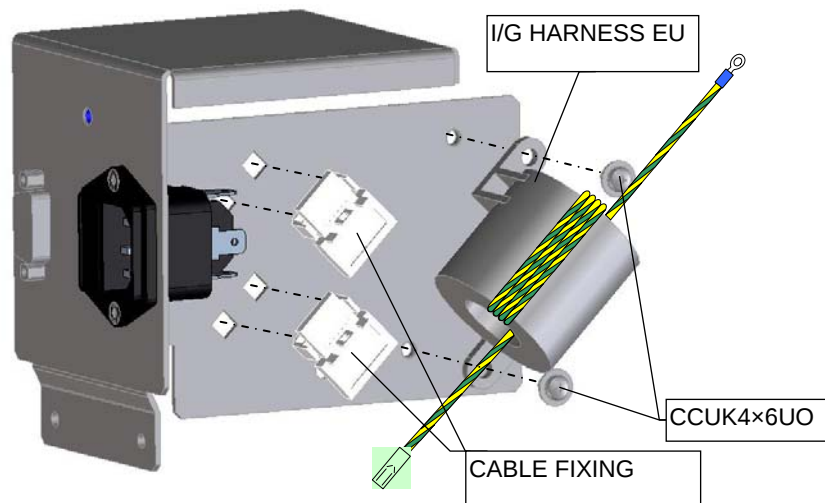
Required tools: Adjustable wrench



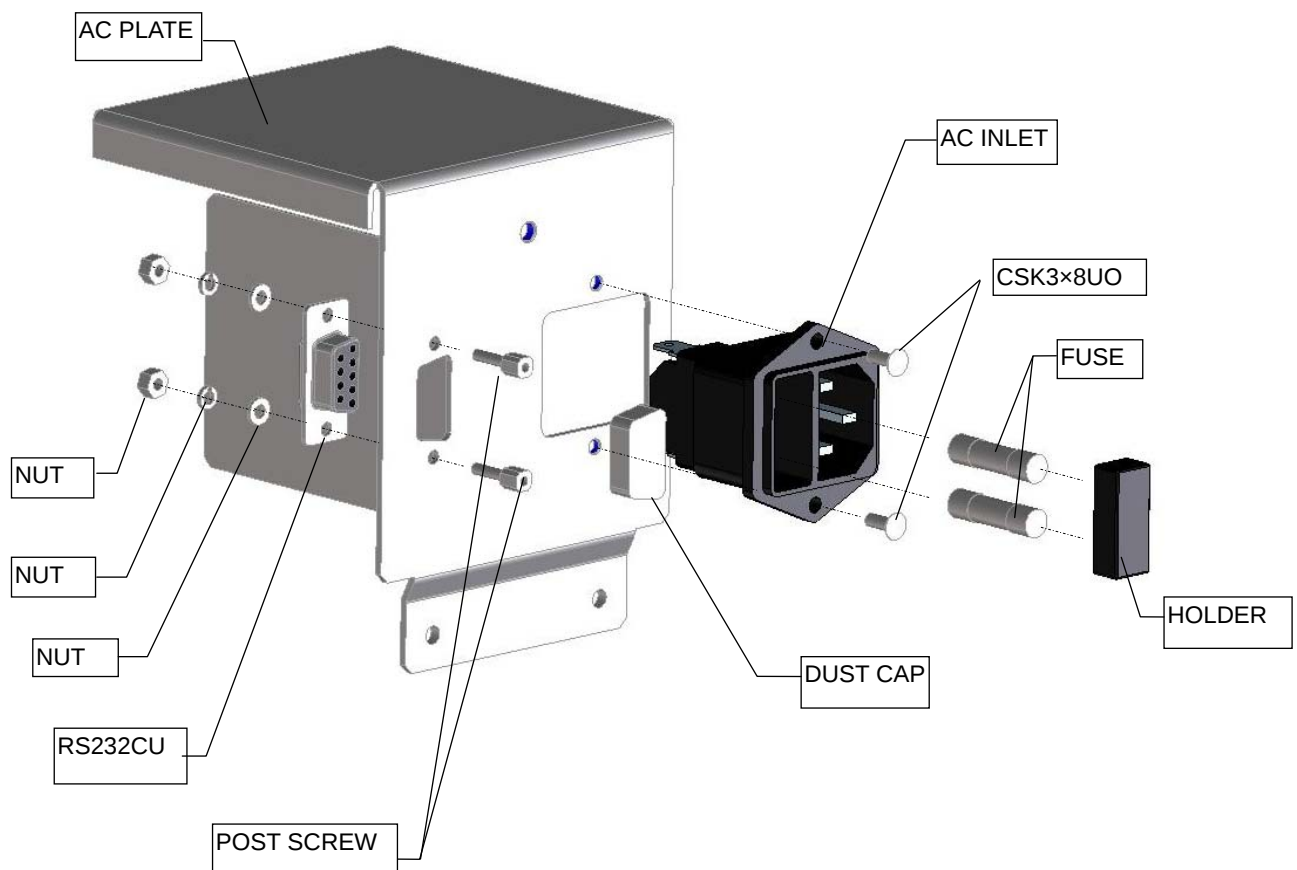
(1) Remove joints on both sides of PUMP

2-4-27 AC inlet unit

Required tools: Hexagonal nut driver, No.2 Phillips screwdriver



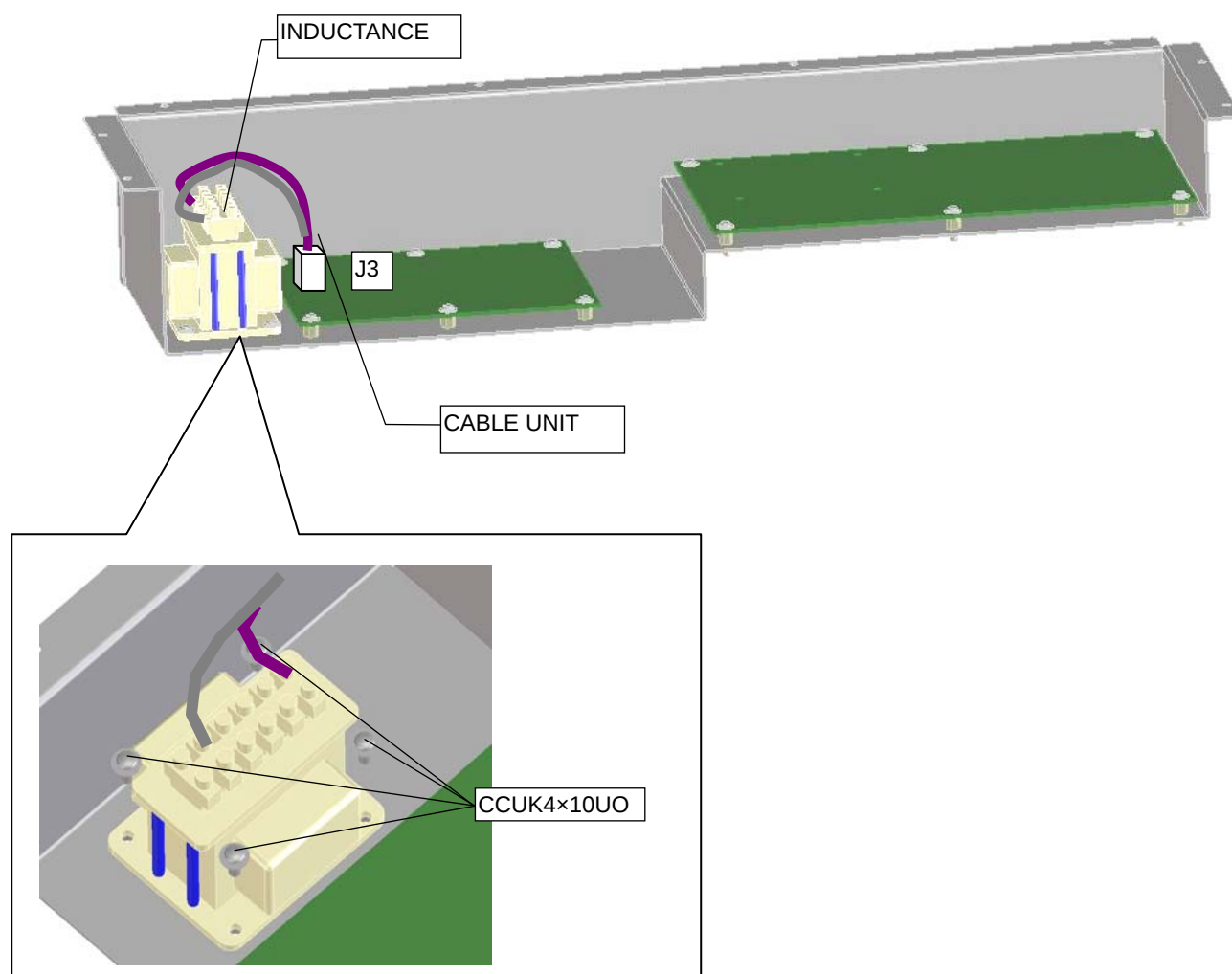
- (1) Remove 2 screws(CCUK4x6UO) holding I/G HARNESS EU



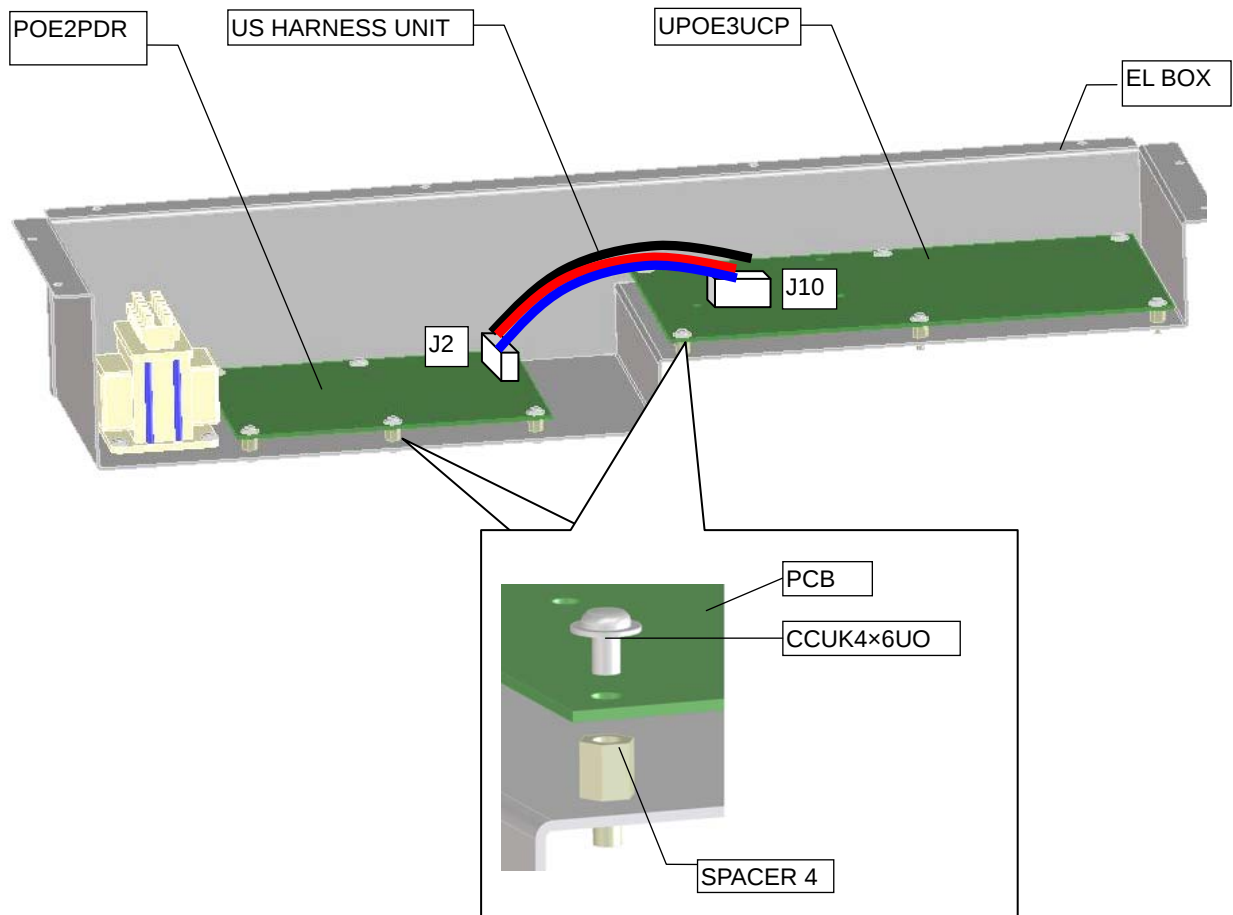
- (2) Remove DUST CAP
(3) Remove 2 of FUSES
(4) Remove 2 screws (CSK3x8UO) holding AC INLET
(5) Remove RS232C connector from AC PLATE
(6) Remove post screw holding RS232C connector on AC PLATE

2-4-28 EL box unit

Required tools: No.2 Phillips screwdriver, Flat screwdriver



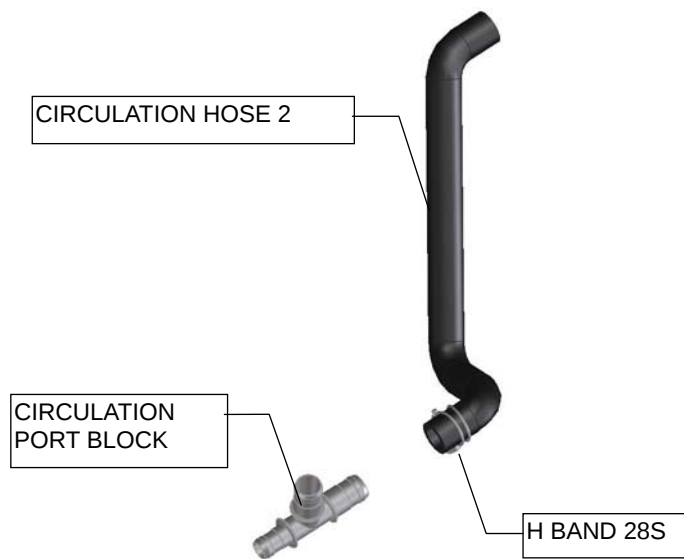
- (1) Remove CABLE UNIT from J3
- (2) After unscrewing screw on INDUCTANCE, remove CABLE UNIT from TERMINAL
- (3) Remove 4 screws (CCUK4x10UO) holding INDUCTANCE to EL BOX UNIT



- (4) Disconnect US HARNESS UNIT from connectors on both PCB
- (5) Remove 6 screws (CCUK4x6UO) holding UPOE3UCP
- (6) Remove 6 screws (CCUK4x6UO) holding UPOE2PDR
- (7) Remove spacer 4 from EL BOX UNIT (12 locations)

2-4-29 Circulation branching unit

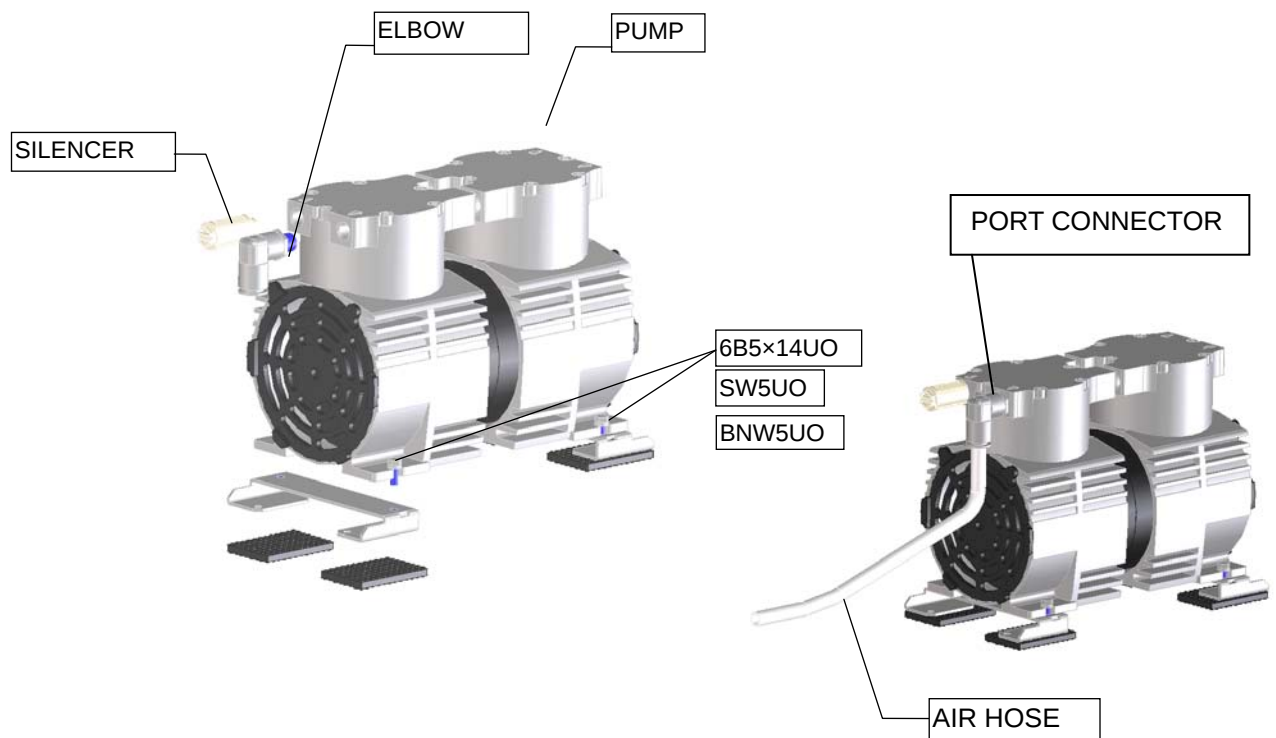
Required tools: No.2 Phillips screwdriver



- (1) Remove screws of H BAND 28S
- (2) Remove CIRCULATION PORT BLOCK from CIRCULATION HOSE 2

2-4-30 Compressor unit

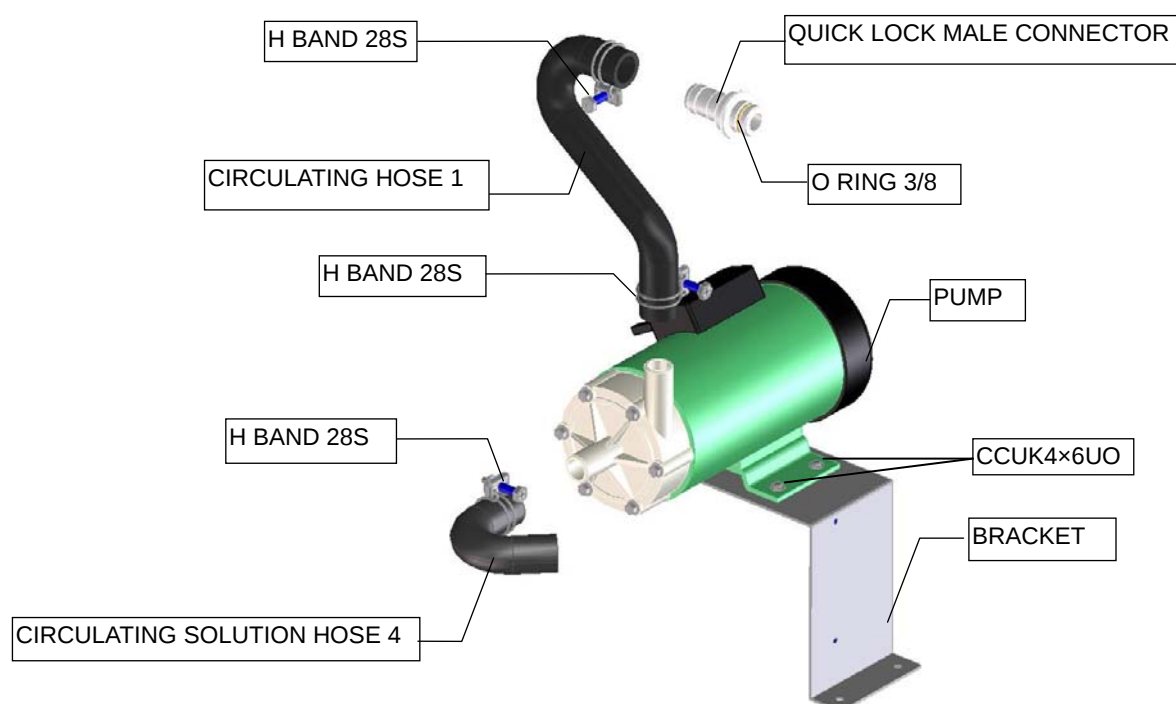
Required tools: Adjustable wrench



- (1) Remove AIR HOSE from PORT CONNECTOR A
- (2) Remove ELBOW from OUT side on COMPRESSOR
- (3) Remove SILENCER from IN side on PUMP
- (4) Remove 4 screws (6B5x14UO), 4 washers (SW5UO) and 4 washers (BNW5UO) holding COMPRESSOR to COMPRESSOR BASE

2-4-31 Circulating PUMP unit

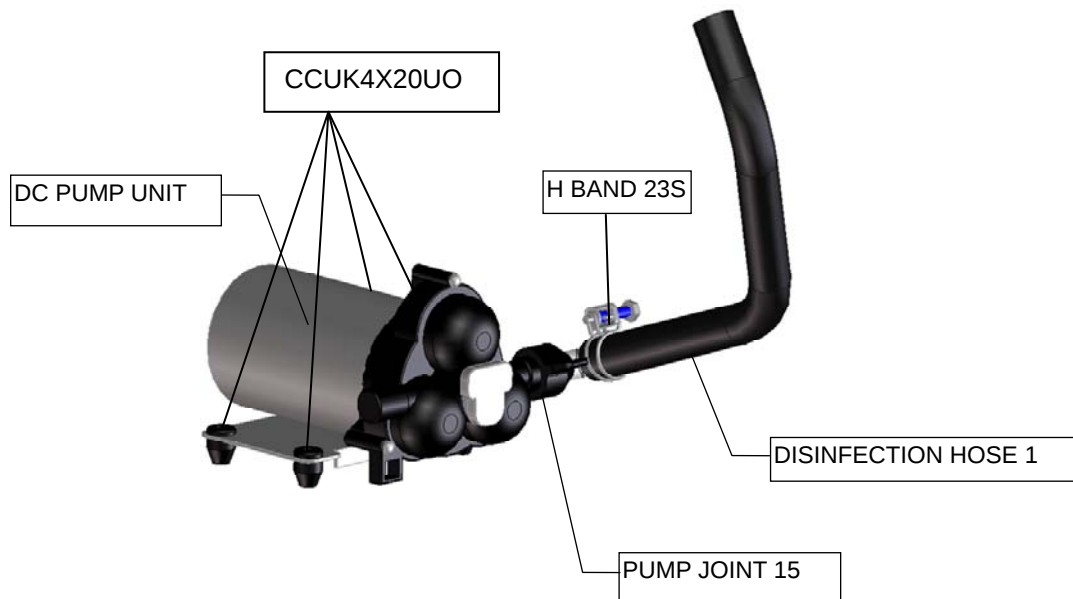
Required tools: No.2 Phillips screwdriver



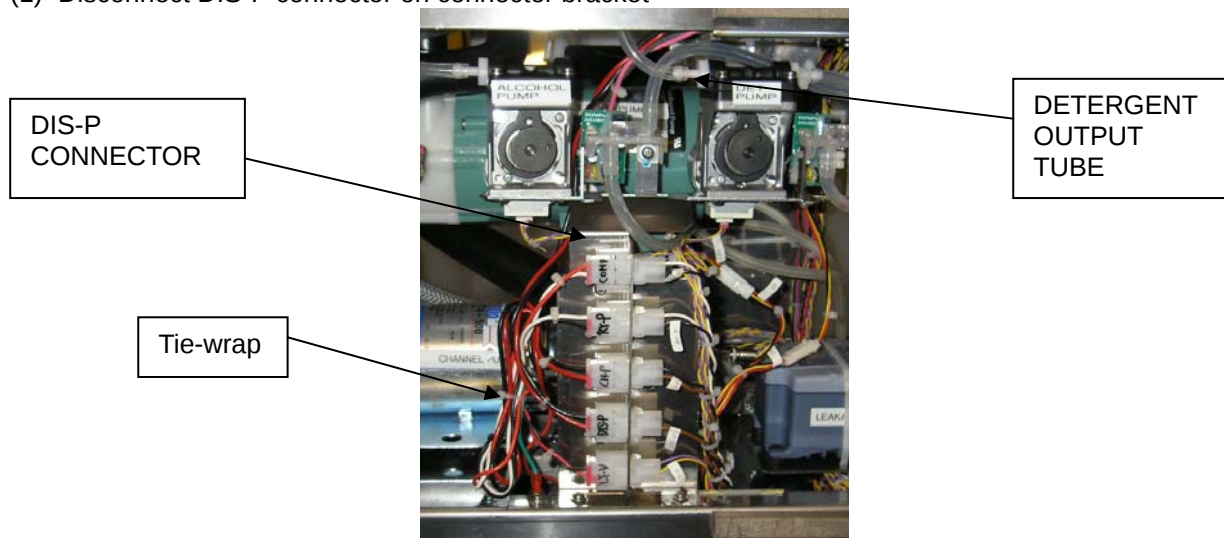
- (1) Remove 4 screws (CCUK4x6UO) holding pump to BRACKET
- (2) Remove screw of H BAND of CIRCULATING HOSE 1 and then remove QUICK LOCK MALE CONNECTOR from the CIRCULATING HOSE 1
- (3) Remove O RING from QUICK LOCK MALE CONNECTOR
- (4) Remove screw on H BAND of CIRCULATING HOSE 1 and then remove CIRCULATING SOLUTION HOSE 4 from PUMP
- (5) Remove screw on H BAND of CIRCULATING HOSE 1 and then remove CIRCULATING SOLUTION HOSE 4 from PUMP

2-4-32 Disinfectant pump unit

Required tools: No.2 Phillips screwdriver, Flat screwdriver



- (1) Disconnect DIS-P connector on connector bracket



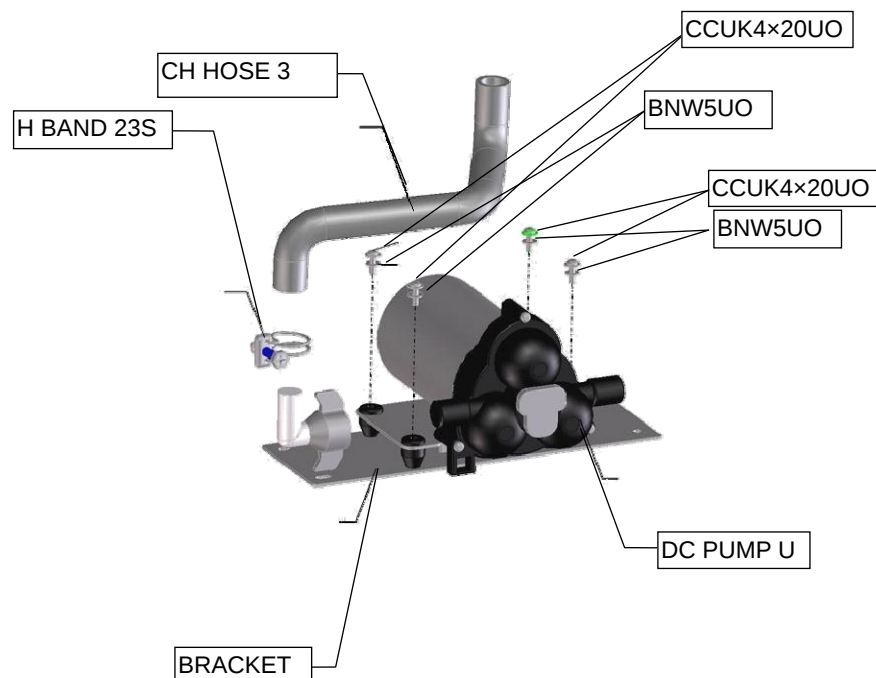
- (2) Cut tie wrap bundling connector cables
 (3) Use small flat-head screwdriver to release DC PUMP wiring harness from binder



- (4) Remove PUMP JOINT 15 left side of disinfectant PUMP
 (5) Remove PUMP JOINT 15 at right side on disinfectant PUMP
 (6) Remove 4 screws (CCUK4X20UO)
 (7) Remove disinfectant PUMP

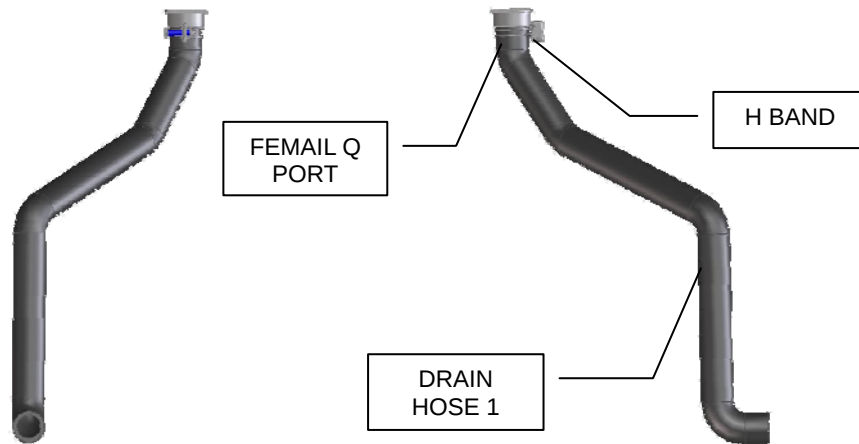
2-4-33 CH pump unit

Required tools: No.2 Phillips screwdriver



- (1) Remove screw on H BAND of CH hose 3 and then remove PUMP JOINT from CH HOSE 3
- (2) Remove 4 screws (CCUK4x20UO) and 4 washes (BNW5UO) holding PUMP and BRACKET

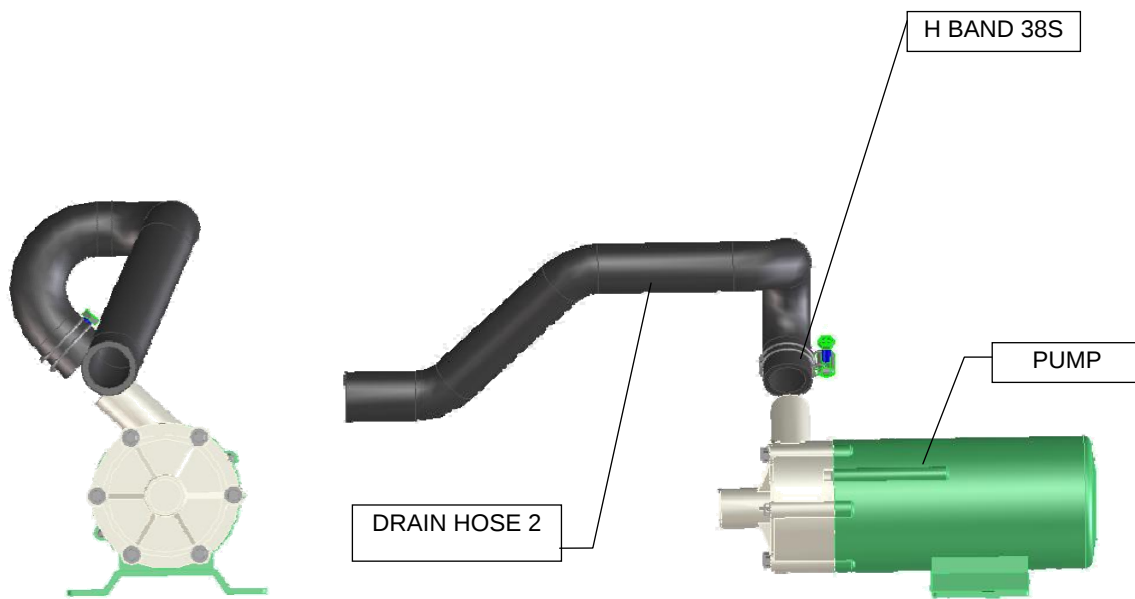
2-4-34 DRAIN HOSE UNIT



- (1) Remove screw of H BAND
- (2) Remove FEMAIL Q PORT from DRAIN HOSE UNIT

2-4-35 Drain pump unit

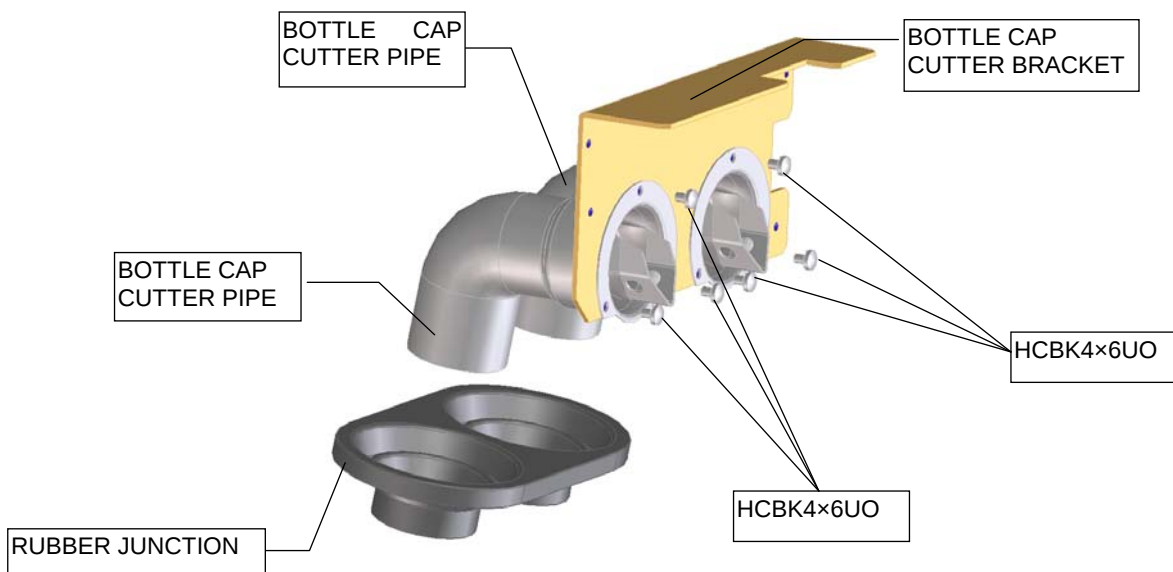
Required tools: No.2 Phillips screwdriver



- (1) Remove screws of each H BAND
- (2) Remove DRAIN HOSE 2 from DRAIN PUMP

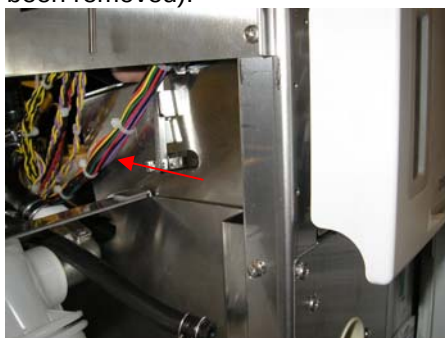
2-4-36 Bottle cap cutter unit

Required tools: No.2 Phillips screwdriver



(1) Lift DISINFECTANT LOCK UNIT located on the left side of the DISINFECTANT GUIDE BOX P

*Note: In order to disengage disinfectant lock unit, it will be necessary to reach around the back to the left side of the disinfectant bottle unit. Picture below-left is used for visual purposes only (this view is only possible when bottle tray unit has been removed).



(2) While lifting DISINFECTANT LOCK UNIT, pull DISINFECTANT TRAY out



(3) Remove empty disinfectant containers

(4) Remove RUBBER JUNCTION from BOTTLE CAP CUTTER PIPES

(5) Remove 6 screws (HCBK4x6UO) holding BOTTLE CAP CUTTER PIPES on BOTTLE CAP CUTTER BRACKET

(6) Remove BOTTLE CAP CUTTER PIPES

2-4-37 Disinfectant solution tank unit

Required tools: No.2 Phillips screwdriver, Adjustable wrench, Flat screwdriver

- (1) Unlock QUICK LOCK CONNECTOR of DRAIN PORT under SUPPLY WATER VALVE and then place the tube to the left hand side.

Note:

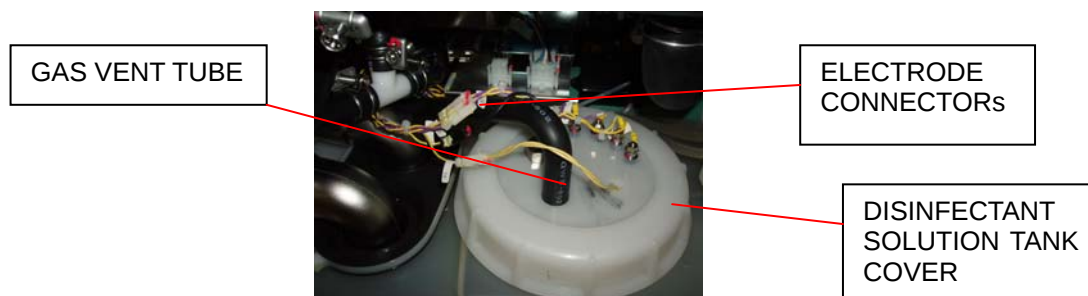
Prepare cloth or paper to wipe fluid from SUPPLY WATER VALVE UNIT. Inspect the O-ring in the SUPPLY WATER VALVE to determine condition and presence.



- (2) Remove GAS VENT TUBE on the DISINFECTION SOLUTION TANK COVER.

Note:

Apply alcohol when the TUBE is too tight.



- (3) Remove 4 ELECTRODE CONNECTORS in the DISINFECTION SOLUTION TANK.

Note:

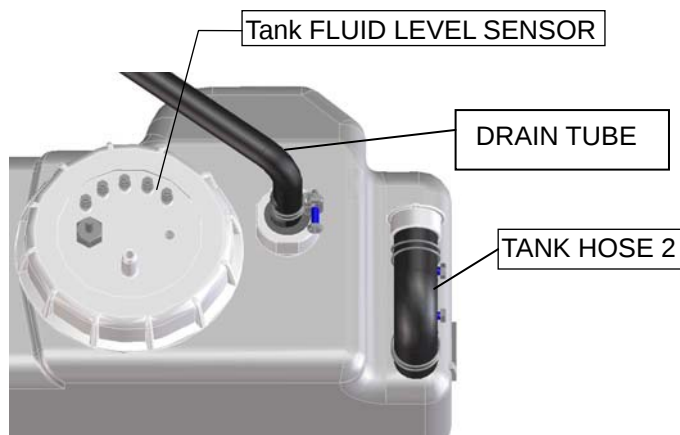
Due to CONNECTORS having SONY BOND, tear the glue off using tweezers or flat-head screwdriver.

- (4) Remove the DISINFECTION SOLUTION TANK COVER and then remove TANK FLUID LEVEL SENSOR from the DISINFECTION SOLUTION TANK and inspect the inside of the DISINFECTION SOLUTION TANK

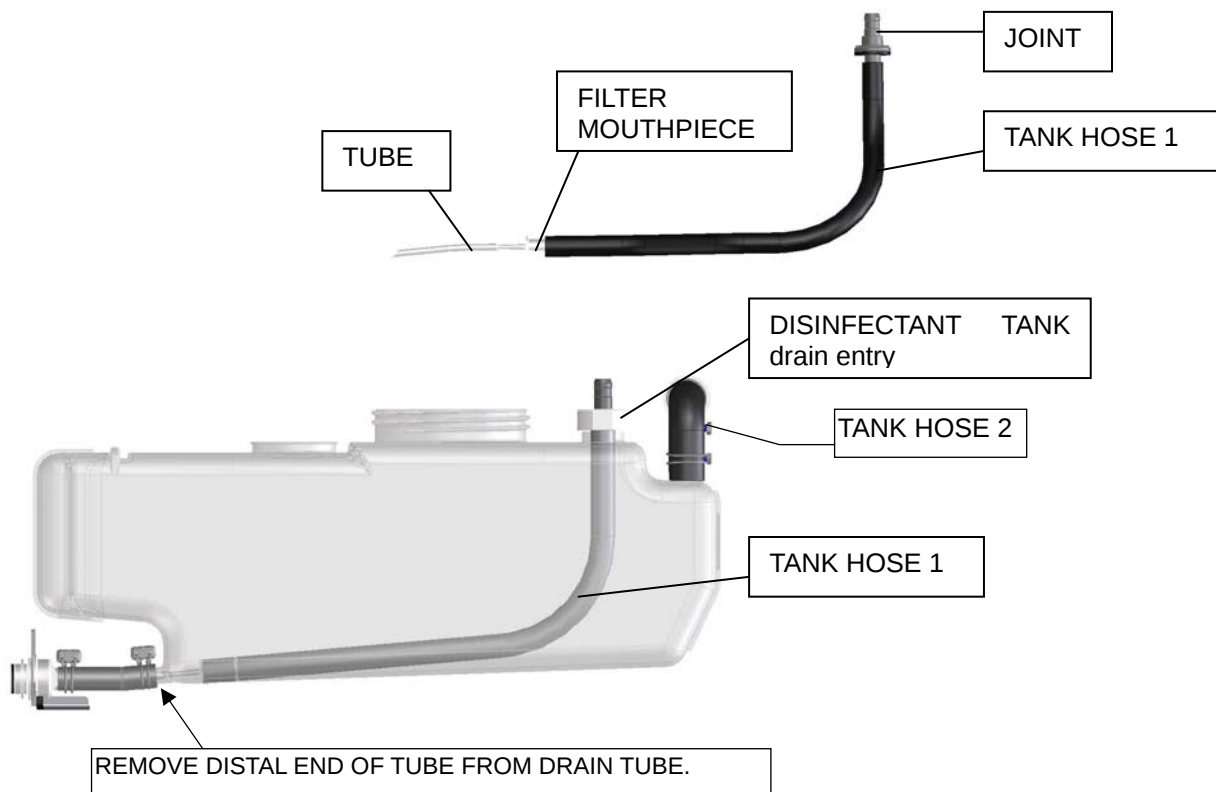
Note:

Wear gloves when you remove TANK FLUID LEVEL SENSOR from DISINFECTION TANK. Prepare a cloth or paper to wipe solution from TANK FLUID LEVEL SENSOR.

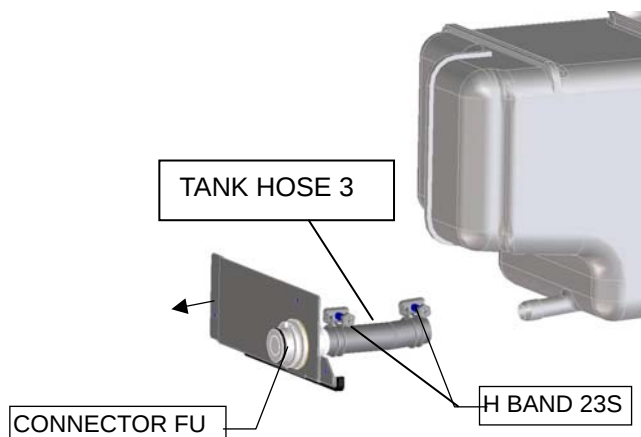
- (5) Loosen H BAND screw on DRAIN TUBE and disconnect DRAIN TUBE
- (6) Unscrew DRAIN NUT on DISINFECTION SOLUTION TANK



- (7) Loosen screw on H BAND of TANK HOSE 2 and disconnect TANK HOSE 2
- (8) Remove entire TANK HOSE 1 assembly through DISINFECTANT TANK drain entry

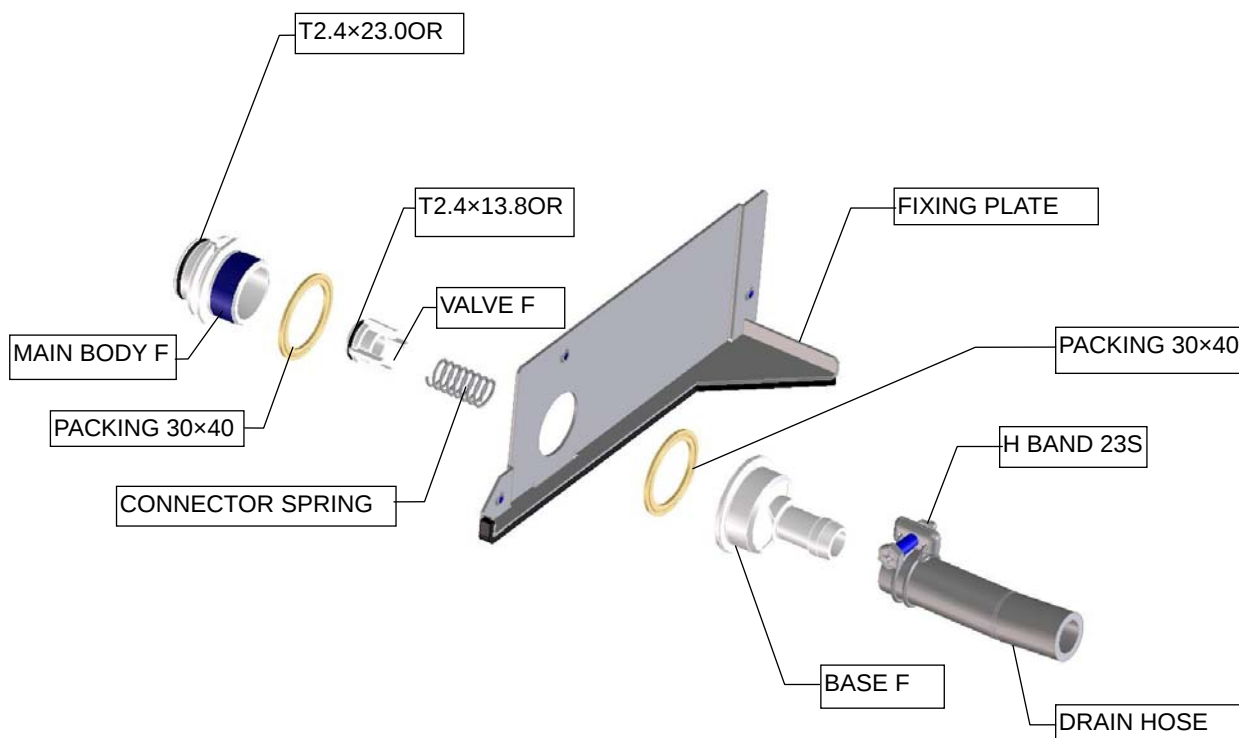


- (9) Loosen screws on H BAND of TANK HOSE 3 of CONNECTOR FU and remove DISINFECTANT TANK



2-4-38 Connector FU

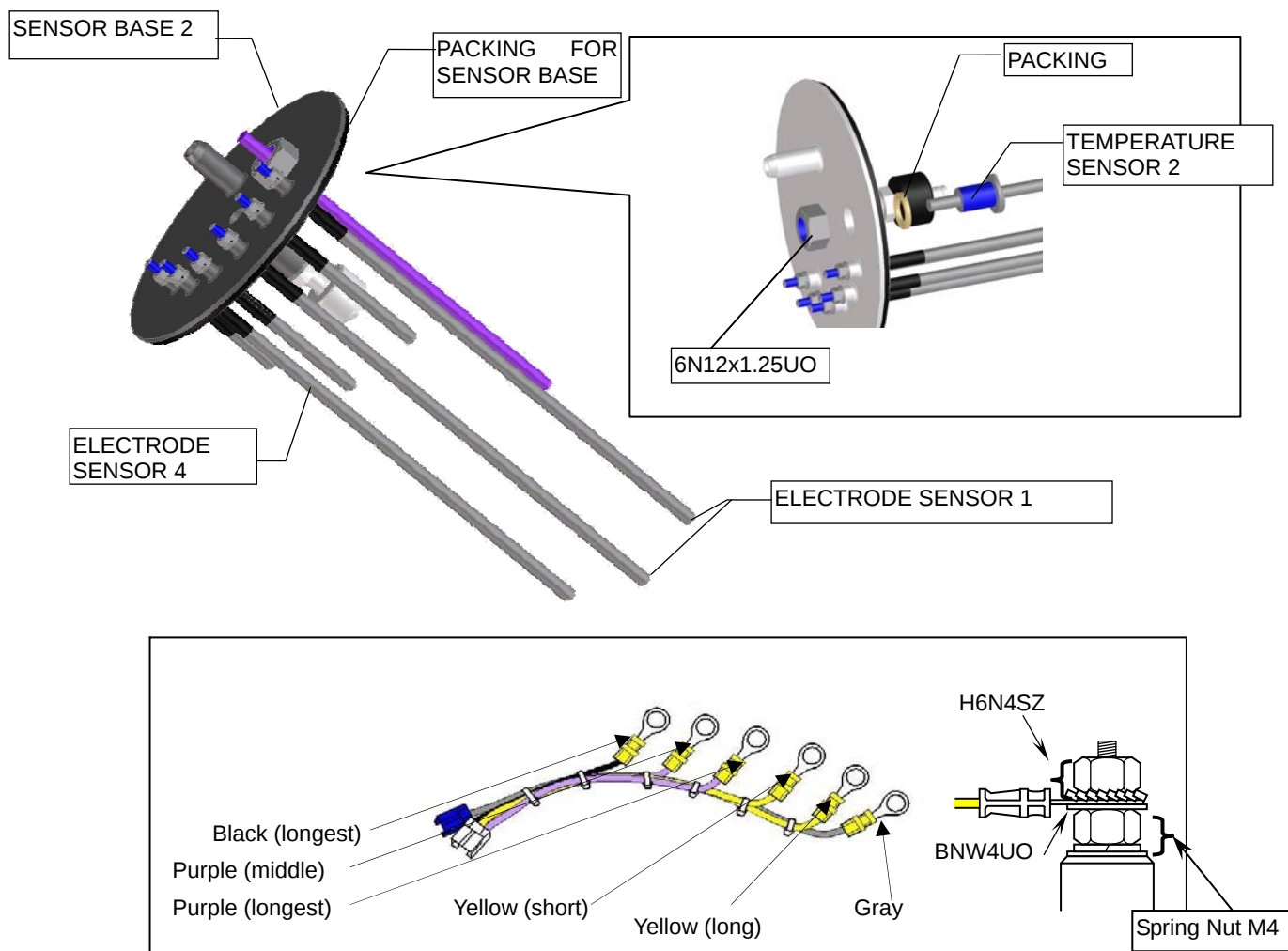
Required tools: Base F wrench, No.2 Phillips screwdriver



- (1) Remove screws on H BAND of DRAIN HOSE and then remove JOINT OF BASE F from DRAIN HOSE
- (2) Remove MAIN BODY UNIT F from BASE F
- (3) Remove FIXING PLATE, PACKING 30 x 40 and CONNECTOR SPRING F from MAIN BODY UNIT F

2-4-39 Tank fluid level sensor unit

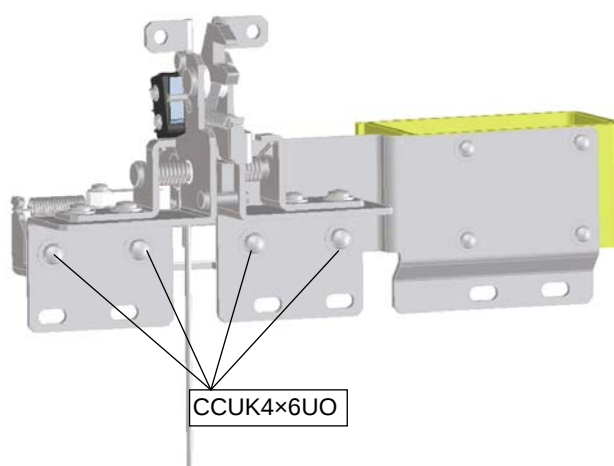
Required tools: Adjustable wrench, No.2 Phillips screwdriver, Temperature sensor wrench



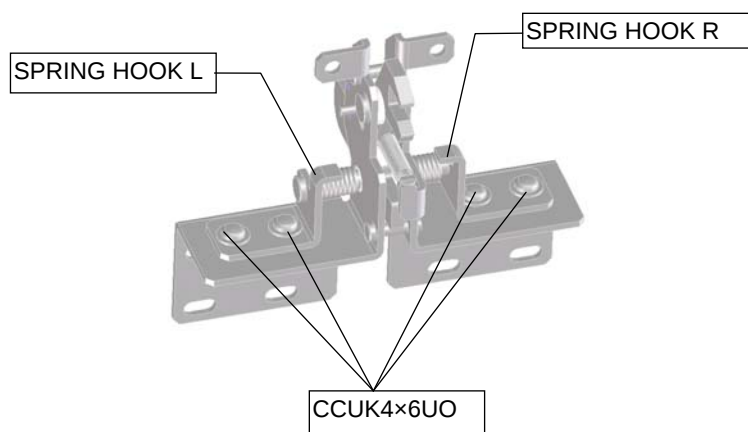
- (1) Remove TANK HARNESS EU from the various ELECTRODES
- (2) Remove TEMPERATURE SENSOR 2 from SENSOR BASE
- (3) Remove all ELECTRODES from SENSOR BASE 2
- (4) Remove FLOAT SWITCH from SENSOR BASE 2

2-4-40 Lock unit

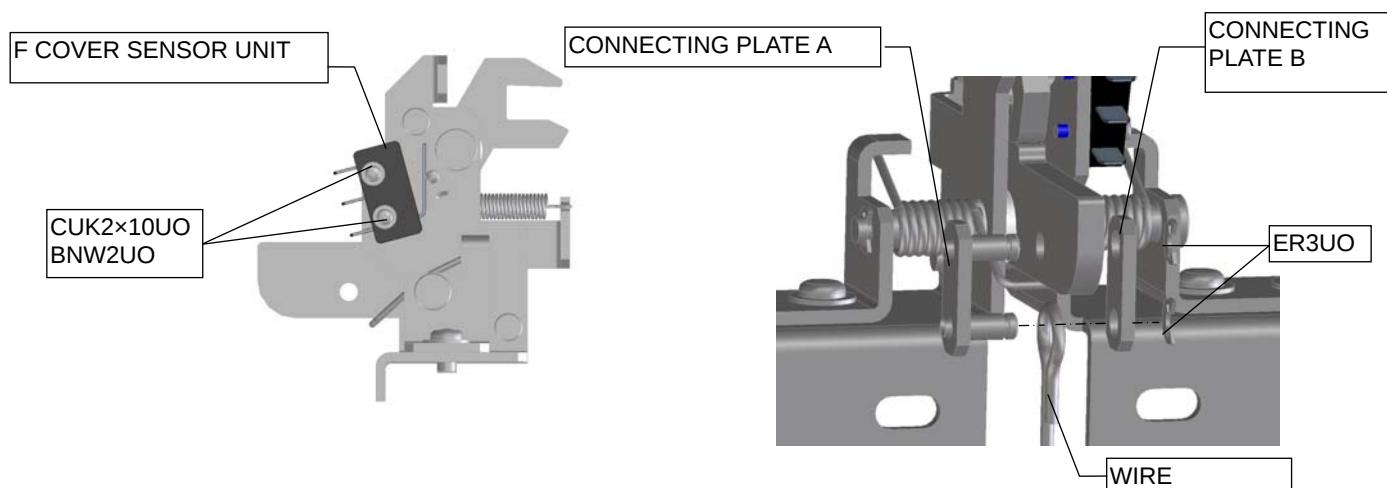
Required tools: No.2 Phillips screwdriver, Flat screwdriver



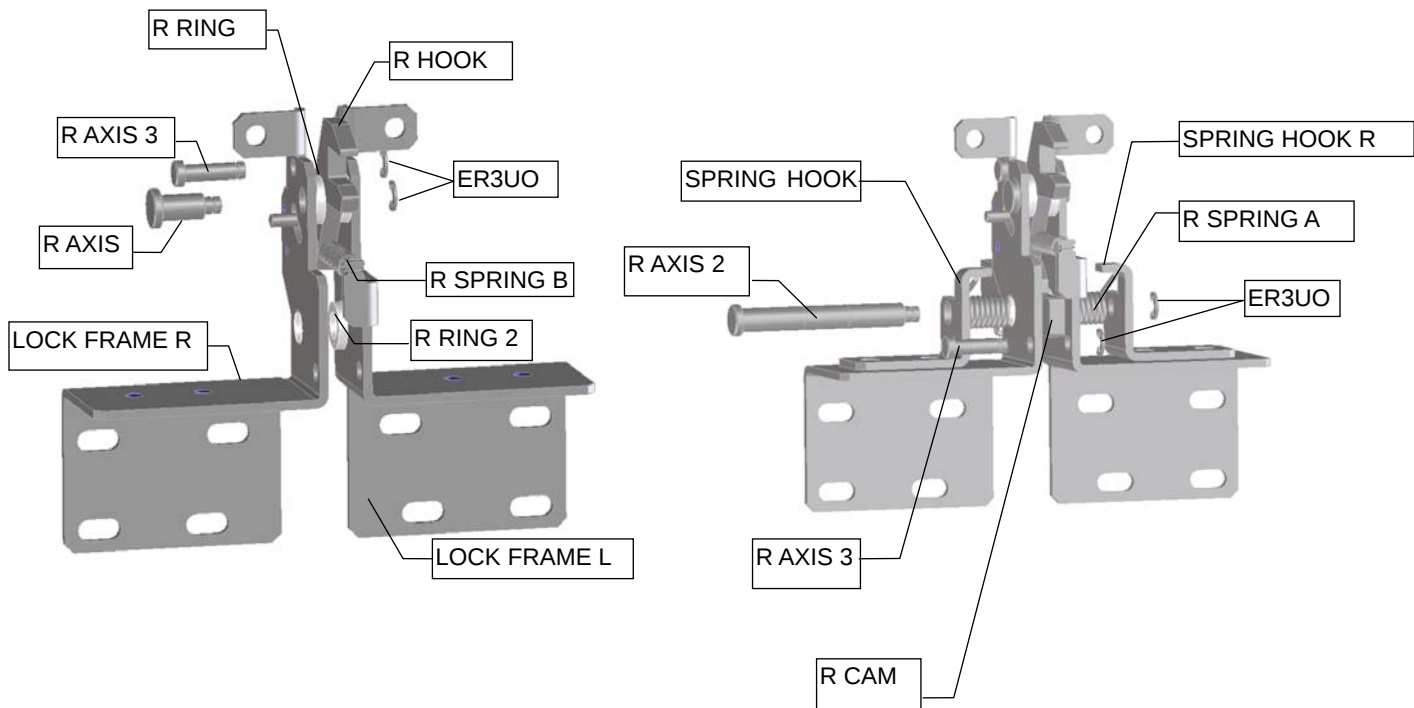
- (1) Remove LOCK FRAME R, L and 4 screws (CCUK4x6UO) holding LOCK UNIT



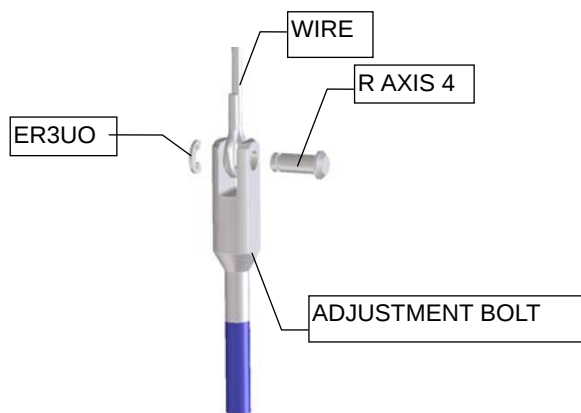
- (2) Remove 4 screws (CCUK4x6 UO) holding SPRING HOOK R, L



- (3) Remove 2 screws (CUK2x10UO) and 2 washers (BNW2UO) holding F COVER SENSOR UNIT and LOCK FRAME L
 (4) Remove 2 washers (ER3UO) holding pin of CONNECTING PLATE A and pin of CONNECTING PLATE B
 (5) Thread one of the pins of CONNECTING PLATE A through R CAM HOLE and then pull WIRE through



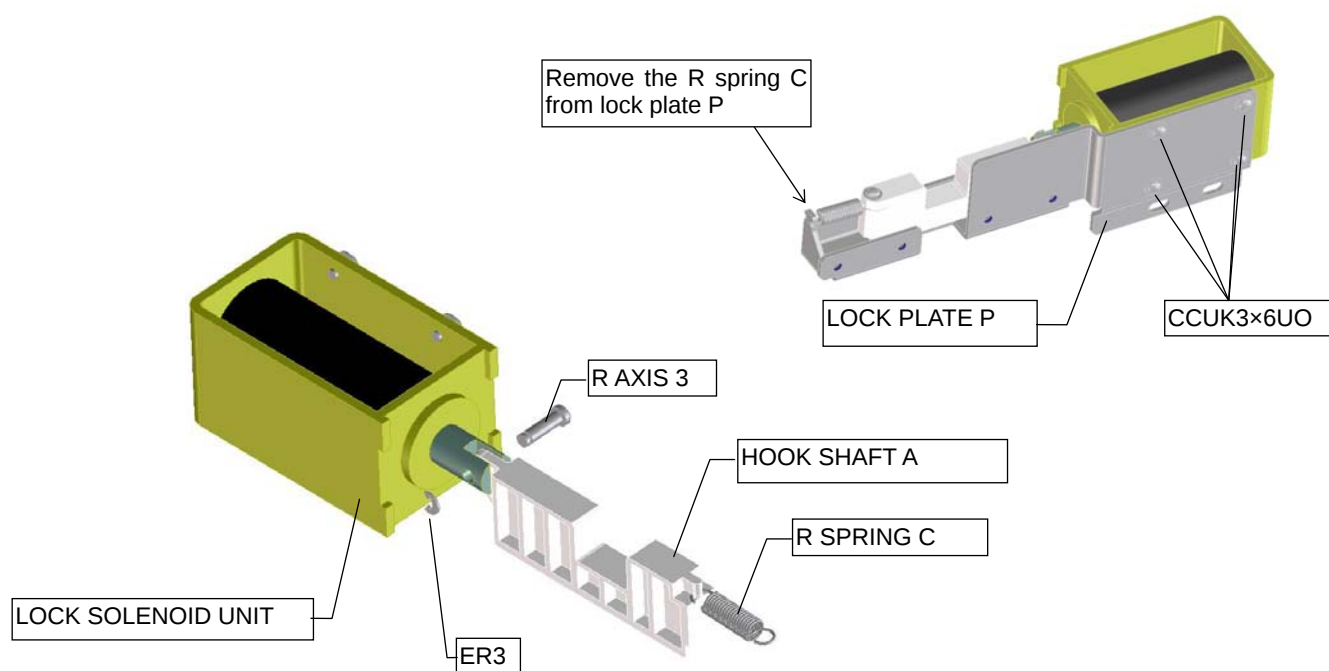
- (6) Remove a washer (ER3UO) holding R AXIS 3
- (7) Remove a washer (ER3UO) holding R AXIS 2 and then remove R RING 2
- (8) Remove SPRING HOOK L and SPRING HOOK R
- (9) Remove R SPRING B from LOCK FRAME L
- (10) Remove a washer (ER3UO) holding R AXIS



- (11) Remove E RING (ER3) holding WIRE and ADJUSTMENT BOLT

2-4-41 Solenoid unit

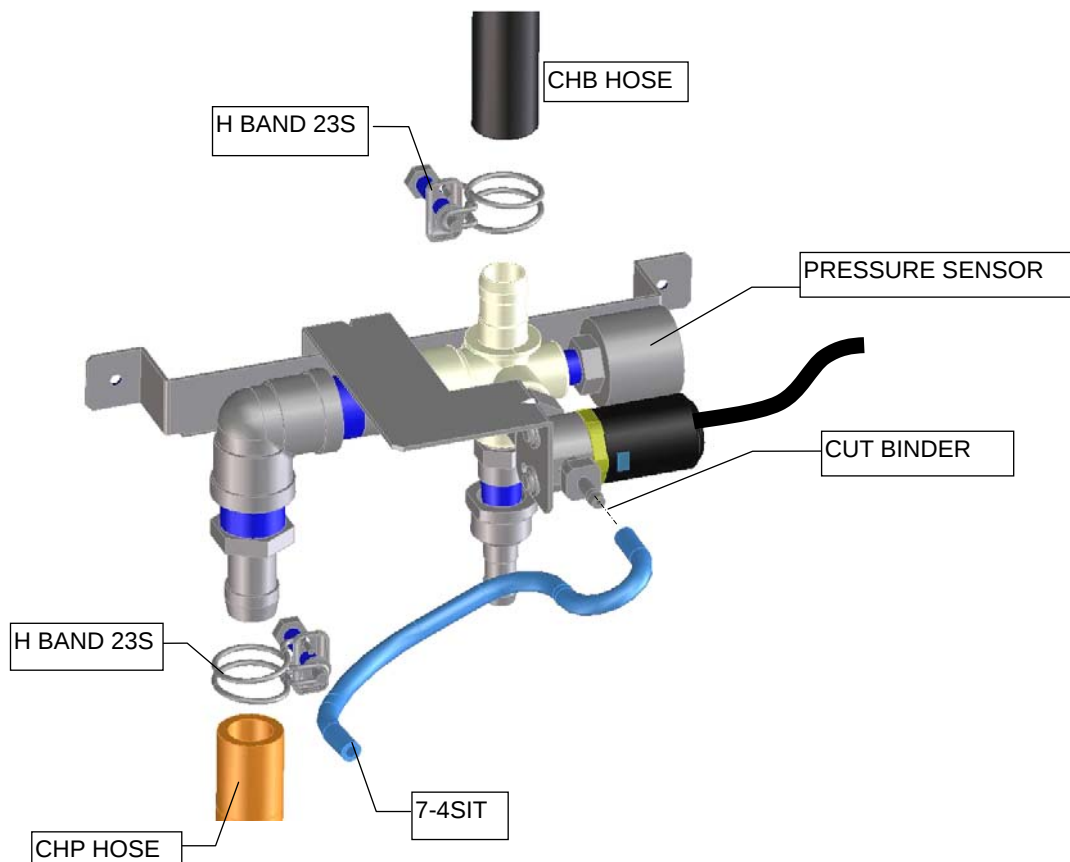
Required tools: No.2 Phillips screwdriver, Flat screwdriver



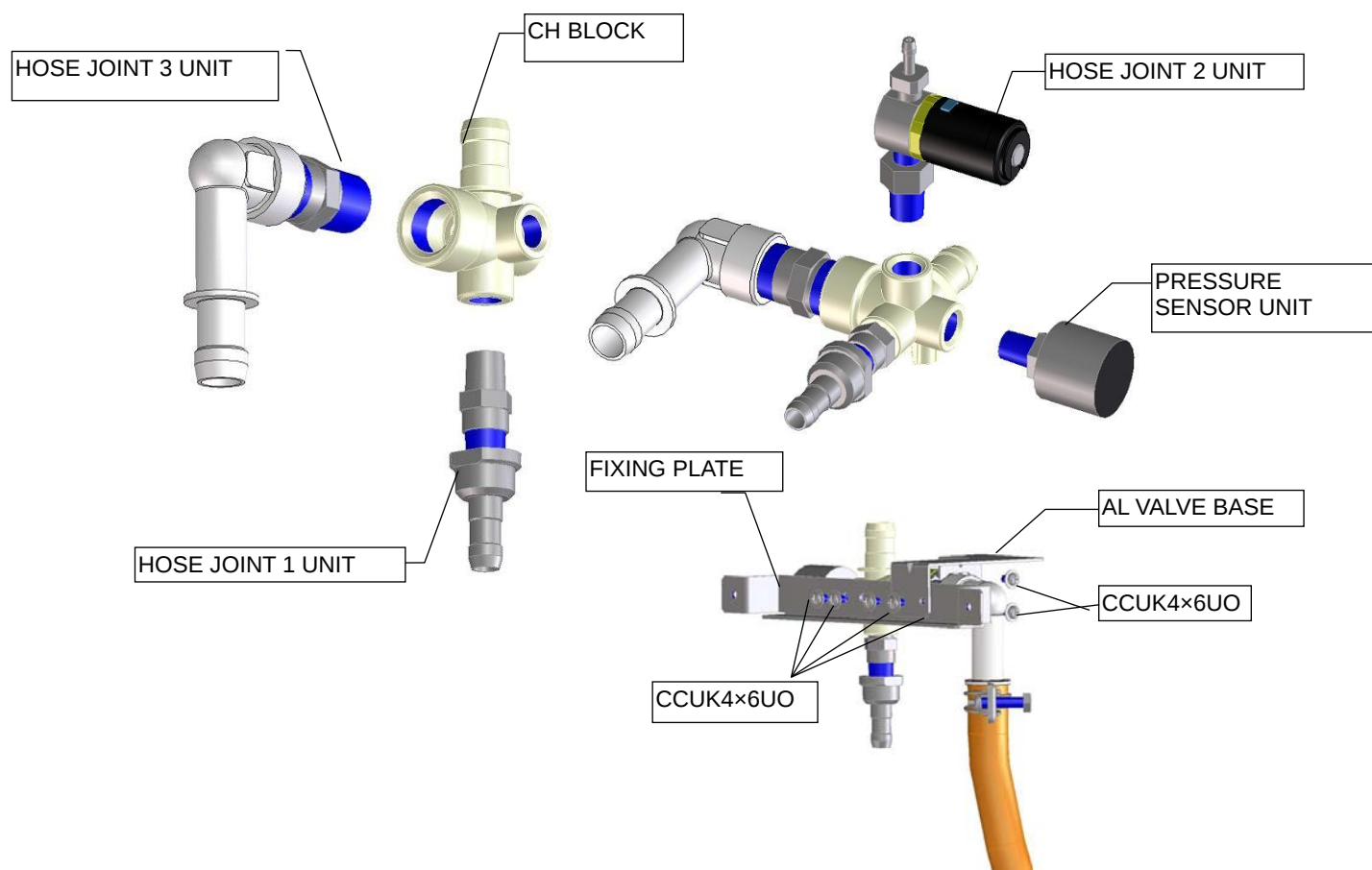
- (1) Remove R SPRING C from LOCK PLATE P
- (2) Remove 4 screws (CCUK3x6UO) holding LOCK PLATE P and LOCK SOLENOID UNIT
- (3) Remove E RING OF R AXIS 3 holding LOCK SOLENOID UNIT and HOOK SHAFT A

2-4-42 CH block CU

Required tools: No.2 Phillips screwdriver, Nippers, Adjustable wrench



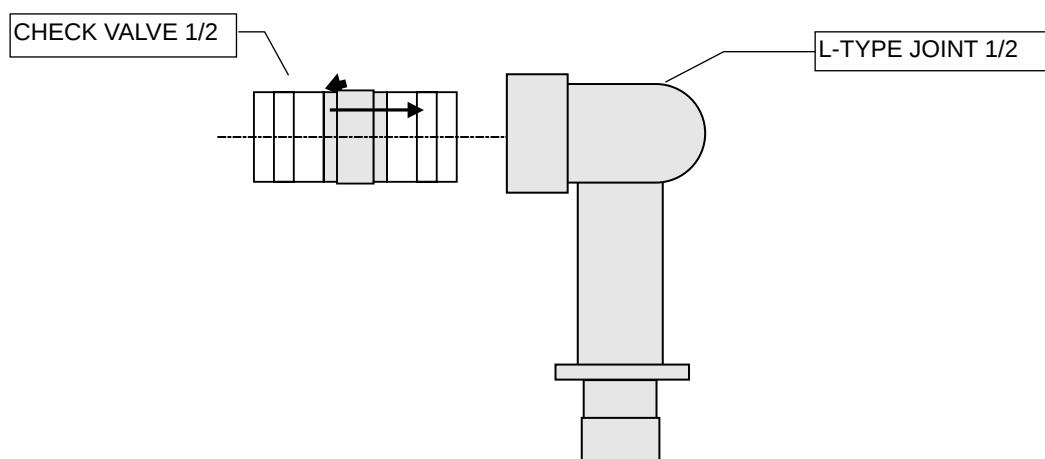
- (1) Cut BINDER of JOINT ON AL VALVE UNIT and then remove 7-4SIT
- (2) Remove screw of H BAND 23S and then remove CHP HOSE from CH BLOCK
- (3) Remove screw of H BAND 23S and then remove CHB HOSE from CH BLOCK



- (4) Remove 4 screws (CCUK4x6UO) holding AL VALVE BASE and FIXING PLATE
- (5) Remove 2 screws (CCUK4x6UO) holding CH BLOCK to FIXING PLATE
- (6) Remove HOSE JOINT 2 UNIT and PRESSURE SENSOR UNIT from CH BLOCK
- (7) Remove HOSE JOINT 1 UNIT and HOSE JOINT 3 UNIT from CH BLOCK

2-4-43 Hose joint 3 unit

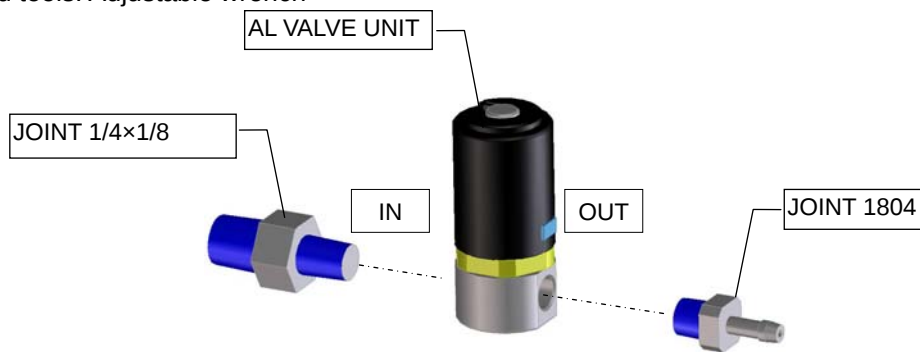
Required tools: Adjustable wrench



- (1) Remove check VALVE 1/2 (both sides) from L TYPE JOINT 1/2

2-4-44 Hose joint 2 unit

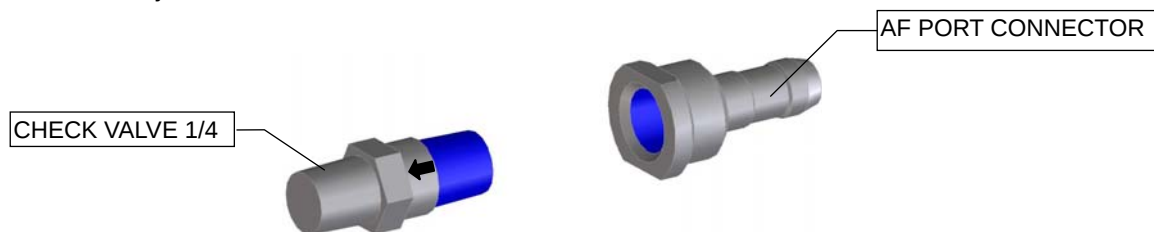
Required tools: Adjustable wrench



- (1) Remove JOIN 1/4 x 1/8 (both sides) from AL VALVE UNIT
- (2) Remove JOINT 1804 from AL VALVE UNIT

2-4-45 Hose joint 1 UNIT

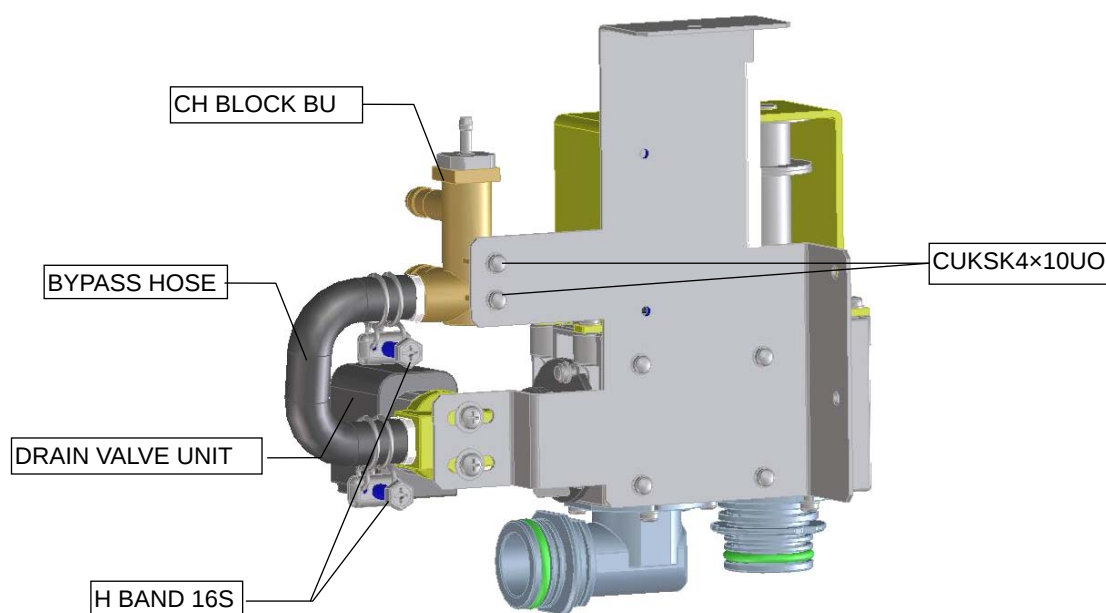
Required tools: Adjustable wrench



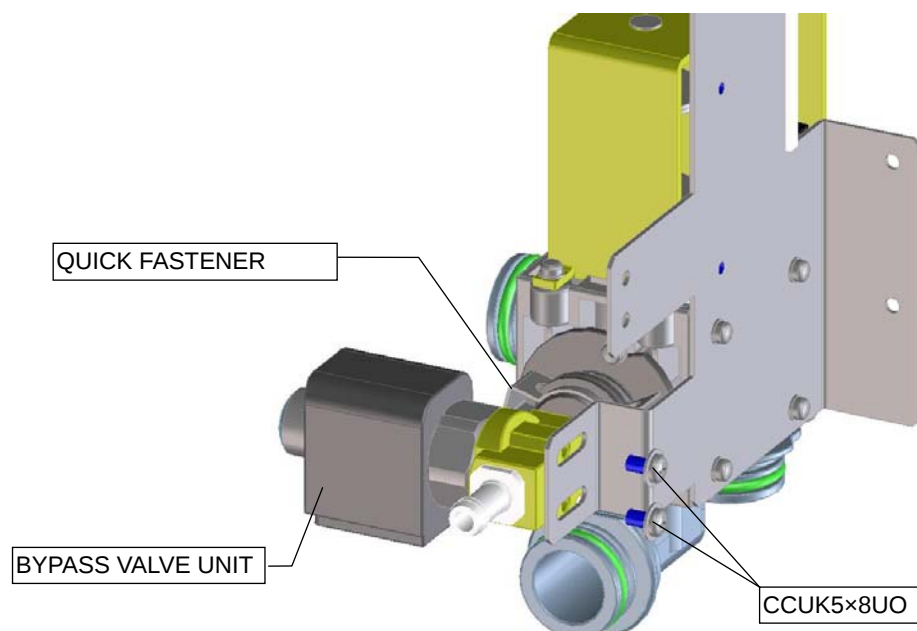
- (1) Remove CHECK VALVE 1/4 (both sides) from AF PORT CONNECTOR

2-4-46 Switching valve unit

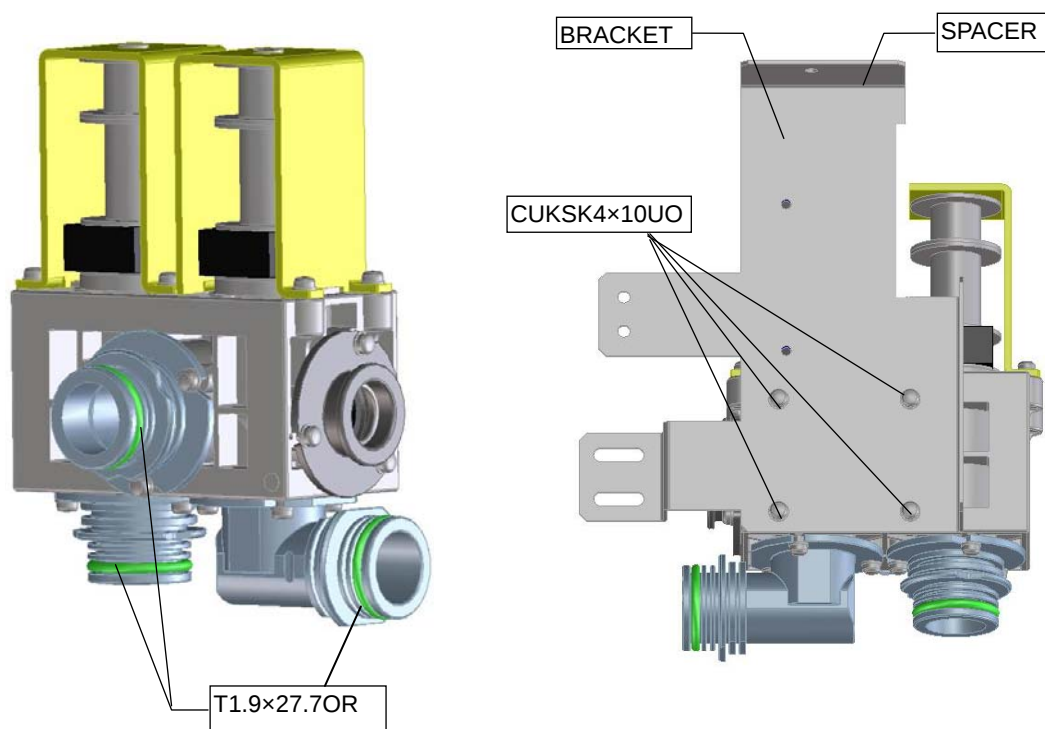
Required tools: No.2 Phillips screwdriver



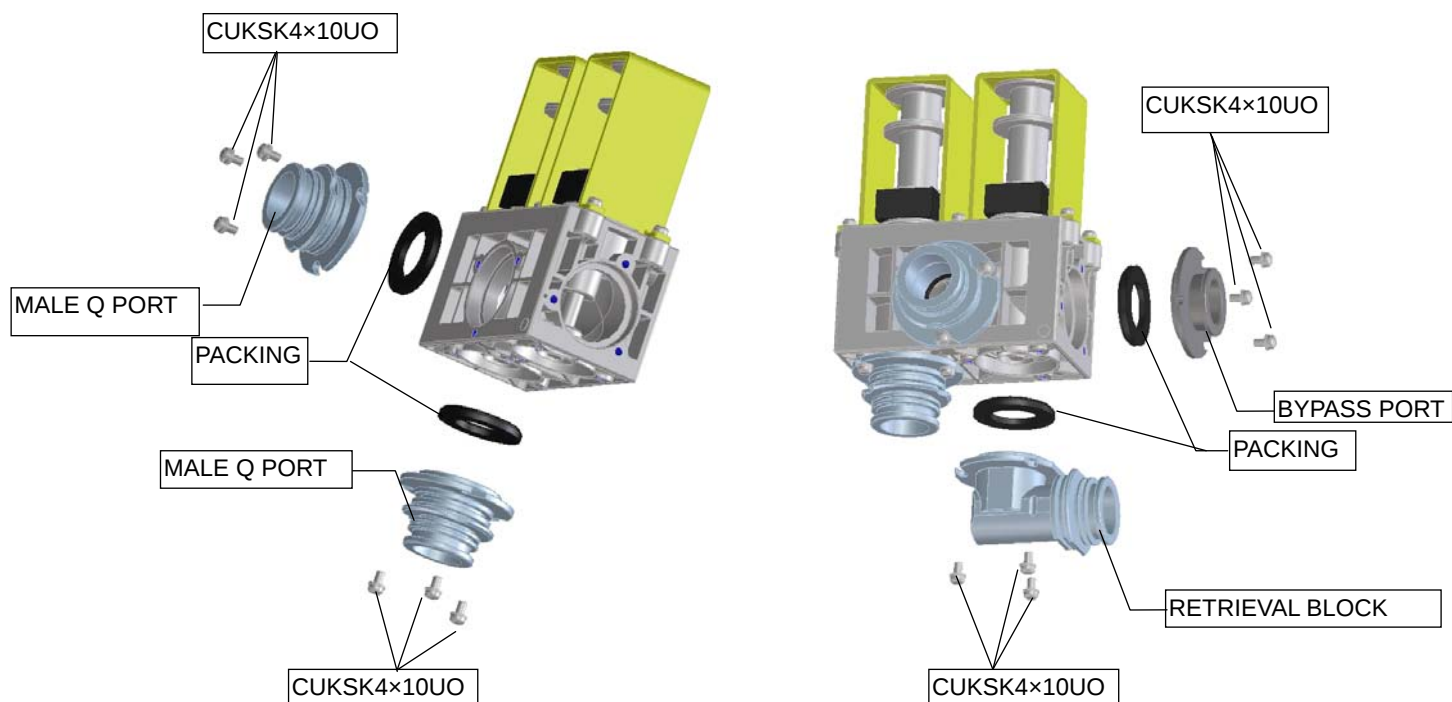
- (1) Remove screws on H BAND at two places on BYPASS HOSE and then remove BYPASS HOSE from joint at CH BLOCK BU and BYPASS VALVE
- (2) Remove 2 screws (CUKSK4x10UO) holding CH BLOCK BU BRACKET



- (3) Remove 2 screws (CCUK5x8UO) holding BYPASS VALVE UNIT
- (4) Remove QUICK LOCK CONNECTOR FASTENER holding BYPASS PORT and BYPASS VALVE UNIT
- (5) Remove QUICK LOCK CONNECTOR OF BYPASS VALVE UNIT from BYPASS PORT



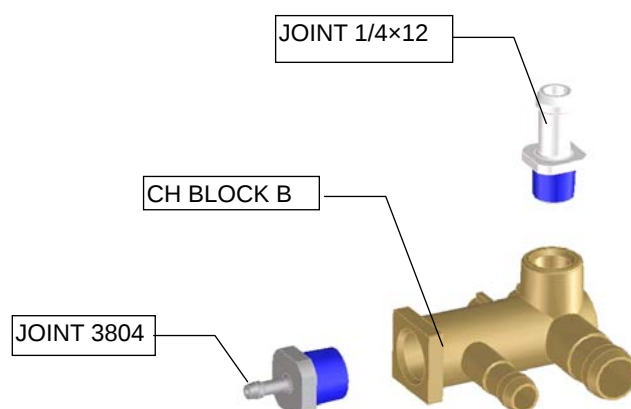
- (6) Remove 4 screws (CUKSK4x10UO) holding BRACKET to solenoid valve KU
- (7) Remove male Q port and the 3 O RINGS (T1.9x27.7OR) on RETRIEVAL BLOCK UNIT



- (8) Remove 3 screws (CUKSK4x10UO) holding BYPASS PORT and RETRIEVAL BLOCK
- (9) Remove 3 screws (CUKSK4x10UO) holding MALE Q PORT
- (10) Pull packing out of 4 holes on SOLENOID VALVE KU

2-4-47 CH block BU

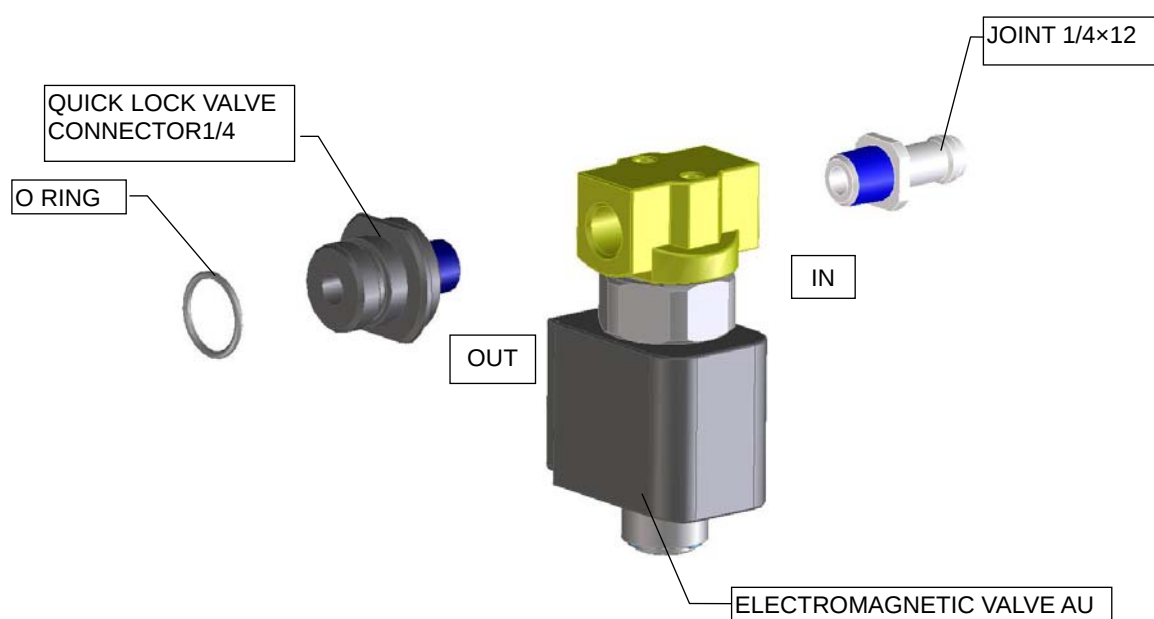
Required tools: Adjustable wrench



- (1) Remove JOINT 1/4 x 12 from CH BLOCK B
- (2) Remove JOINT 3804 from CH BLOCK B

2-4-48 Bypass valve unit

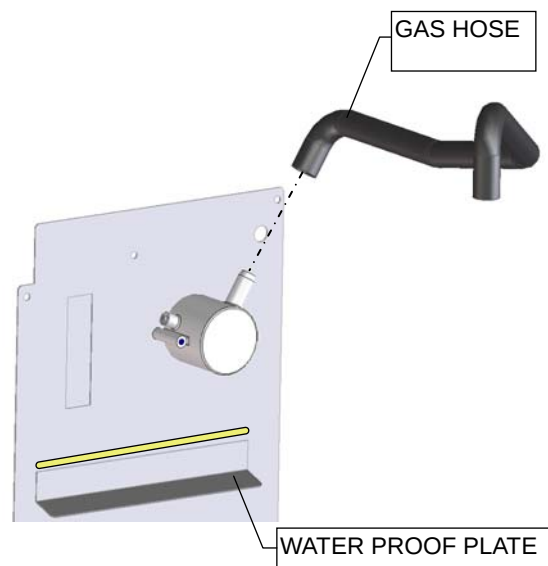
Required tools: Adjustable wrench



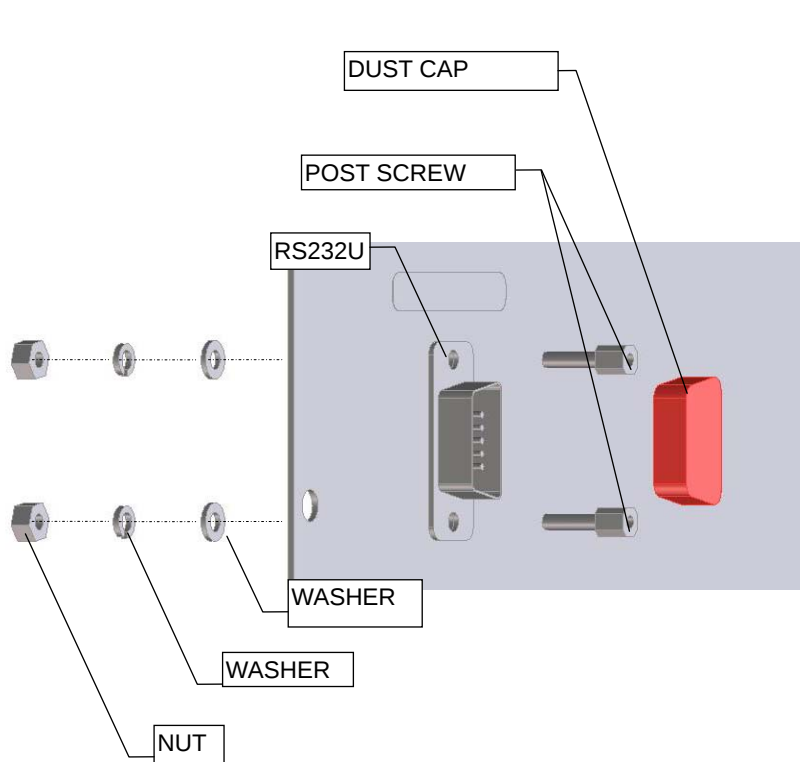
- (1) Remove JOINT 1/4x12 from ELECTROMAGNETIC VALVE AU (IN SIDE)
- (2) Remove QUICK LOCK CONNECTOR 1/4 from ELECTROMAGNETIC VALVE AU (OUT SIDE)

2-4-49 Front plate unit

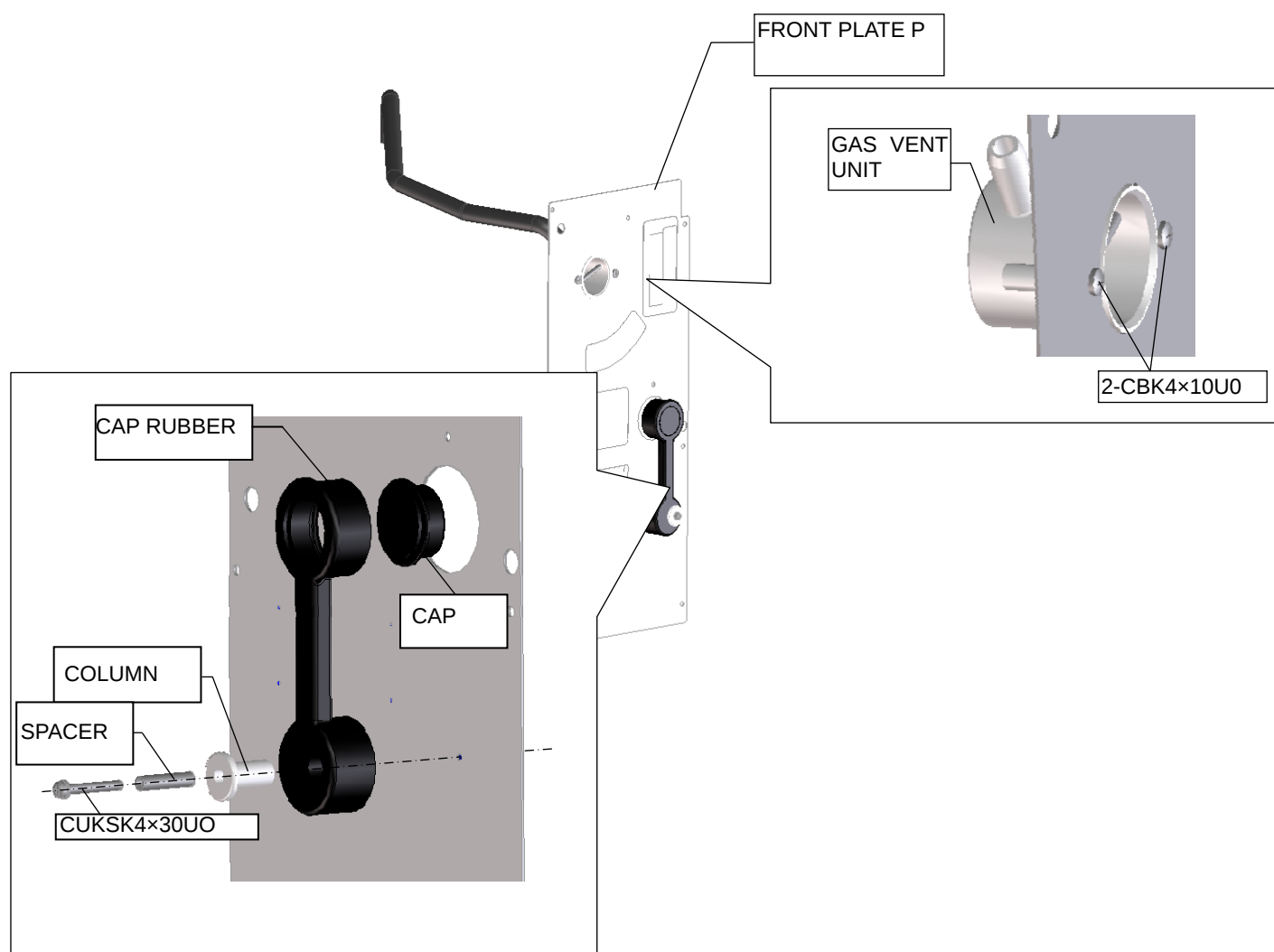
Required tools: No.2 Phillips screwdriver, Adjustable wrench



(1) Remove GAS HOSE from GAS VENT UNIT



- (2) Remove DUST CAP from RS232C CONNECTOR
- (3) Remove POST SCREW holding RS232U and then remove RS232U

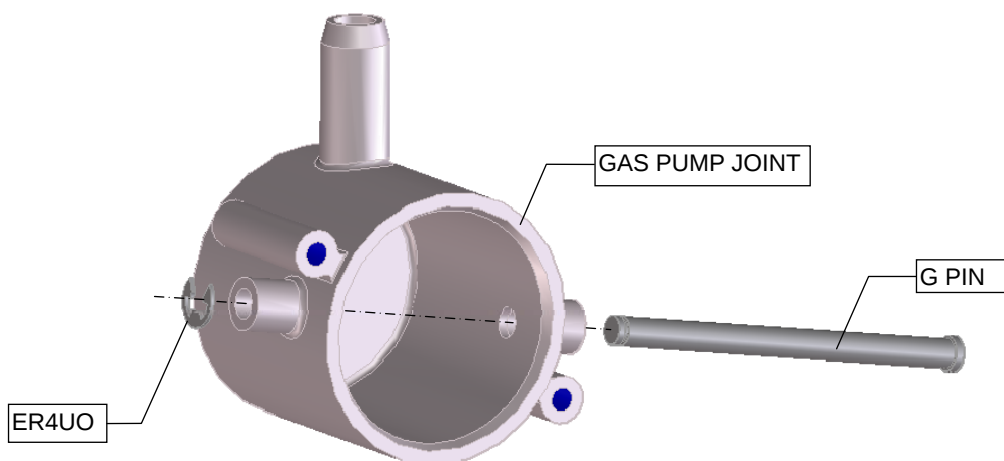


- (4) Remove 2 screws (CBK4x10U0) holding GAS VENT UNIT
- (5) Remove RUBBER CAP from CAP and remove CAP from COLUMN
- (6) Remove a screw (CUKSK4×30U0) holding COLUMN

2-4-50 Gas vent unit

Required tools: Flat screwdriver

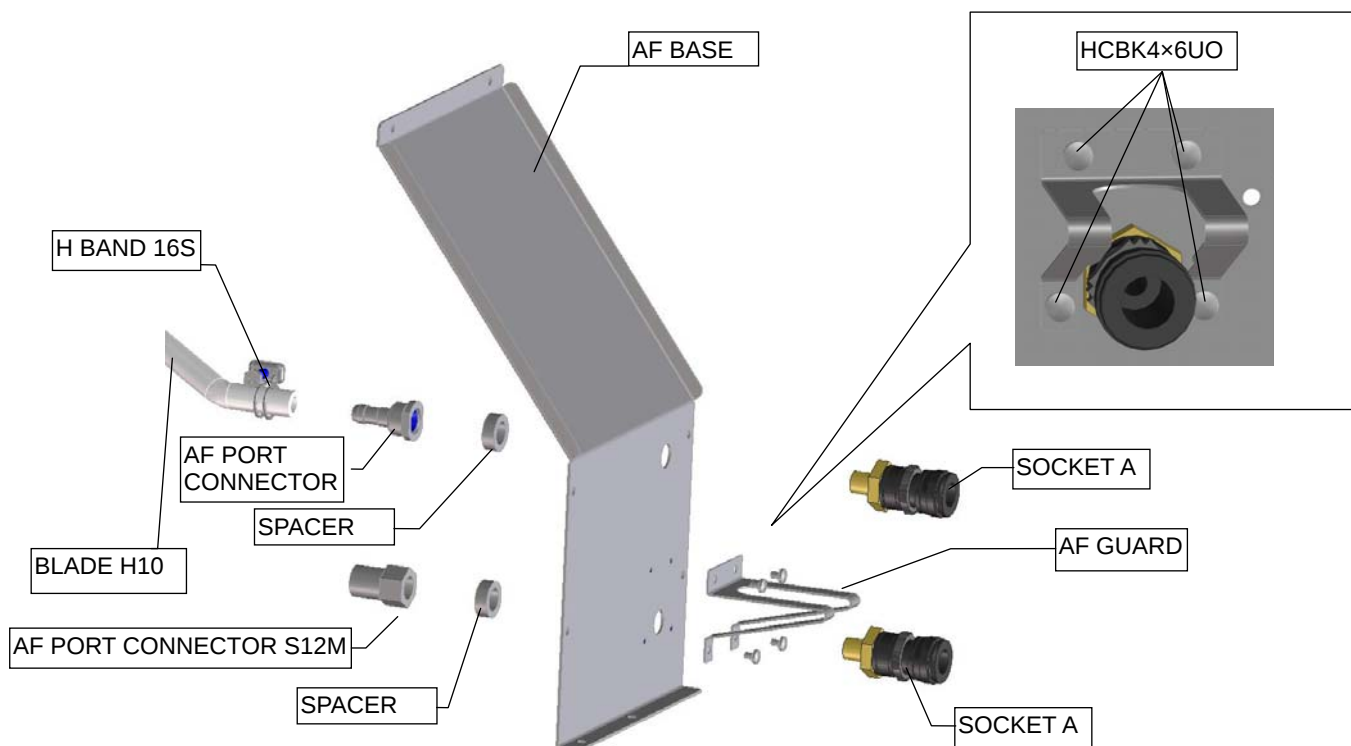
Note: In the figure, the GAS PUMP JOINT is removed but in reality, as this is adhered, detachment is not possible. When making repairs, the UNIT as a whole UNIT must be replaced



- (1) Remove E RING (ER4UO) holding G PIN and then remove G PIN

2-4-51 AF socket

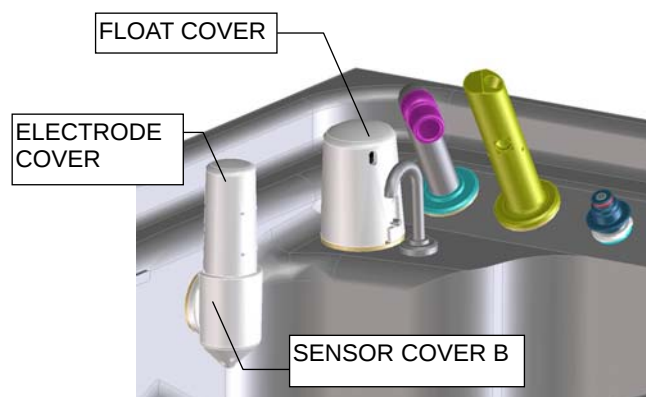
Required tools: No.2 Phillips screwdriver, Socket stopper jig, Adjustable wrench



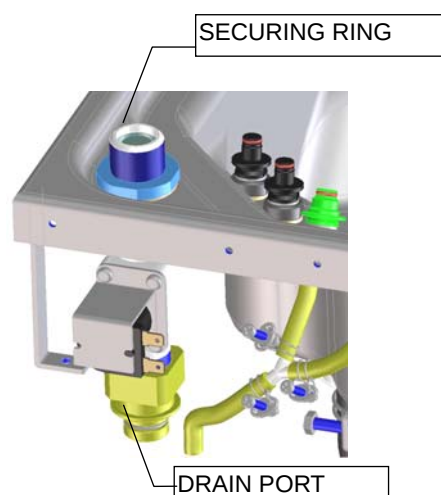
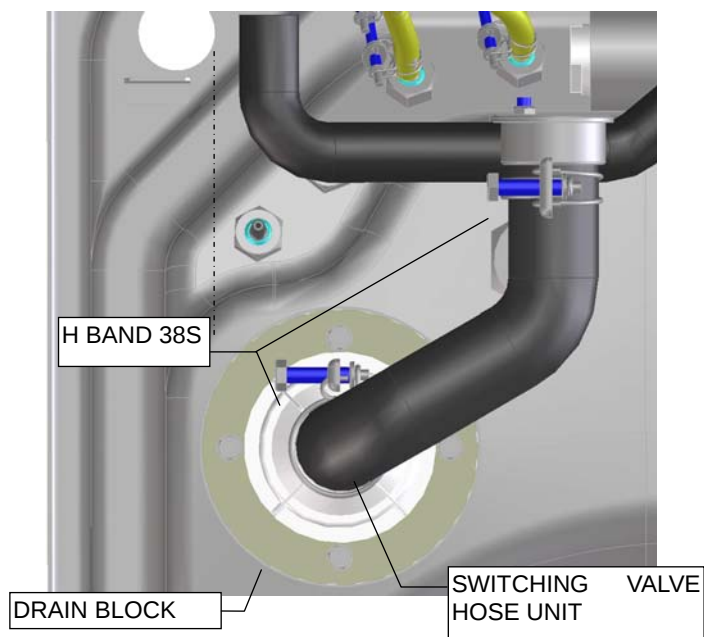
- (1) Remove screws on H BAND and then remove AF HOSE
- (2) Remove 4 screws (HCBK4x6UO) holding AF GUARD
- (3) Unscrew AF PORT CONNECTOR and then remove SOCKET A, SPACER and AF PORT CONNECTOR from AF BASE
- (4) Unscrew AF PORT CONNECTOR S12M and then remove SOCKET A, SPACER and A PORT CONNECTOR S12M from AF BASE

2-4-52 Cleaning tub unit

Required tools: No.2 Phillips screwdriver, Spanner (OT3581)

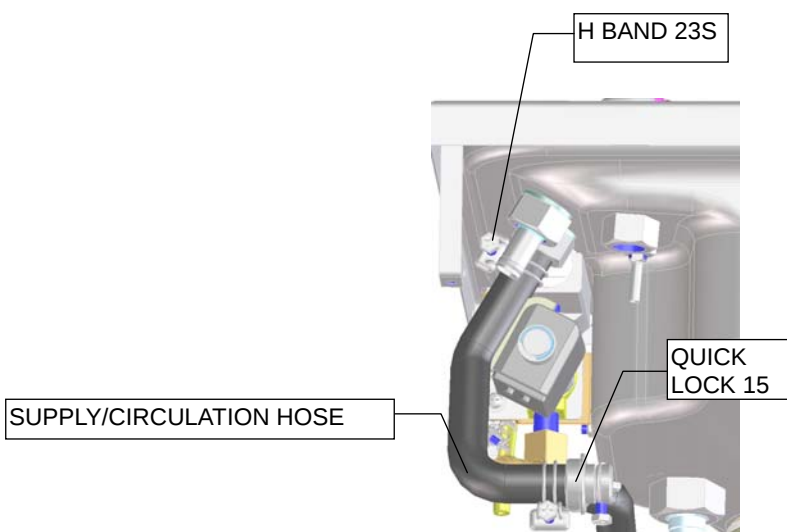
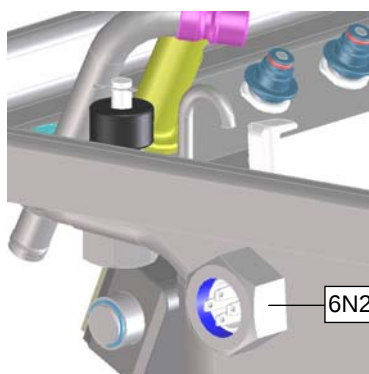
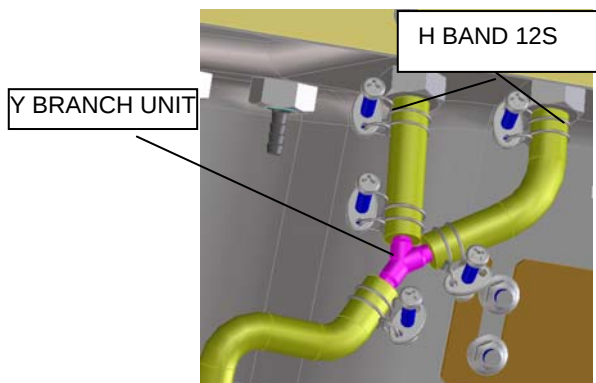


- (1) Remove FLOAT COVER from FLOAT SWITCH and then remove SENSOR COVER A and SENSOR COVER B from ELECTRODE SENSOR

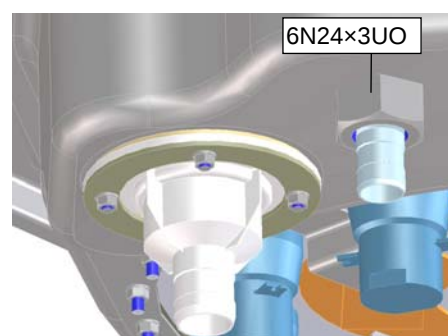
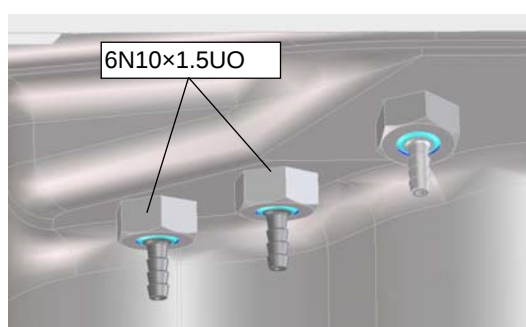
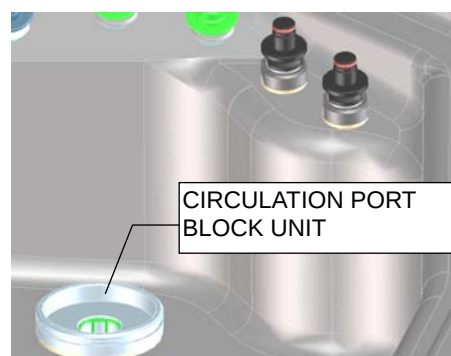
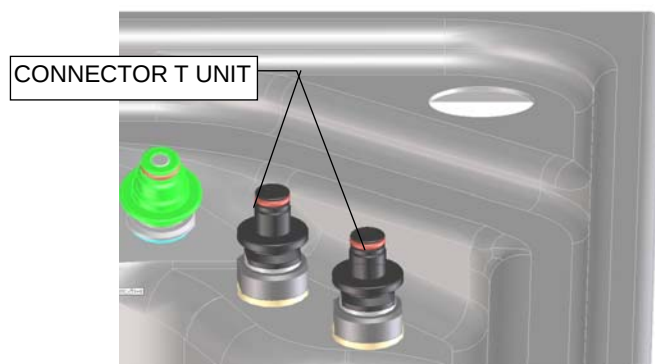


- (2) Remove SECURING RING holding DRAIN PORT UNIT with spanner (38mm), and then remove DRAIN PORT UNIT
Note: Use the spanner as shown above.

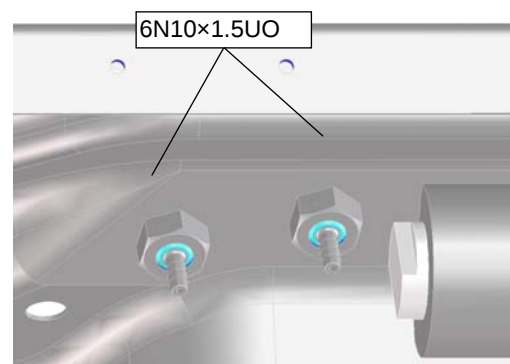
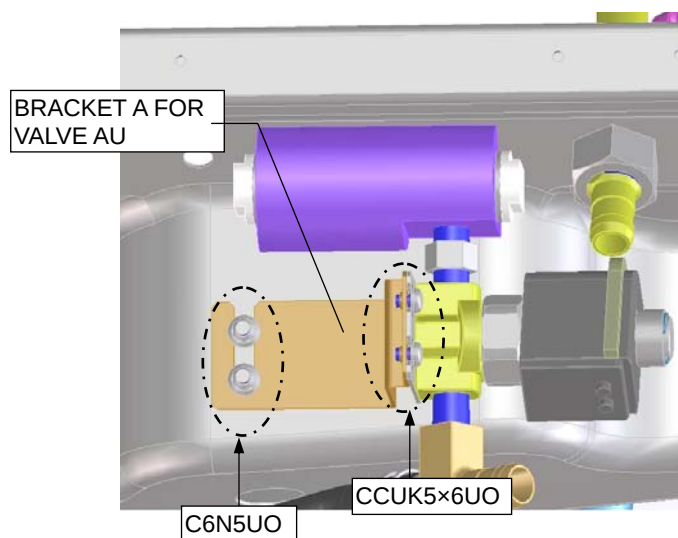
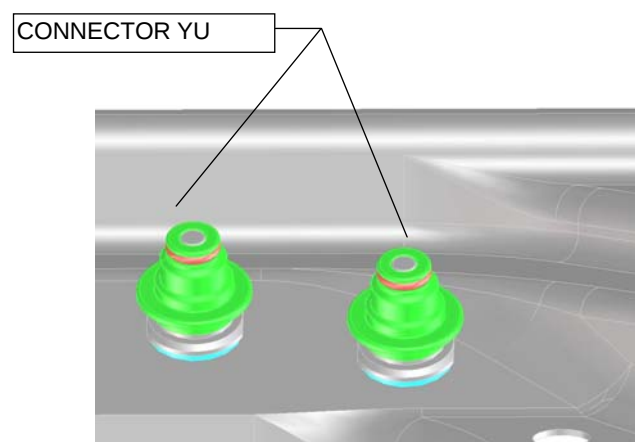
- (3) Remove screws of H BAND at 2 locations holding SWITCHING VALVE HOSE UNIT
(4) Remove SWITCHING VALVE HOSE from DRAIN BLOCK



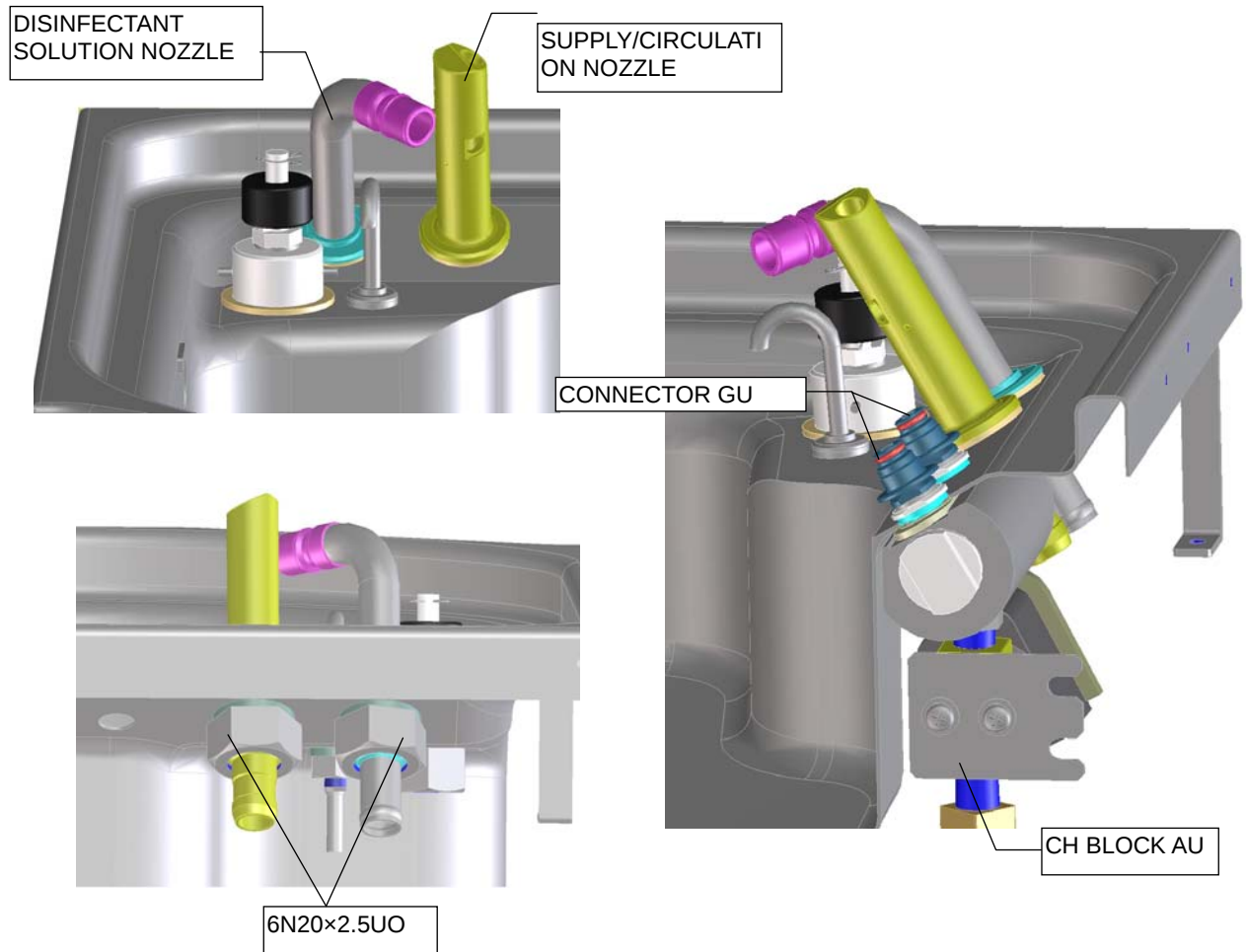
- (5) Remove screws on H BAND at 2 locations of SUPPLY/CIRCULATION HOSE and then remove SUPPLY/CIRCULATION NOZZLE and QUICK LOCK MALE CONNECTOR 15 from SUPPLY/CIRCULATION HOSE
- (6) Remove screws on H BAND 12 and then remove Y BRANCH UNIT
- (7) Remove NUT (6N24x20UO) holding TUB FLUID LEVEL SENSOR and then remove TUB FLUID LEVEL SENSOR 2 from CLEANING TUB



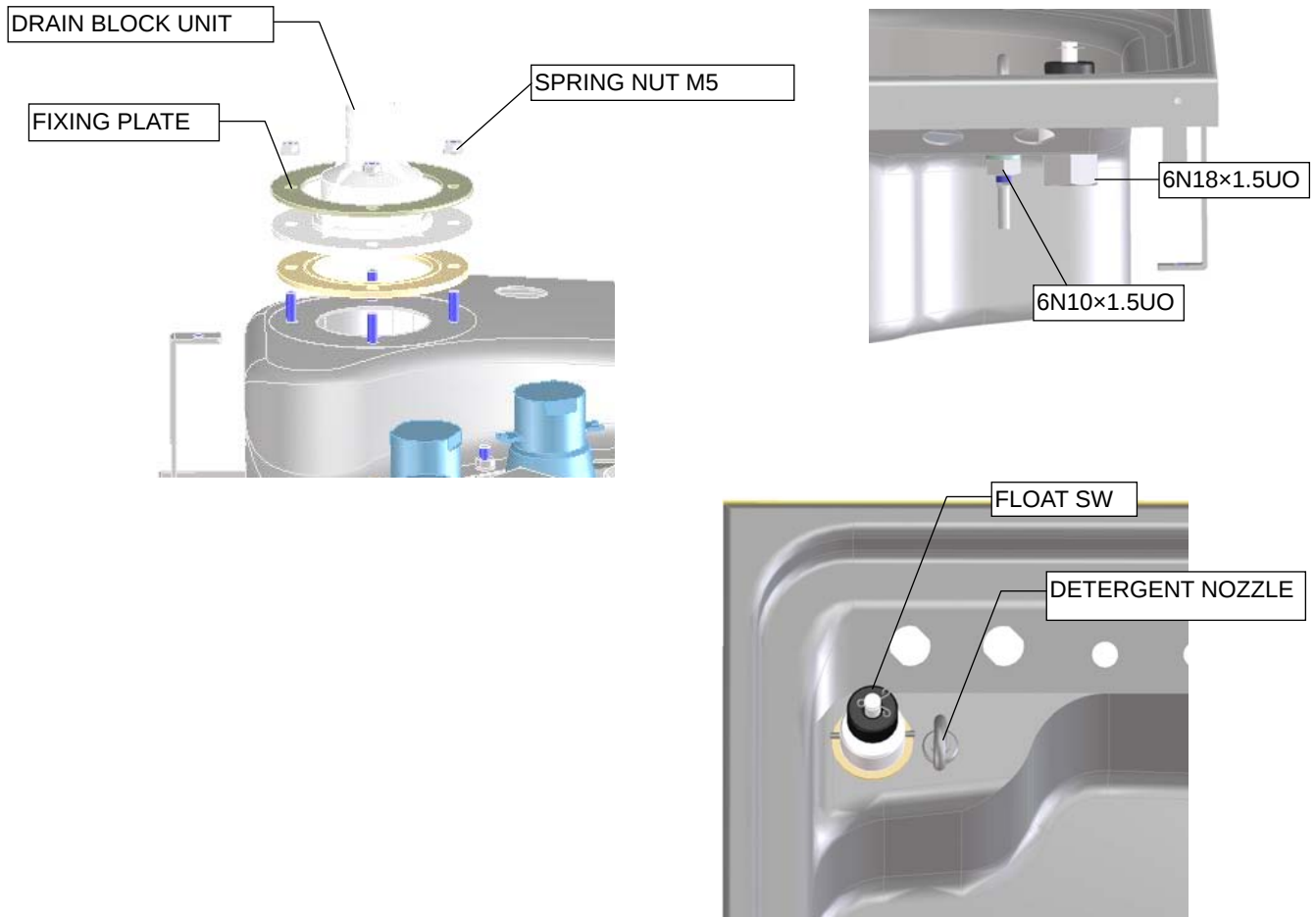
- (8) Remove nut (6N24x3UO) holding CIRCULATION PORT BLOCK UNIT
 (9) Remove nut (6N10x1.5UO) holding CONNECTOR T UNIT



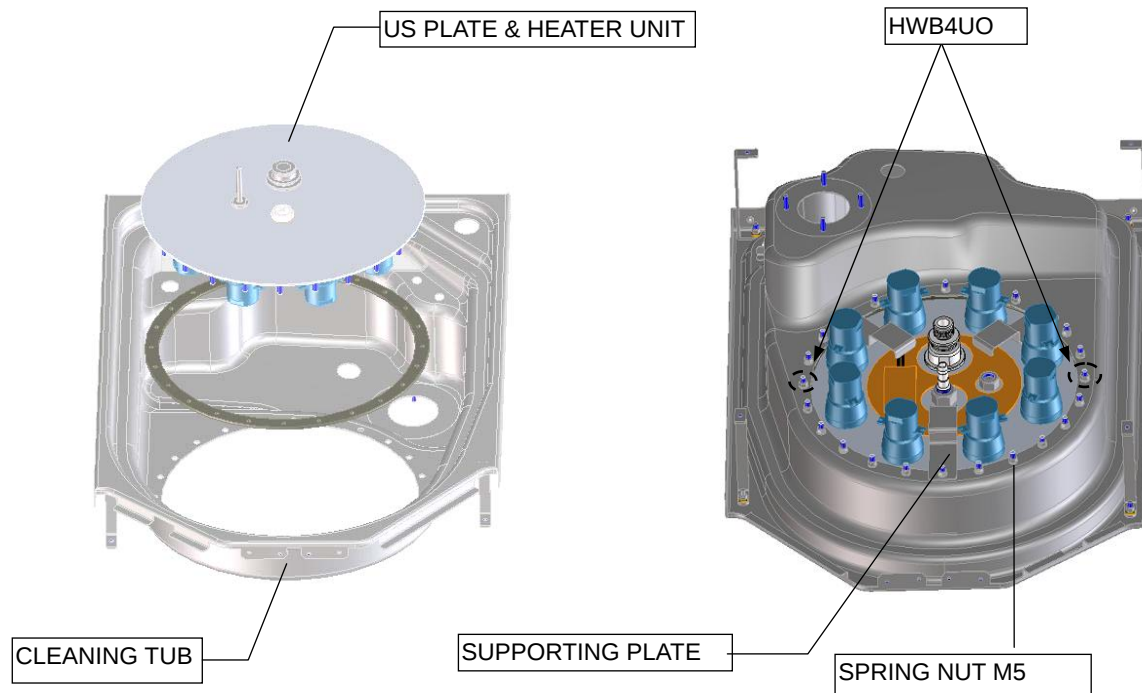
- (10) Remove nut (6N10x1.5UO) holding CONNECTOR YU
 (11) Remove 2 screws (CCUK5x6UO) holding BRACKET A FOR VALVE AU and then remove 2 NUTS (C6N5UO)



- (12) Remove nut (6N20x2.5UO) holding DISINFECTANT SOLUTION NOZZLE and SUPPLY/CIRCULATION NOZZLE
- (13) Remove screws of CH BLOCK AU of CONNECTOR GU



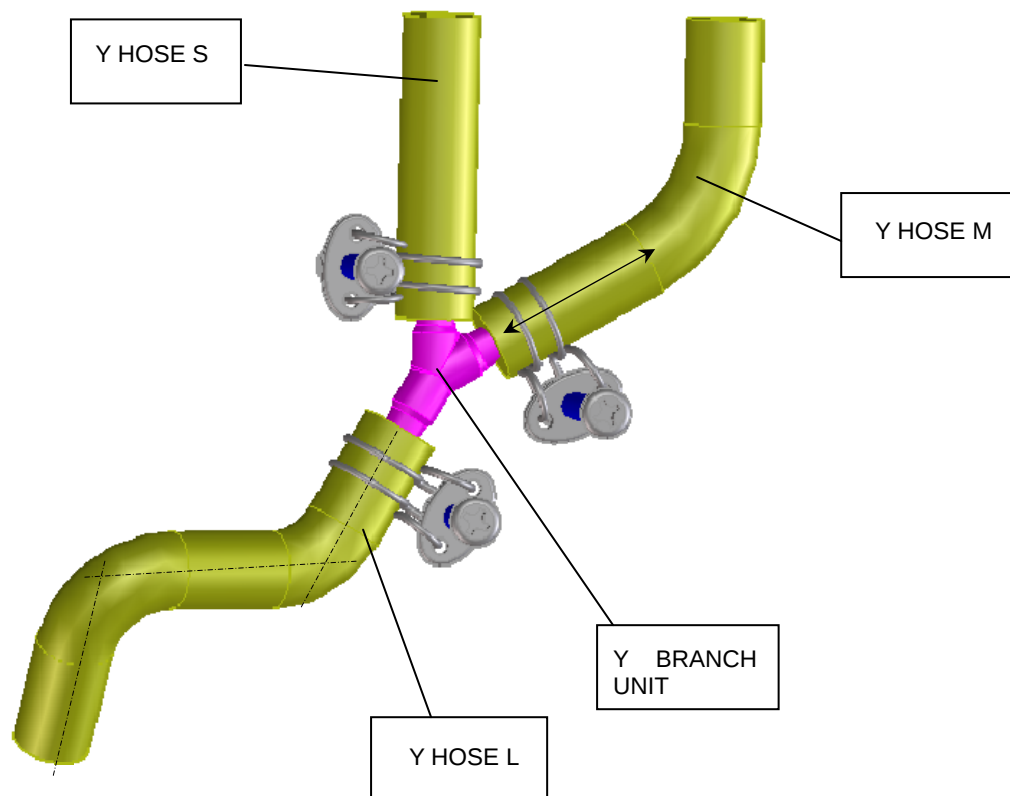
- (14) Remove SPRING NUT holding DRAIN BLOCK TO CLEANING TUB and then remove DRAIN BLOCK and FIXING PLATE
- (15) Remove nut (6N10x1.5UO) holding DETERGENT NOZZLE
- (16) Remove nut (6N18x1.5UO) holding FLOAT SWITCH UNIT



(17) Remove spring nut holding US PLATE & HEATER UNIT to CLEANING TUB

2-4-53 Y BRANCH UNIT

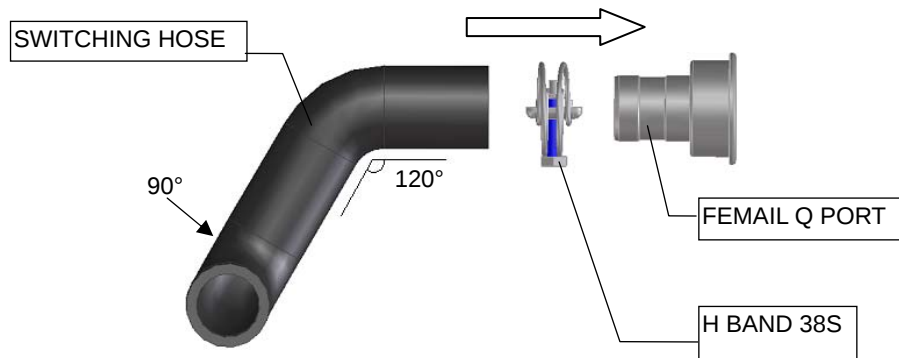
Required tools: No.2 Philips screwdriver



- (1) Remove screws on H BAND
- (2) Remove Y HOSE L, Y HOSE M and Y HOSE S from Y BRANCH

2-4-54 SWITCHING HOSE UNIT

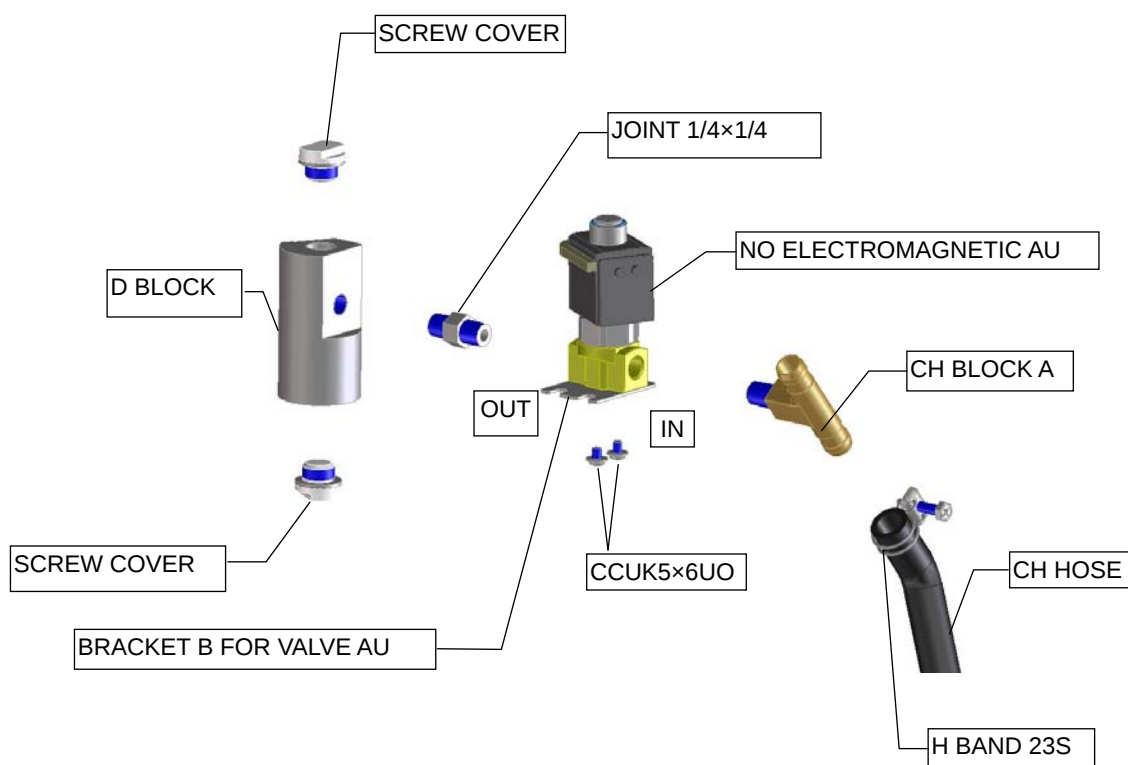
Required tools: No.2 Phillips screwdriver



- (1) Remove screw on H BAND
- (2) Remove FEMAIL Q PORT from SWITCHING HOSE

2-4-55 CH block A unit

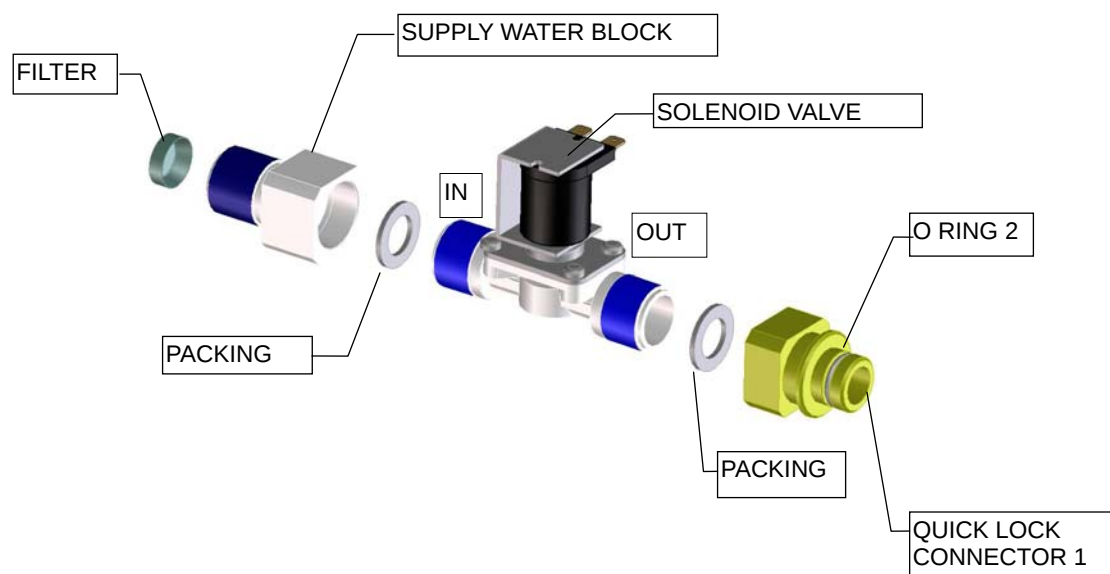
Required tools: No.2 Phillips screwdriver, Screw cap wrench (JA7819)



- (1) Remove screws of H BAND holding CH HOSE to HOSE BAND and then remove JOINT OF CH BLOCK A from CH HOSE
- (2) Remove 2 screws (CCUK5x6UO) holding BRACKET B FOR VALVE AU
- (3) Remove JOINT 1/4x1/4 and SCREW COVER from D BLOCK
- (4) Remove CH BLOCK A from ELECTRIC VALVE AU
- (5) Remove JOINT 1/4x1/4 from ELECTRIC VALVE AU

2-4-56 Drain port unit

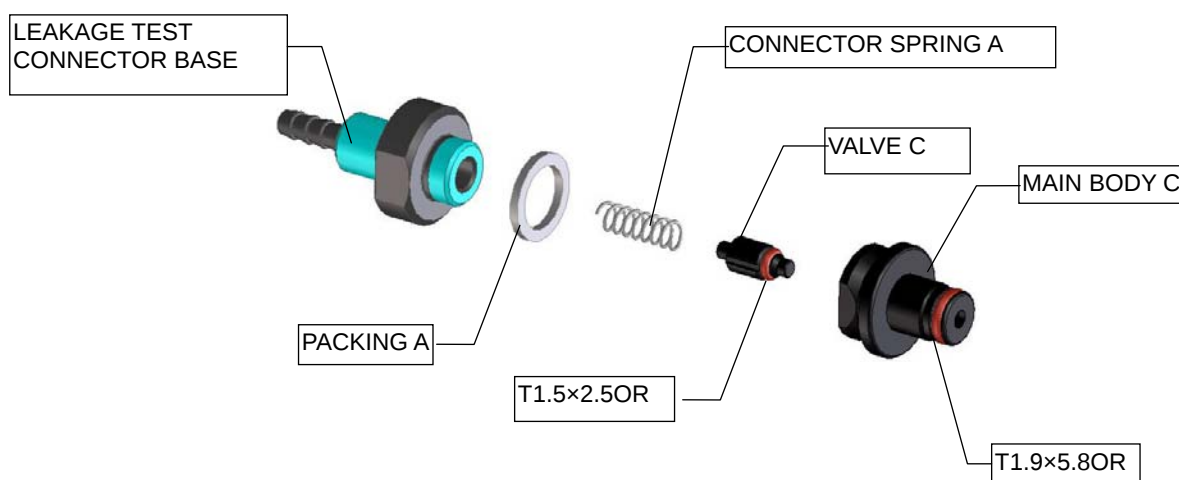
Required tools: Adjustable wrench



- (1) Remove QUICK LOCK CONNECTOR 1 from SOLENOID VALVE and then remove PACKING
- (2) Remove SUPPLY WATER BLOCK from SOLENOID VALVE and then remove PACKING
- (3) Pull FILTER out of SUPPLY WATER BLOCK

2-4-57 Connector T unit

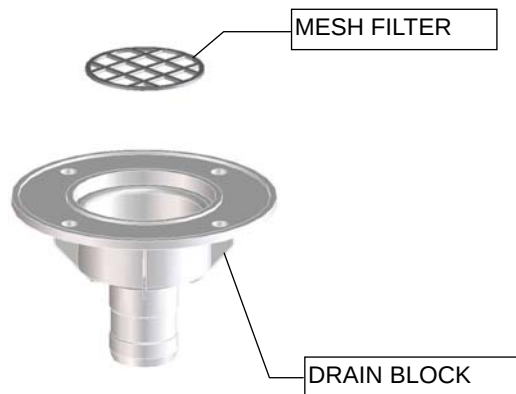
Required tools: Adjustable wrench, Connector A securing jig (JA9822), Connector rotation jig (JA7697)



- (1) Remove MAIN BODY C from LEAKAGE TEST CONNECTOR BASE and VALVE C, CONNECTOR SPRING A and then remove PACKING A

2-4-58 Drain block unit

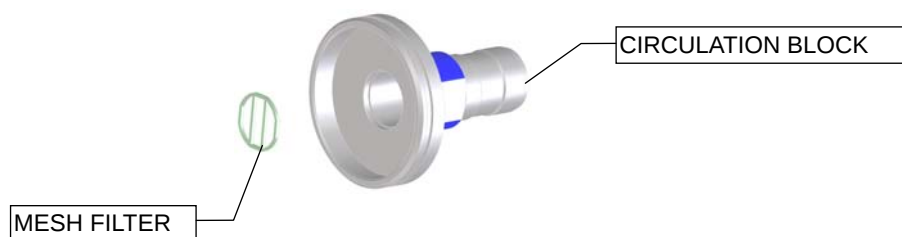
Required tools: Pliers



- (1) Remove MESH FILTER from DRAIN BLOCK

2-4-59 Circulation port block unit

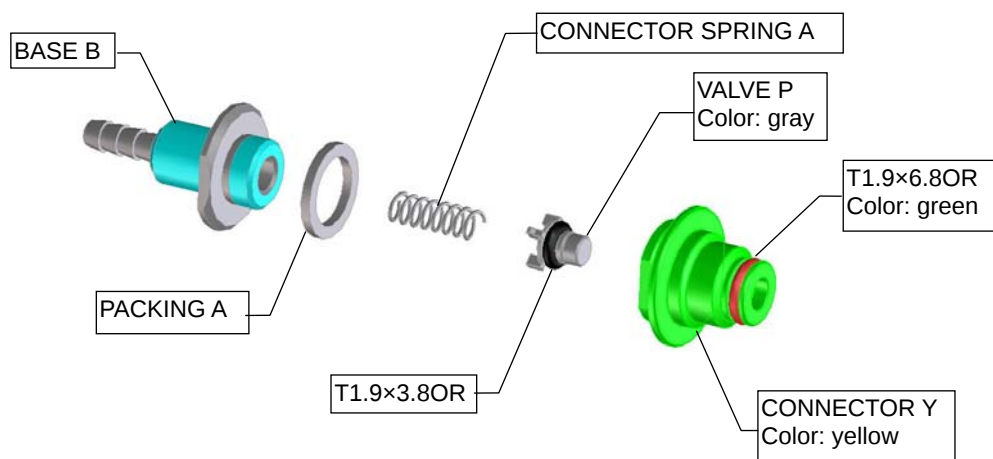
Required tools: Pliers



- (1) Remove MESH FILTER from CIRCULATION BLOCK

2-4-60 Connector Y unit

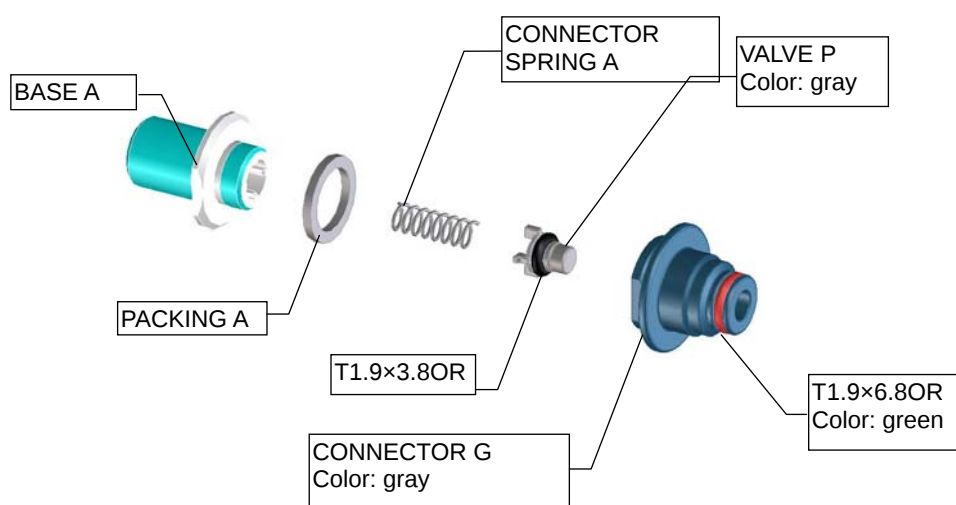
Required tools: Adjustable wrench, Connector A securing jig (JA9833), Connector rotating jig (JA7697)



- (1) Remove CONNECTOR Y from BASE B and then remove VALVE P, CONNECTOR SPRING A and PACKING A

2-4-61 Connector G unit

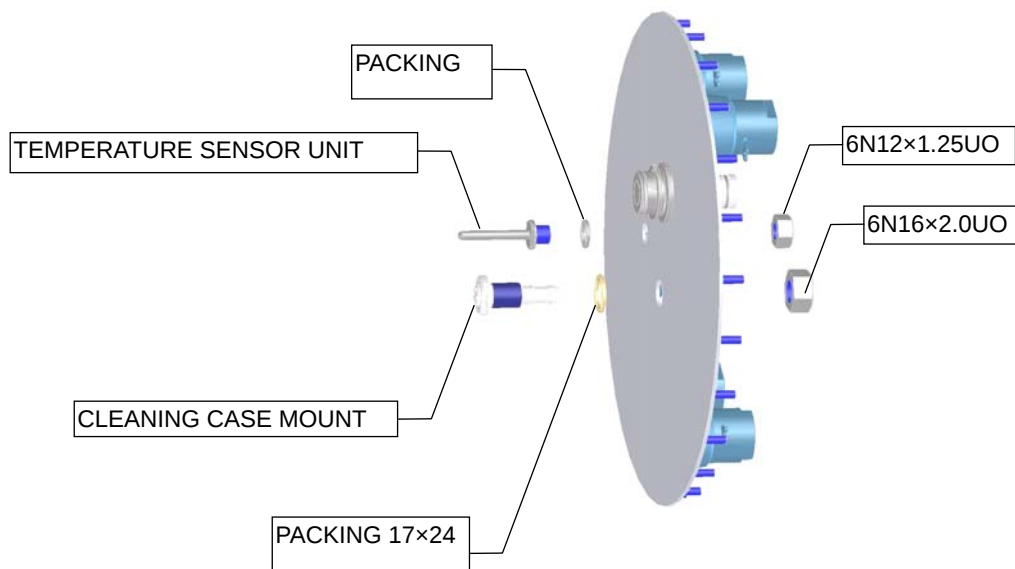
Required tools: Adjustable wrench, Connector A securing jig (JA9822), Connector rotating jig (JA7697)



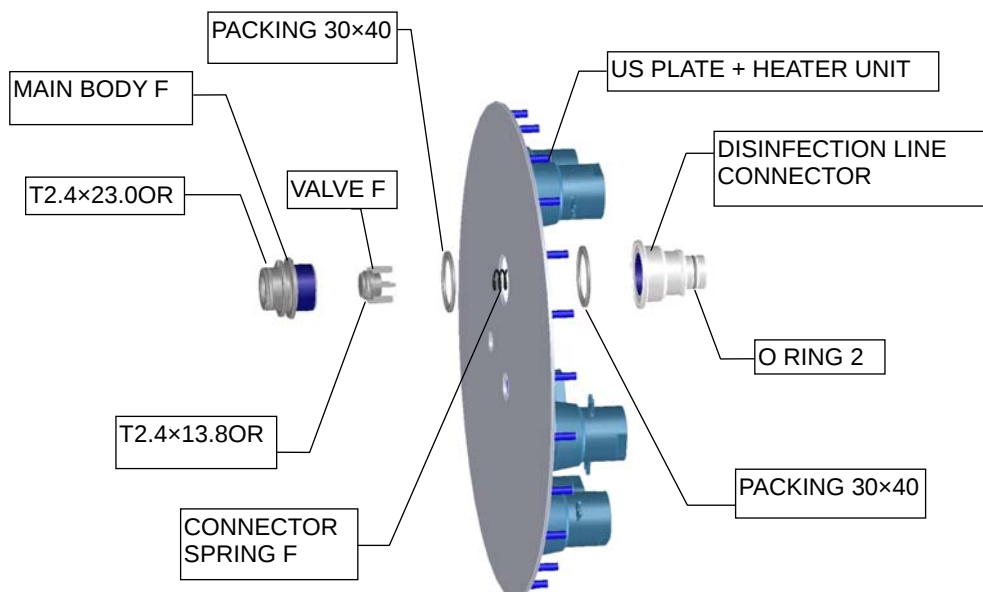
- (1) Remove CONNECTOR G from BASE A and then remove VALVE P, CONNECTOR SPRING A and PACKING A

2-4-62 US plate & heater unit

Required tools: Adjustable wrench, (TUB DISINFECTION PORT JIG)



- (1) Remove nut (6N12x1.25UO) holding TEMPERATURE SENSOR
- (2) Remove nut (6N16x2.0UO) holding CLEANING CASE MOUNT



- (3) Remove DISINFECTION LINE CONNECTOR from MAIN UNIT F, remove CONNECTOR SPRING F from VALVE F in MAIN BODY UNIT F and then remove PACKING

3 Procedures for Reassembly

3-1 Jigs and Tools

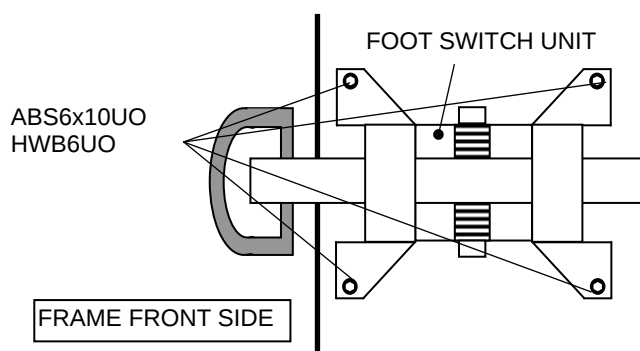
No.	Name	Specifications	Remarks
1	Cutter		
2	Scale	150mm	Equivalent also allowed
3	Adjustable wrench	TWN-03(Engineer)	Equivalent also allowed
4	No.2 Phillips screwdriver	200mm	Equivalent also allowed
5	Torque driver	0.2 - 1.2Nm	
6	Torque driver	0.6 - 2.6Nm	
7	No.1 Phillips screwdriver	200mm	Equivalent also allowed
8	No.1 torque bit	50mm	Equivalent also allowed
9	No.2 torque bit	50mm	Equivalent also allowed
10	Torque wrench bit	3mm	Equivalent also allowed
11	Torque wrench bit	6mm	Equivalent also allowed
12	Precision Flat screwdriver	1.4mm	Equivalent also allowed
13	Wire cutter	Precision type	Equivalent also allowed
14	Hexagonal wrench	3mm	Equivalent also allowed
15	Hexagonal wrench	4mm	Equivalent also allowed
16	Hexagonal wrench	6mm	Equivalent also allowed
17	SONY BOND	SC-12N	
18	NEJILOCK	1401C Red	
19	Silver tape		
20	Cleaning paper		
21	Ethanol		
22	Silicon glue	SE9186 (clear)	
23	Permanent pen	Black	
24	Double-sided tape	Mitsubishi Uni TW10-10 or equivalent	Equivalent also allowed
25	Grease	BR-2	
26	Silicon	KE45(Black)	
27	Seal tape		
28	Water filter jig		
29	Tweezers		
30	T branch holding jig		
31	Connector A securing jig		
32	Connector B securing jig		
33	Connector rotating jig		
34	Pliers		
35	Mesh filter securing jig		

No.	Name	Specifications	Remarks
36	Screw cap wrench		
37	Hexagonal nut screw bit	Size 8mm	
38	Socket stopper jig		
39	Quick lock connector wrench		
40	AF connector wrench		
41	Temperature sensor wrench		
42	Base F wrench		
43	Exhaust port valve securing jig		
44	Bonding glue	Super X (White)	
45	Connector AU securing jig		
46	Connector DU securing jig		
47	Torque wrench r	1~6Nm	
48	Open head for torque wrench	17mm, SH8DX17	
49	Open head for torque wrench	14mm, SH8DX14	
50	Nut spinner handle	For NJ3611	
51	Spanner	38mm	

3-2 Overall Reassembly

3-2-1 Foot switch unit

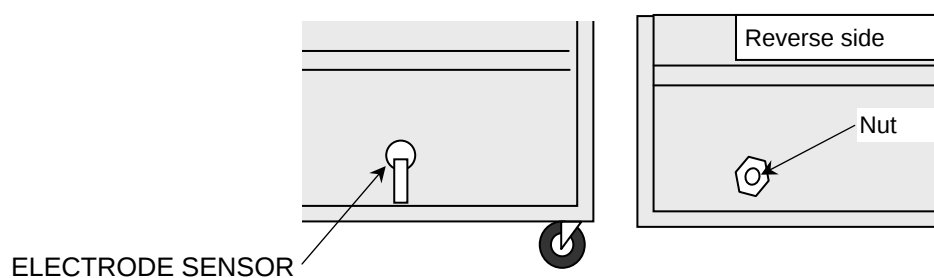
Required tools: Hexagonal wrench (6 mm)



- (1) Secure 4 screws (ABS6x10UO) and 4 washers (HWB6UO) which are holding the FOOT SWITCH

3-2-2 Electrode sensor

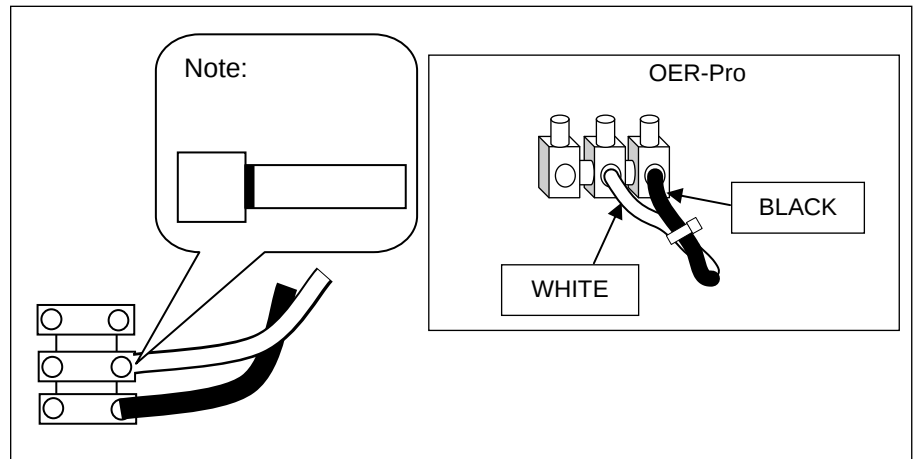
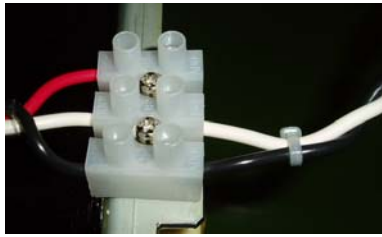
Required tools: Hexagonal wrench



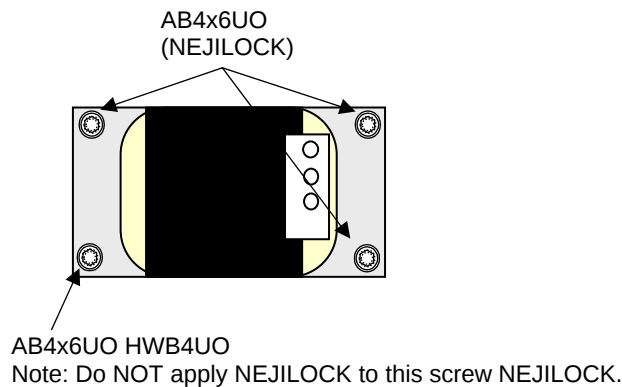
- (1) Insert ELECTRODE SENSOR from the front left side of FRAME UNIT
- (2) On the reverse side, assemble a nut to ELECTRODE SENSOR on FRAME and then secure by hand until the nut comes in contact with FRAME
- (3) After securing the nut 45 degrees by using a wrench, apply NEJILOCK

3-2-3 Transformer

Required tools: No.2 Phillips screwdriver, Torque driver, Hexagonal wrench (3 mm), Precision flat screwdriver



- (1) Fasten the stripped wire onto TRANSFORMER. Secure HARNESS by using screw. The HARNESS should not be in contact with COVER



- (2) Secure 4 screws (AB4x6UO) holding TRANSFORMER BASE using a washer (HWB4UO) with one screw and apply NEJILOCK around the head of three screw



BINDER



CCUK4x6UO

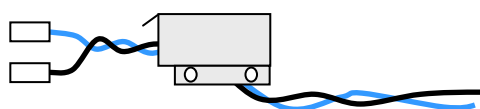
CCUK4x6UO
HWB4UO

- (3) Secure a screw (CCUK4x6UO) and a washer (HWB4UO) which is holding the I/S/T HARNESS to hold GND HARNESS
- (4) Secure 2 screws (CCUK4x6UO) which are holding FERRITE CHOKE CORE
- (5) Secure a screw (CCUK4x6UO) which is holding HARNESS to BINDER to TERMINAL STRIP OF TRANSFORMER

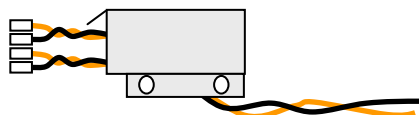
Torque: 1.274 plus or minus 0.098Nm

3-2-4 Switch box

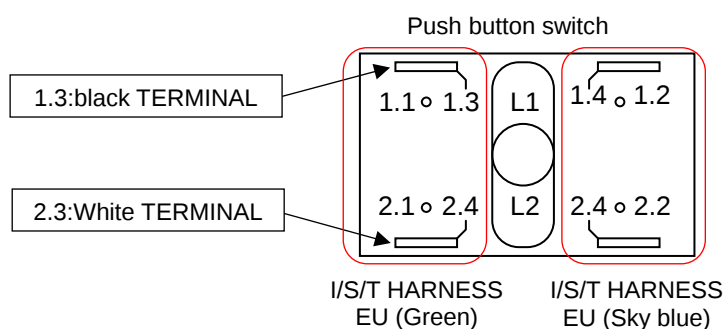
Required tools: No. 2 Phillips screwdriver



- (1) Insert I/S/T HARNESS EU (Sky Blue) into SWITCH BOX

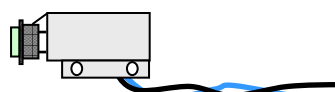


- (2) Insert I/S/T HARNESS EU (Green) into SWITCH BOX



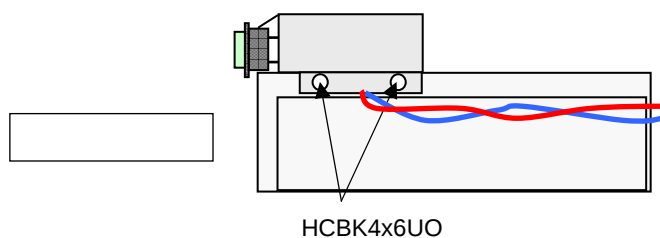
- (3) Assemble I/S/T HARNESS to SW BOX

Insert into SW BOX



Assemble as the label can be seen from underneath

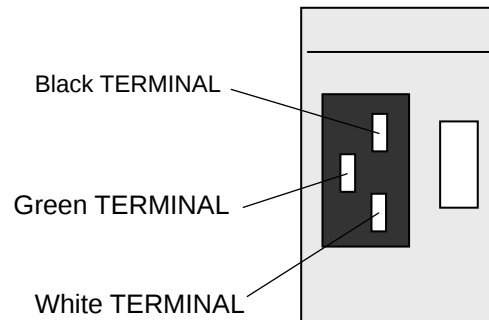
- (4) Insert PUSH BUTTON SWITCH into SWITCH BOX



- (5) Secure 2 screws (HCBK4x6UO) holding SWITCH BOX

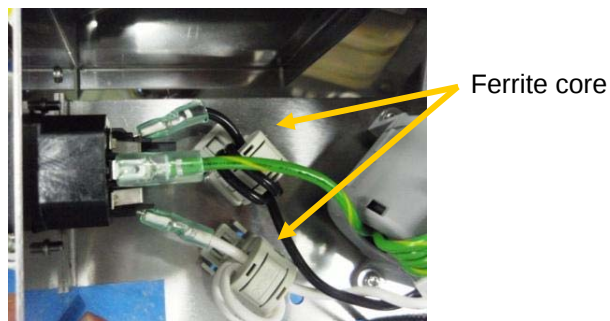
3-2-5 AC inlet unit

Required tools: No. 2 Phillips screwdriver, Torque driver, Sony Bond

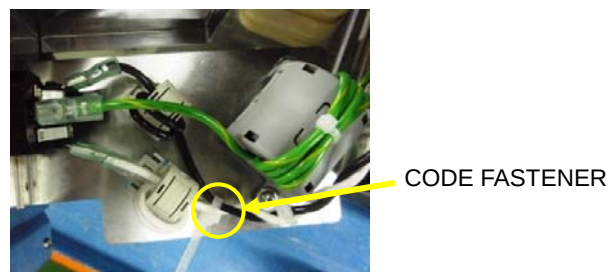


Note: Do not inset the terminal between fasten terminal and sleeve.

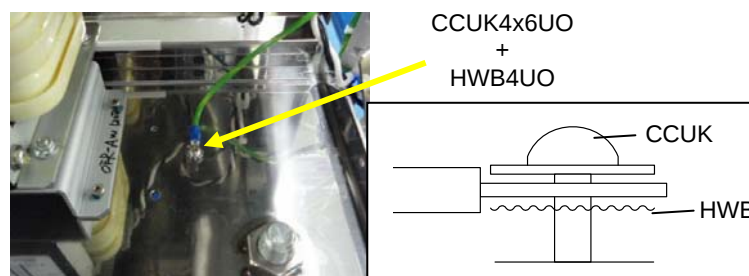
- (1) Put some sony bond on the hook of a ferrite core and wire wire I/S/T HARNESS EU to AC INLET UNIT



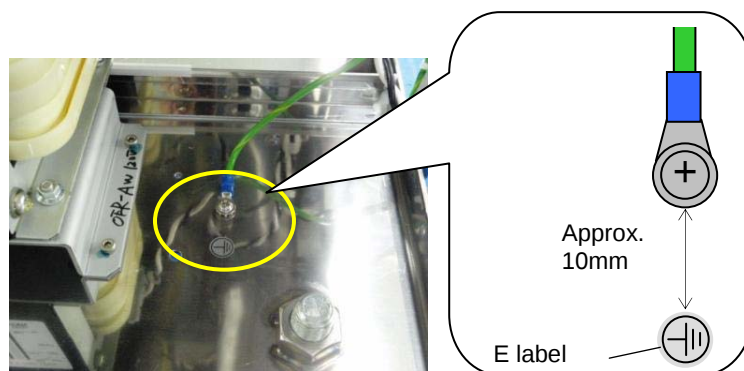
- (2) Secure Ferrite core to I/S/T HARNESS on AC inlet



- (3) Fix Black and White wire of I/S/T HARNESS with CODE FASTENER



- (4) Secure 1 screw (CCUK4x6UO+HB4U) which is holding the I/G HARNESS GND



- (5) Put E label near GND

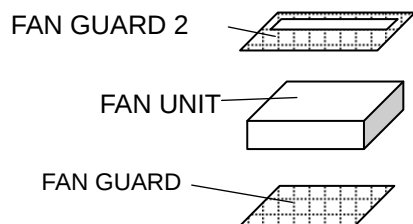
AC INLET UNIT



- (6) Secure 2 screws (HCBK4x6UO) which are holding the AC INLET UNIT
Torque: 1.274 plus or minus 0.098 Nm
 (7) Connect "20-R" of F/R SERIAL HARNESS UNIT to "20" of AC INLET
 (8) Secure F/R SERIAL HARNESS UNIT to FRAME by using a BINDER

3-2-6 Fan unit

Required tools: No. 2 Phillips screwdriver

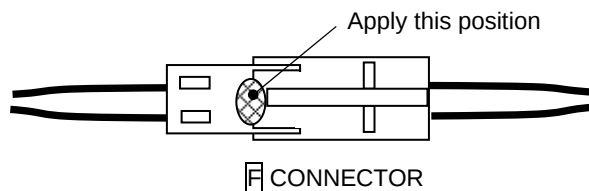


- (1) Align FAN GUARD and FAN UNIT to 2 holes in FAN GUARD
- (2) Align FAN and holes on FRAME



CCUK4x30UO

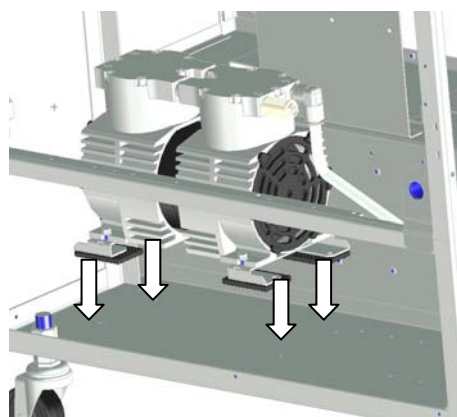
- (3) Secure 4 screws (CCUK4x30UO) which are holding the FAN UNIT end and apply NEJILOCK
- (4) Rotate FAN by hands and ensure that the movement is smooth
- (5) Connect "F" CONNECTOR OF DC HARNESS UNIT to CONNECTOR OF FAN UNIT
- (6) Ensure that CRIMP contact has not come out by pulling the protruded WIRE from both sides of F CONNECTOR



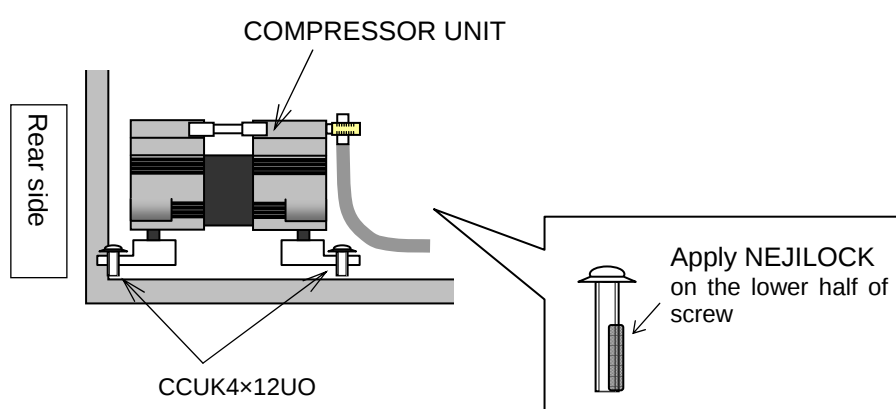
- (7) Apply glue around "F" CONNECTOR

3-2-7 Compressor unit

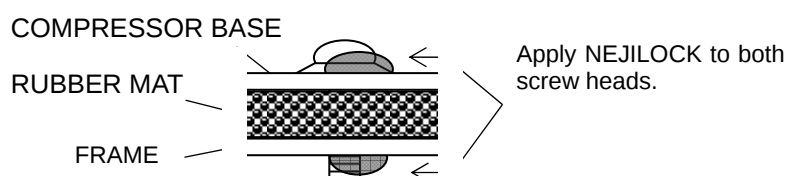
Required tools: No. 2 Phillips screwdriver



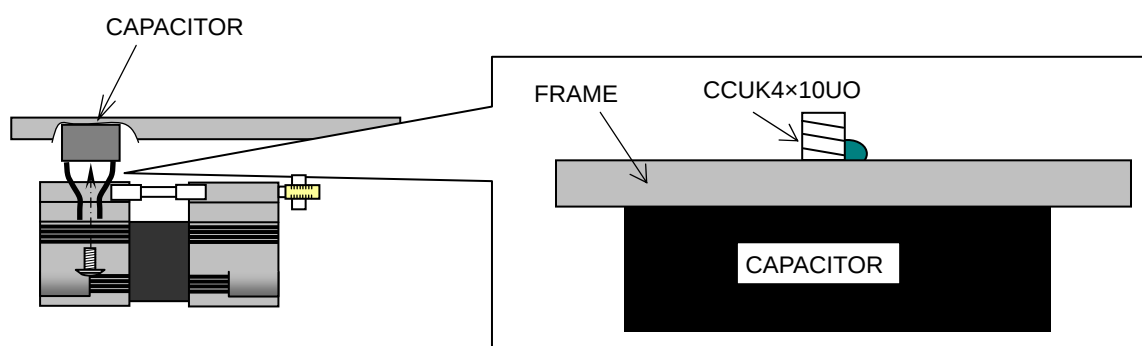
- (1) Align holes of FRAME and COMPRESSOR UNIT



- (2) Apply NEJILOCK on the lower half of the screw head and tighten until screw protrudes by 3 threads from the bottom of FRAME.

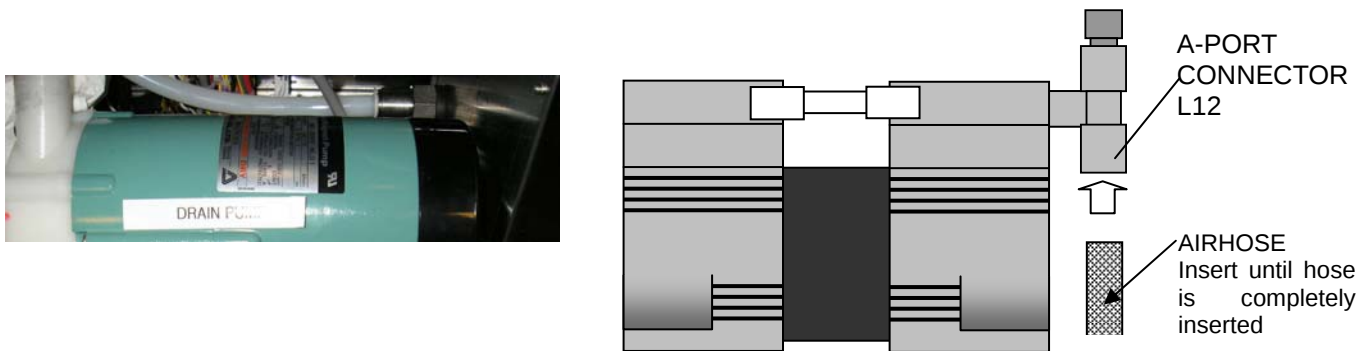


- (3) After securing screws, apply NEJILOCK around the head of the screw



- (4) Secure a screw (CCUK4x10UO) holding the CAPACITOR of the COMPRESSOR UNIT and then apply NEJILOCK around the head of screw

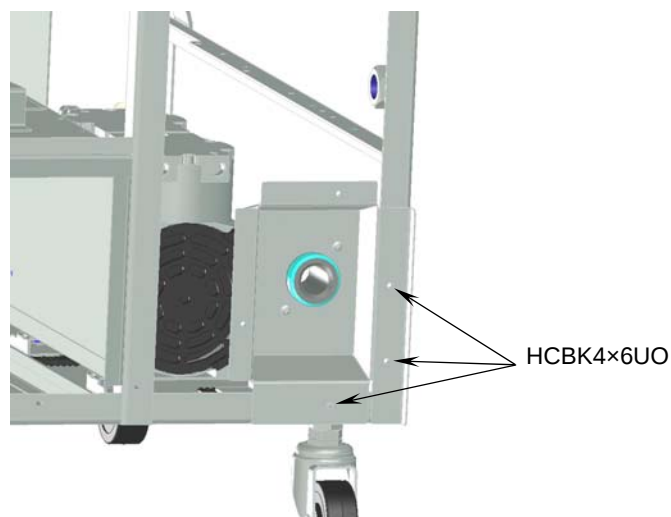
- (5) Cut AIRHOSE (300mm plus or minus 5mm)
- (6) Insert one end of the AIRHOSE into the air filter inlet, and the other end into the COMPRESSOR's A PORT CONNECTOR L12.



3-2-8 Drain block unit

Required tools: No. 2 Phillips screwdriver, Torque driver

- (1) Align screw holes from the DRAIN BLOCK to the lower right side of the REAR PANEL of the FRAME



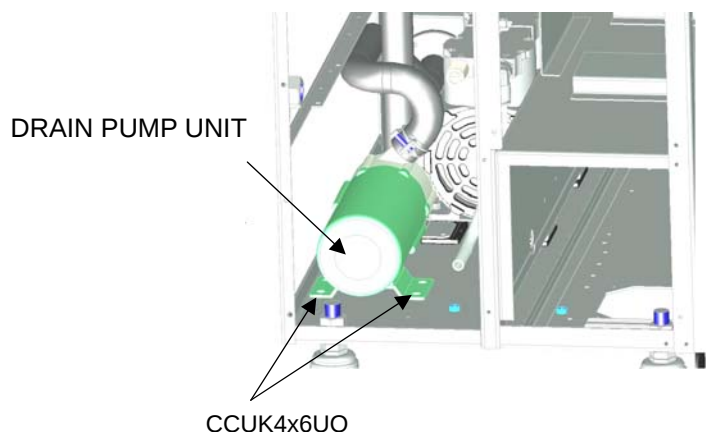
- (2) Secure 3 screws (HCBK4x6UO) on DRAIN BLOCK UNIT to CHASSIS

Torque: 1.274 plus or minus 0.098 Nm

3-2-9 Drain pump unit

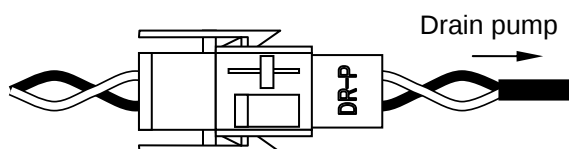
Required tools: No. 2 Phillips screwdriver, Torque driver

- (1) DRAIN PUMP scroll holes with bottom of FRAME

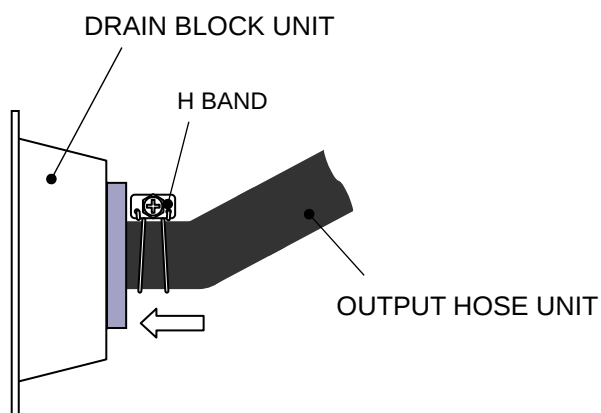


- (2) Secure 4 screws (CCUK4x6UO) on DRAIN PUMP UNIT to CHASSIS and then apply NEJILOCK around the head of the screws

Torque: 1.274 plus or minus 0.098Nm

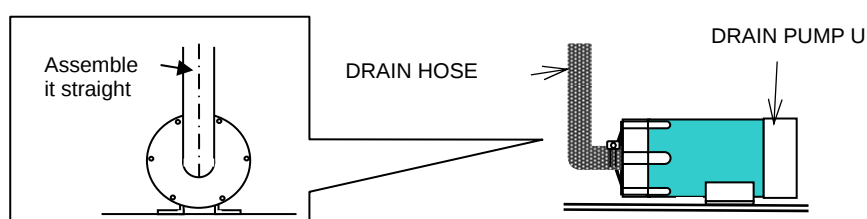


- (3) Connect housing of BYPASS PUMP UNIT to housing of HARNESS



- (4) Insert DRAIN PUMP UNIT output HOSE into output of DRAIN PUMP UNIT
 (5) Insert output HOSE of DRAIN PUMP UNIT into DRAIN BLOCK UNIT and then secure screws on H BAND

Torque: 2.352 plus or minus 0.098Nm

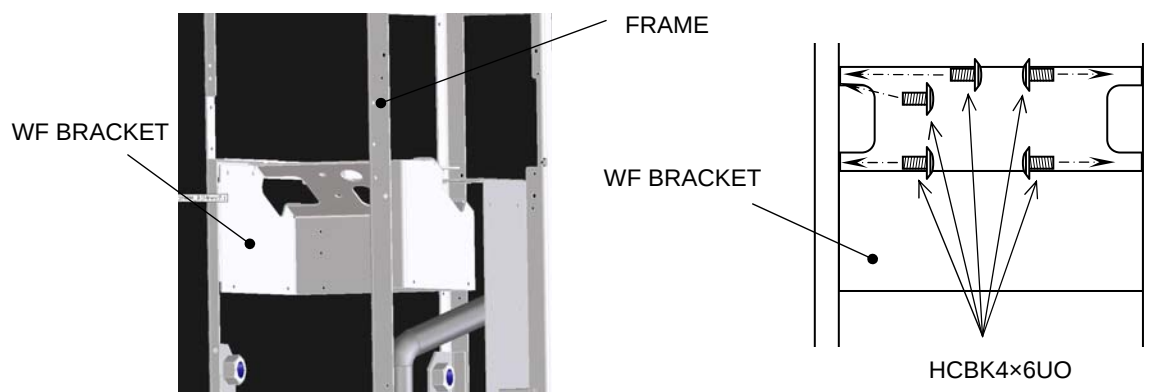


- (6) Insert input HOSE into DRAIN PUMP UNIT input and then secure screw on H BAND

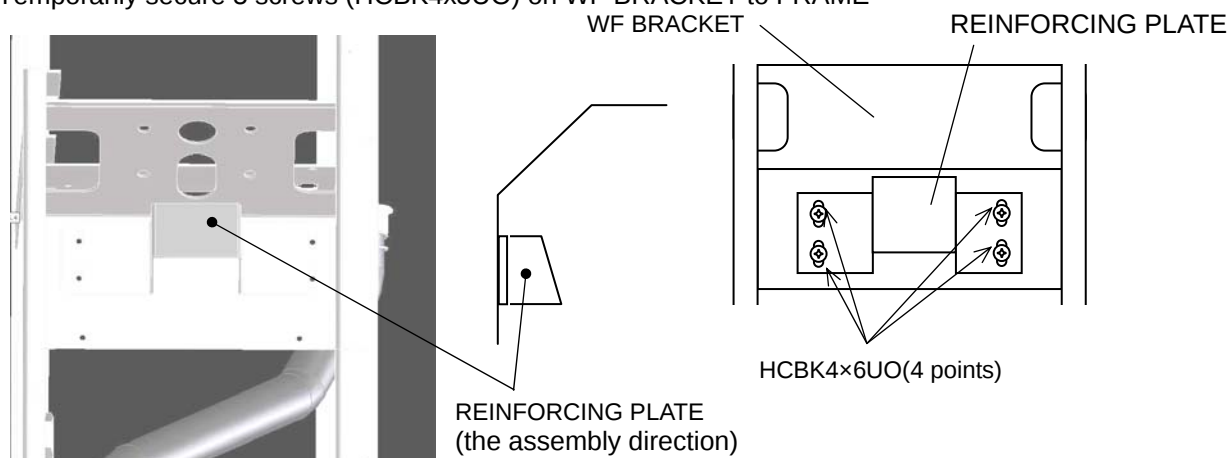
Torque: 2.352 plus or minus 0.098Nm

3-2-10 WF bracket

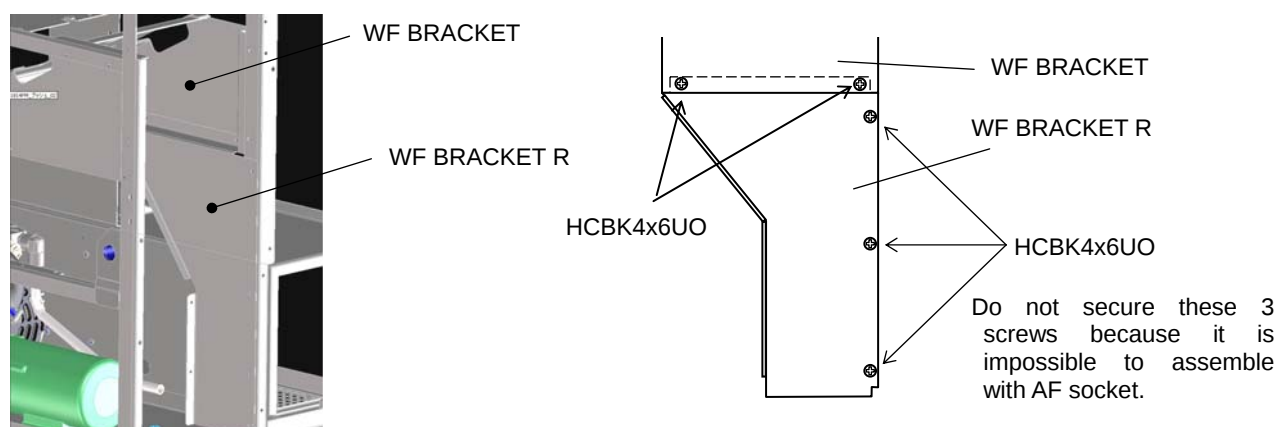
Required tools: No. 2 Phillips screwdriver, Torque driver



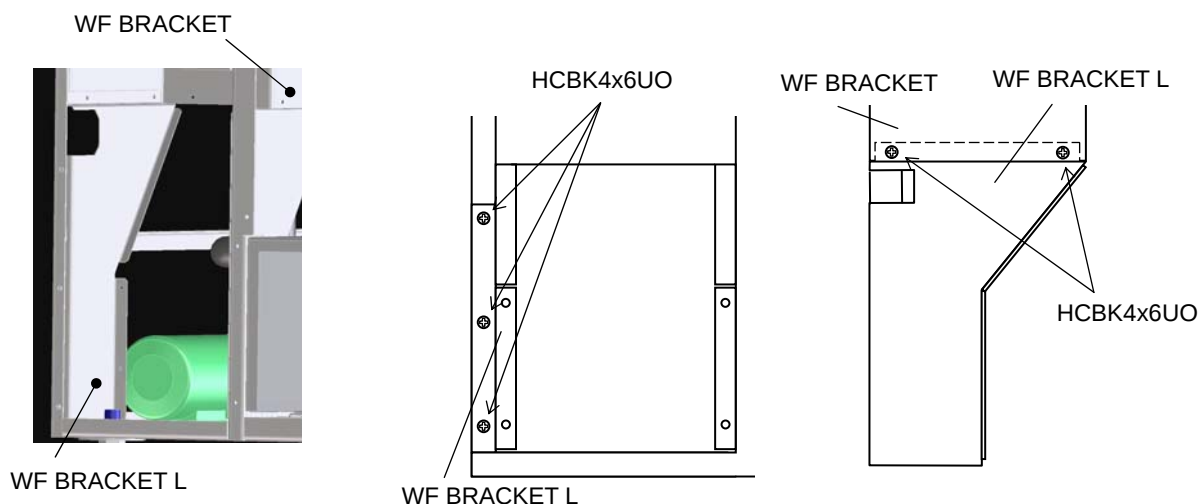
- (1) Temporarily secure 5 screws (HCBK4x5UO) on WF BRACKET to FRAME



- (2) Align REINFORCING PLATE to screw holes on WF BRACKET and then temporarily secure with 4 screws (HCBK4x6UO)



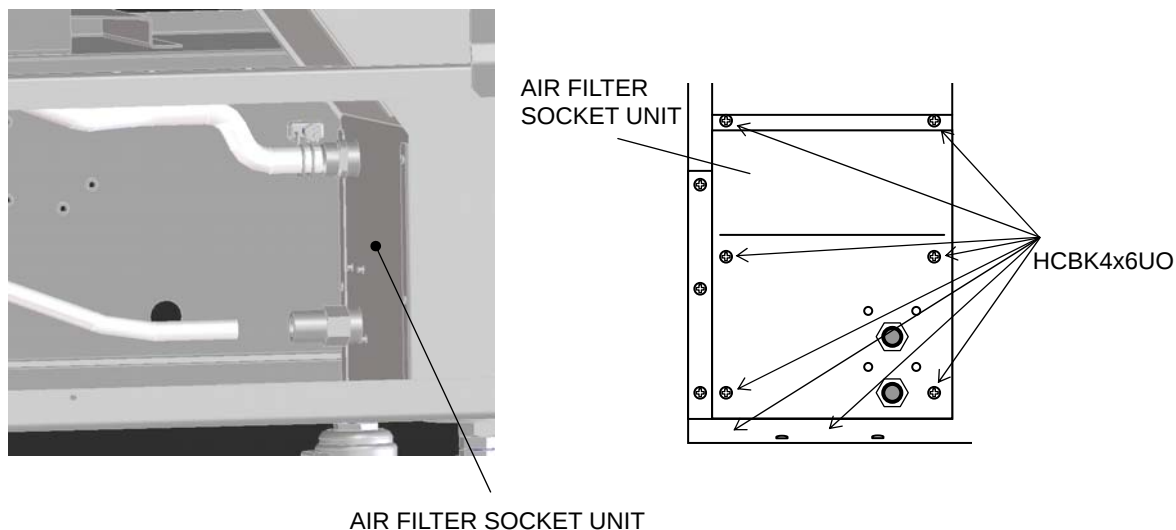
- (3) Align WF BRACKET R and FRAME to screw holes of WF BRACKET and then secure 2 screws (HCBK4x6UO) holding WF BRACKET R



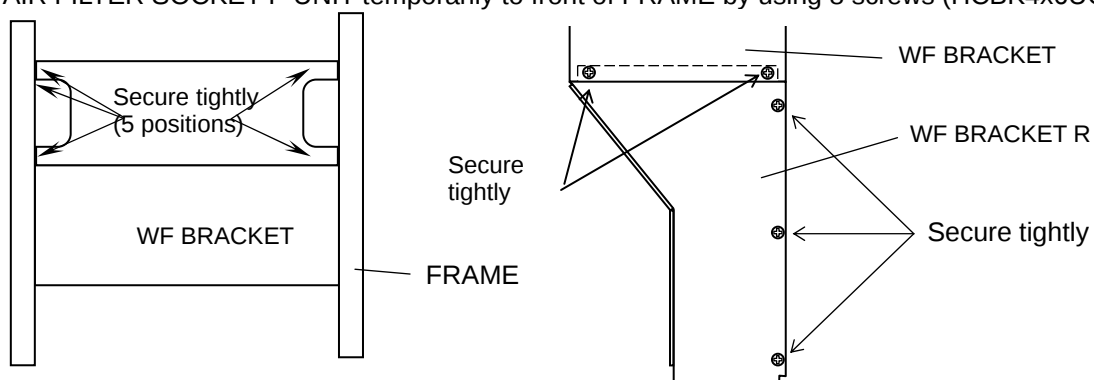
- (4) Align WF BRACKET L and FRAME to screw holes of WF BRACKET and then temporarily secure by using 5 screws (HCBK4x6UO)

3-2-11 Air filter socket P unit

Required tools: No. 2 Phillips screwdriver, Torque driver



- (1) Align screws holes on FRAME with AIR FILTER SOCKET P UNIT and then secure WF BRACKET and AIR FILTER SOCKET P UNIT temporarily to front of FRAME by using 8 screws (HCBK4x6UO)

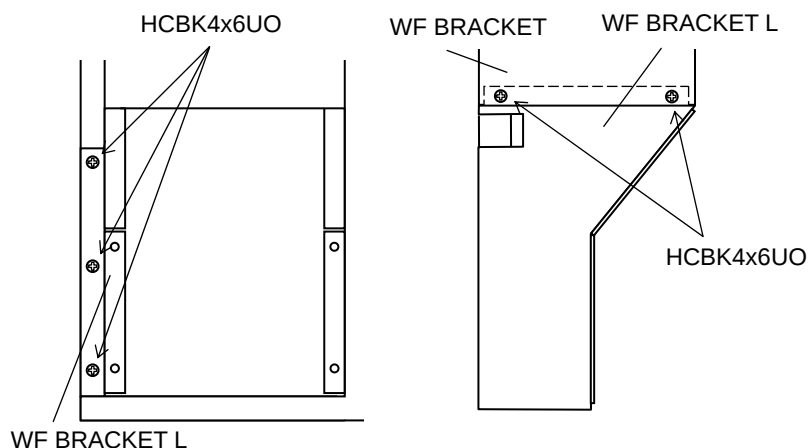


- (2) Tighten 5 screws securely which have been temporarily holding F BRACKET

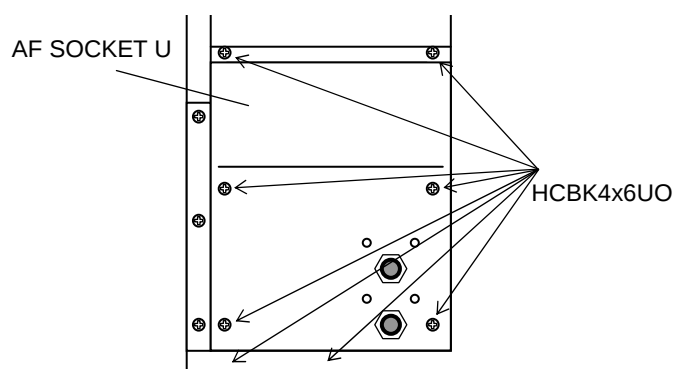
Torque: 1.274 plus or minus 0.098 Nm

- (3) Secure 3 screws (HCBK4x6UO) on WF BRACKET R and then securely tighten secure 5 screws

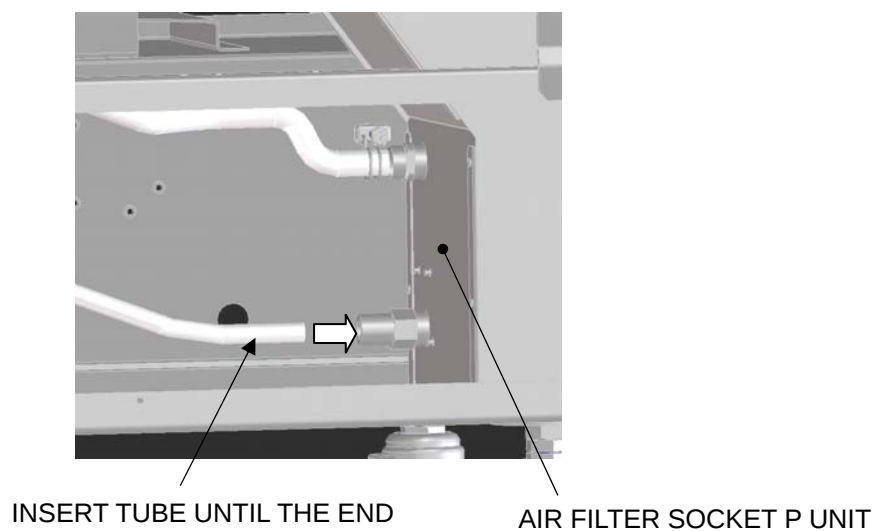
Torque: 1.274 plus or minus 0.098 Nm



- (4) Securely tighten 5 screws (HCBK4x6UO) which had been secured temporarily on WF BRACKET
Torque: 1.274 plus or minus 0.098 Nm



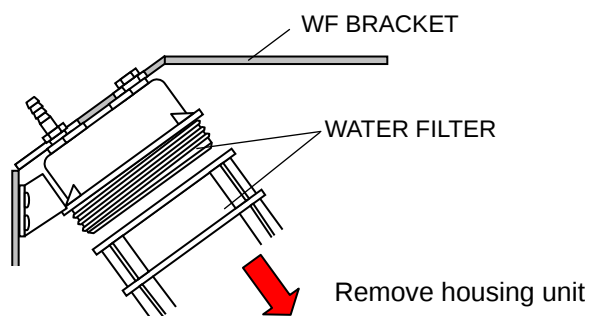
- (5) Securely tighten 8 screws (HCBK4x6UO) which had been secured temporarily on AIR FILTER SOCKET UNIT
Torque: 1.274 plus or minus 0.098 Nm



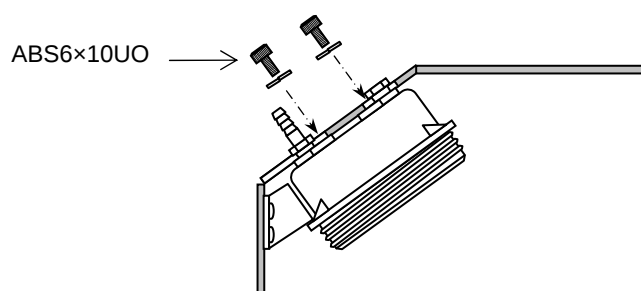
- (6) Connect TUBE protruding from COMPRESSOR UNIT to AIR FILTER SOCKET P UNIT

3-2-12 Water filter unit

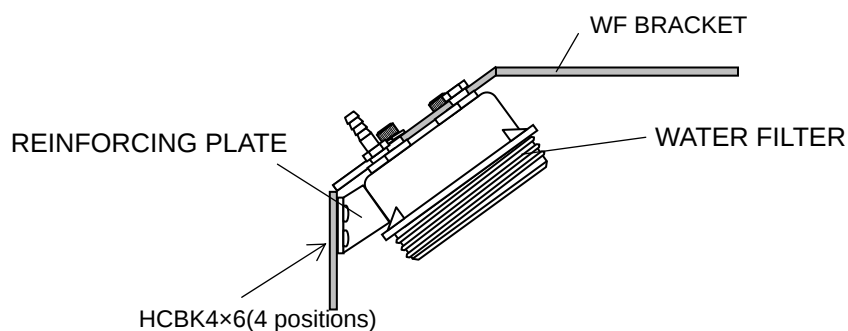
Required tools: Water filter jig, Hexagonal wrench



- (1) Remove lower housing of WATER FILTER UNIT and then align screw holes of WF BRACKET



- (2) Secure 4 screws (ABS6x10UO) tightly and then apply NEJILOCK around the head of the screws (Note: Only apply NEJILOCK on the sides of the screw; not where the wrench is inserted.)

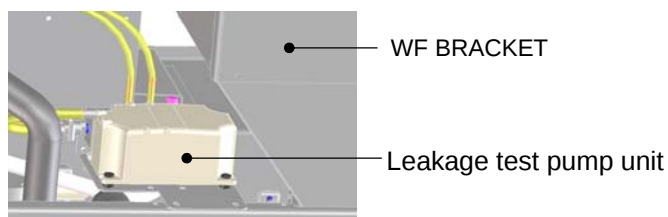


- (3) Pushing the REINFORCING PLATE on WATER FILTER, secure tighten 4 screws (HCBK4x6UO) to REINFORCING PLATE

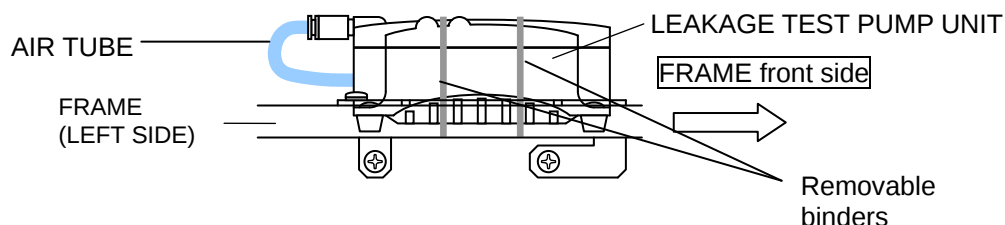
Torque: 1.274 plus or minus 0.098 Nm

3-2-13 Leakage test pump unit

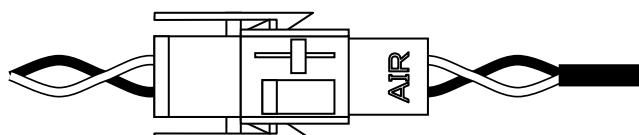
Required tools: No. 2 Phillips screwdriver, Torque driver



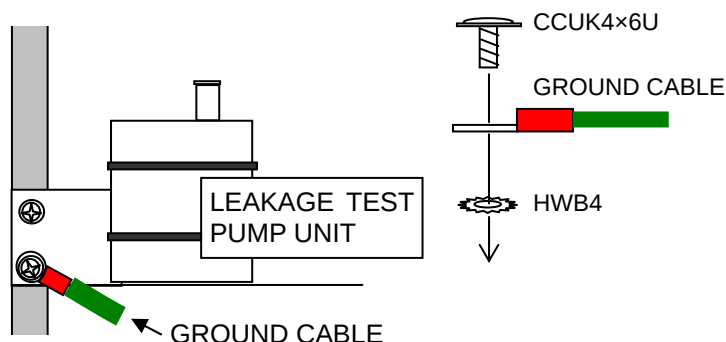
- (1) Align holes on FRAME with the LEAKAGE TEST PUMP UNIT



- (2) Fasten the replacement LEAKAGE TEST PUMP UNIT with the removable binders
 (3) Connect the AIR TUBE to the AIR CONNECTOR

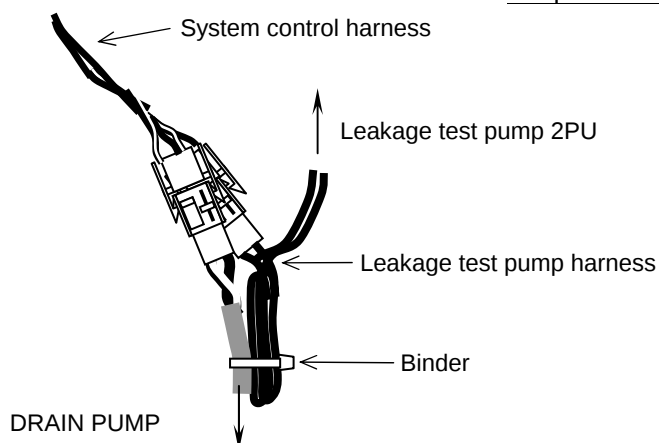


- (4) Connect the cable harness of LEAKAGE TEST PUMP UNIT to housing HARNESS



- (5) Secure GROUND CABLE of WATER DRAIN PUMP UNIT to bracket of LEAKAGE TEST PUMP UNIT by using a screw (CCUK4x6UO)

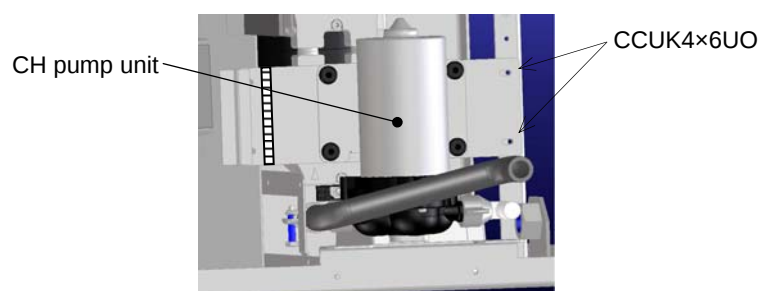
Torque: 1.274 plus or minus 0.098 Nm



- (6) Fasten the leakage test pump harness cables with a binder.

3-2-14 CH pump unit

Required tools: No. 2 Phillips screwdriver, Torque driver



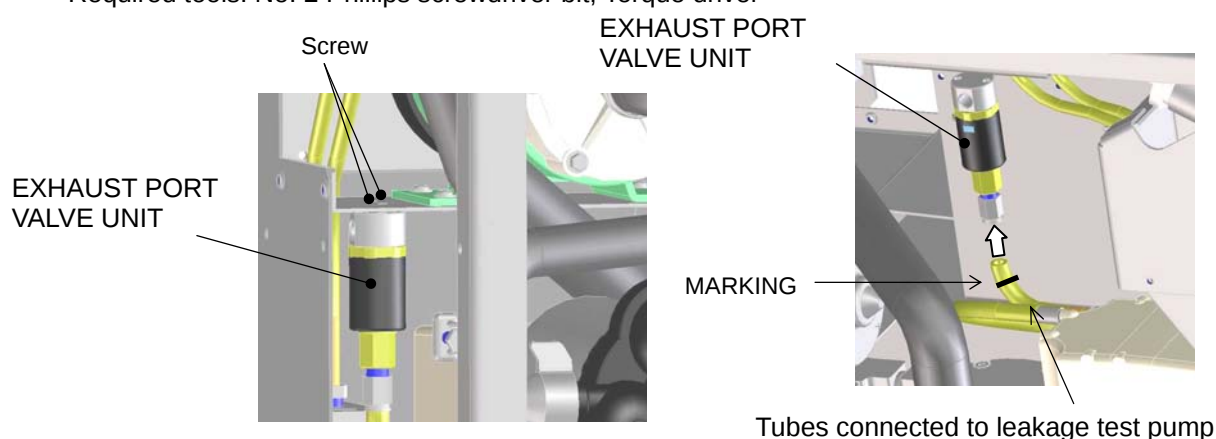
- (1) Insert CH PUMP UNIT into the FRAME and then align screw holes
- (2) Secure CH PUMP UNIT to the FRAME by using 2 screws (CCUK4x6UO) and then apply NEJILOCK around head of the screws

Torque: 1.274 plus or minus 0.098 Nm

- (3) Screw PUMP JOINTS on both sides of the CH PUMP UNIT by hand

3-2-15 Exhaust port valve unit

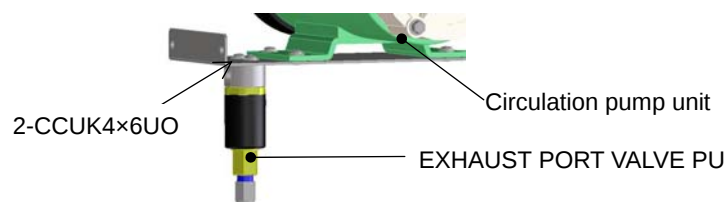
Required tools: No. 2 Phillips screwdriver bit, Torque driver



- (1) Refer to 3-2-16 Circulation pump unit procedure

3-2-16 Circulation pump unit

Required tools: No.2 Phillips screwdriver bit, Torque driver

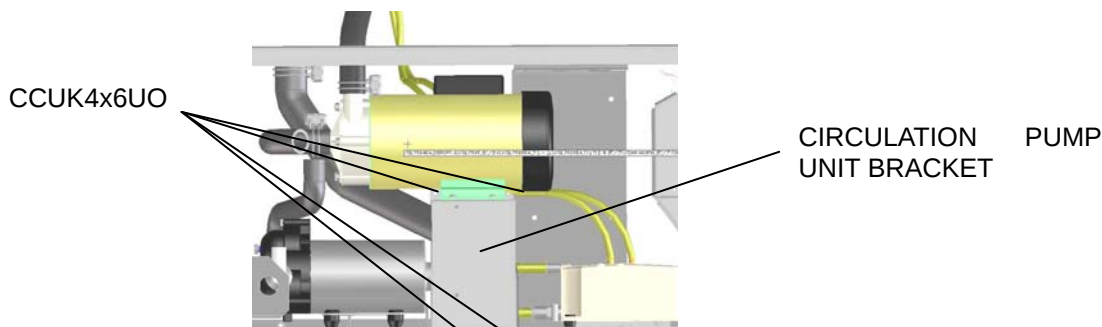


- (1) Secure 2 screws (CCUK4x6UO) holding EXHAUST PORT VALVE PU and CIRCULATION PUMP UNIT

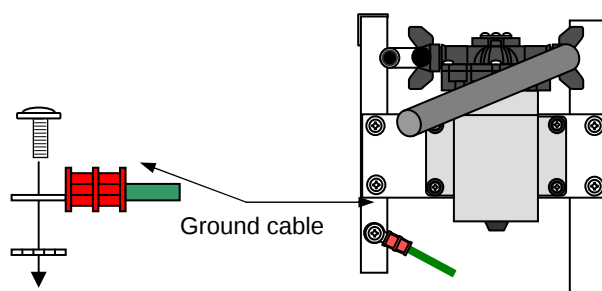
Torque: 1.274 plus or minus 0.098 Nm

- (2) Secure 4 screws (CCUK4x6UO) holding CIRCULATION PUMP UNIT BRACKET with FRAME

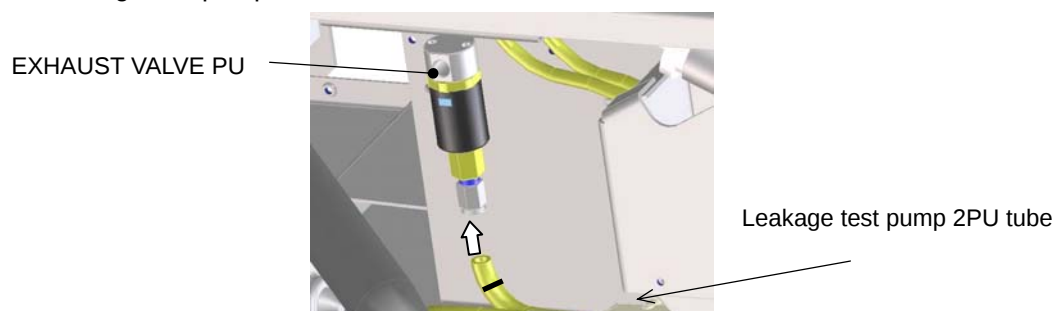
Torque: 1.274 plus or minus 0.098 Nm



- (3) Insert input and output HOSES to CIRCULATION PUMP input and output.
- (4) Securely tighten H BAND screws
- (5) Secure a screw (CCUK4x6UO) and a washer (HWB4UO) holding GROUND CABLE of CIRCULATION PUMP UNIT



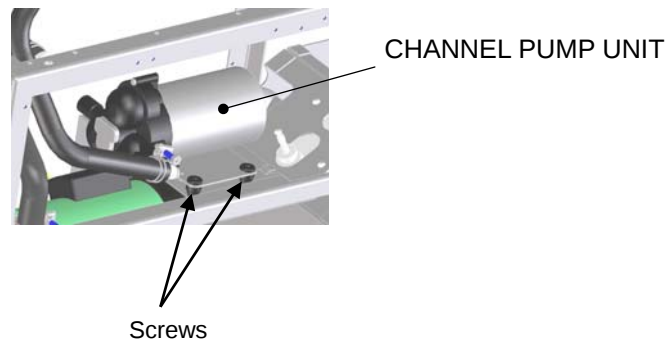
- (6) Insert Leakage test pump 2PU tube to EXHAUST VALVE PU



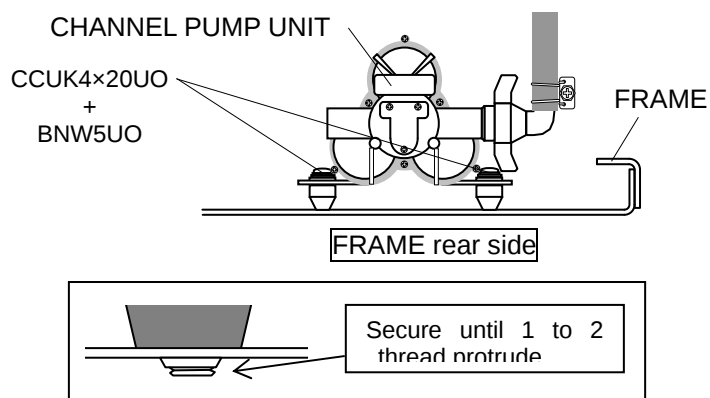
3-2-17 Channel pump unit

Required tools: No.2 Phillips screwdriver

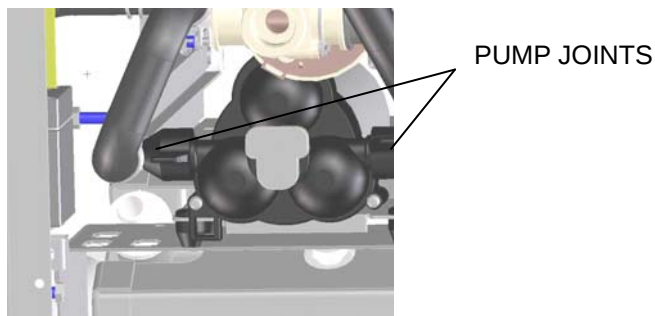
- (1) Align screws on the CHANNEL PUMP UNIT to the FRAME



- (2) Apply NEJILOCK around head of screw and then secure screw to show 1 to until the screw tip protrudes by 1 to 2 threads



- (3) Secure PUMP JOINT to both sides of CHANNEL PUMP UNIT by hand

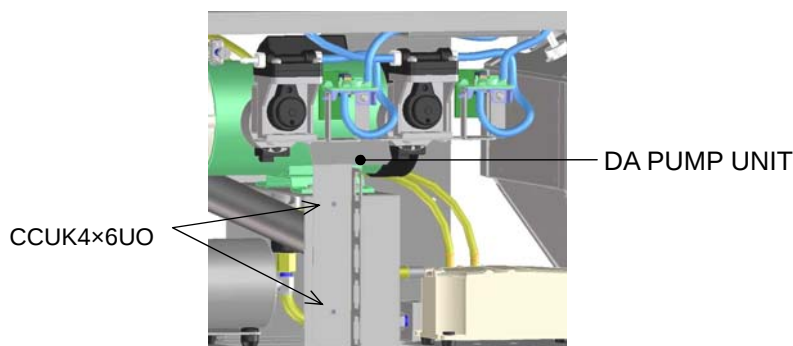


3-2-18 DA pump

Required tools: No.2 Phillips screwdriver bit, Torque driver

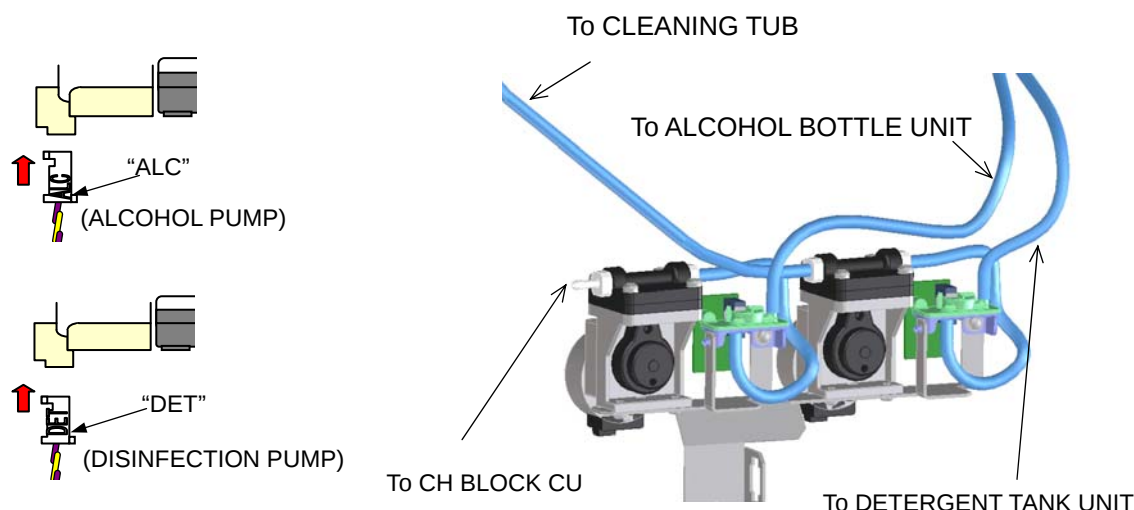
Refer to 3-3-38 for DA PUMP UNIT assembly

- (1) Mount DA PUMP UNIT on DA PUMP BRACKET, align screw holes, and secure 2 screws (CCUK4x6UO).



- (1) Align screw holes on bracket of CIRCULATION PUMP UNIT to DA PUMP UNIT, secure 2 screws (CCUK4x6UO) and then apply NEJILOCK around the head of the screws

Torque: 1.274 plus or minus 0.098 Nm



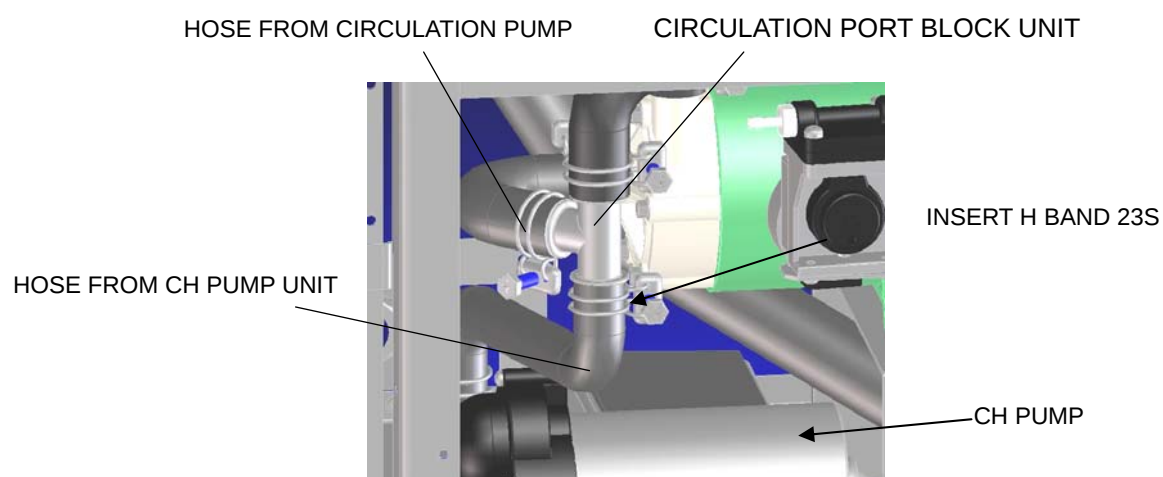
- (2) Connect the electrical CONNECTORS below the DA PUMPS
- (3) Connect the input and output tubes to the DA PUMPS
- (4) Ensure that CRIMP TERMINAL on CONNECTOR is not loose by tugging on the connectors.



- (5) Connect housing for "LT-V", "DIS-P", "CH-P", "RY-P" and "COMP" of SYSTEM CONTROL HARNESS of DA PUMP BRACKET
- (6) Fasten the loose wires with a BINDER.

3-2-19 Circulation port block unit

Required tools: No.2 Phillips screwdriver bit, Torque driver



(1) Insert H BAND 23S into HOSE of CH UNIT

(2) Secure CIRCULATION PORT BLOCK UNIT to HOSE of CH PUMP UNIT

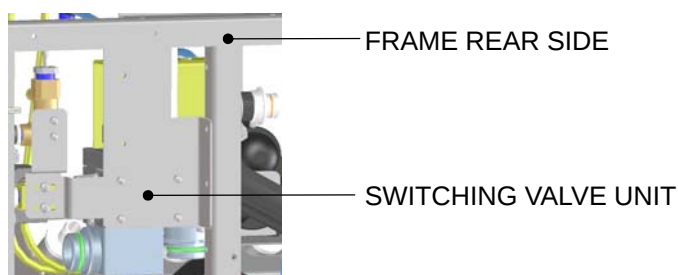
Torque: 2.8 plus or minus 0.1 Nm

(3) Secure HOSE of CIRCULATION PUMP UNIT to CIRCULATION BRANCH VALVE UNIT

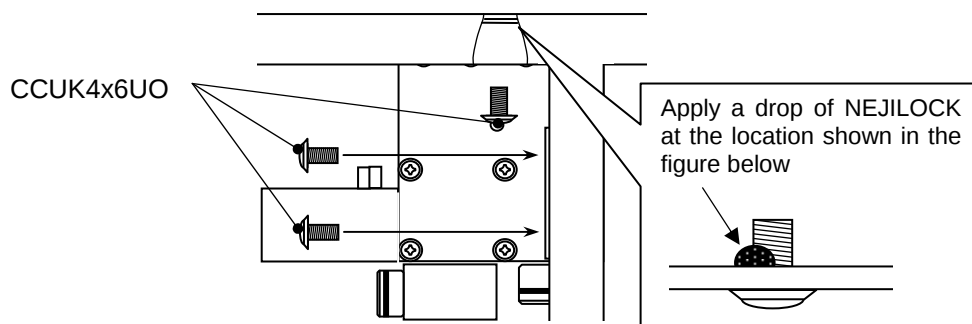
Torque: 2.8 plus or minus 0.1 Nm

3-2-20 Switching valve unit

Required tools: No.2 Phillips screwdriver bit, Torque driver

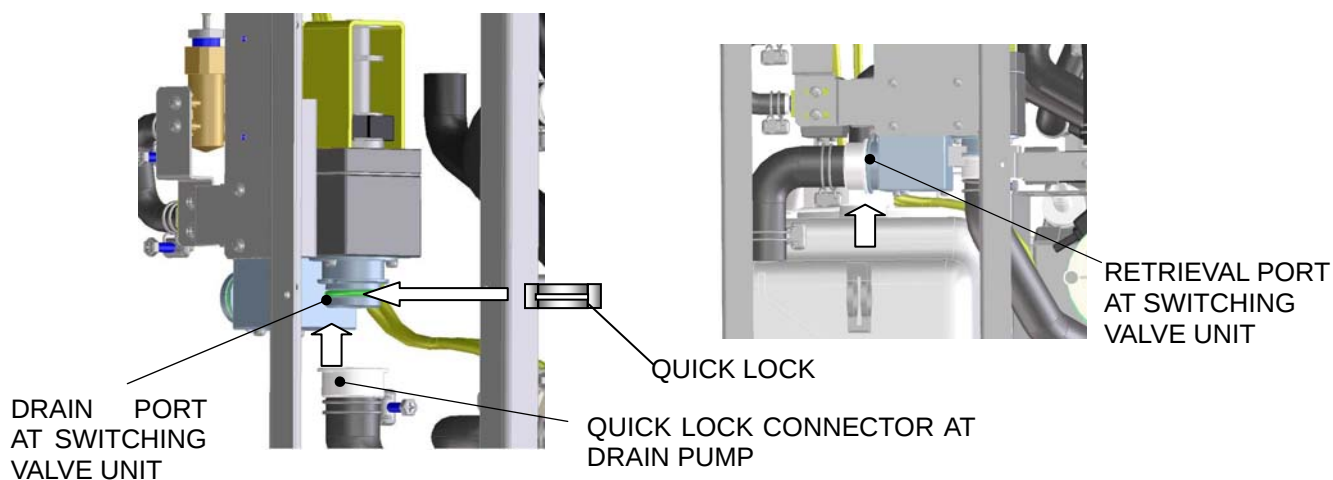


- (1) Align screw holes on REAR PANEL of FRAME to SWITCHING VALVE.

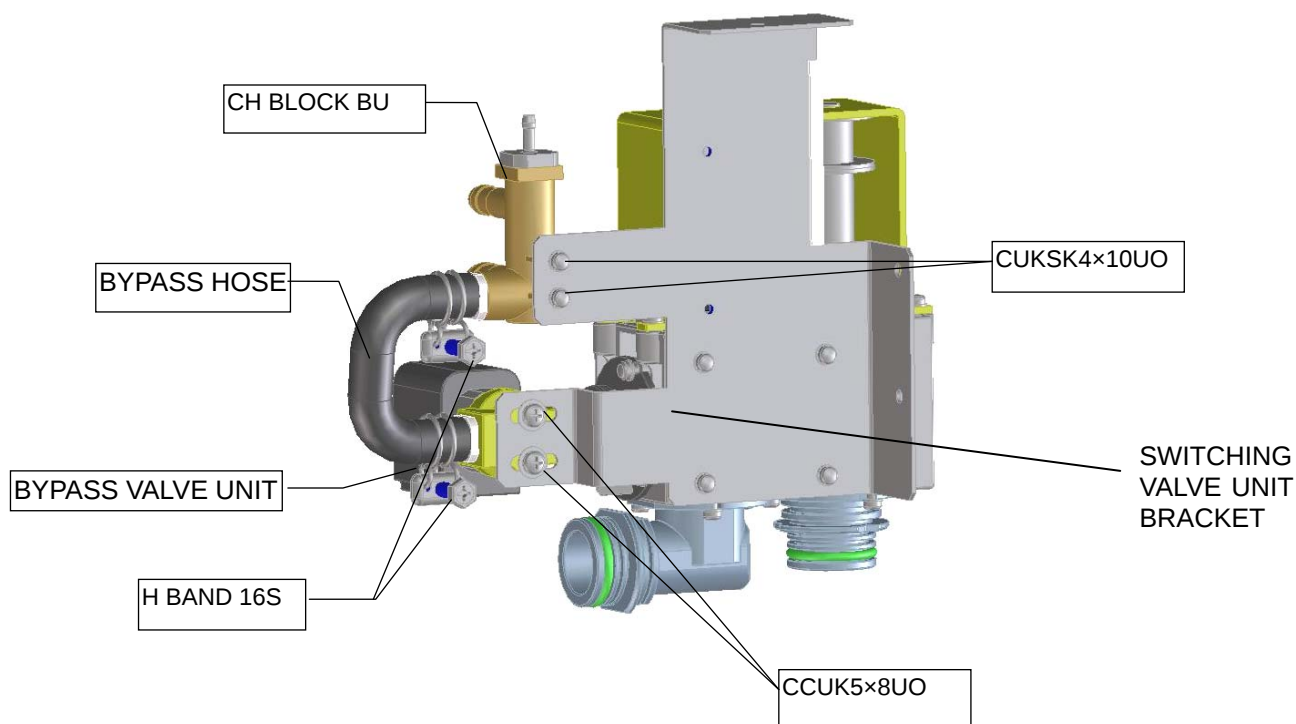


- (2) Secure 3 screws (CUCK4x6UO) of SWITCHING VALVE UNIT to FRAME and apply a drop of NEJILOCK around the head of the screws

Torque: 1.274 plus or minus 0.098 Nm



- (3) Secure QUICK LOCK CONNECTOR of WATER DRAIN PUMP UNIT to WATER DRAIN SIDE PORT OF SWITCHING VALVE UNIT by using a quick lock
 (4) Secure QUICK LOCK CONNECTOR OF SWITCHING VALVE UNIT to RETRIEVAL PORT of SWITCHING VALVE UNIT by using a QUICK LOCK
 (5) Secure HOSES from SWITCHING VALVE UNIT and CLEANING TUB UNIT by using a QUICK LOCK



- (6) Align SWITCHING VALVE UNIT BRACKET and BYPASS VALVE UNIT and then secure using 2 screws (CCUK5x8UO)

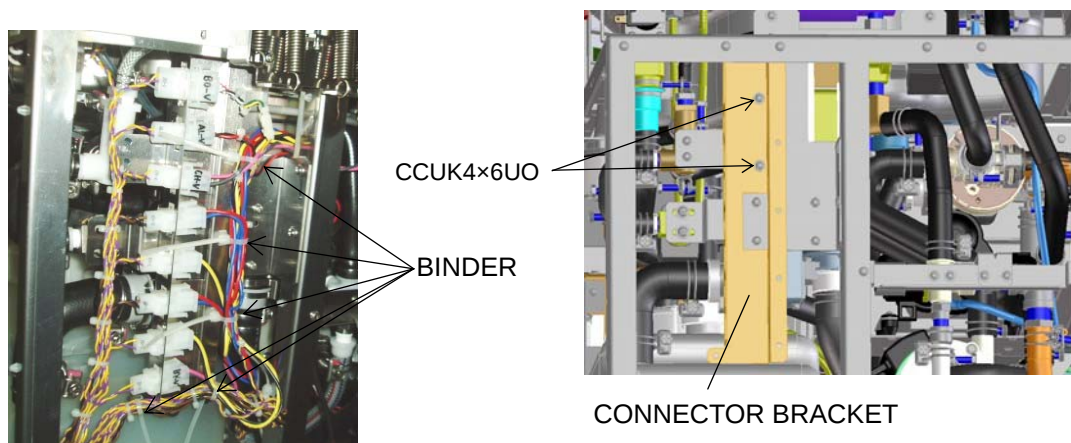
Torque: 1.274 plus or minus 0.098 Nm

- (7) Apply a drop of NEJILOCK around the head of the screws

- (8) Align CH BLOCK B UNIT to SWITCHING VALVE UNIT BRACKET and secure using 2 screws (CUKSK4x10UO)

Torque: 0.686 plus or minus 0.098 Nm

- (9) Apply a drop of NEJILOCK around the head of the the screws



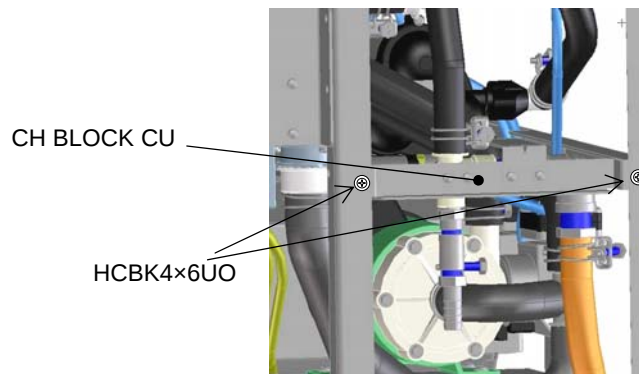
- (10) Secure CONNECTOR BRACKET to FRAME by using 2 screws (CCUK4x6UO)

Torque: 0.686 plus or minus 0.098 Nm

- (11) Connect all the CONNECTORS and then fasten the loose wires with BINDERS

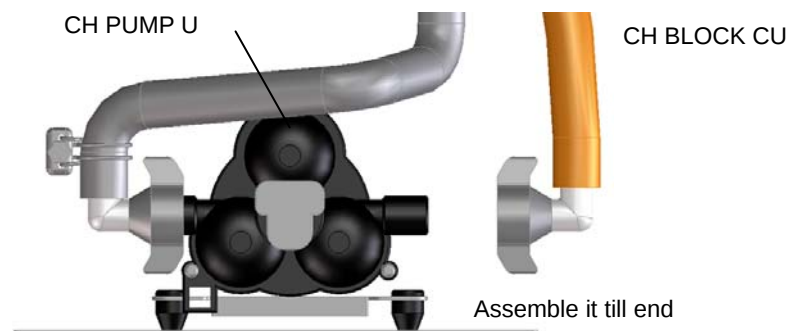
3-2-21 CH block C unit

Required tools: No.2 Phillips screwdriver bit, Torque driver

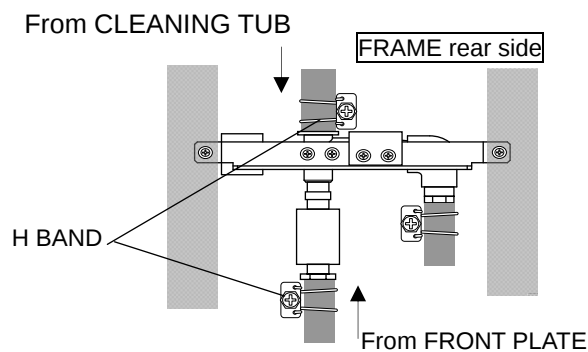


- (1) Align CH BLOCK C UNIT to screw holes at MARKED position in rear panel of FRAME and then secure two screws (HCBK4x6UO) to CH BLOCK CU.

Torque: 1.274 plus or minus 0.098 Nm

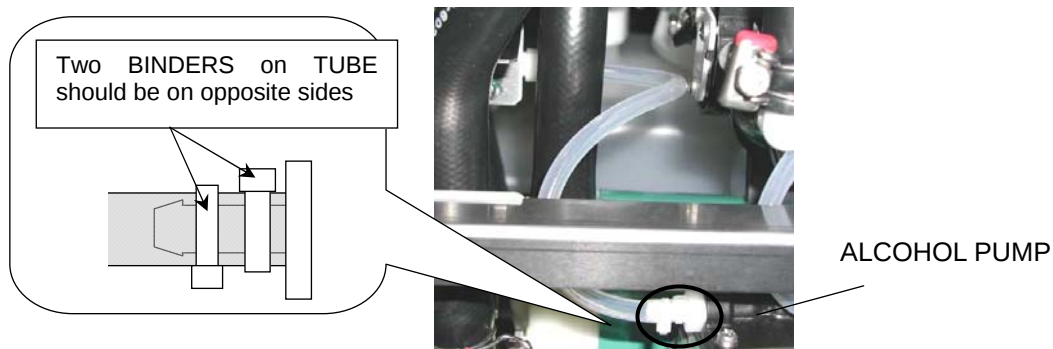


- (2) Assemble PUMP joint of CH BLOCK CU to JOINT of CH PUMP U completely



- (3) Insert H BAND in HOSE of AIR FILTER SOCKET UNIT, connect HOSE to CH BLOCK C UNIT at HOSE JOINT, and then secure by using H BAND

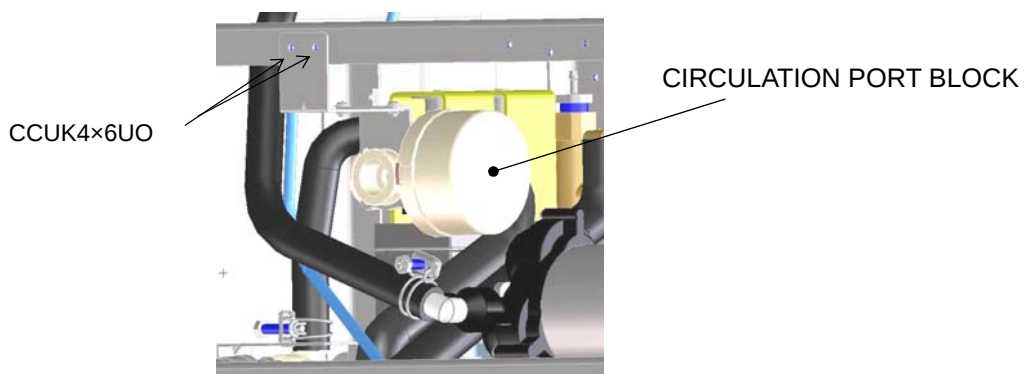
Torque: 2.8 plus or minus 0.1 Nm



- (4) Secure 2 BINDERS on TUBE from CH BLOCK C UNIT to ALCOHOL PUMP

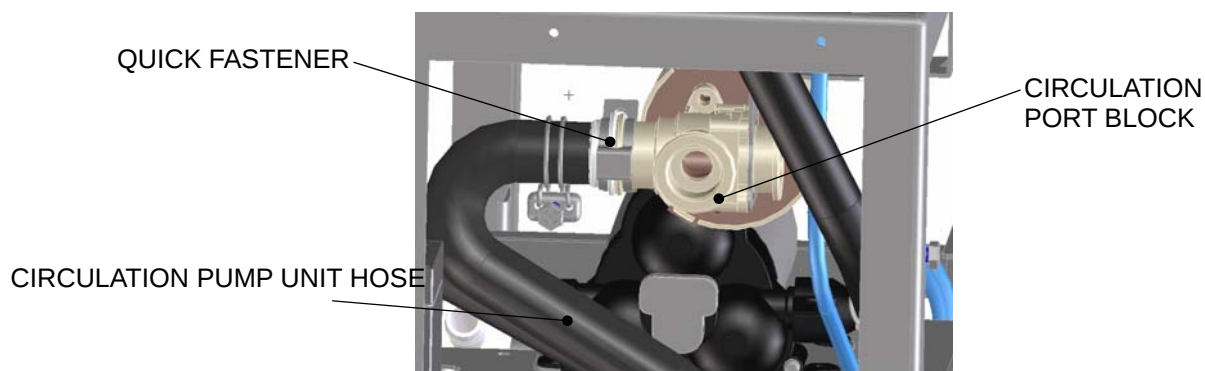
3-2-22 Circulation port block

Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Align screw holes of CIRCULATION PORT BLOCK to the FRAME and then secure by using 2 screws (CCUKK4x6UO)

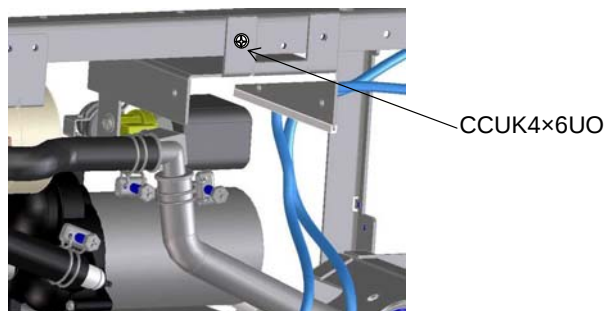
Torque: 1.274 plus or minus 0.098 Nm



- (2) Insert HOSE of CIRCULATION PUMP UNIT to CIRCULATION PORT BLOCK and secure using a QUICK FASTENER

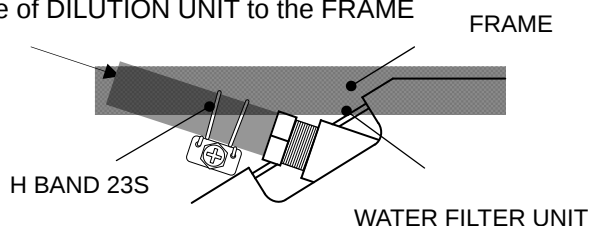
3-2-23 Dilution unit

Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Align screw holes of DILUTION UNIT BRACKET and FRAME and then temporarily secure a screw (CCUK4x6UO) on the left side of DILUTION UNIT to the FRAME

From DILUTION PUMP

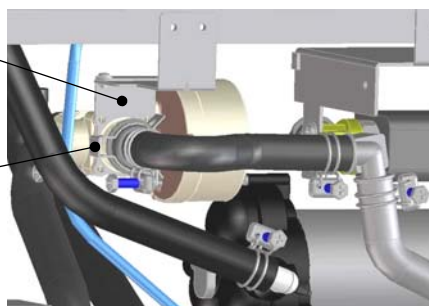


- (2) Insert DISINFECTANT HOSE into WATER FILTER inlet port and then secure H BAND

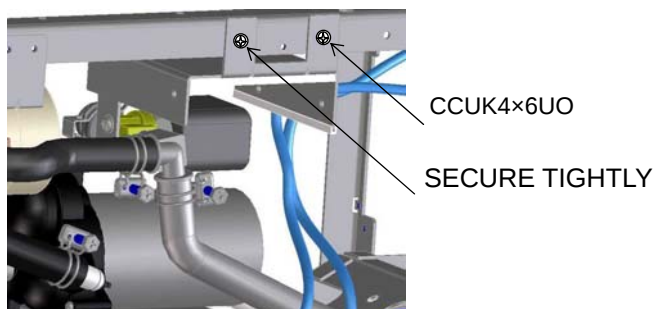
Torque: 2.8 plus or minus 0.1 Nm

3-PORT VALVE UNIT

QUICK FASTENER



- (3) Connect HOSE of DILUTION UNIT to 3-PORT VALVE UNIT and then secure by using a QUICK FASTENER

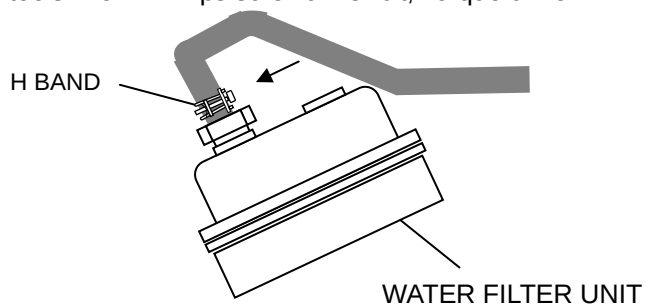


- (4) Align screw hole on the right side of DILUTION UNIT and then secure DILUTION UNIT by using a screw (CCUK4x6UO).

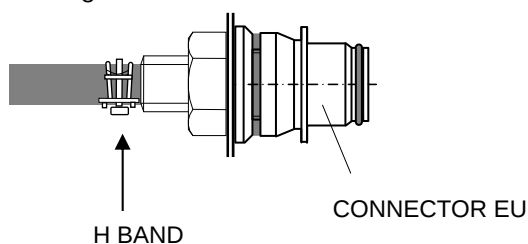
Torque: 1.274 plus or minus 0.098 Nm

3-2-24 Bottle guide unit

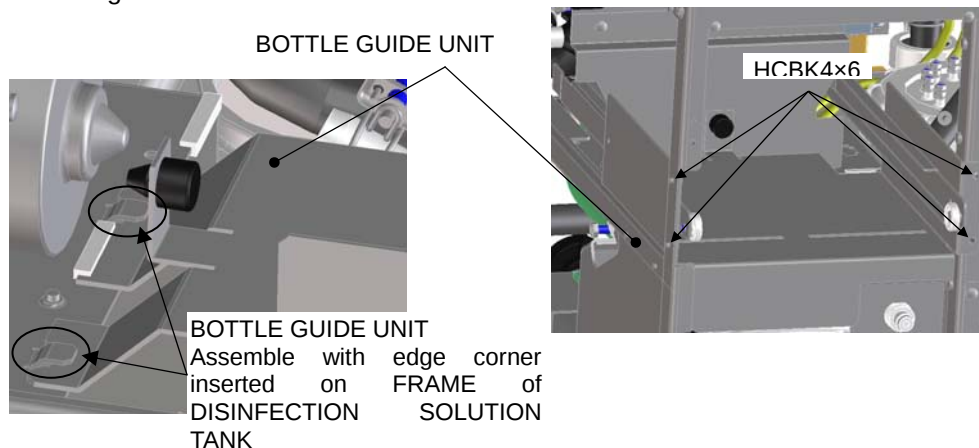
Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Connect DRAIN HOSE to WATER FILTER and then securely tighten H BAND in the direction of the arrow shown in the below figure



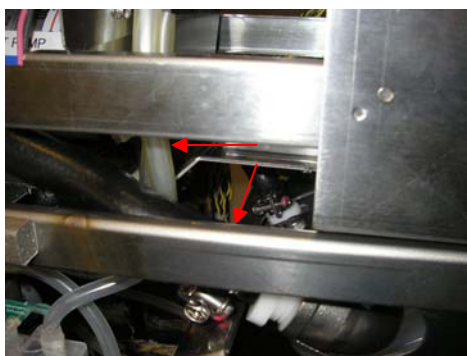
- (2) Connect DRAIN HOSE to CONNECTOR EU of BOTTLE GUIDE TRAY and then securely tighten the H BAND by turning the screw in the direction of the arrow shown in above figure until screw has stopped turning in the direction of the arrow

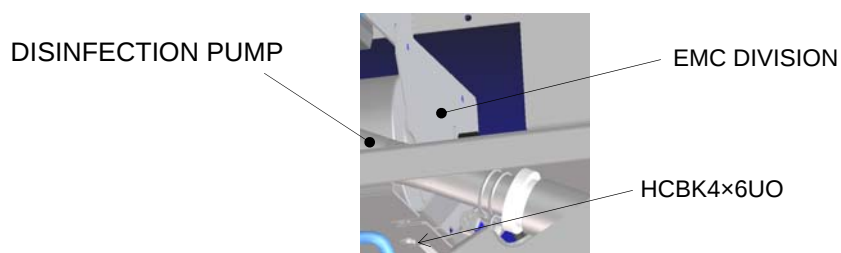


- (3) Insert SWITCHING PART of BOTTLE GUIDE UNIT into GUIDE and then secure on FRAME by using 4 screws (HCBK4x6UO)

Note: Push water inlet hose down while pushing BOTTLE GUIDE TRAY UNIT into frame

Torque: 1.274 plus or minus 0.098 Nm

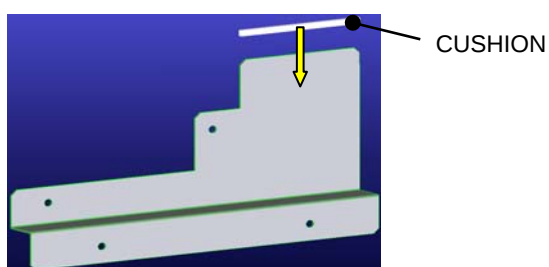




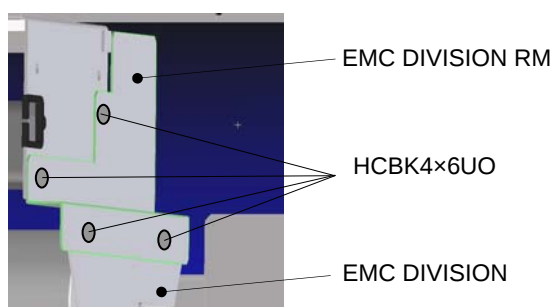
(4) Align EMC DIVISION and FRAME to screw holes and then temporarily secure under CHANNEL PUMP BASE by using a screw (HCBK4x6UO)

(5) Cut the CUSHION and apply SONY BOND.

Designate length: 65 plus or minus 2 mm



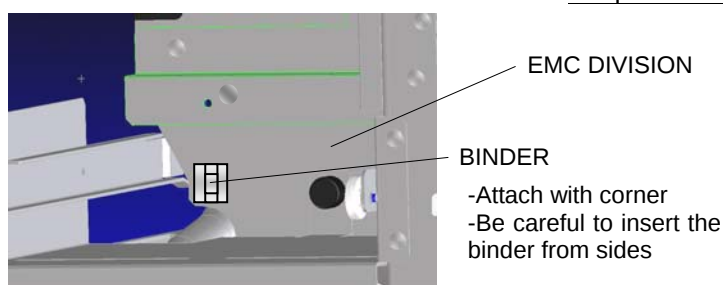
(6) Clean EMC DIVISION RM with ethanol and then put the CUSHION.



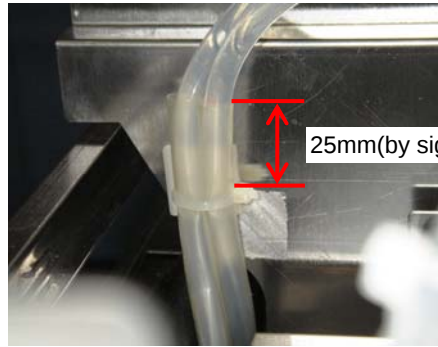
(7) Align EMC DIVISION RM and DILUTION UNIT to screw holes in EMC DIVISION and then temporarily secure EMC DIVISION RM by using 4 screws (HCBK4x6UO)

(8) Securely tighten screws holding EMC DIVISION and EMC DIVISION RM and apply NEJILOCK around head of the screw

Torque: 1.274 plus or minus 0.098 Nm



(9) Secure BINDER onto EMC DIVISION



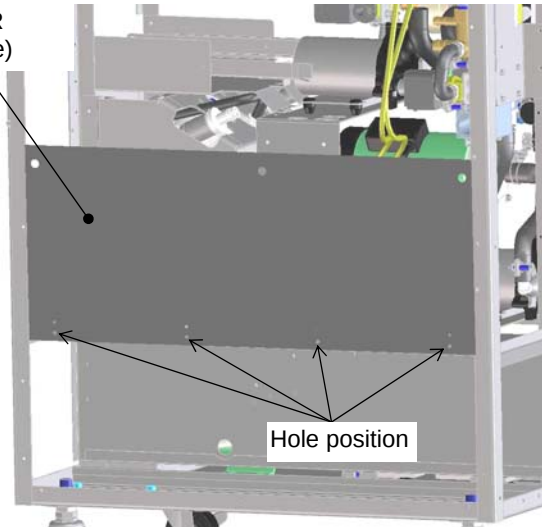
Align the overture onto the plate.

(10) Insert BINDER through CORD STOPPER and then secure over TUBE part of DA PUMP UNIT TUBE

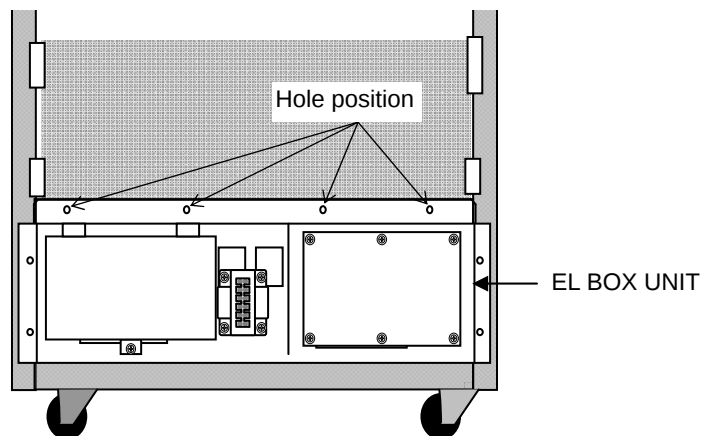
3-2-25 EL box unit

Required tools: No.2 Phillips screwdriver bit, Torque driver, Tweezers

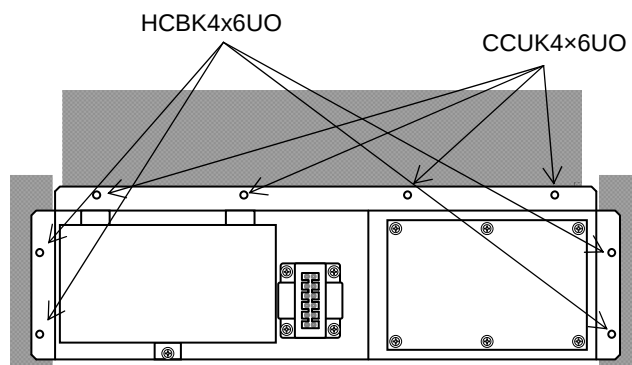
WATERPROOF COVER
(Both sides are available)



- (1) Align holes on FRAME to holes on WATERPROOF COVER and then temporarily secure with tape

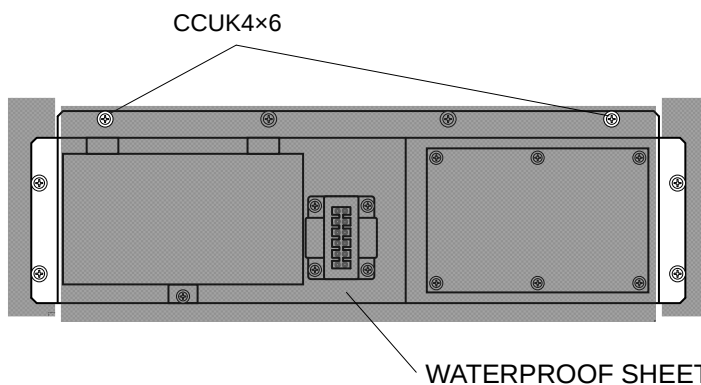


- (2) Align position of holes on EL BOX UNIT, WATERPROOF COVER and FRAME

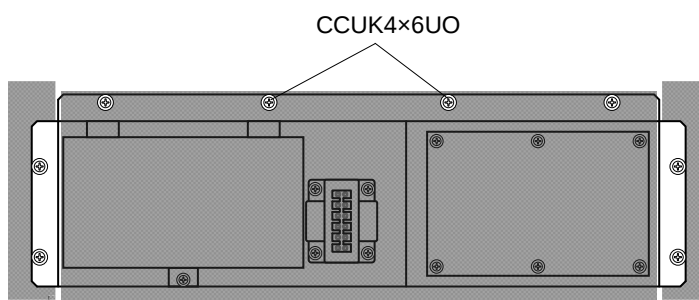


- (3) Secure EL BOX UNIT to FRAME by using 8 screws (HCBK4x6UO, CCUK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm

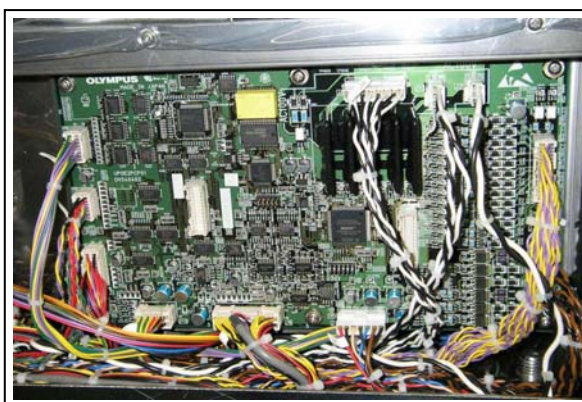


- (4) Cover EL BOX with WATERPROOF COVER and then secure by using 2 screws (CCUK4x6UO)
Torque: 1.274 plus or minus 0.098 Nm



- (5) Secure the 2 screws which are indicated in the diagram with the WATERPROOF COVER opened ; once secured close the WATERPROOF COVER.

Torque: 1.274 plus or minus 0.098 Nm

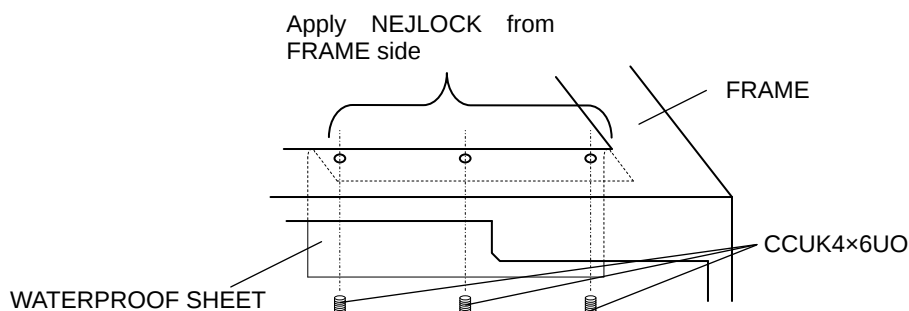


CPU BOARD



US BOARD

- (6) Connect each HARNESS CPU BOARD and US BOARD



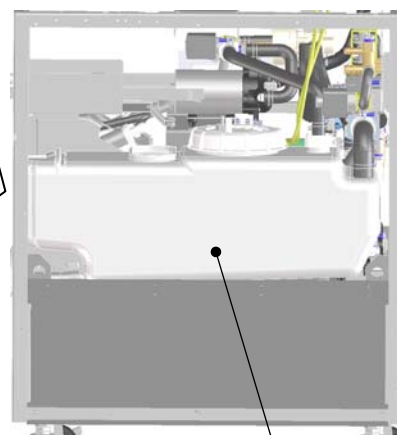
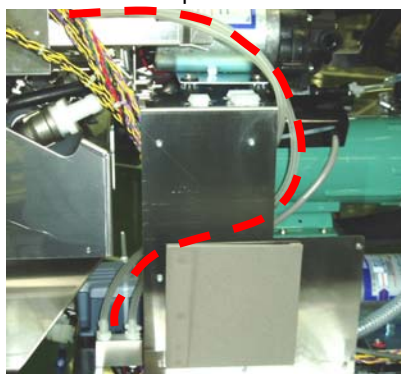
- (7) After securing WATERPROOF COVER to FRAME with screws, apply NEJLOCK around head of screw

Torque: 1.274 plus or minus 0.098 Nm

3-2-26 Disinfectant solution tank unit

Required tools: No.2 Phillips screwdriver bit, Torque driver , Sony Bond

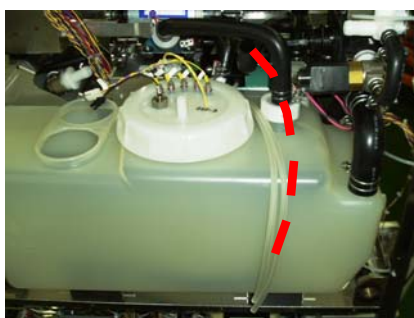
(1) Allocate TUBES of DISINFECTANT SOLUTION PUMP UNIT as below picture.



DISINFECTANT
SOLUTION PUMP UNIT

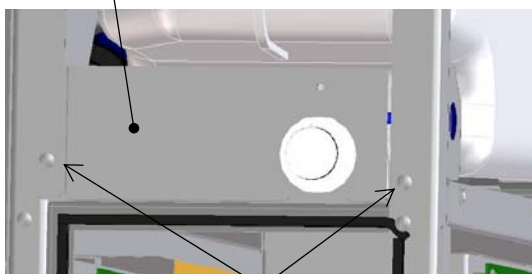


(2) Allocate DRAIN TUBE, TANK FLUID LEVEL SENSOR UNIT, DISINFECTANT TANK COVER, and DRAIN NUT of DISINFECTANT SOLUTION PUMP UNIT

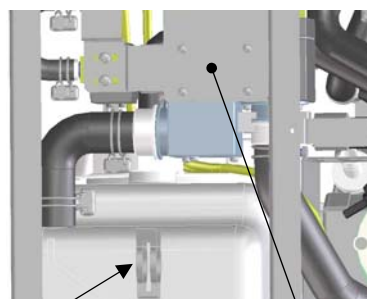


(3) Secure DISINFECTANT SOLUTION TANK UNIT to FRAME while pulling 2 TUBES of LEAKAGE TEST PUMP UNIT around DISINFECTANT SOLUTION PUMP

CONNECTOR FU



HCBK4×6UO

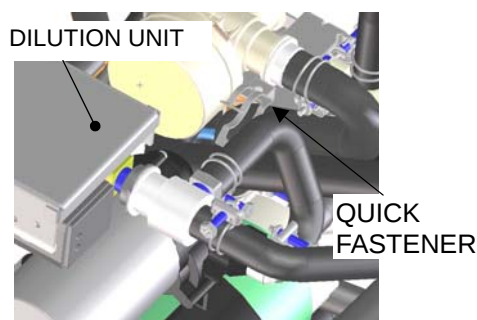


QUICK FASTENER

SWITCHING
VALVE UNIT

(4) Connect CONNECTOR FU of DISINFECTANT SOLUTION TANK to FRAME by using 2 screws (HCBK4x6UO). Secure FEMALE QUICK LOCK CONNECTOR 30 of DISINFECTANT TANK to SWITCHING VALVE UNIT by using a QUICK FASTENER

Torque: 1.274 plus or minus 0.098 Nm



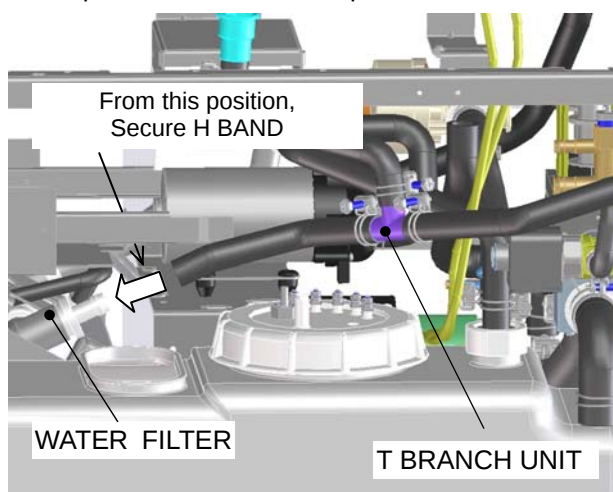
- (5) Secure QUICK LOCK CONNECTOR 15 of DISINFECTANT SOLUTION TANK UNIT to DILUTION UNIT by using a QUICK FASTENER.



- (6) Connect GAS VENT TUBE, and 4 electrode connectors
 (7) Apply SONY BOND to electrode connector connection points

3-2-27 T branch unit

Required tools: No.2 Phillips screwdriver bit, Torque driver

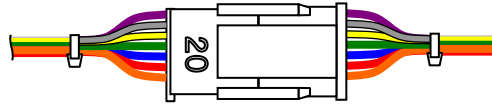


- (1) Connect H BAND to HOSE of T BRANCH UNIT
 (2) Insert HOSE of T BRANCH UNIT into HOSE of WATER FILTER UNIT delete extra spaces and then secure H BAND

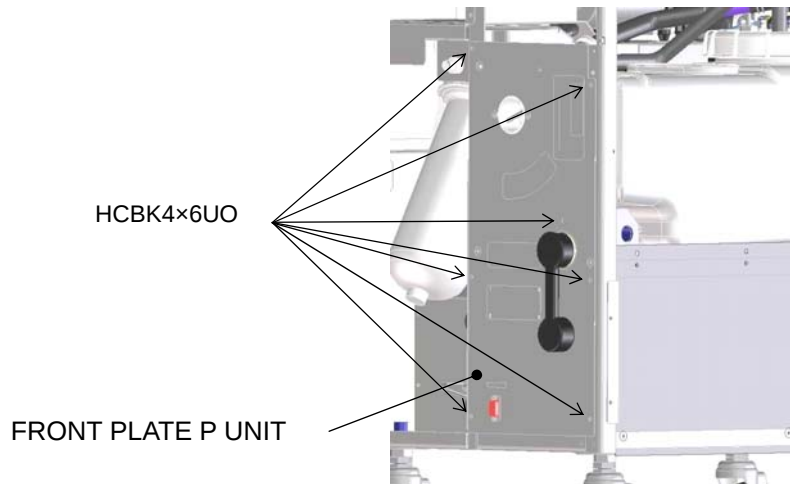
Torque: 2.352 plus or minus 0.098 Nm

3-2-28 Front plate unit

Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Connect CONNECTOR of FRONT PLATE P UNIT to SENSOR HARNESS

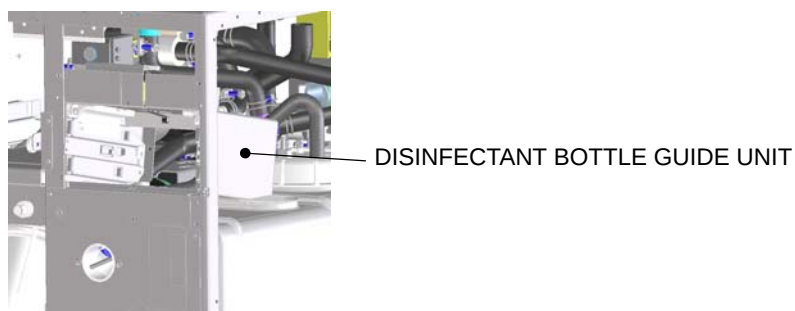


- (2) Secure FRONT PLATE P UNIT to FRONT of FRAME by using 7 screws (HCBK4x6UO)

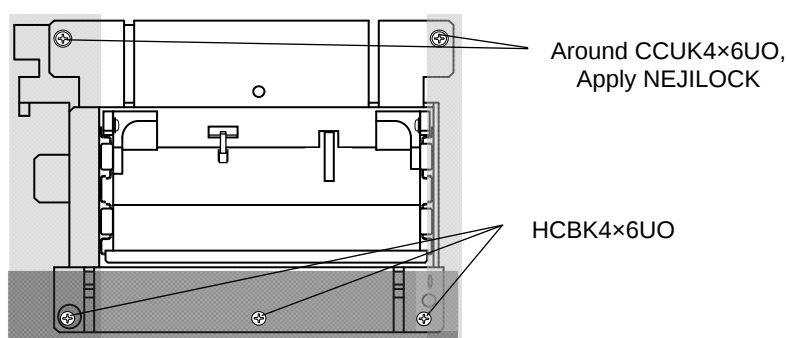
Torque: 1.274 plus or minus 0.098 Nm

3-2-29 Disinfectant bottle guide UNIT

Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Insert DISINFECTANT BOTTLE GUIDE UNIT, and align screw holes in DISINFECTANT BOTTLE GUIDE UNIT and FRAME



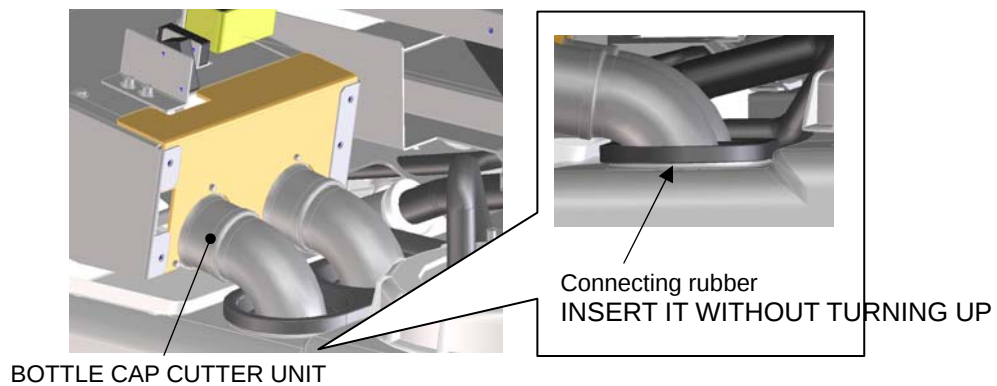
- (2) Secure 2 screws (CCUK4x6UO) and 3 screws (HCBK4s6UO) holding DISINFECTANT BOTTLE GUIDE UNIT to FRAME

Torque: 1.274 plus or minus 0.098 Nm

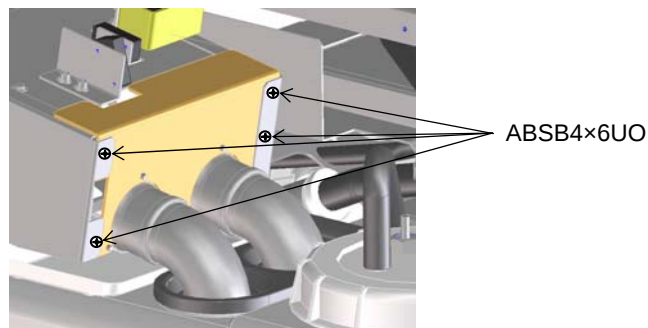
- (3) Apply NEJILOCK around heads upper 2 screws (CCUK4x6UO)

3-2-30 Bottle cap cutter unit

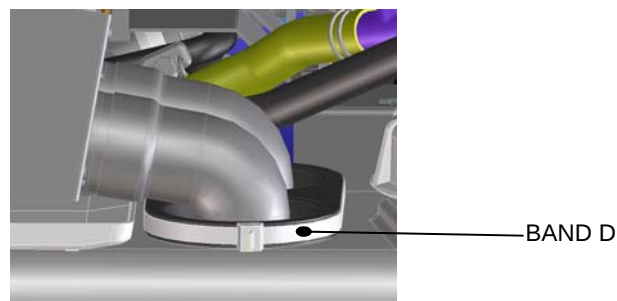
Required tools: Hexagonal wrench



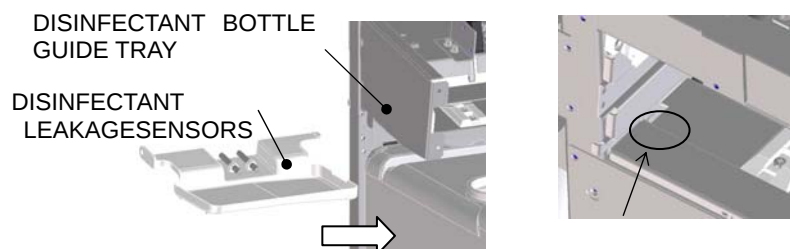
- (1) Set BOTTLE CAP CUTTER BRACKET to BOTTLE CAP CUTTER UNIT via DISINFECTANT BOTTLE GUIDE UNIT and insert CONNECTING RUBBER to protruding section of DISINFECTANT SOLUTION TANK UNIT



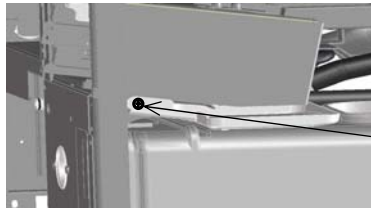
- (2) Secure the BOTTLE CAP CUTTER UNIT to DISINFECTANT BOTTLE GUIDE UNIT by using 4 screws (ABSB4x6UO)



- (3) Secure BAND D around RUBBER JUNCTION GROOVE and after wrapping tightly, cut BAND leaving about 10 mm at the end

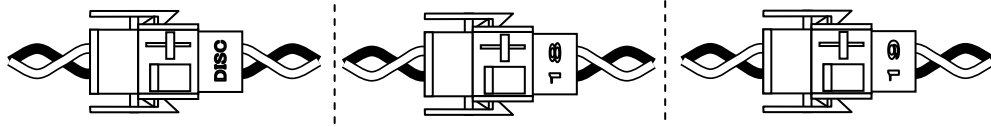


- (4) Insert DISINFECTANT LEAKAGE SENSOR U under the DISINFECTANT BOTTLE GUIDE TRAY and then align screw holes.



CCUK4x6UO

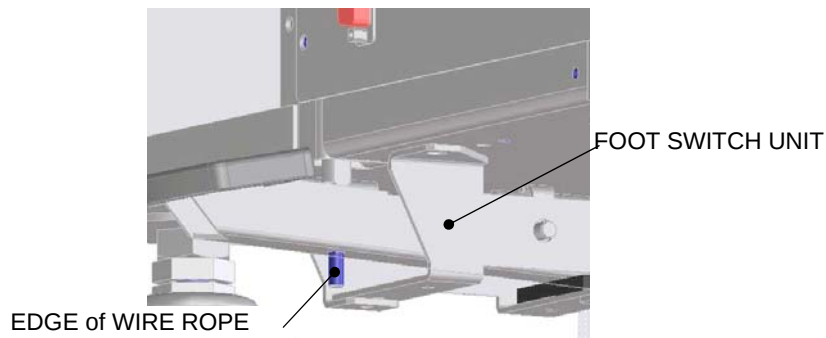
- (5) Secure TRAY P to DISINFECTANT BOTTLE TRAY GUIDE and then apply NEJILOCK to screw head



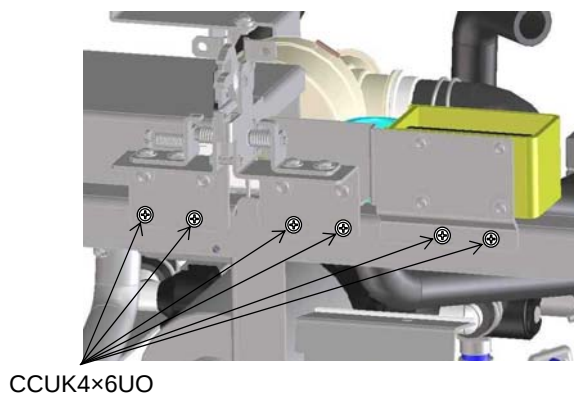
- (6) Connect CONNECTORS of DISINFECTANT LOCK "DISC" and DISINFECTANT SENSOR "18" and CASSETTE SENSOR "19"

3-2-31 Lock unit

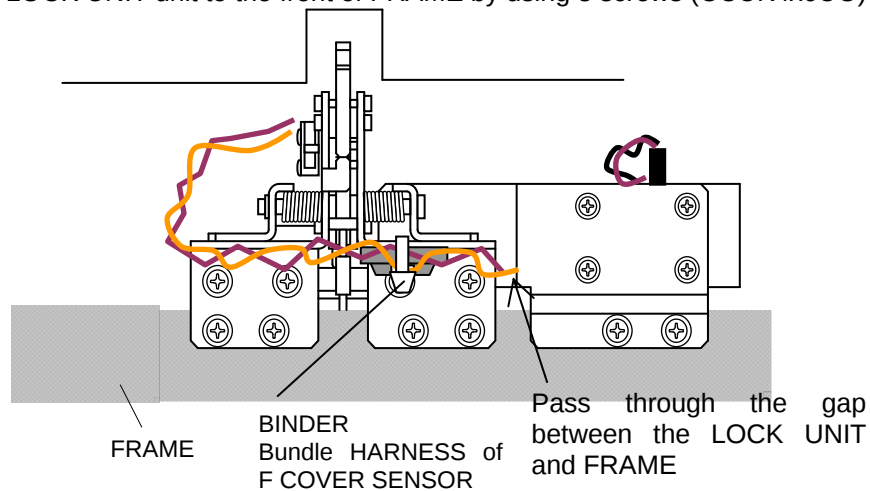
Required tools: Adjustable wrench, No.2 Phillips screwdriver bit, Torque driver



- (1) Insert distal end of WIRE ROPE on LOCK UNIT into hole of FOOT SWITCH via hole in FRAME



- (2) Temporarily secure LOCK UNIT unit to the front of FRAME by using 8 screws (CCUK4x6UO)



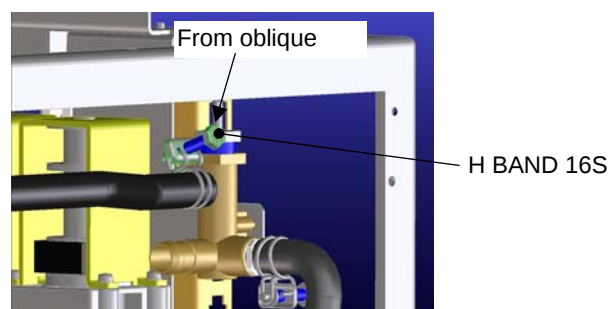
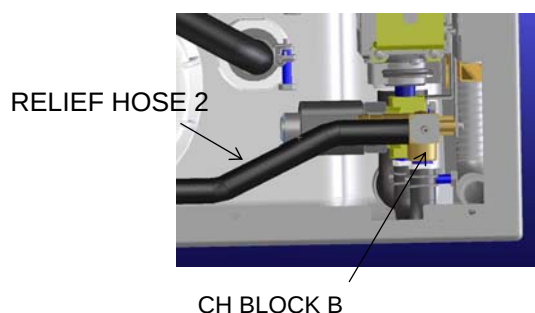
- (3) Bundle HARNESS of F COVER SENSOR by using a BINDER and then pass CONNECTOR through gap between LOCK UNIT and FRAME



- (4) Connect LOCK SOLENOID "LOCK" and F COVER SENSOR "16"

3-2-32 Cleaning tub unit

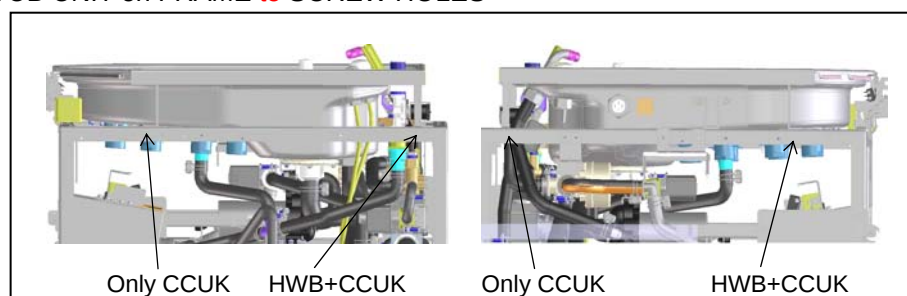
Required tools: No.2 Phillips screwdriver bit, Torque driver, Sony Bond



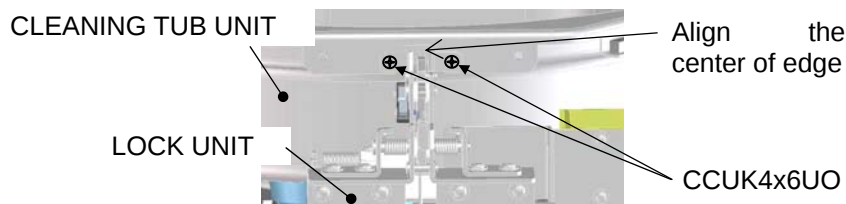
- (1) Insert RELIEF HOSE 2 in HARNESS BAND 16S
- (2) Insert RELIEF HOSE 2 in CH BLOCK B joint of SWITCHING VALVE UNIT and then secure H BAND
Torque: 2.8 plus or minus 0.1 Nm
- (3) Secure tightly.



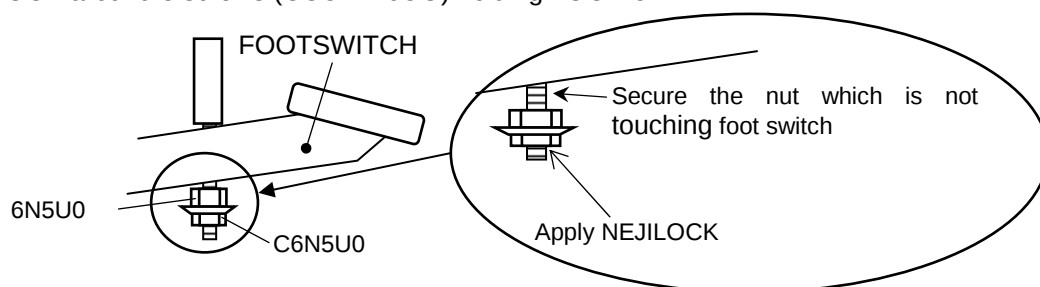
- (4) Align CLEANING TUB UNIT on FRAME to SCREW HOLES



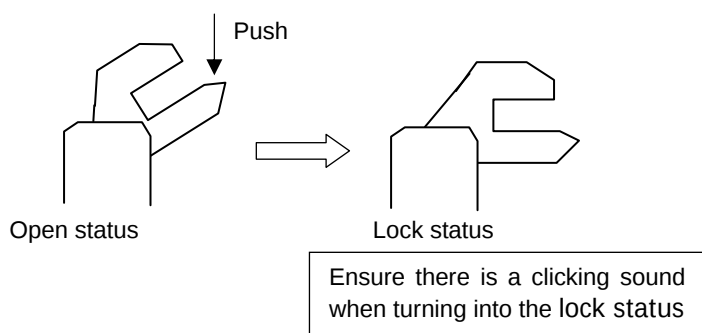
- (5) Temporarily secure CLEANING TUB UNIT to FRAME by using 4 screws (CCUK5x8UO) and 2 washers (HWB5UO)



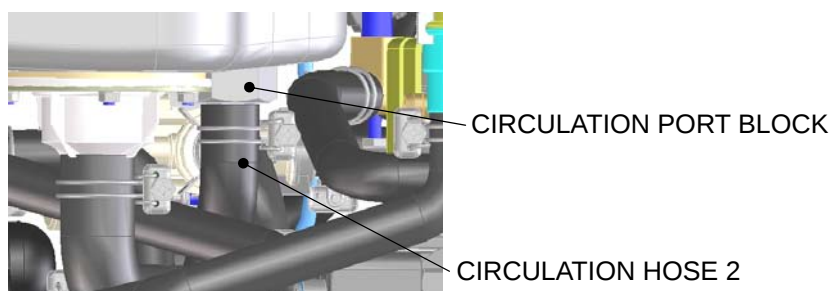
- (6) Align screw holes of LOCK UNIT and CLEANING TUB UNIT and then temporarily secure by using screws
- (7) Parallely align FRAME and CLEANING TUB U and secure CLEANING TUB UNIT by using screws
- (8) Align hook of LOCK MECHANISM UNIT to the center of cut off part of cleaning tub UNIT and secure LOCK UNIT by using 8 screws (CCUK4x6UO)
- (9) Apply NEJILOCK around 8 screws (CCUK4x6UO) holding LOCK UNIT



- (10) Insert the 6N5U0 at the tip of WIRE ROPE screw and insert the C6N5U0 at the lower part of 6N5U0

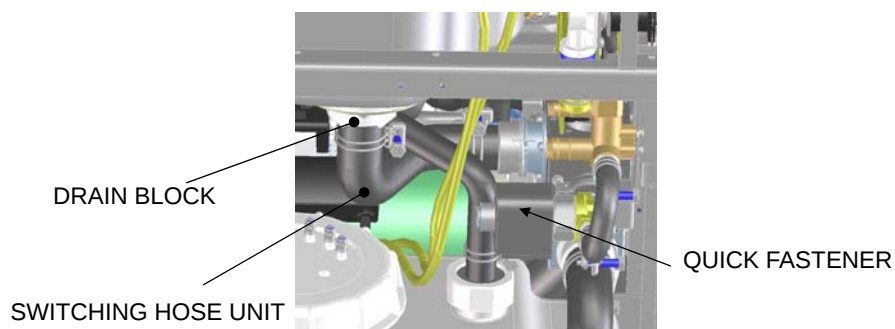


- (11) Ensure that R CAM operation is smooth and that when R CAM returns, there is no tilting, when the FOOT SWITCH is pushed down
- (12) Ensure that there is a clutching sound when R LOCK is operated two to three times in the locked state



- (13) Insert H BAND in hose of CIRCULATION PORT BLOCK UNIT
- (14) Connect a HOSE to CIRCULATION PORT BLOCK of CLEANING TUB UNIT and then secure H BAND

Torque: 2.8 plus or minus 0.1 Nm

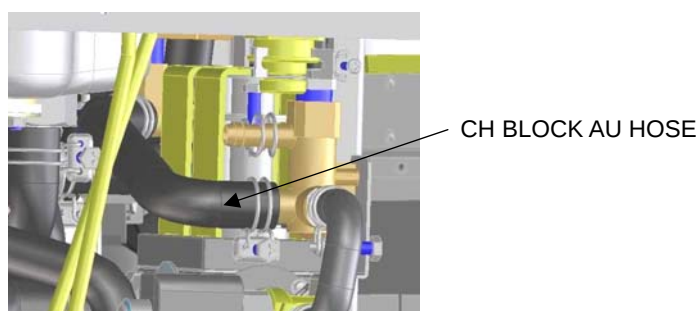


(15) Insert H band into SWITCHING HOSE.

(16) Secure H BAND with SWITCHING HOSE to DRAIN BLOCK.

Torque: 2.8 plus or minus 0.1 Nm

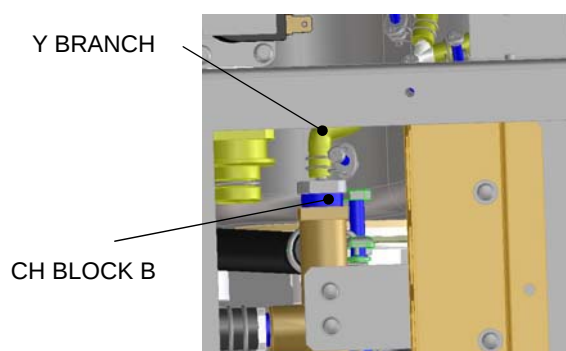
(17) Connect SWITCHING HOSE UNIT to SWITCHING VALVE U with QUICK FASTENER



(18) Insert H BAND into HOSE of CH BLOCK A UNIT

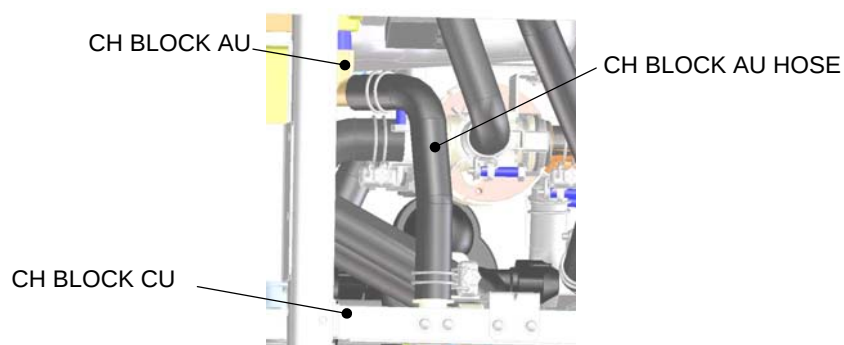
(19) Connect HOSE of the CH BLOCK A UNIT to CH BLOCK B and then secure by using a H BAND

Torque: 2.8 plus or minus 0.1 Nm



(20) Insert Y BRANCH of CLEANING TUB UNIT to H BAND

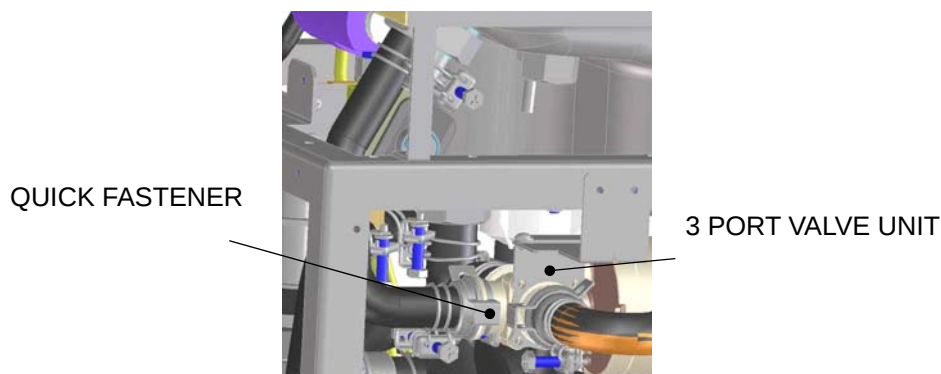
(21) Connect Y BRANCH to CH BLOCK B and then secure H BAND



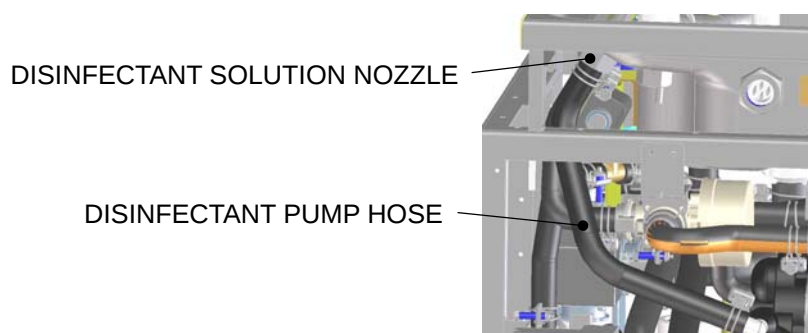
(22) Insert H BAND to HOSE of CH BLOCK AU

(23) Connect HOSE of CH BLOCK AU to CH BLOCK CU and then secure by using H BAND

Torque: 2.8 plus or minus 0.1 Nm



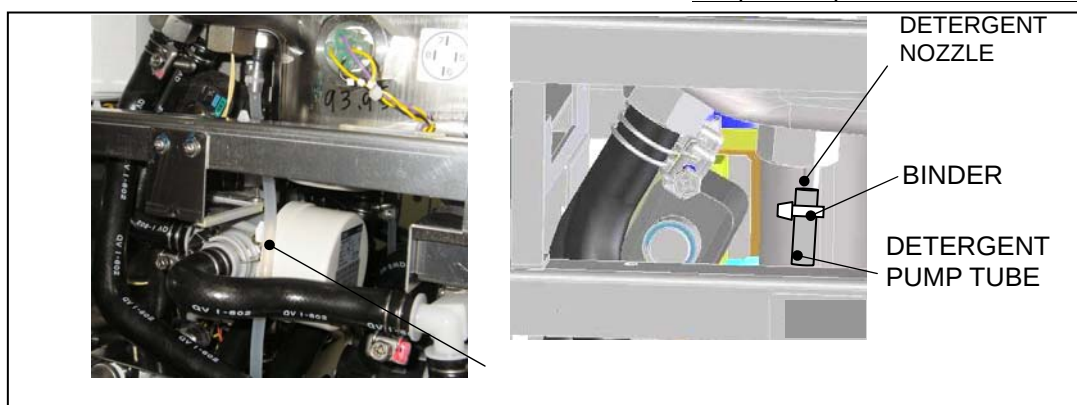
(24) Connect HOSE of CLEANING TUB UNIT to 3 port valve UNIT and then secure tightly by using a QUICK FASTENER



(25) Insert HOSE of DISINFECTANT PUMP unit in H BAND

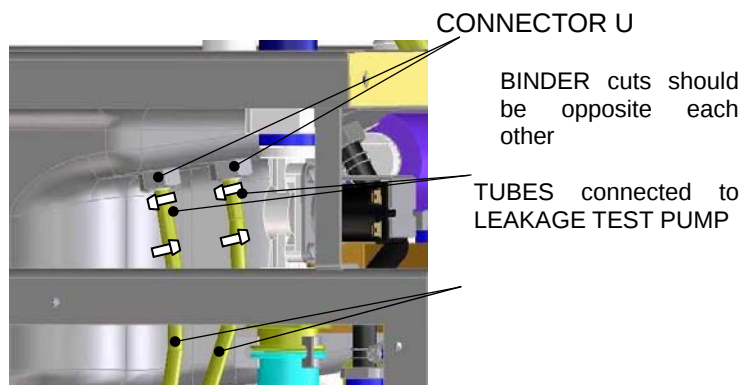
(26) Connect HOSE of DISINFECTANT PUMP UNIT to disinfecting SOLUTION NOZZLE and then secure by using H BAND

Torque: 2.8 plus or minus 0.1 Nm

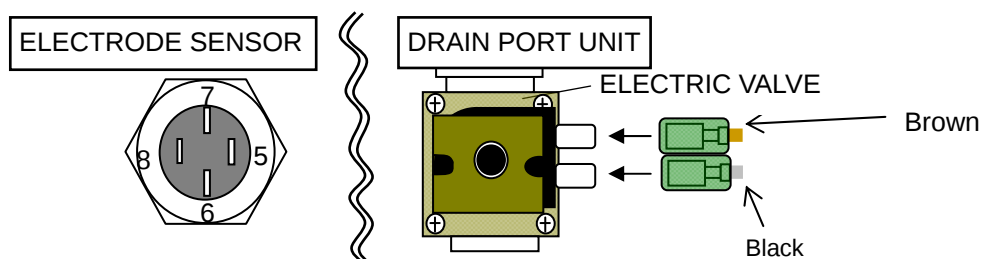


DETERGENT PUMP TUBE

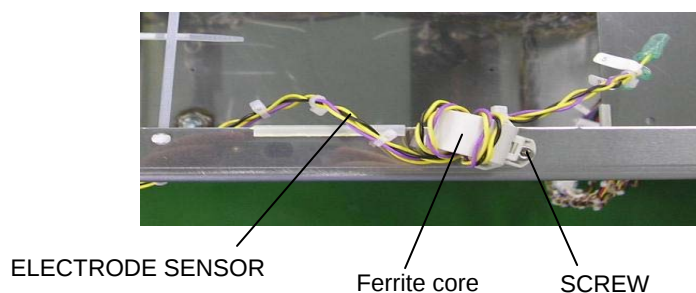
(27) Fasten CLEANING TUBE with binder.



- (28) Insert LEAKAGE TEST PUMP UNIT into JOINT of CONNECTOR and then secure by using a BINDER

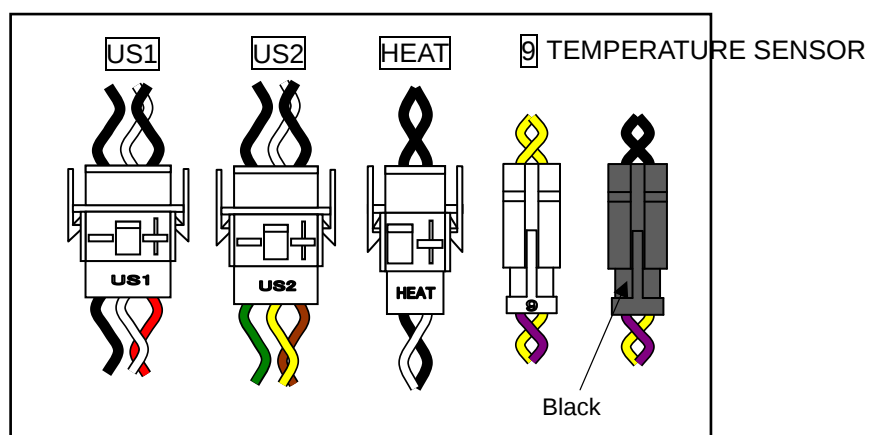


- (29) Wire HARNESS to ELECTRODE SENSOR and ELECTRIC VALVE OF DRAIN PORT UNIT



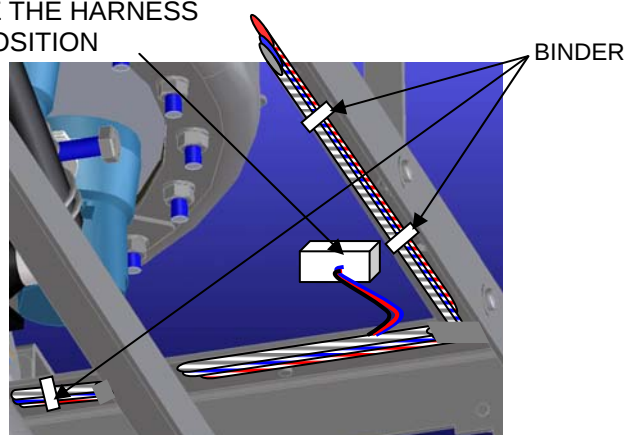
- (30) Put some SONY BOND on the hook of FERRITE CORE

- (31) Secure the screw of ferrite core



- (32) Connect CONNECTORS of TEMPERATURE SENSOR, FLOAT SWITCH "9", OSCILLATOR PLATE "US1" "US2" and HEATER UNIT "HEAT" of CLEANING TUB unit to CONNECTOR of the HARNESS

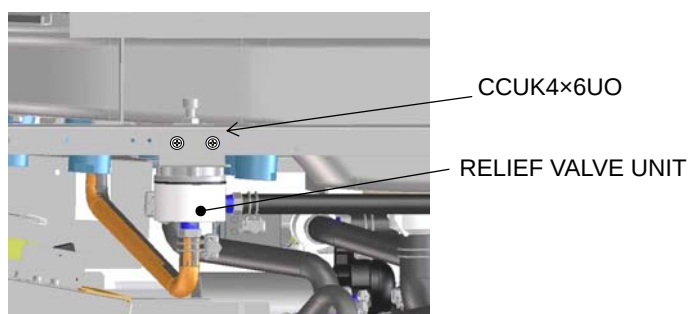
ALLOCATE THE HARNESS
AT THIS POSITION



- (33) Allocate PP/ID HARNESS to REAR PANEL of FRAME and then secure by using a BINDER

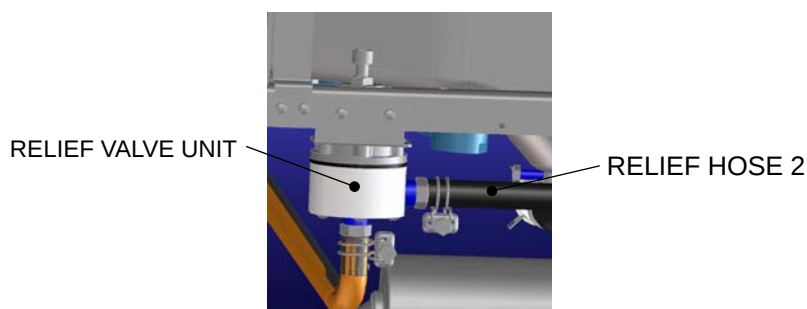
3-2-33 Relief valve unit

Required tools: No.2 Phillips screwdriver bit, Torque driver



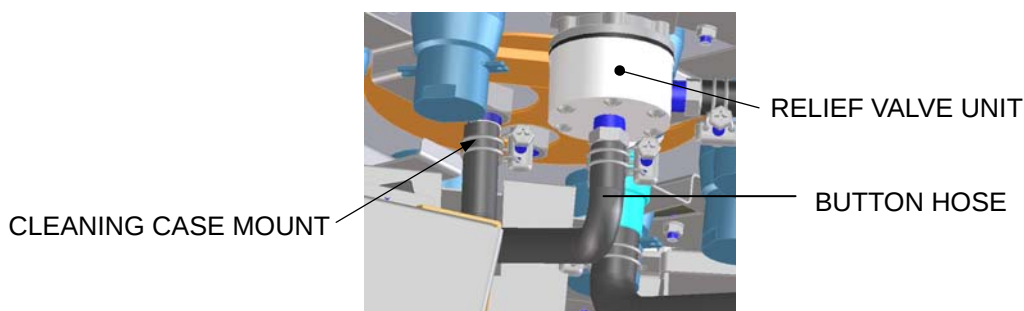
- (1) Align RELIEF VALVE UNIT on FRAME and then secure RELIEF VALVE UNIT to FRAME by using 2 screws (CCUK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm



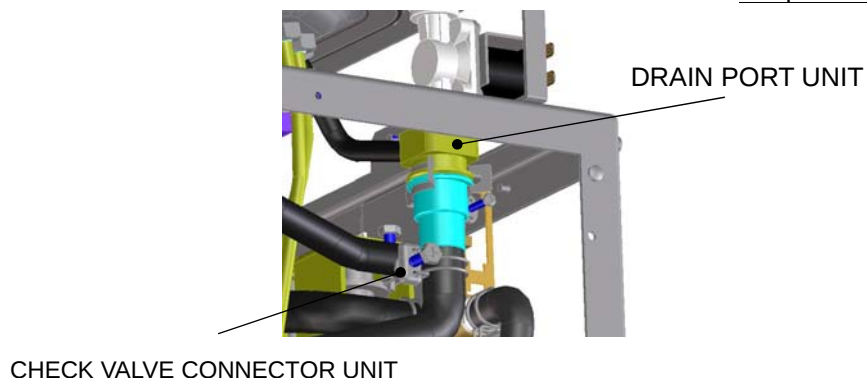
- (2) Insert RELIEF HOSE 2 to RELIEF VALVE UNIT and then tightly secure H BAND

Torque: 2.8 plus or minus 0.1 Nm

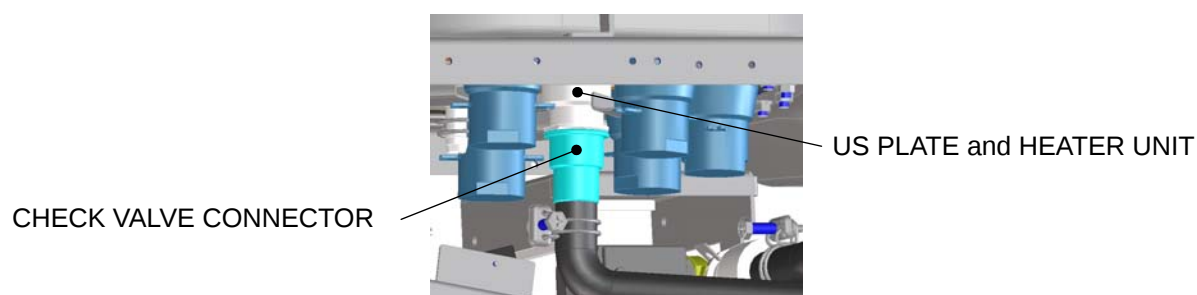


- (3) Insert BUTTON HOSE into RELIEF VALVE UNIT and tightly secure H BAND

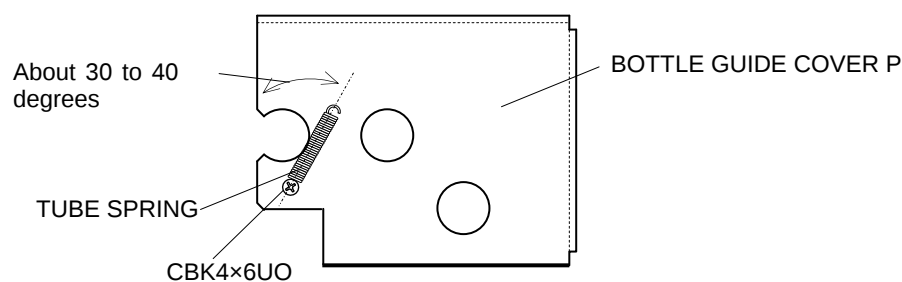
Torque: 2.8plus or minus 0.1 Nm



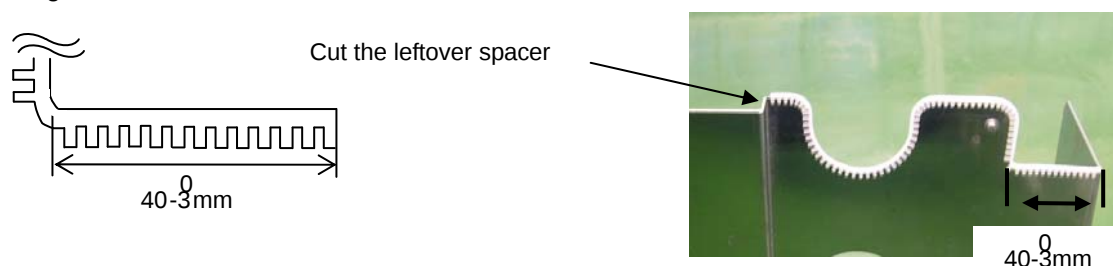
- (4) Connect CHECK VALVE CONNECTOR UNIT of T BRANCH BLOCK UNIT to DRAIN PORT UNIT and then secure by using a QUICK FASTENER



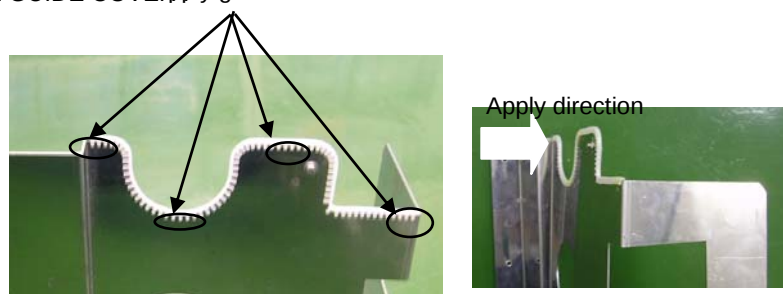
- (5) Assemble the CHECK VALVE CONNECTOR in T branch U with US PLATE and HEATER UNIT and then secure by using QUICK FASTENER



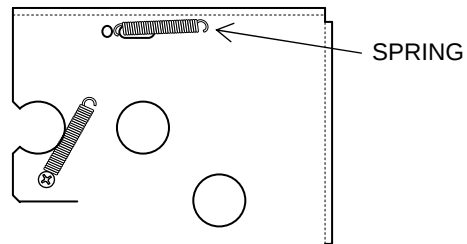
- (6) Assemble TUBE SPRING to BOTTLE GUIDE COVER P and secure to BOTTLE GUIDE COVER P using screw



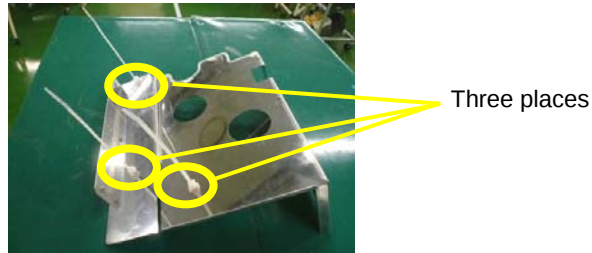
- (7) Bend the spacer at place of designated length from the end face, and attach the spacer to the end face of BOTTLE GUIDE COVER P



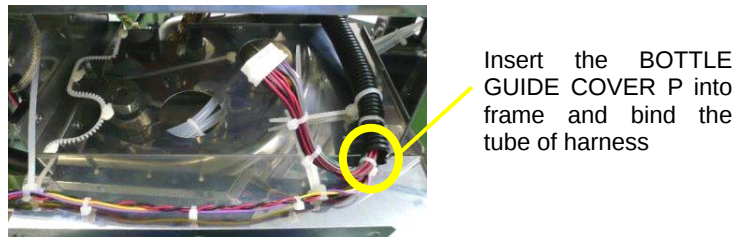
- (8) After attach the spacer, apply the glue.



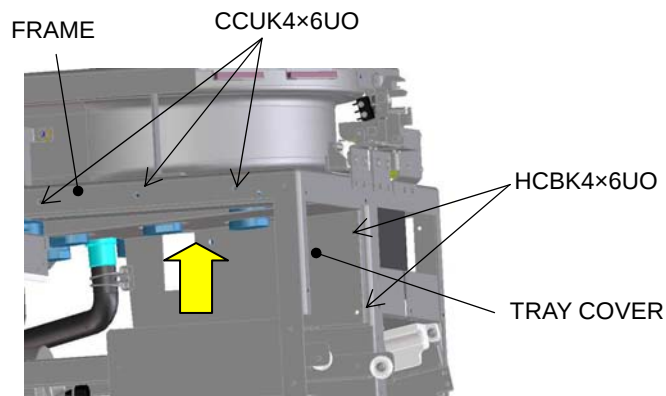
(9) Insert the spring into hole of BOTTLE GUIDE COVER P and fold back the front edge of spring.



(10) Insert the BINDER to BOTTLE GUIDE COVER P.



(11) Bind the P/ID harness using BINDER.

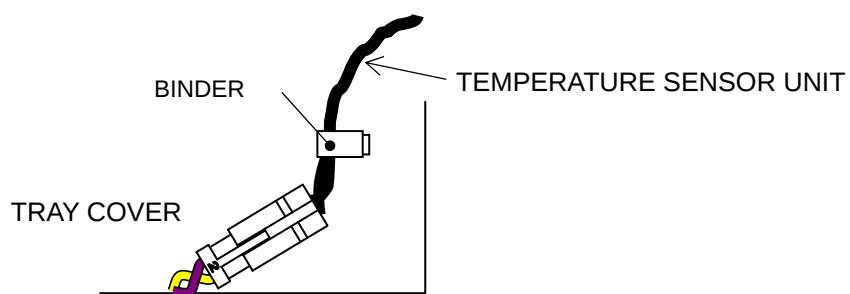


Assemble TRAY COVER while pushing upper side

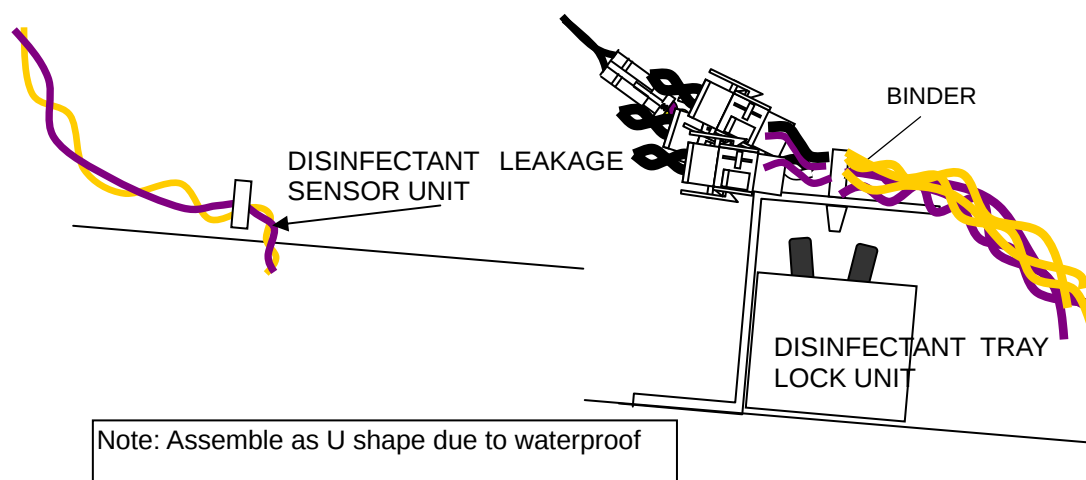
Note: Do not apply nejilock around HCBK screws.

(12) Pay attention to avoid catching HARNESS of US PLATE & HEATER UNIT in the tray cover when securing FRAME and apply nejiklock around head of the screw

Torque: 1.274 plus or minus 0.098 Nm



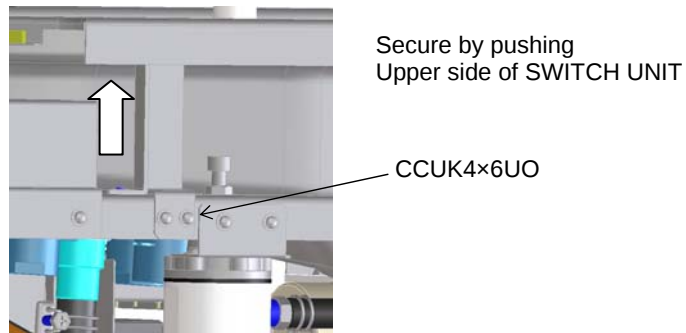
(13) Bound HARNESS of TEMPERATURE SENSOR U to TANK SIDE OF TRAY COVER



- (14) Connect connector of DISINFECTANT LEAKAGE SENSOR UNIT electrode and bind on GUIDE BOX
 (15) At the upper part of DISINFECTANT TRAY LOCK UNIT, bind SP HARNESS "JI", "LOCK", "16", "18" and "DISC" HARNESS

3-2-34 Switch unit

Required tools: No.2 Phillips screwdriver bit, Torque driver



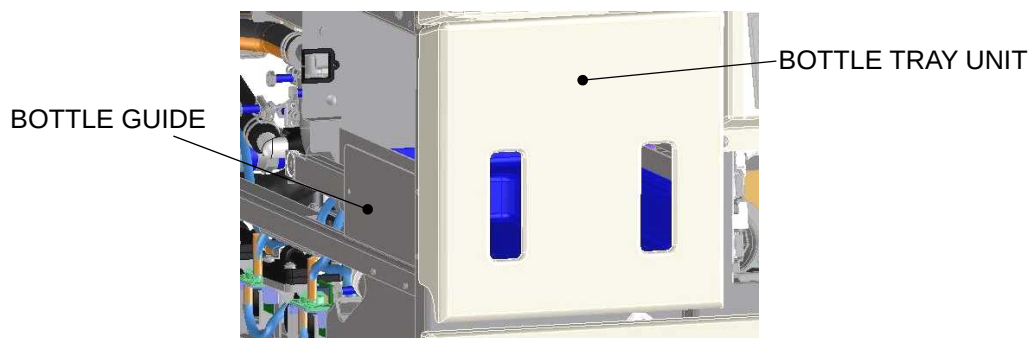
- (1) Align SWITCH UNIT to FRAME
- (2) After securing switch unit with 2 screws (CCUK4x6UO) to FRAME, apply NEJILOCK around head of screw

Torque: 1.274 plus or minus 0.098 Nm

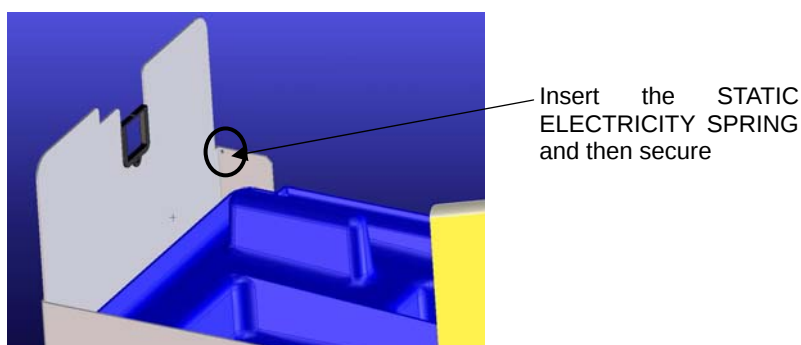
- (3) Connect harness of SWITCH UNIT

3-2-35 Bottle tray unit

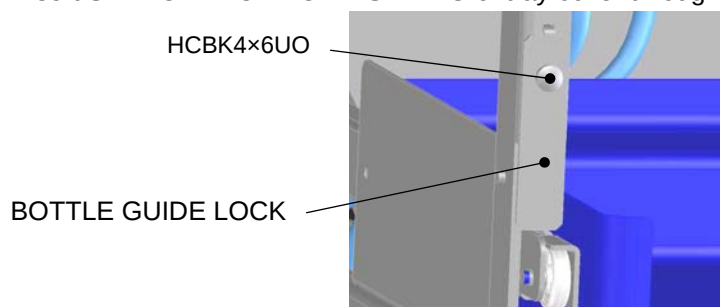
Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Insert BOTTLE TRAY UNIT in BOTTLE GUIDE TRAY UNIT

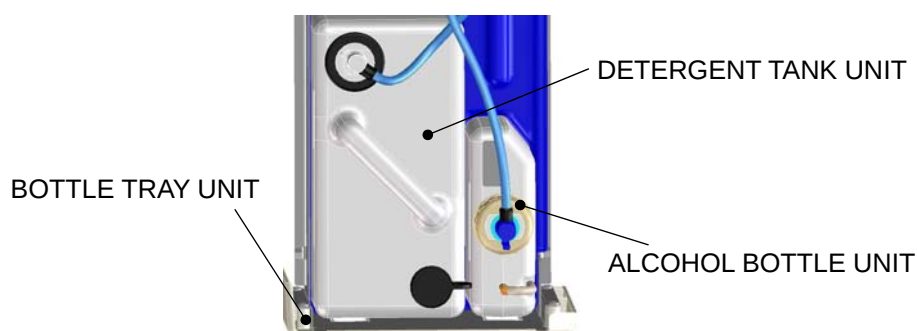


- (2) Insert STATIC ELECTRICITY SPRING of tray cover through hole in TRAY

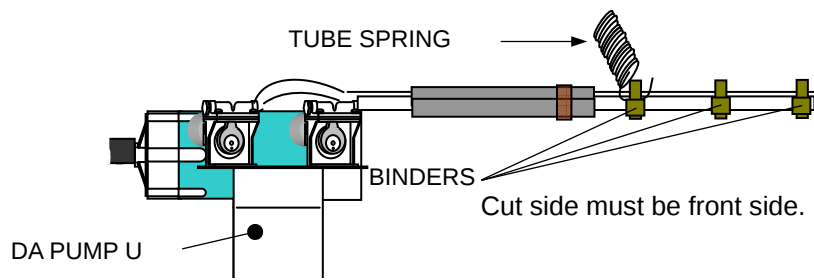


- (3) Align BOTTLE GUIDE LOCK to holes in FRAME and then secure BOTTLE GUIDE LOCK to FRAME by using a screw (HCBK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm



- (4) Insert ALCOHOL BOTTLE UNIT in BOTTLE TRAY UNIT and then connect to ALCOHOL CONNECTOR of DA PUMP UNIT
 (5) Insert DETERGENT TANK UNIT in BOTTLE TRAY UNIT and then connect to DETERGENT CONNECTOR of DA PUMP



(6) BIND the DA PUMP UNIT tube at marked positions.

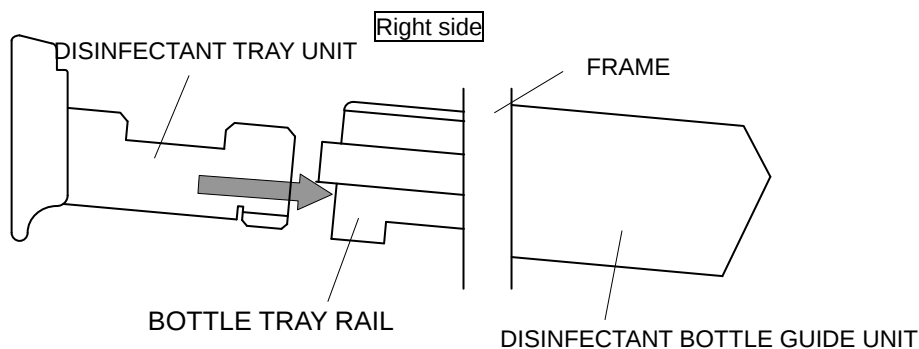
(7) Put the TUBE SPRING in the BINDER.

(8) Confirm that TRAY works smoothly.

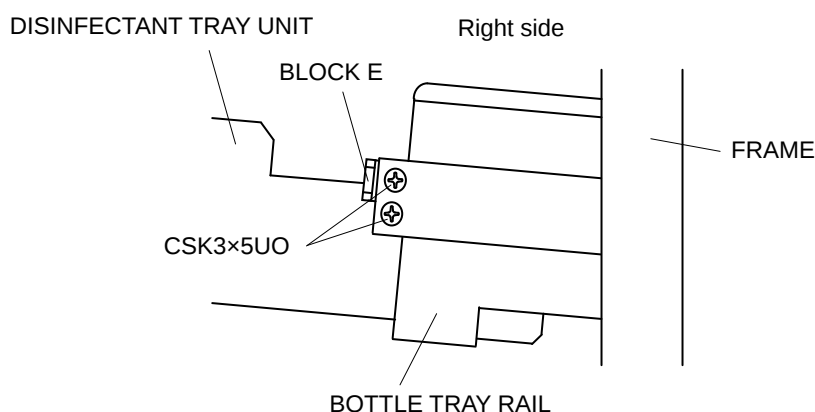
Note: There should be no noise and no disconnection of TUBE SPRING.

3-2-36 Disinfectant bottle tray unit

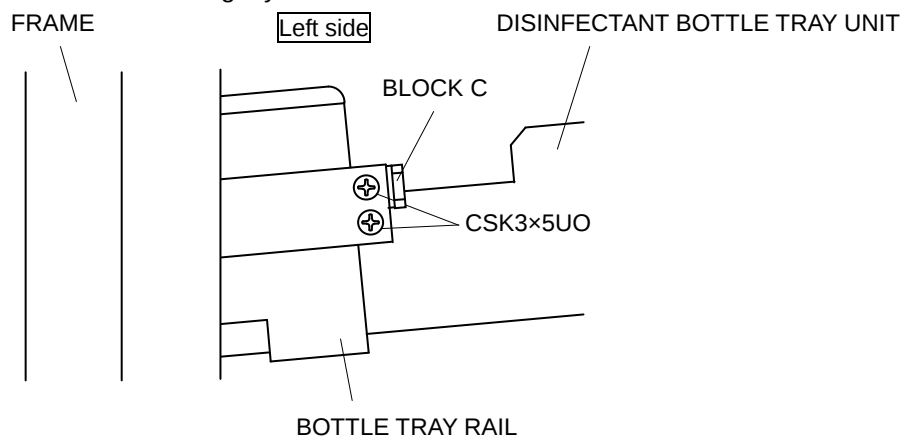
Required tools: No.2 Phillips screwdriver bit



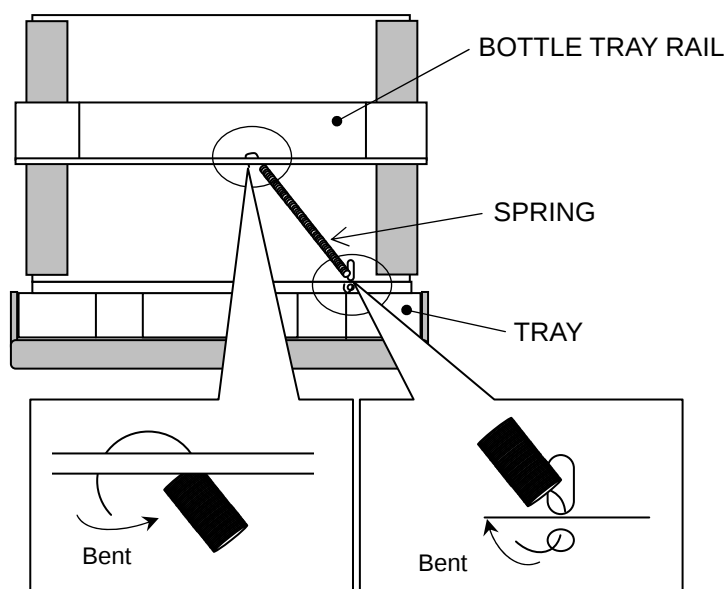
- (1) Pull BOTTLE TRAY RAIL out and then insert DISINFECTANT BOTTLE TRAY UNIT
- (2) Insert BLOCK E between BOTTLE TRAY RAIL and DISINFECTANT BOTTLE TRAY UNIT and then align screw holes



- (3) Secure BLOCK E to DISINFECTANT TRAY RAIL by using 2 screws (CSK3x5UO). Apply NEJILOCK around screw head, and secure screws tightly



- (4) Insert BLOCK C between DISINFECTANT RAIL rail and DISINFECTANT BOTTLE TRAY UNIT and align screw holes. Secure BLOCK C to BOTTLE TRAY RAIL by using 2 screws (CSK3x5UO). Apply NEJILOCK around screw head and then secure screws tightly



- (5) Connect SPRING to the rear panel of BOTTLE TRAY RAIL and TRAY
- (6) In order that hooked SPRING does not easily come off, bend leading edge of SPRING (if the spring comes off, main UNIT of device and tray will lose electrical conductivity)



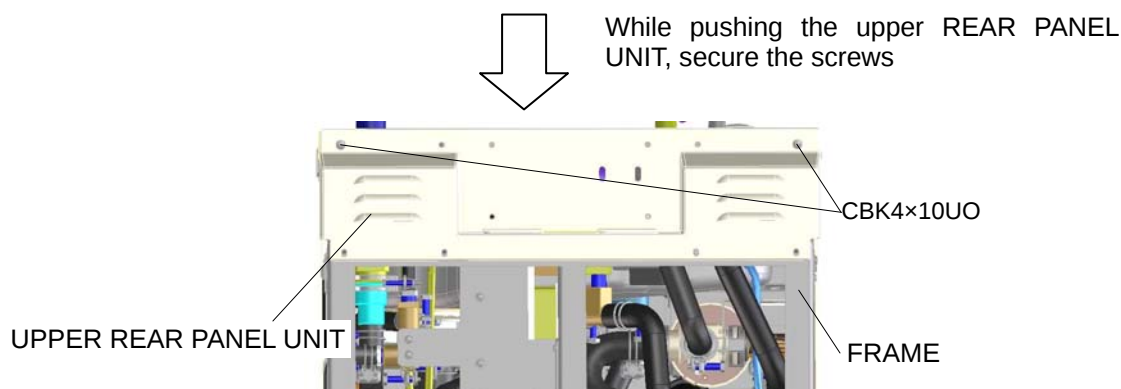
*Note: In order to disengage disinfectant lock unit, it will be necessary to reach around the back to the left side of the disinfectant bottle unit. Picture below-left is used for visual purposes only (this view is only possible when bottle tray unit has been removed).

- (7) Remove DISINFECTANT LOCK UNIT by hand and ensure that operation when DISINFECTANT TRAY is repeatedly inserted and removed and that there is no detachment of STATIC ELECTRICITY SPRING
- (8) Store DISINFECTANT BOTTLE TRAY within DISINFECTANT BOTTLE GUIDE UNIT

3-2-37 Hinge unit

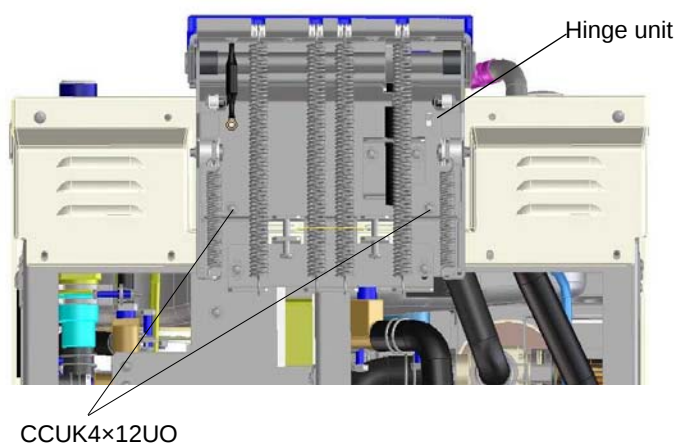
About detailed explanation, refer to "Chapter 6 Adjustment procedure".

Required tools: No.2 Phillips screwdriver bit, Torque driver



- (1) Align screw holes of UPPER REAR PANEL UNIT and rear side of CLEANING TUB
- (2) Loosely secure upper part of REAR PANEL to rear side of CLEANING TUB with 2 screws (CBK4x10UO), and then while pushing upper REAR PANEL down, secure the 2 screws (CBK4x10UO) tightly

Torque: 0.686 plus or minus 0.098 Nm



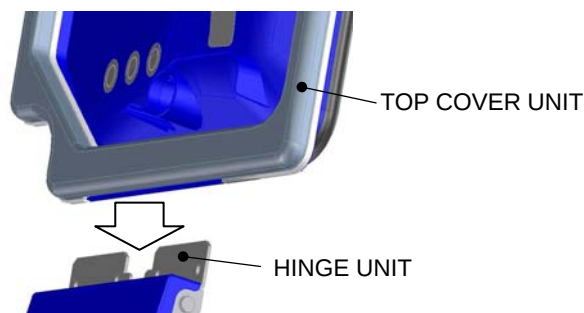
- (3) Align screw holes in HINGE UNIT and upper REAR PANEL UNIT
- (4) Adjust position of HINGE so that position of the screws are in the center of oblong hole in HINGE UNIT and then secure by using 2 screws (CCUK4x12UO)

Torque: 1.274 plus or minus 0.098 Nm

3-2-38 Top cover unit

About detailed explanation, refer to "Chapter 6 Adjustment procedure".

Required tools: No.2 Phillips screwdriver bit, Torque driver

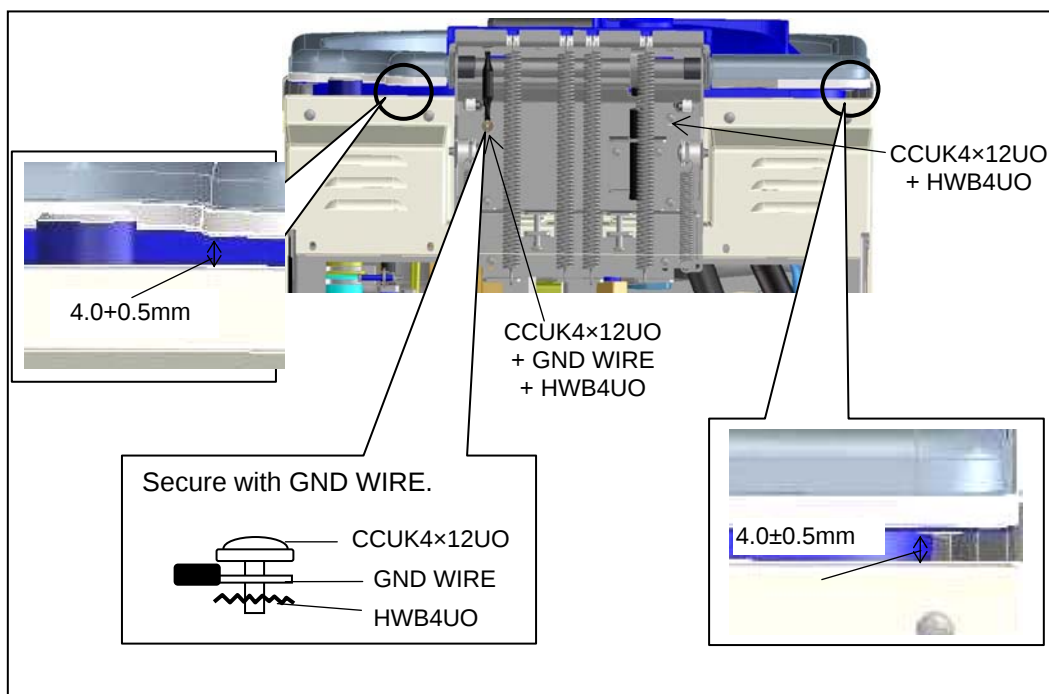


- (1) Insert HINGE UNIT between TOP COVER on TOP COVER UNIT and COVER FRAME



- (2) Secure HINGE UNIT and TOP COVER UNIT as a temporary by using 4 screws (HCBK4x10UO) and washers (HWB4UO)
- (3) Adjust position so that when TOP COVER is closed, TOP COVER PACKING contacts casing of CLEANING TUB uniformly and then secure screws that had been secured as a temporary tightly

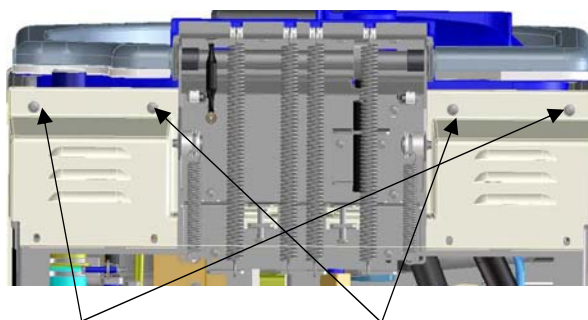
Torque: 1.274 plus or minus 0.098 Nm



- (4) Adjust height of HINGE and then secure screws so that the gap between TOP COVER and CLEANING TUB is 4.5 mm and then secure screws that had been secured as a temporary to the upper rear panel UNIT tightly

Torque: 1.274 plus or minus 0.098 Nm

- (5) Apply NEJILOCK around head of screws (2 locations at the bottom) without insertion of HWB



- (1) Unscrew
(2) Secure tightly
(3) Secure tightly

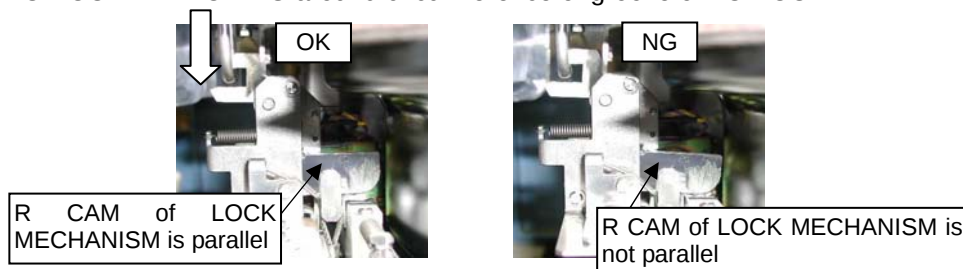
- (6) Secure 2 screws on upper REAR PANEL UNIT
(7) Secure 2 screws (CBK4x14UO) to holes on both sides of HINGE

Torque: 1.274 plus or minus 0.098 Nm

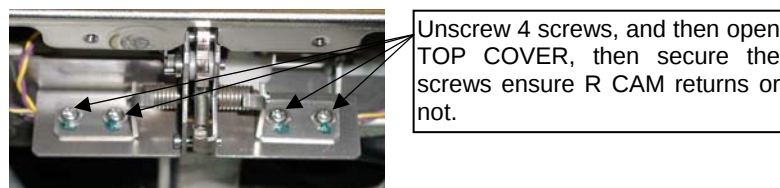
- (8) Secure screws tightly

Torque: 1.274 plus or minus 0.098 Nm

- (9) Ensure that TOP COVER PACKING around circumference of groove of TOP COVER

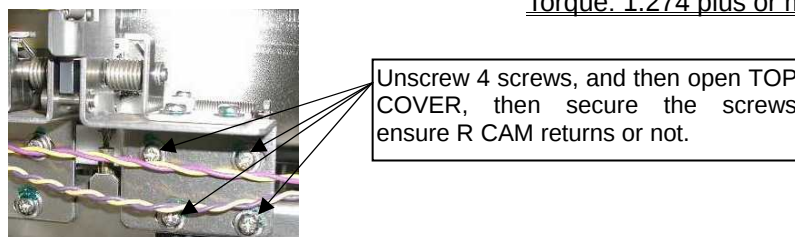


- (10) Close TOP COVER and then ensure that R CAM OF LOCK MECHANISM returns to parallel position



- (11) If R CAM does not return to parallel position, unscrew 4 screws of LOCK MECHANISM and open TOP COVER and close, and then secure screws again and repeat confirmation of (10) (if the R cam returns to parallel position, apply NEJILOCK around head of the screw)

Torque: 1.274 plus or minus 0.098 Nm

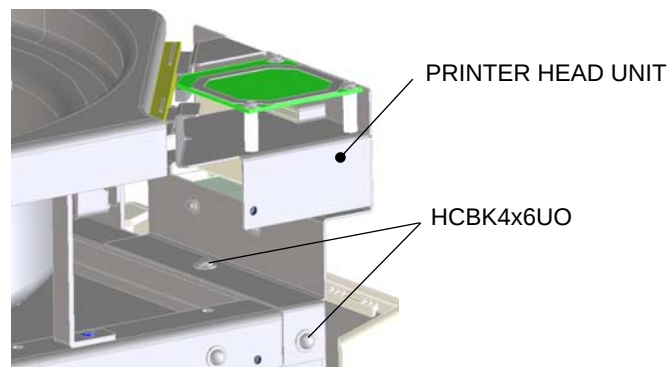


- (12) If R CAM does not return to the parallel position despite the above adjustment being made, unscrew 4 screws in the diagram, open and close TOP COVER and then secure screws with top cover in closed position and confirm (if R can returns to parallel position, apply nejikock around head of screws)

Torque: 1.274 plus or minus 0.098 Nm

3-2-39 Printer head unit

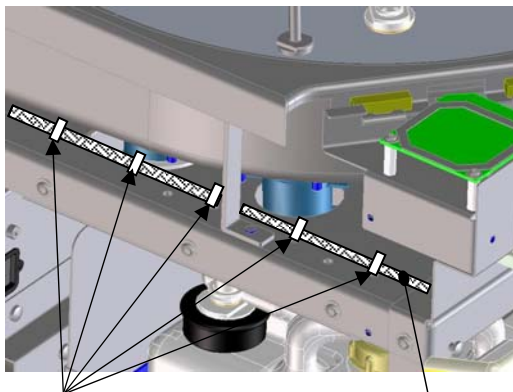
Required tools: No.2 Phillips screwdriver bit, Torque driver, SONY BOND



- (1) Secure PRINTER HEAD UNIT to FRAME by using 2 screws (HCBK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm

- (2) Connect CONNECTOR "27" to P/D HARNESS



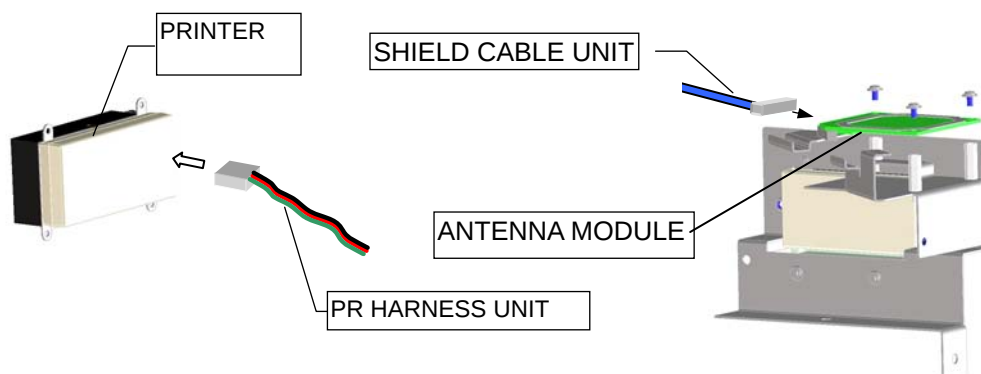
Insert the BINDER through the hole in the FRAME and adhere and bind the ANTENNA cable of the PRINTER HEAD.

ANTENNA CABLE

- (3) Insert BINDER through hole in FRAME and then bind ANTENNA CABLE of PRINTER HEAD UNIT to FRAME tightly

<Supplementary>

If the BINDER was not cut and the PRINTER HEAD was removed by detaching the HARNESS upon disassembly, the following procedures should be taken



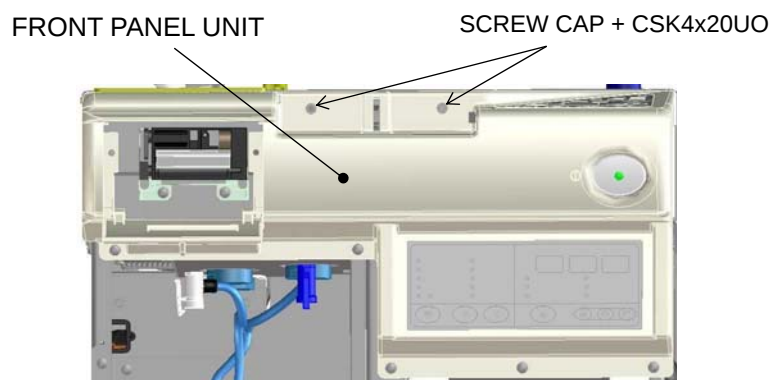
- (3-1) Insert PR HARNESS in CONNECTOR of PRINTER
- (3-2) After insertion, apply glue to make CONNECTOR of PR HARNESS UNIT to adhere to CONNECTOR OF PRINTER
- (3-3) Connect shield cable to ANTENNA MODULE CONNECTOR and apply glue on the top of CONNECTOR
- (3-4) Align PRINTER UNIT screw holes with FRAME, and secure 4 screws (CUKSB2X6UO)

CUKSB2X6UO

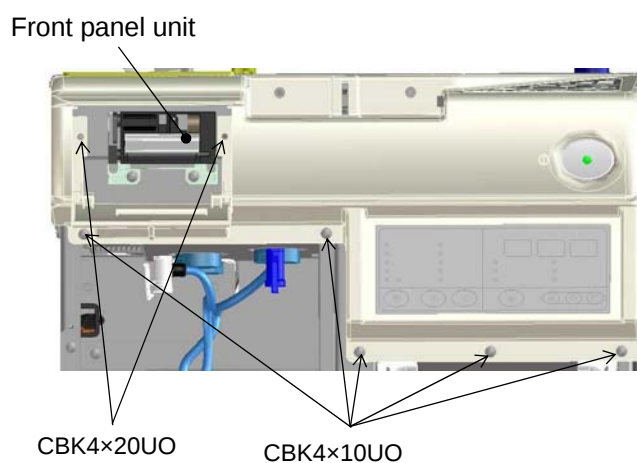


3-2-40 Front panel unit

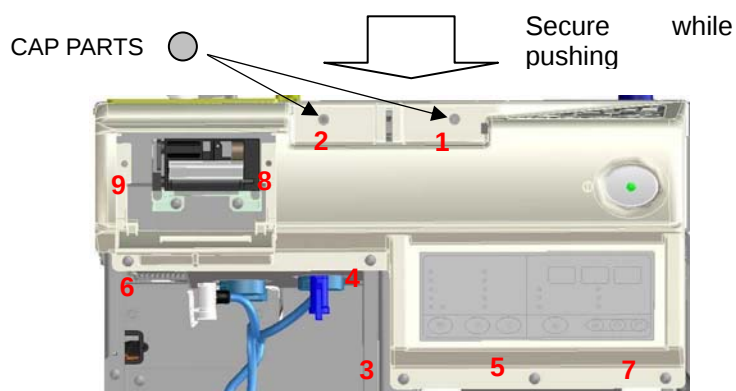
Required tools: No.2 Phillips screwdriver bit, Torque driver, Hexagonal wrench, Sony bond



- (1) Align screw holes of FRAME and FRONT PANEL UNIT
- (2) Insert CSK4x20UO in washer of screw cap
- (3) Loosely secure FRONT PANEL by using SCREW CAP and CSK4x20 UO

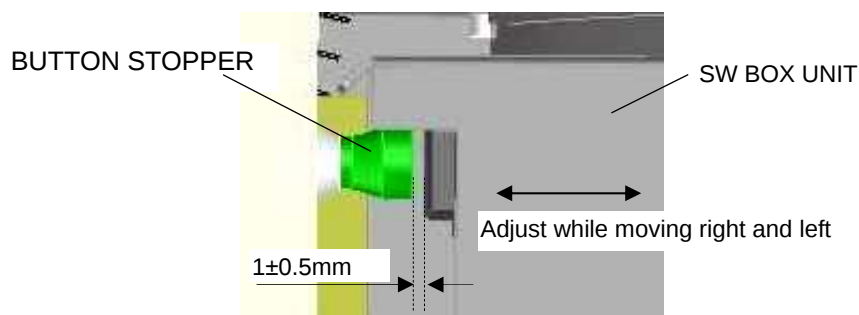


- (4) Loosely secure 5 screws (CBK4x10UO) and 2 screws (CBK4x20UO)



- (5) Push lower part of FRONT PANEL to avoid gaps with CLEANING TUB and then secure screws that were secured loosely in the stipulated order
- (6) Push cap part of SCREW CAP in until click sound

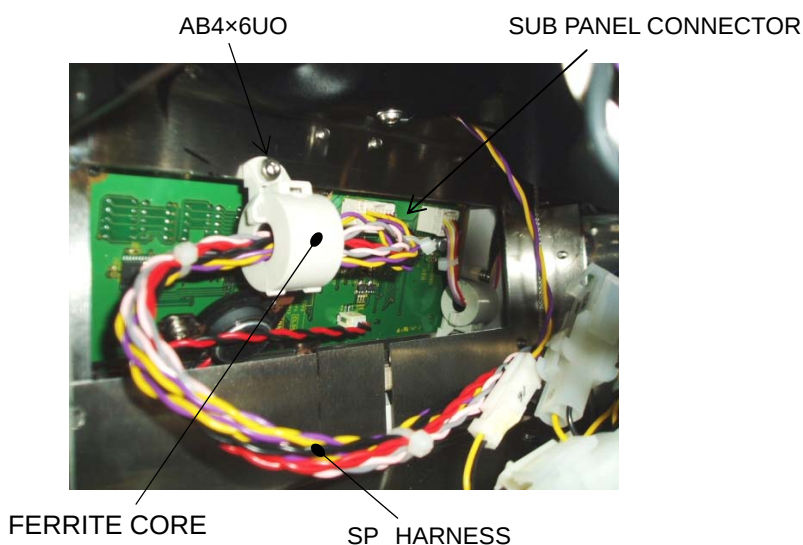
Torque: 0.686 plus or minus 0.098 Nm



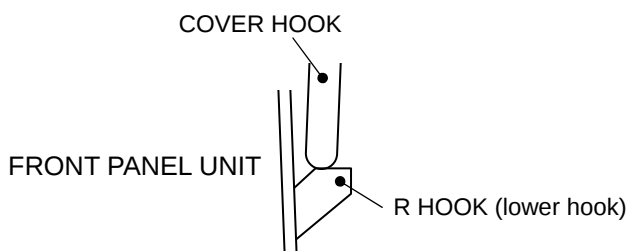
- (7) Adjust position of gap between SWITCHES and BUTTON STOPPER on SWITCH BOX UNIT by moving switch box UNIT front and back and then secure screw tightly

Torque: 1.274 plus or minus 0.098 Nm

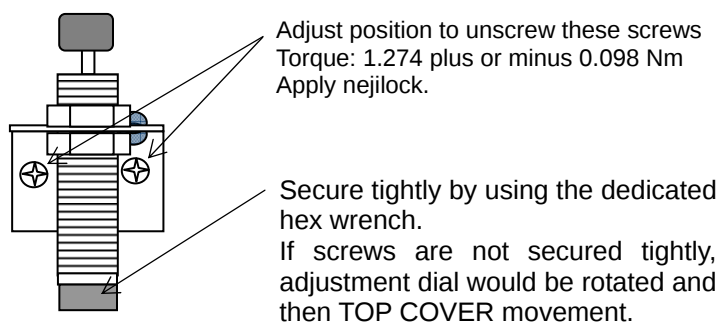
- (8) Turn ON and OFF and then ensure that the operation is smooth.



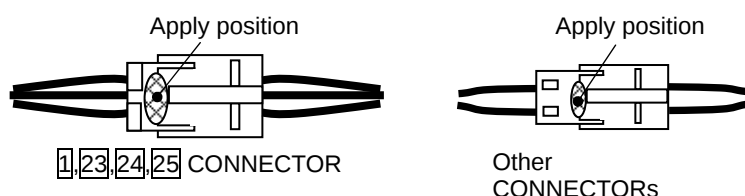
- (9) Put some sony bond on the hook of ferrite core.
 (10) Secure FERRITE CHOKE CORE of SP HARNESS P UNIT tightly by using a screw (AB4x6UO)
 (11) Connect CONNECTOR OF SP PANEL P UNIT to FRONT PANEL UNIT SUB PANEL



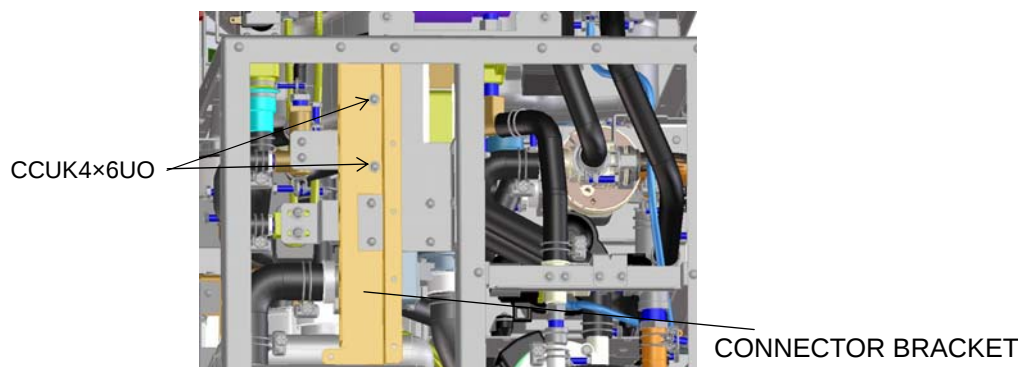
- (12) Step FOOT SWITCH on to FREE LOCK on R HOOK
 (13) Make sure that the gap between the front panel and cover hook is the designated length. In the event adjustment is required, unscrew the screws holding the cover hook to adjust the position again
 (14) Push the various BUTTONS on the PANEL on FRONT PANEL UNIT and then ensure that there is a clicking sound



- (15) Repeat opening and closing of TOP COVER 5 times and then ensure that action of TOP COVER opening is smooth
- (16) If speed of opening of TOP COVER is slow and TOP COVER does not open completely, allocate lower position of absorber to make further adjustments. If no improvement is seen through this, adjust numbers on adjustment dial of absorber to smaller side and ensure again
- (17) If speed of opening of the TOP COVER is fast and top cover bounds, allocate higher position of absorber to make further adjustments. If no improvement is seen through this, adjust numbers on adjustment dial of absorber to the higher side and ensure again

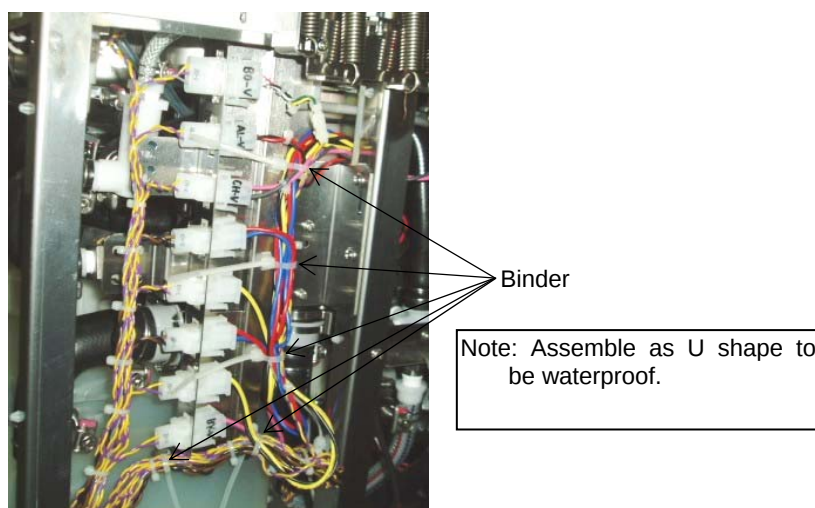


- (18) Apply glue to "1", "9", "16", "17", "23", "24", "25", "26", "36", "40" and TEMPERATURE SENSOR (CLEANING TUB, DISINFECTANT TANK) CONNECTORS

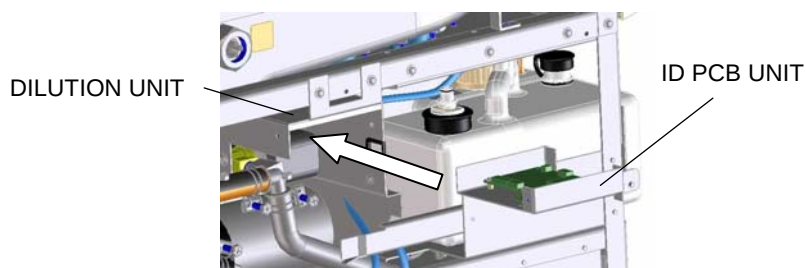


- (19) Align screw holes of CONNECTOR BRACKET to BRACKET of SWITCHING VALVE UNIT
- (20) Secure CONNECTOR BRACKET to SWITCHING VALVE by using 2 screws (CCUK4x6UO) and apply NEJILOCK around head of screw

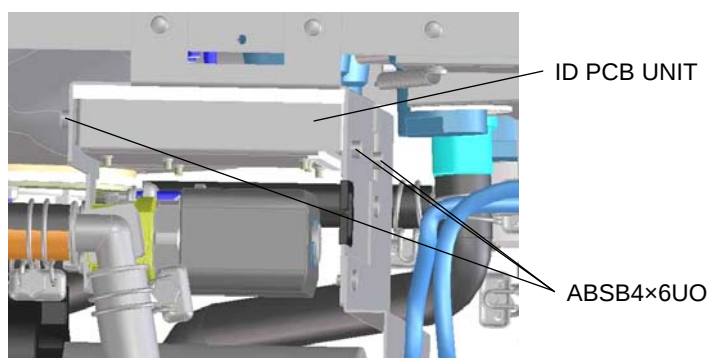
Torque: 1.274 plus or minus 0.098 Nm



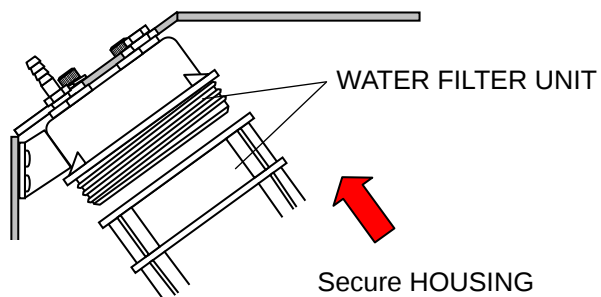
- (21) Insert housing of HARNESS unit into CONNECTOR BRACKET and housings of 3 PORT VALVE UNIT, SWITCHING VALVE UNIT, CH BLOCK A unit and connect bypass unit
 (22) Insert binder into CONNECTOR BRACKET and bind with HARNESS



- (23) Insert ANTENNA HARNESS and P/ID HARNESS into CONNECTOR of ID PCB UNIT
 (24) Align ID PCB UNIT to screw holes inserted in STAY of DILUTION UNIT



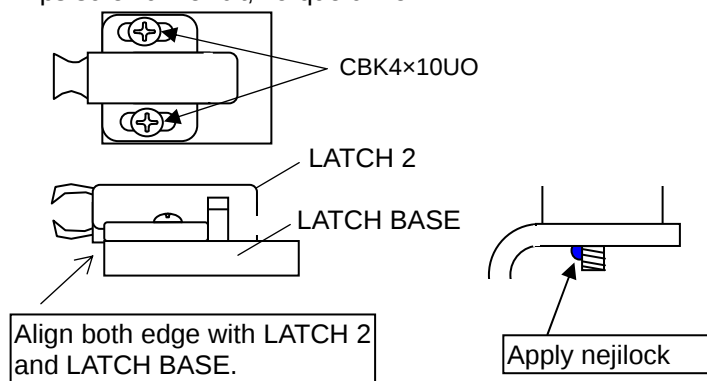
- (25) Secure ID PCB UNIT tightly to DILUTION STAY by using 3 screws (ABSB4x6UO) and apply NEJILOCK around head of the screws



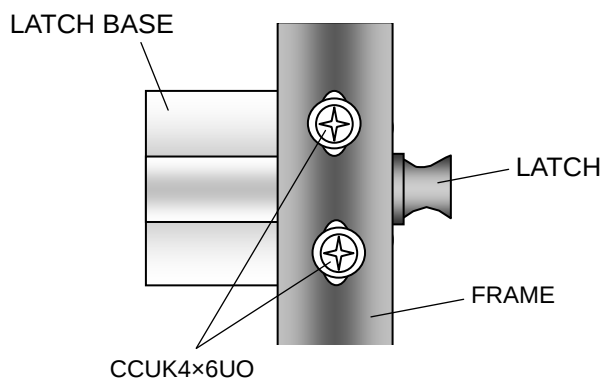
- (26) Secure LOWER HOUSING of WATER FILTER tightly

3-2-41 Door unit

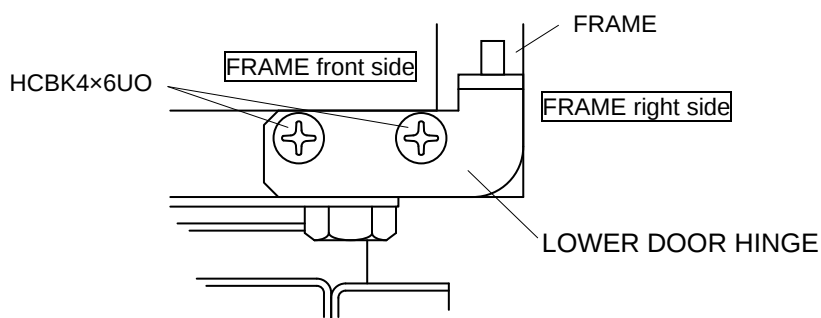
Required tools: No.2 Phillips screwdriver bit, Torque driver



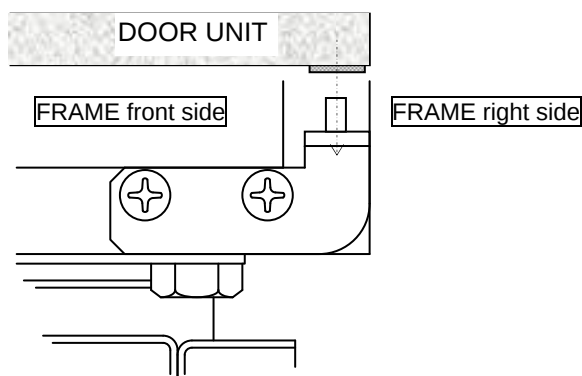
- (1) Align LATCH BASE to 2 screw holes in LATCH 2 and then secure 2 screws (CBK4x10UO) tightly



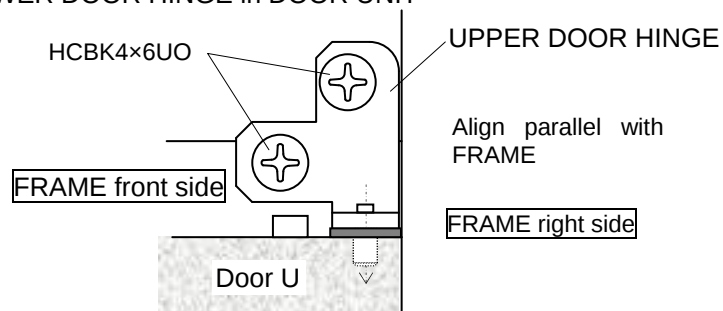
- (2) Align LATCH BASE to screw holes in FRAME and then secure LATCH BASE as a temporary by using screw (CCUK4x6UO) of oblong hole in FRAME
(3) Align LOWER HINGE of DOOR to screw holes in FRAME



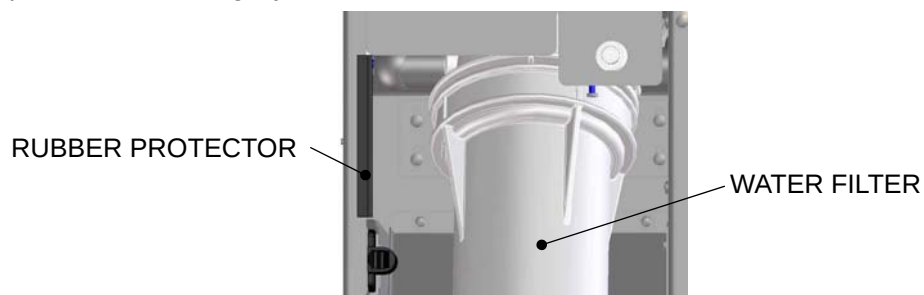
- (4) Secure LOWER DOOR HINGE to front lower part of FRAME by using 2 screws (HCBK4x6UO)
Torque: 1.274 plus or minus 0.098 Nm
- (5) Secure screws tightly



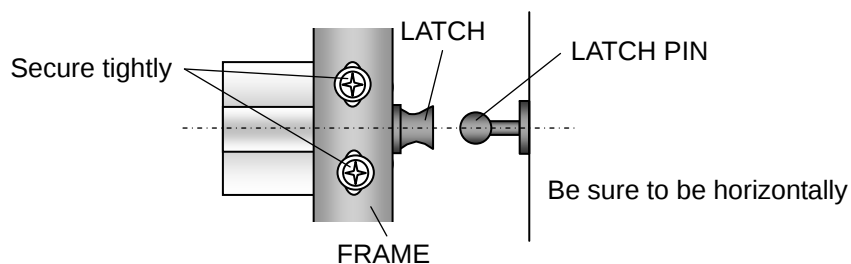
- (6) Insert PIN of LOWER DOOR HINGE in DOOR UNIT



- (7) Insert PIN of UPPER DOOR HINGE through holes in DOOR UNIT and then align screw holes in UPPER DOOR HINGE and FRAME
- (8) Secure UPPER DOOR HINGE to FRAME by using 2 screws (HCBK4x6UO)
Torque: 1.274 plus or minus 0.098 Nm
- (9) Secure screws tightly



- (10) Remove MAGNET holding DOOR
- (11) Remove RUBBER PROTECTOR from MAGNET and then secure to FRAME beside WATER FILTER



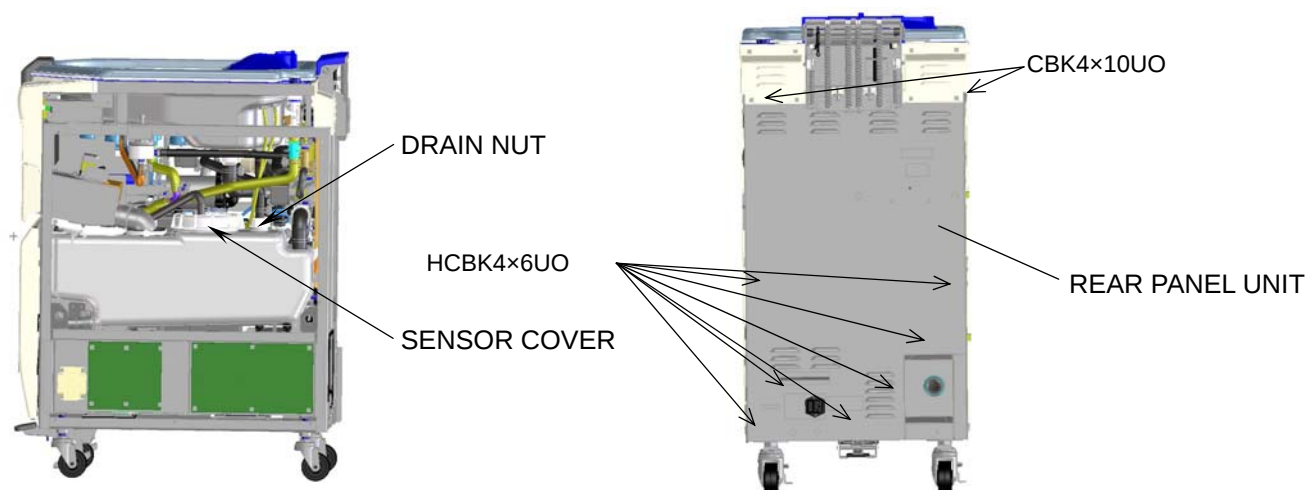
- (12) Adjust position so that LATCH and LATCH PIN are parallel and then secure 2 screws (CCUK4x6UO) that have been secured as a temporary and then apply NEJILOCK around screw head

Torque: 1.274 plus or minus 0.098 Nm

- (13) Looking at DOOR from above, ensure that LATCH PIN is at the center of LATCH BASE
(14) Moving DOOR UNIT, ensure that door operates smoothly and that there is no abnormal sound
(15) Ensure that when DOOR UNIT is closed, door UNIT LOCKS as a result of LATCH BASE
(16) When "PUSH" part is pushed with DOOR UNIT in closed position, ensure that LATCH BASE FIXTURE becomes free and that the DOOR UNIT opens

3-2-42 Rear panel unit

Required tools: No.2 Phillips screwdriver bit, Torque driver



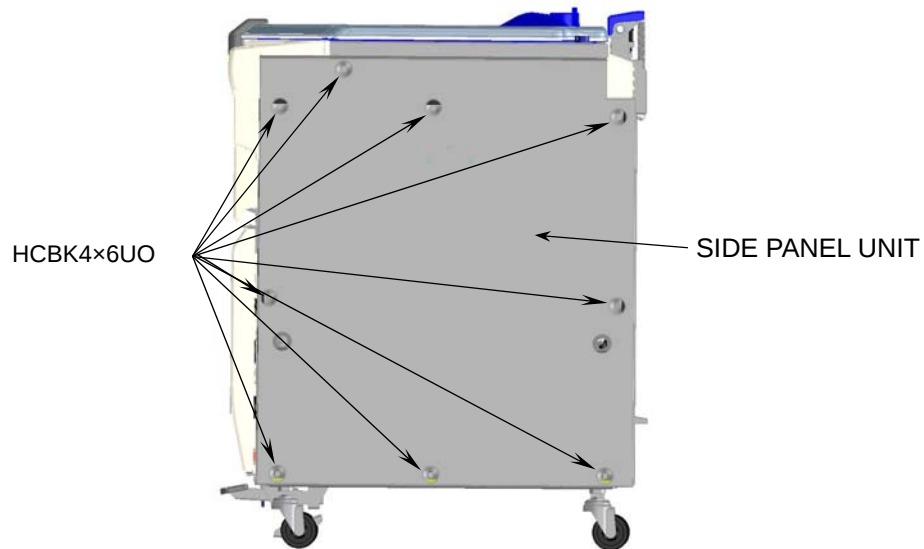
- (1) Turn WATER DRAIN NUT at upper part of TANK in the tightening direction and ensure that there is no slack or rattle
- (2) Turn sensor cover at upper part of tank in the tightening direction and ensure that it is not lose
- (3) Turn joints on both IN and OUT sides of CH PUMP and DISINFECTANT PUMP in the tightening direction and then ensure that it is not lose
- (4) Insert REAR PANEL UNIT below upper REAR PANEL UNIT and then align screw holes
- (5) Secure REAR PANEL UNIT by using 7 screws (HCBK4x6UO) and 2 screws (CBK4x10UO)

HCBK screw torque: 1.274 plus or minus 0.098 Nm

CBK screw torque: 0.686 plus or minus 0.098 Nm

3-2-43 Side panel LU

Required tools: No.2 Phillips screwdriver bit, Torque driver

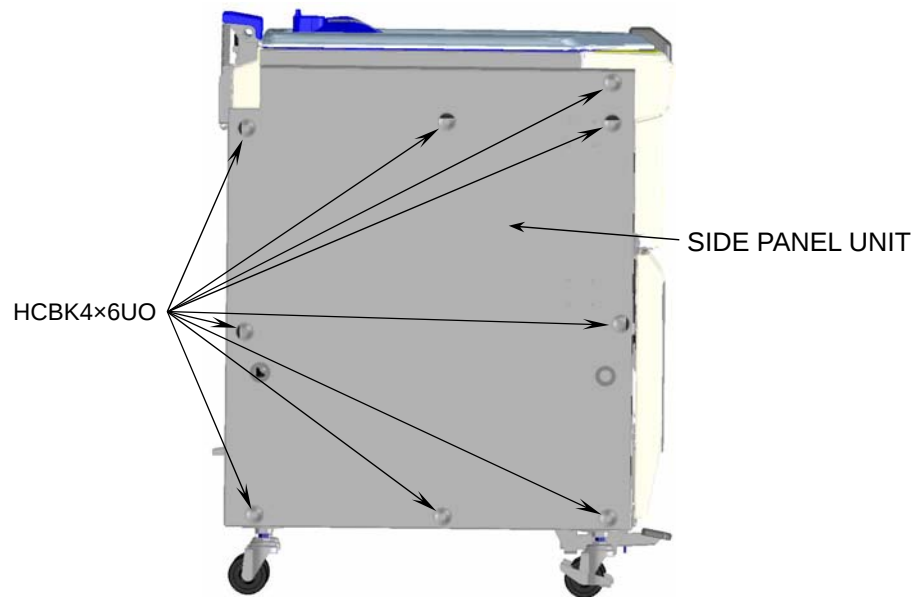


- (1) Align SIDE PANEL LU to SIDE MAIN UNIT and align there for the time being
- (2) Align screw holes of SIDE PANEL LU, FRAME and WATERPROOF COVER and secure SIDE PANEL LU by using 9 screws (HCBK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm

3-2-44 Side panel RU

Required tools: No.2 Phillips screwdriver bit, Torque driver

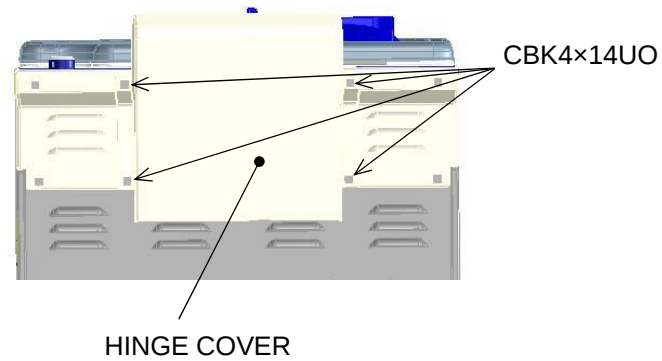


- (1) Align side PANEL LU to screw holes in FRAME and then secure SIDE PANEL by using 9 screws (HCBK4x6UO)

Torque:1.274 plus or minus 0.098 Nm

3-2-45 Hinge cover

Required tools: No.2 Phillips screwdriver bit, Torque driver



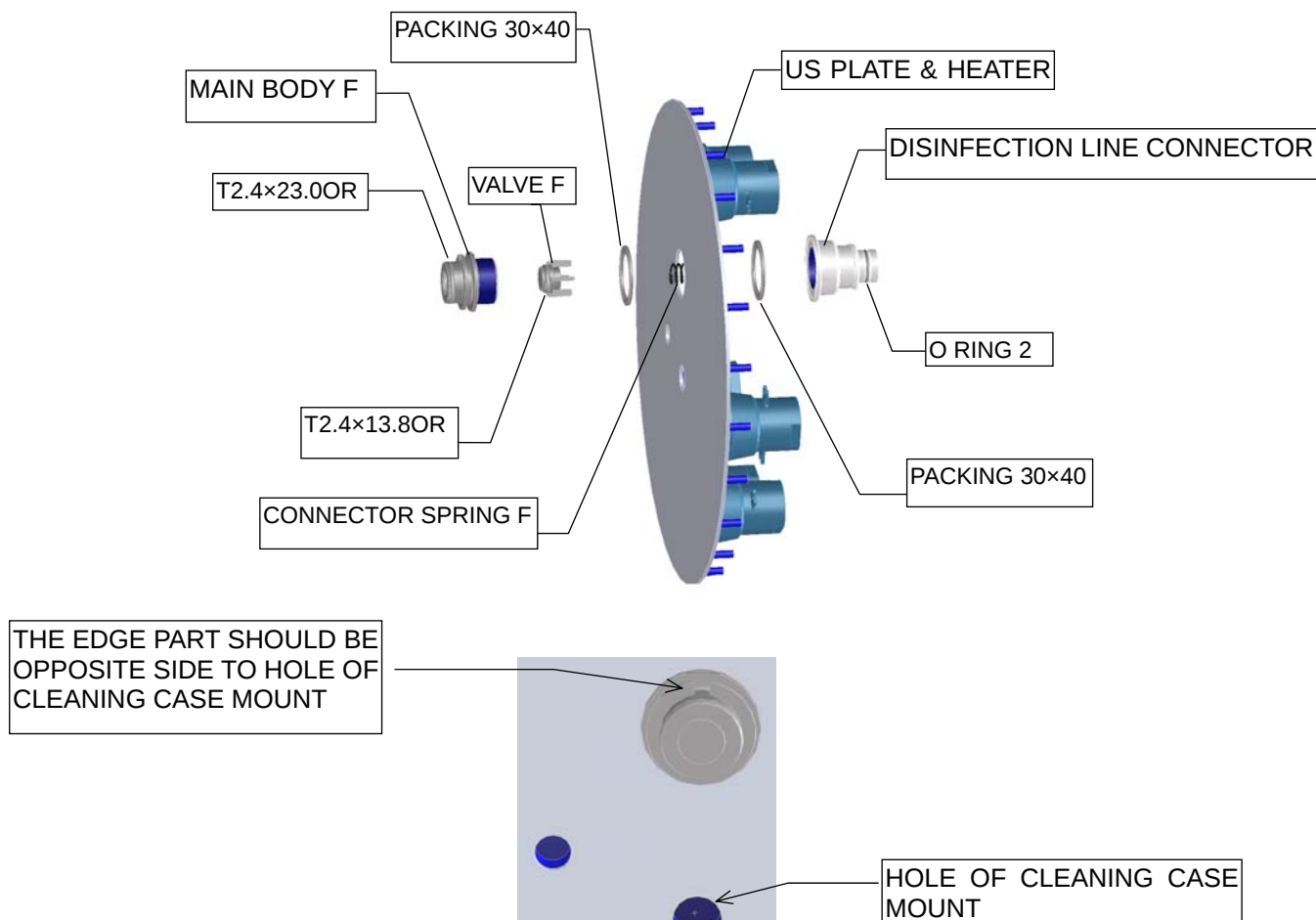
- (1) Remove 2 screws (CBK4x14UO) holding upper REAR PANEL
- (2) Connect HINGE COVER covering HINGE UNIT and then align screw holes
- (3) Secure HINGE COVER by using 4 screws (CBK4x14UO)

Torque:0.686 plus or minus 0.098 Nm

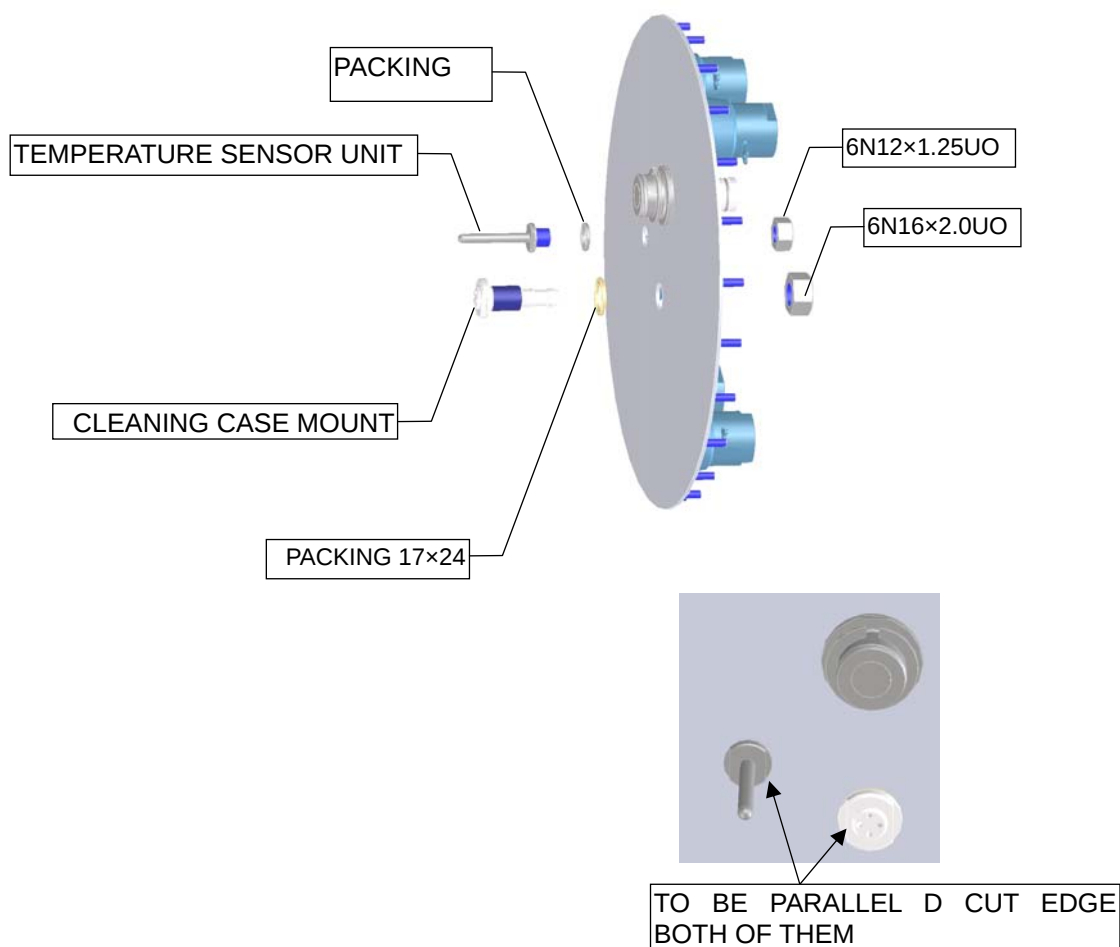
3-3 Unit Reassembly

3-3-1 Oscillating plate unit

Required Tools: Adjustable wrench (34mm), NEJILOCK (TUB DISINFECTION PORT JIG)



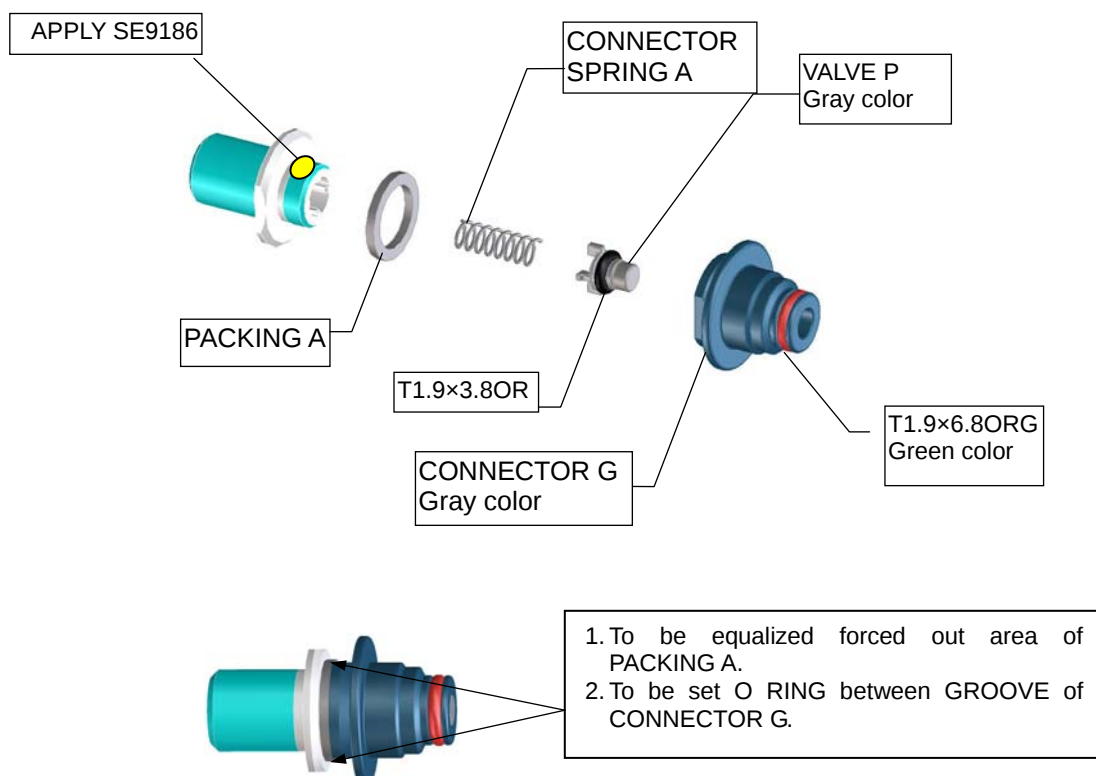
- (1) After visual inspection of O ring, secure O ring to screw part of main unit F and then insert from front of US plate & heater unit
- (2) After visual inspection of packing 30 x 40, insert packing 30 x 40 from back of screw part of main body F unit inserted into US plate & heater unit from back
- (3) After visual inspection of O ring, secure O ring to valve F and inserted into main body F unit
- (4) Insert connector spring F into valve F in main body F
- (5) Screw jig for disinfectant line connector until end in the main body F unit and then ensure that packing 30 x 40 is not skewed and protruding
- (6) After visual inspection of O ring, secure jig for disinfectant line connector and groove of main body F



- (7) After visual inspection of packing 17x24, insert packing 17x24 into pump joint side of cleaning case mount P
- (8) Insert cleaning case mount P from surface of US plate & heater unit and secure by using a nut (Pay attention to the direction of assembly)
- (9) Apply NEJILOCK between screw and nut of cleaning case mount P
- (10) After visual inspection of packing, insert packing from connector of temperature sensor
- (11) Insert temperature sensor unit from surface of US plate & heater unit and secure by using a nut (Pay attention to direction of assembly)
- (12) Apply NEJILOCK between screw of temperature sensor unit and nut
- (13) Align the 3 connectors (US1, US2 and HEAD)' position. Bind the HARNESS with binder, which position is within 100±20mm from connector side.

3-3-2 Connector G unit

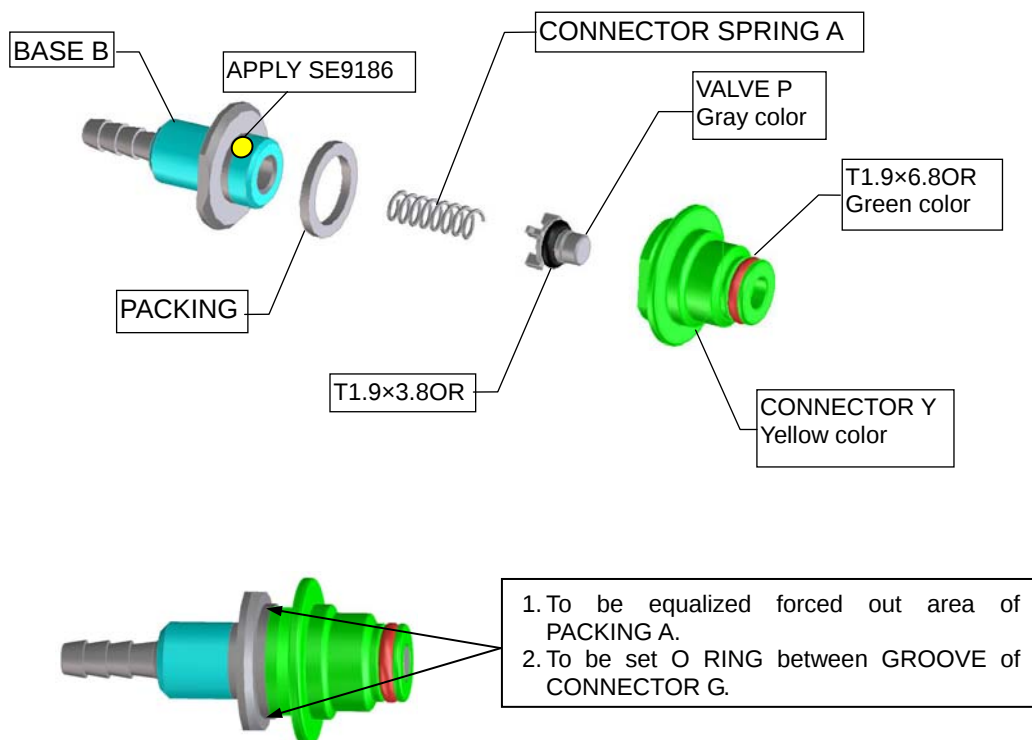
Required Tools: Adjustable wrench, Connector A securing jig(JA9822), SE9186, Connector rotating jig(JA7697)



- (1) Secure base A
- (2) After visual inspection of base A, apply SE9186 as a drop around head of the screw
- (3) Insert connector A into base A
- (4) After visual inspection of O ring, insert ring into groove of valve P
- (5) Be placed valve P on spring A connector
- (6) After visual inspection of O ring, insert connector G in the main unit G groove
- (7) Secure connector G of main unit G to base A
- (8) Ensure that spring makes valve return when valve P is pushed by fingers

3-3-3 Connector Y unit

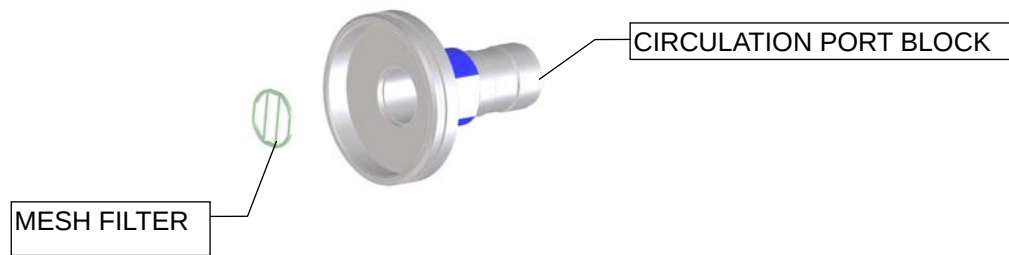
Required Tools: Adjustable wrench, connector A securing jig (JA9822), SE9186, Connector rotating jig (JA7697)



- (1) Secure base B
- (2) After visual inspection of packing A, insert packing A into base B and then apply SE9186 as a drop
- (3) Insert connector A into base A
- (4) After visual inspection of O ring, insert O ring into groove of valve P
- (5) Be placed valve P on connector spring A
- (6) After visual inspection of O ring, insert connector Y into groove
- (7) Secure connector Y to base B
- (8) Ensure that spring makes valve return when valve P is pushed by fingers

3-3-4 Circulation port block unit

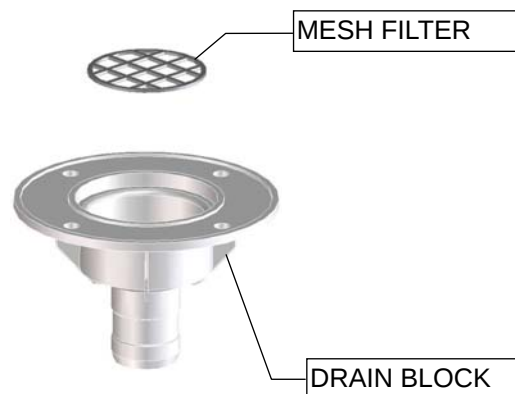
Required Tools: Pliers (Mesh filter securing jig (JB4275))



- (1) Insert mesh filter vertically into groove of circulation block

3-3-5 Drain block unit

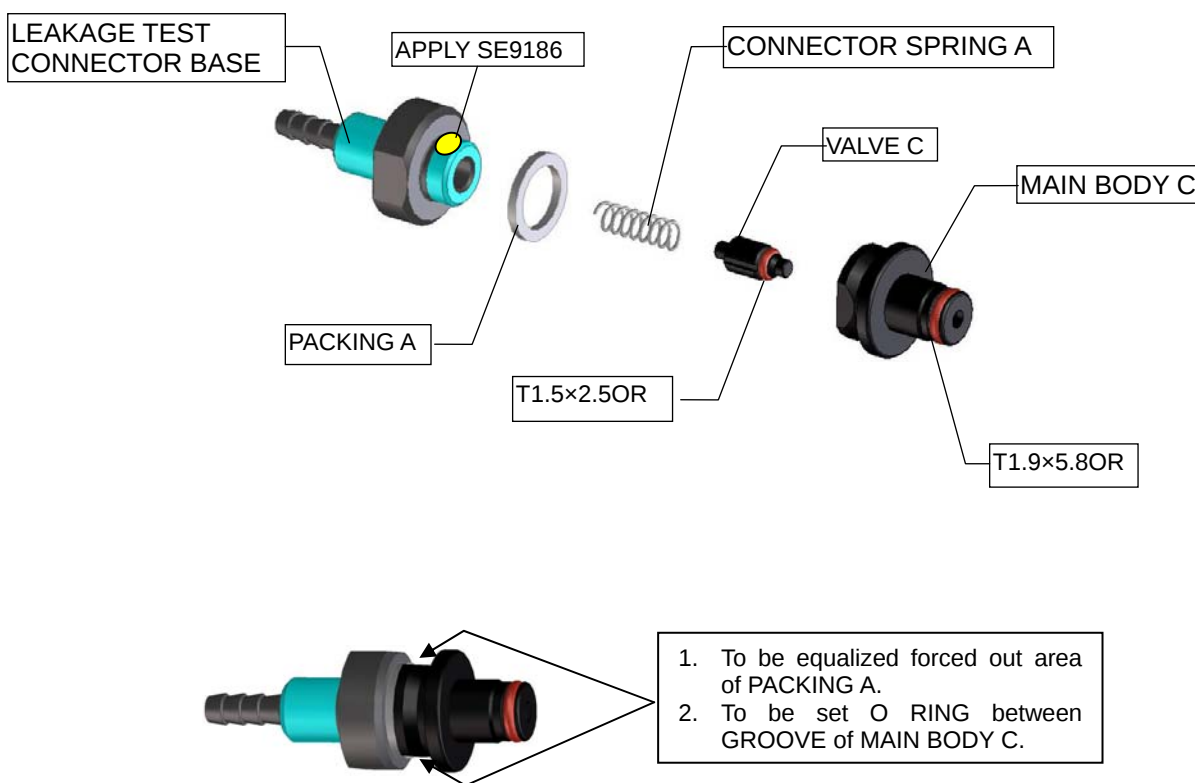
Required Tools: None



- (1) Insert mesh filter into groove of drain block unit (Pay attention to surface of mesh filter)

3-3-6 Connector T unit

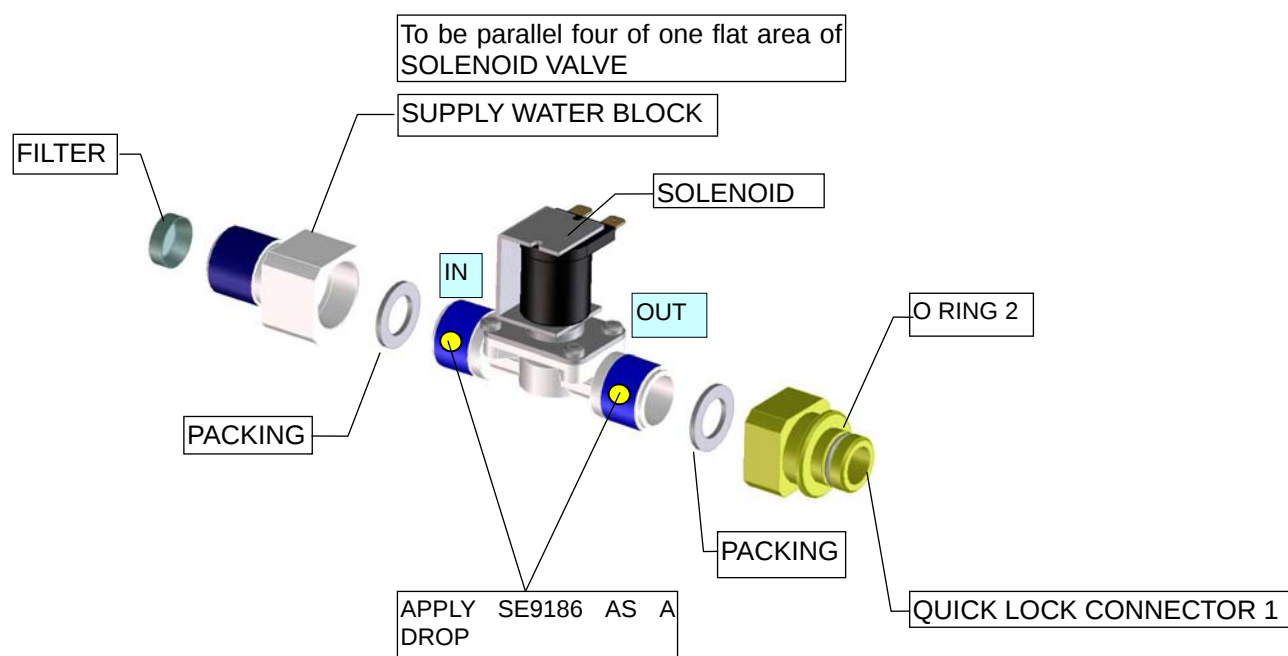
Required Tools: Adjustable wrench, Connector A securing jig(JA9822), SE9186, Connector rotating jig (JA7697)



- (1) Secure leakage test connector base
- (2) After visual inspection of packing A, insert packing A into leakage test connector base, and then apply SE9186 glue around thread of screws as a drop
- (3) Insert connector spring A into leakage test connector base
- (4) After visual inspection of O ring, insert O ring into groove of valve C
- (5) Set valve C onto connector spring A
- (6) After visual inspection of O ring, insert O ring into groove of main body C
- (7) Secure main body C onto leakage test connector base

3-3-7 Drain port unit

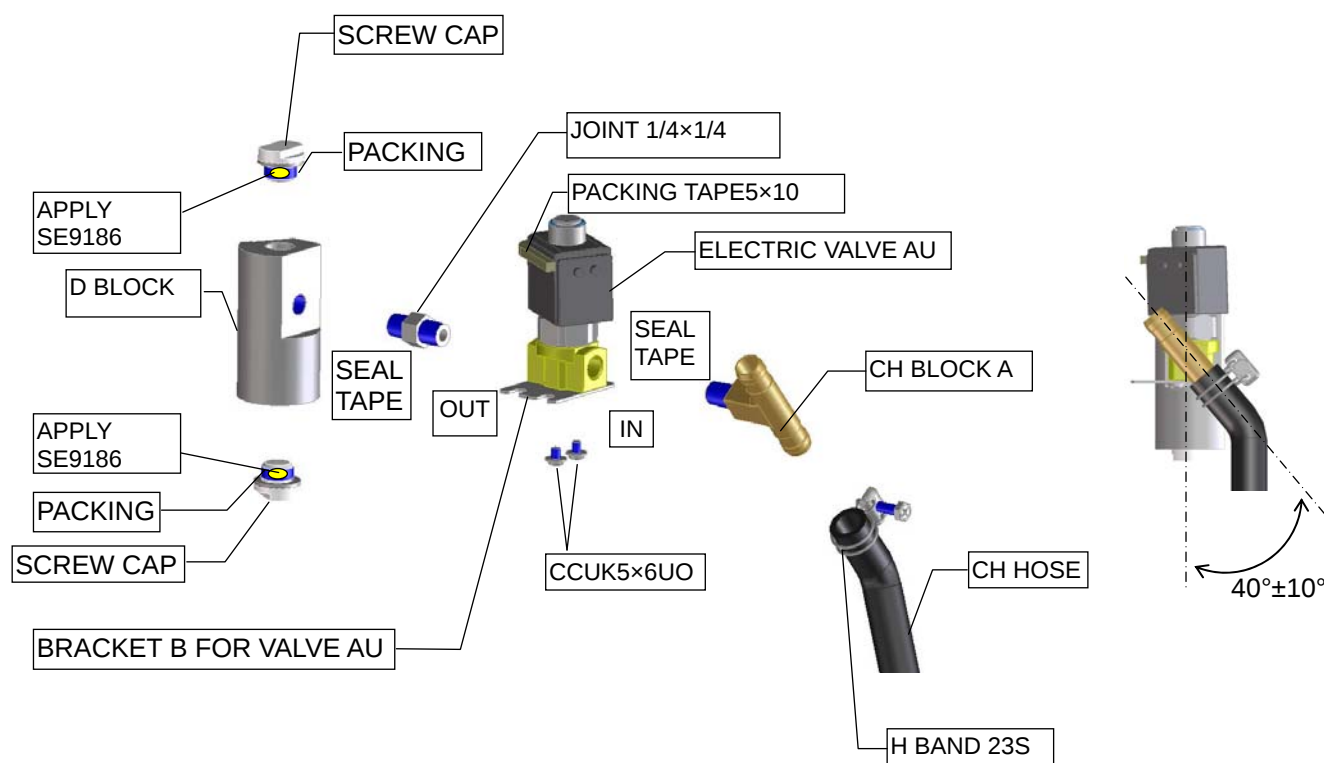
Required Tools: SE9186



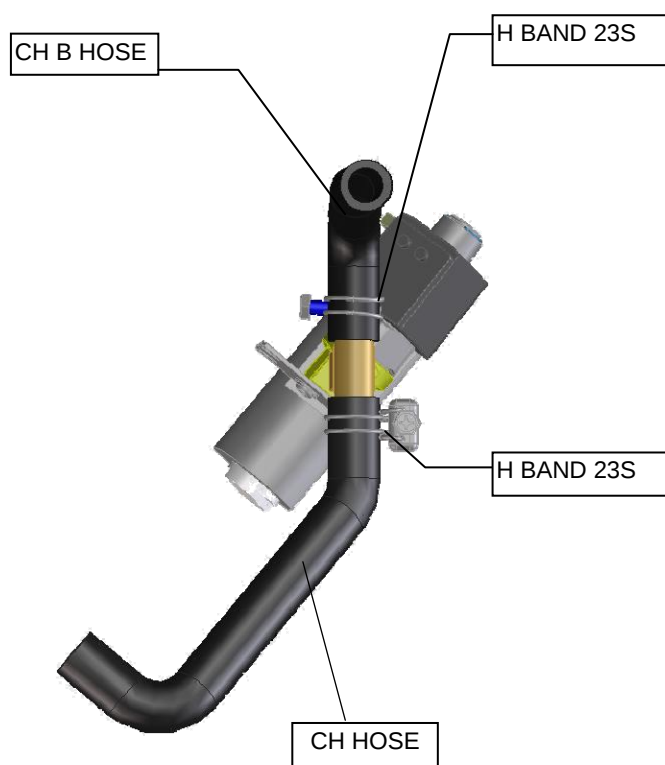
- (1) Insert filter until end into inner diameter of water supply block
- (2) After visual inspection of packing, inserted packing into water supply block
- (3) Apply silicon glue as a drop onto threads area of solenoid valve IN and then assemble solenoid valve to be parallel four of one flat area and solenoid valve
- (4) After visual inspection of O ring and packing, insert O ring and packing into quick lock connector 1
- (5) Apply silicon glue on thread area of OUT side on solenoid valve and then secure quick lock connector 1 until end to solenoid valve

3-3-8 CH block A unit

Required Tools: No.2 Phillips screwdriver, No.2 Phillips screwdriver bit, Torque driver, Seal tape, Scale, Cutter, Screw cap wrench (JA7819), NEJILOCK, Ethanol



- (1) Wrap seal tape around both sides of joint 1/4x1/4 and then secure electric valve AU
 Note: Before winding the sealing tape, clean the threads of screw with ethanol.
Torque: 2.94 plus or minus 0.98 Nm
- (2) Wrap seal tape threads of CH block A and then secure electric valve AU on the IN side and apply nejilock with screw head side.
 Note: Before winding the sealing tape, clean the threads of screw with ethanol.
Torque: 2.94 plus or minus 0.98 Nm
- (3) After visual inspection of packing and then insert packing to screw cover and then apply silicon glue onto threads of screws as a drop and then secure screws to D blocks both upper and lower sides
- (4) Secure joint 1/4x1/4 onto D block
Torque: 2.94 plus or minus 0.98 Nm
- (5) Secure bracket B for valve AU onto electric valve AU by screw
- (6) Insert CH hose in hose band and then secure H band. The angle between the CH block A and electric valve AU should be about 40 degrees
Torque: 2.8 plus or minus 0.1 Nm



- (7) Secure CH B HOSE with H band, which is shown.

Torque: 2.8 plus or minus 0.1 Nm

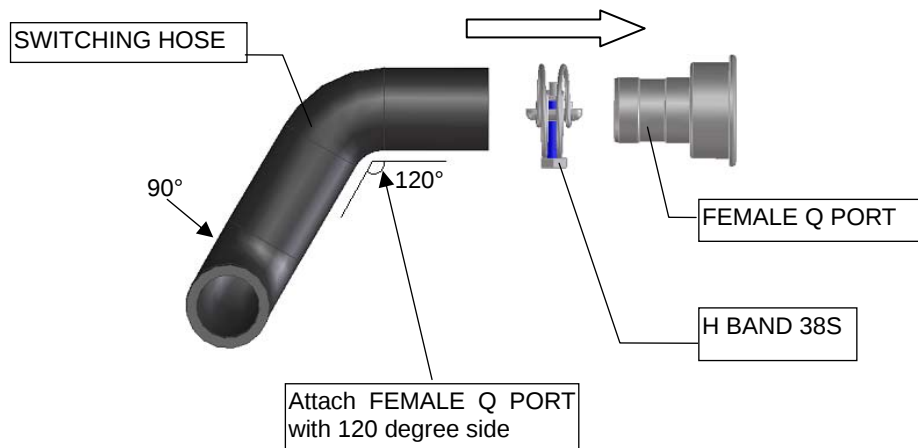
- (8) Cut packing tape 5x10 to designated length and then put to the position shown in the figure of electric valve AU

Designated length: 70 plus or minus 5 mm

- (9) Ensure that harness of electric valve AU to be IN side. If the harness is on OUT side, electric valve AU should be rotated to make harness on IN side

3-3-9 SWITCHING HOSE UNIT

Required Tools: No.2 Phillips screwdriver, No.2 Phillips screwdriver bit, Torque driver

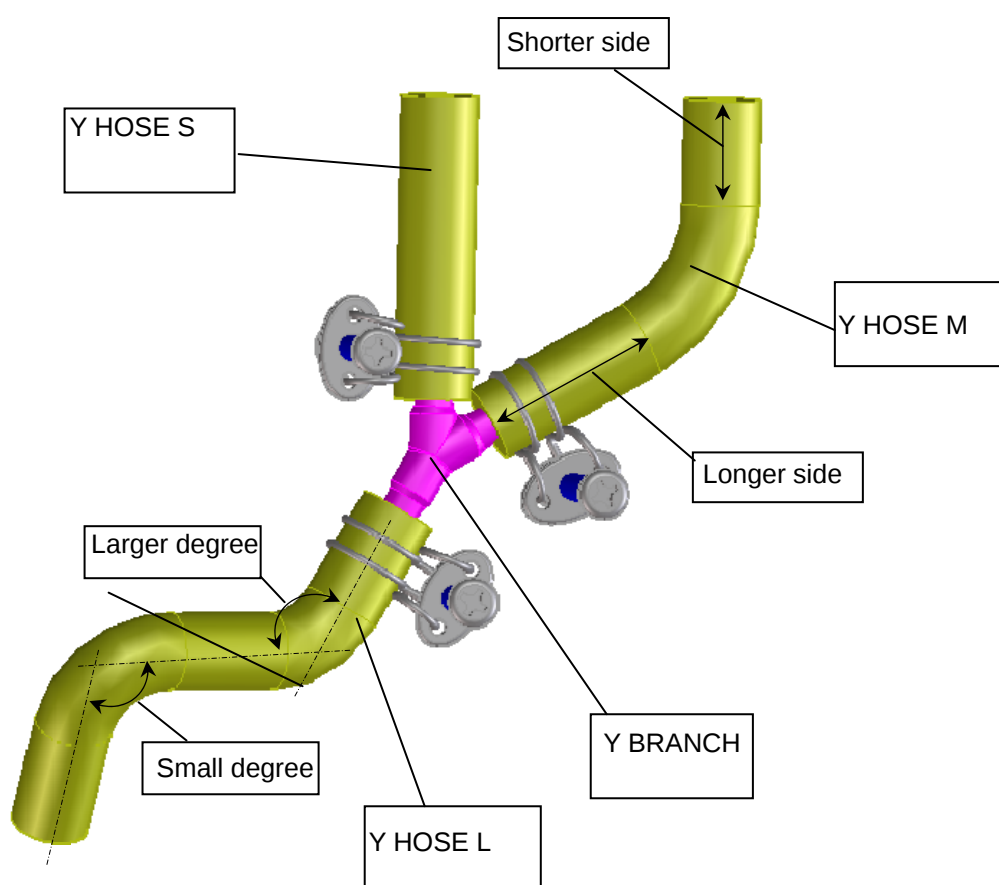


- (1) Insert SWITCHING HOSE into H BAND 38S and assemble FEMALE Q PORT.

Torque: 2.8 plus or minus 0.1 Nm

3-3-10 Y BRANCH UNIT

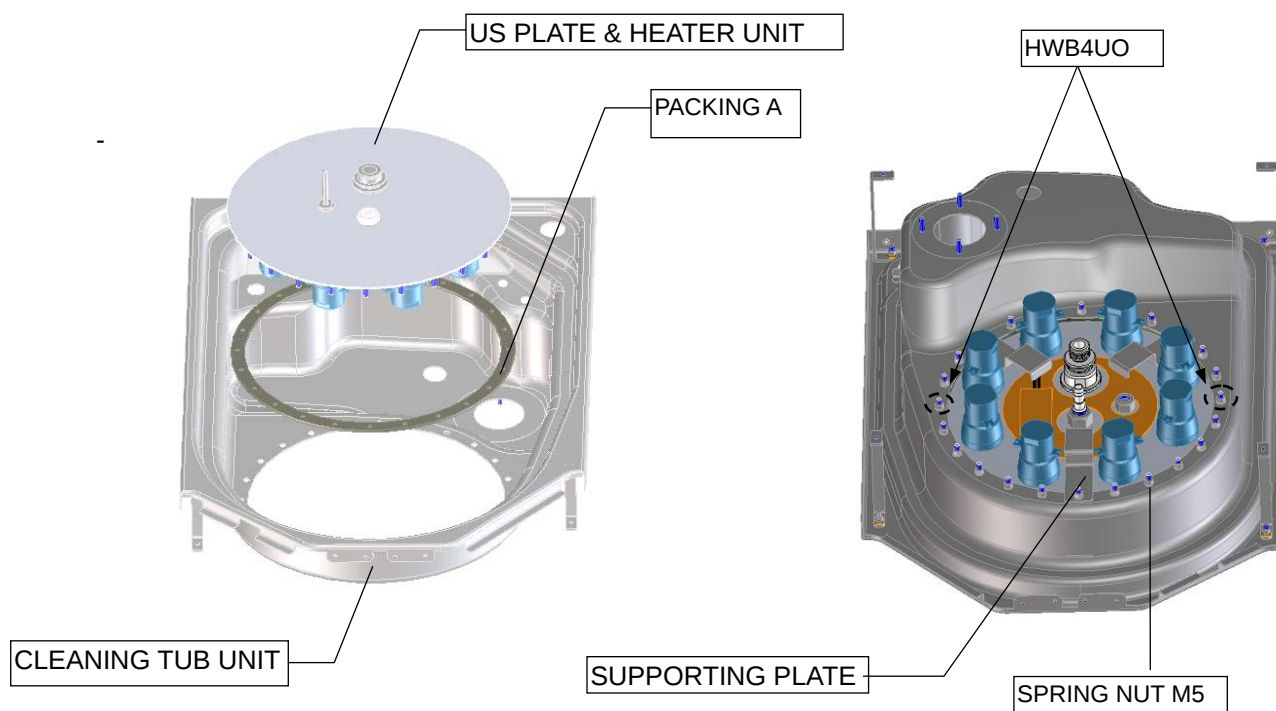
Required Tools: No.2 Phillips screwdriver, No.2 Phillips screwdriver bit, Torque driver



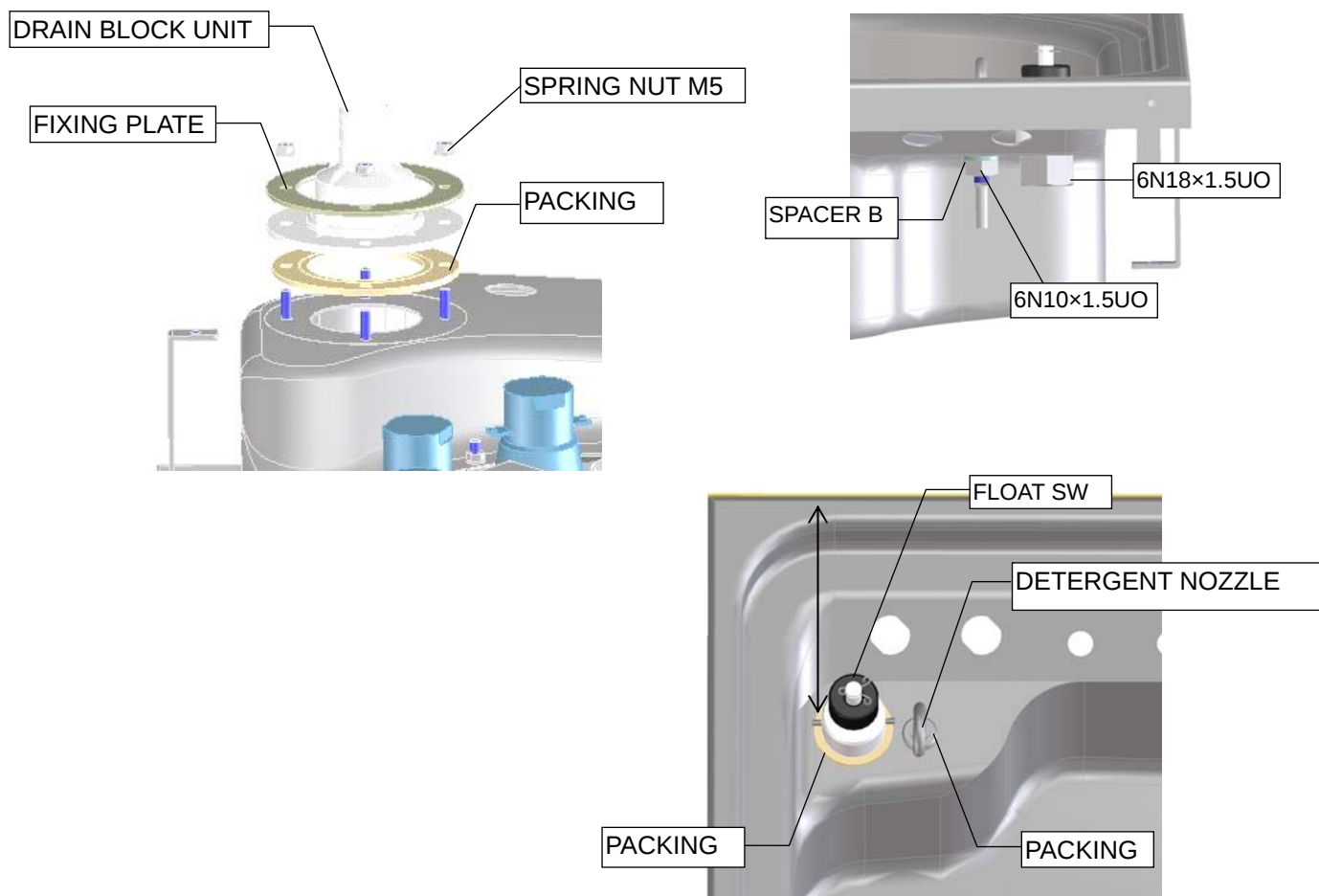
- (1) Insert H band into Y HOSE L, assemble to Y BRANCH UNIT. Secure H BAND.
Torque: 2.8 plus or minus 0.1 Nm
- (2) Insert H band into Y HOSE S, assemble to Y BRANCH UNIT. Secure H BAND.
Torque: 2.8 plus or minus 0.1 Nm
- (3) Insert H band into Y HOSE M, assemble to Y BRANCH UNIT. Secure H BAND.
Torque: 2.8 plus or minus 0.1 Nm

3-3-11 Cleaning tub unit

Required tools: No.2 Phillips screwdriver, Torque screwdriver, Hexagonal nut screw bit, NEJILOCK, Spanner (OT3581), SE9186, NEJILOCK, Ethanol, Cleaning paper



- (1) After visual inspection of inside of cleaning tub, back of US plate & heater unit and packing A and then put US plate & heater unit and packing A to cleaning tub
- (2) Insert washers (HWB4UO) on two places on diagonal line from US plate & heater unit stud which is shown in the figure
- (3) Insert the place where supporting plate is not inserted, at four random locations on the diagonal line, and then secure screws as a temporary
- (4) Put supporting plate as Y shape like shown in the above figure, and then secure spring nut M5 as a temporary
- (5) Insert spring nut M5 onto the rest of US plate & heater unit screw holes and then secure spring nut M5 as a temporary
- (6) Secure spring nuts M5 as a pair of diagonal line's spring nut and then secure tightly respectively
Torque: 1.274 plus or minus 0.098 Nm
- (7) Apply NEJILOCK around head of nuts other than those to which washers (HWB4UO) were assembled



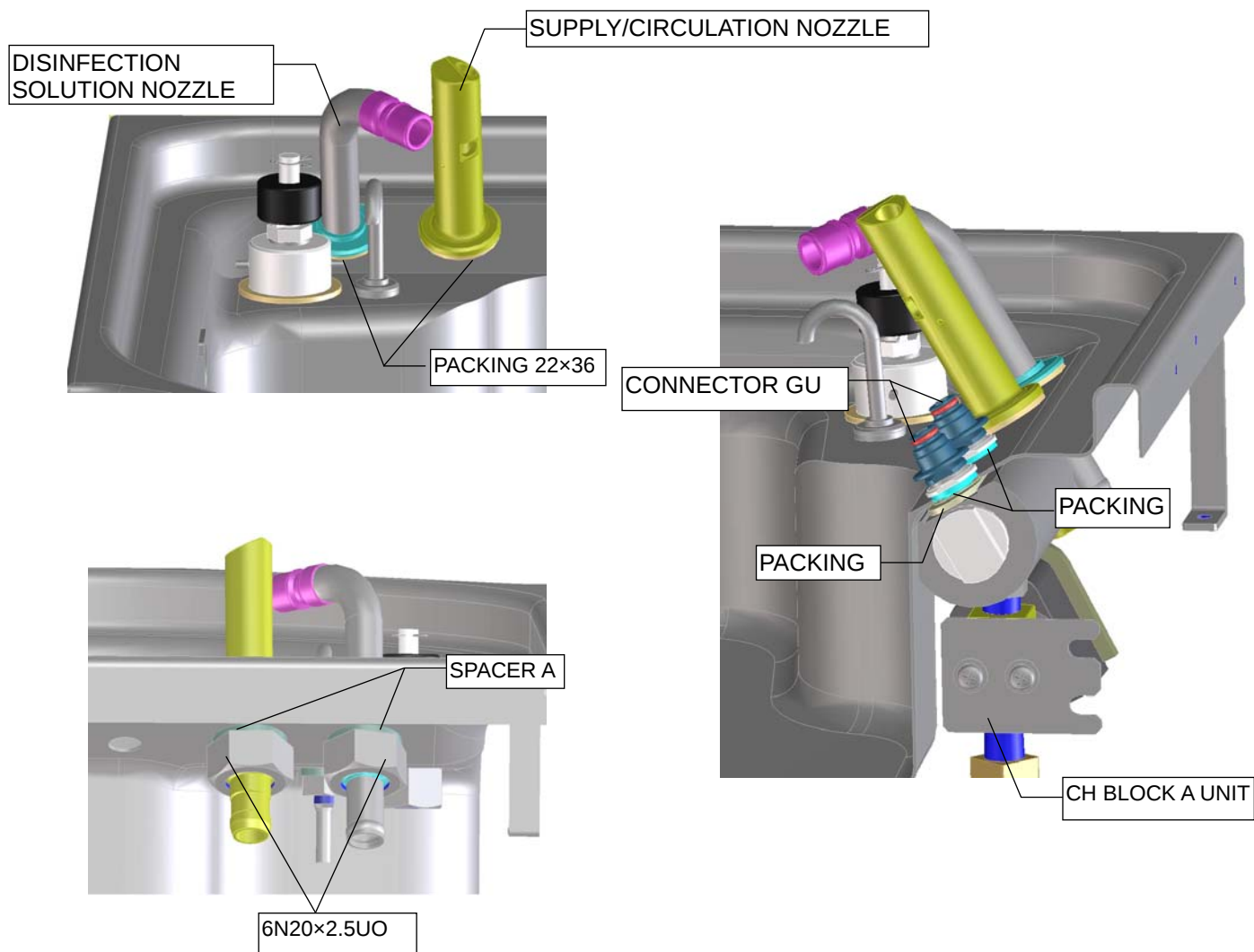
- (8) After visual inspection of the packing, and then put packing onto studs on back of cleaning tub
- (9) Secure drain block unit onto packing
- (10) Put fixing plate onto drain block unit
- (11) Secure spring nut M5 onto fixing plate

Torque: 1.274 plus or minus 0.098 Nm

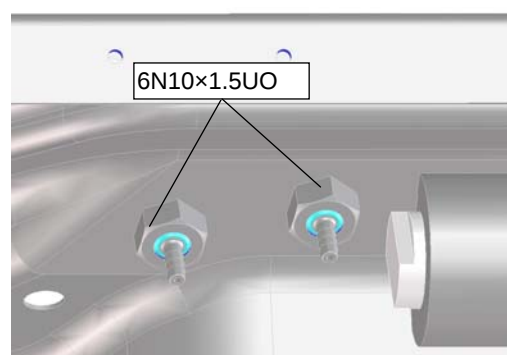
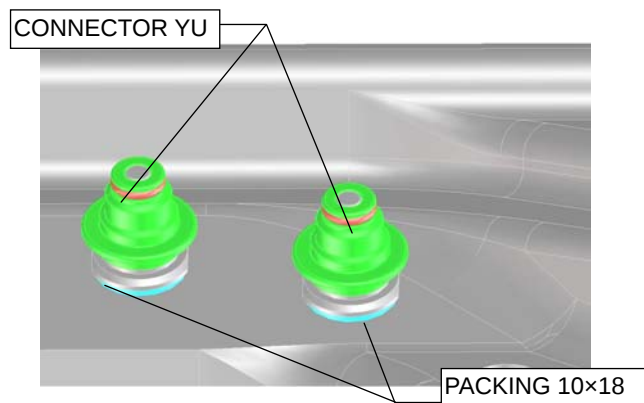
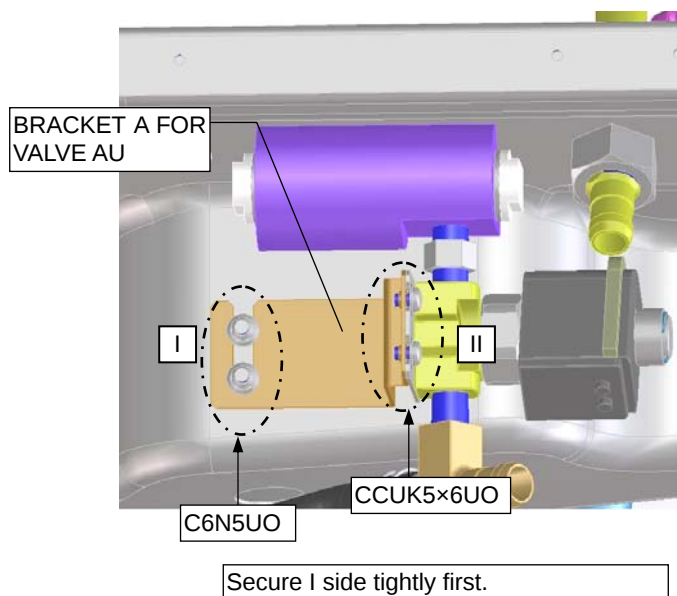
- (12) Apply NEJILOCK around head of spring nut
- (13) After visual inspection of packing, insert packing from threads side of detergent nozzle to the position of cleaning tub shown in the diagram
- (14) Insert spacer B into detergent nozzle from back of cleaning tub, and then secure nut (6N10x1.5UO)
- (15) Apply NEJILOCK around thread of screw for nut (6N10x1.5UO) holding detergent nozzle
- (16) After visual inspection of packing, insert packing from harness side of float switch to the position of cleaning tub shown in the diagram
- (17) Secure nut (6N18x1.5UO) from back of cleaning tub and assemble as shown in the diagram so that float switch is parallel to cleaning tub edge line

Torque: 4.90 plus or minus 0.49 Nm

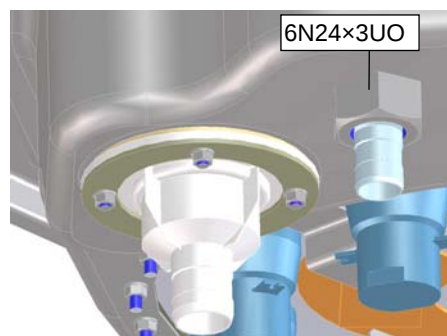
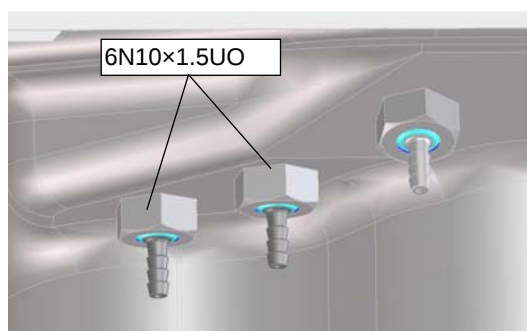
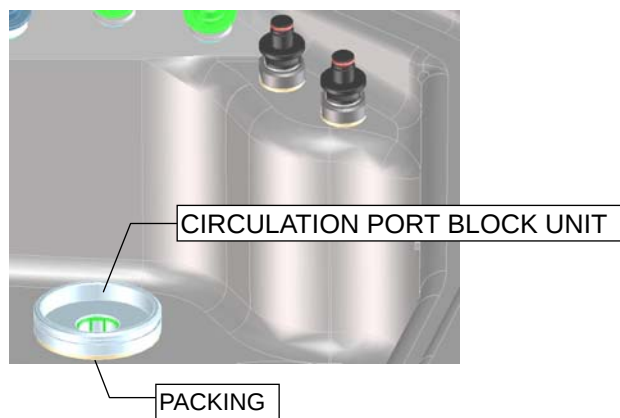
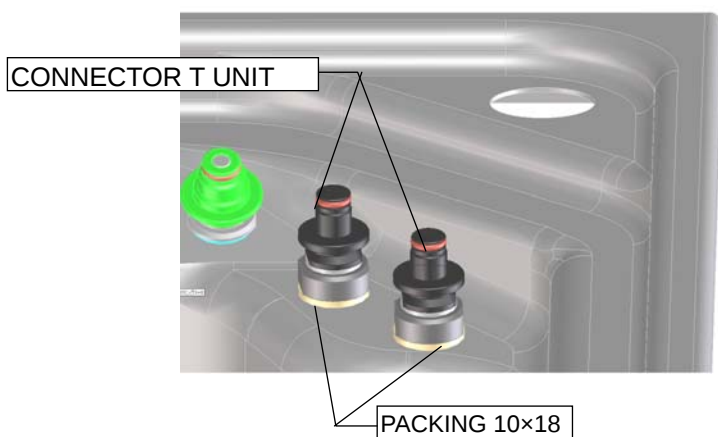
- (18) Apply NEJILOCK around threads of nut (6N18x1.5UO) holding float switch



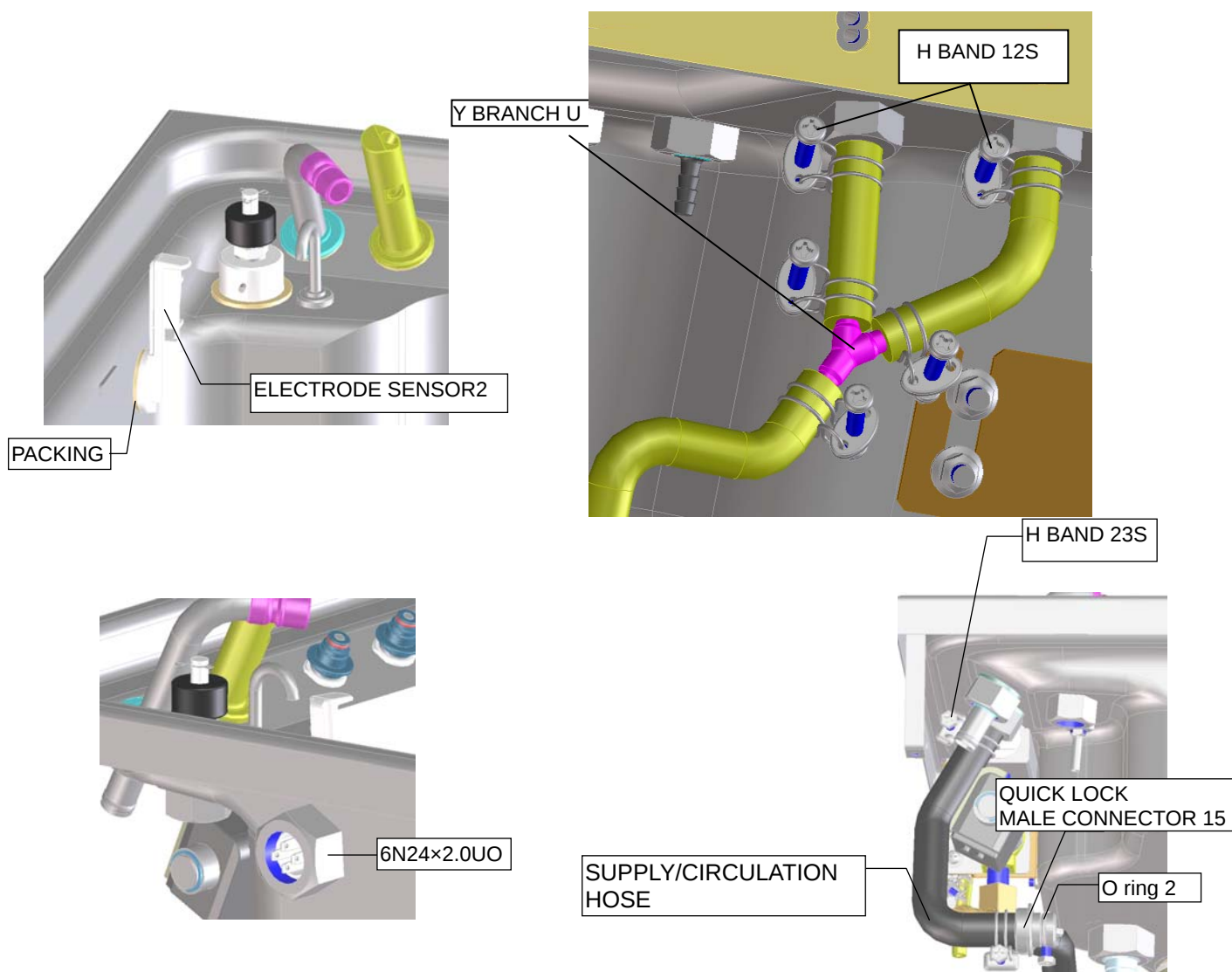
- (19) After visual inspection of packing, insert packing through screw parts of disinfectant solution nozzle and supply/circulation nozzle and then insert each nozzle into the position on cleaning tub shown in the diagram
- (20) Insert spacer A in disinfectant solution nozzle and then secure nut (6N20x2.5UO) from the back of cleaning tub
- (21) Apply NEJILOCK around thread of screw part of nut (6N20x2.5UO) holding supply/circulation nozzle
- (22) After visual inspection of packing, align CH block A unit to screw holes and the back of cleaning tub
- (23) After visual inspection of packing, insert connector GU in thread of screw section and apply silicon glue on screw section
- (24) From the back of cleaning tub, insert connector GU to thread of screw section of CH block A unit and ensure that there is no significant protrusion of packing



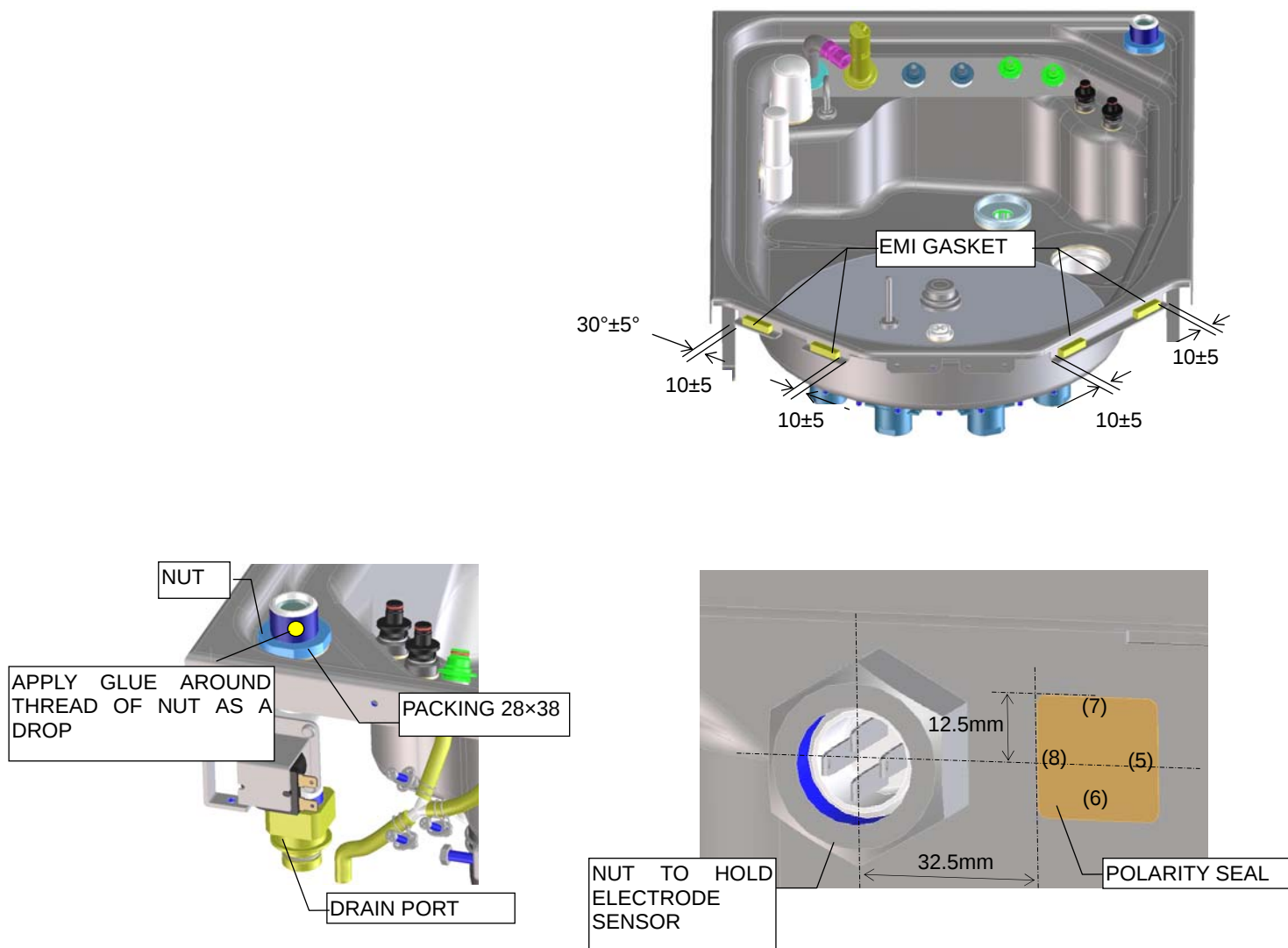
- (25) Align screw holes of bracket A for valve and bracket B for valve AU and then secure screws as a temporary
- (26) Secure screws onto bracket A for valve AU to cleaning tub tightly
- (27) Apply NEJILOCK around head of screws at 4 places holding bracket A for valve unit
- (28) After visual inspection of packing, insert packing from thread of screw side of bracket A for valve AU at the location for cleaning tub shown in the diagram
- (29) Secure a nut (6N10x1.5UO) from the back of cleaning tub holding connector YU
- (30) Apply NEJILOCK around thread of screw on nut (6N10x1.5UO) holding connector YU



- (31) After visual inspection of the packing, insertion shall be from the screw part of connector T unit and inserted into the stipulated holes of cleaning tub
- (32) Secure a nut (6N24x2.0UO) to hold connector T unit from the back of the cleaning tub
- (33) Apply NEJILOCK around nut (6N10x1.5UO) holding connect T unit
- (34) After visual inspection of packing, insert packing from screw side of circulation port block unit into cleaning tub at the location shown in the figure
- (35) Secure a nut (6N24x3UO) to hold circulation block from back of cleaning tub
- (36) Apply NEJILOCK around thread of screw section on nut (6N24x3UO) holding circulation block unit



- (37) After visual inspection of packing, insert packing through thread of screw side of tub fluid level sensor 2 and insert into designated holes of cleaning tub
- (38) Secure nut (6N24x2.0UO) to hold tub fluid level sensor 2 from the back of the cleaning tub
- (39) Apply NEJILOCK around head of screw section on nut (6N24x2.0UO) holding tub fluid level sensor 2
- (40) Insert H BAND 12S into Y BRANCH UNIT
- (41) Assemble Y RANCH UNIT with JOINT. Secure H BAND.
- (42) Secure H BAND tightly.
- (43) Insert supply/circulation hoses in H band 23S and then connect quick lock 15
Torque: 2.8 plus or minus 0.1 Nm
- (44) Insert supply/circulation hose in H band 23S and connect supply/circulation nozzle
Torque: 2.8 plus or minus 0.1 Nm
- (45) After visual inspection of O ring 2, attach o ring 2 to groove of quick fastener 15



(46) Insert DRAIN PORT U from backside of tub.

(47) Insert the packing (PACKING 28x38) into screw of DRAIN PORT U.

(48) Apply just a drop of glue on screw of DRAIN PORT, secure the nut with spanner (38mm).

Note: Tighten the nut so that the packing is compressed out uniformly.

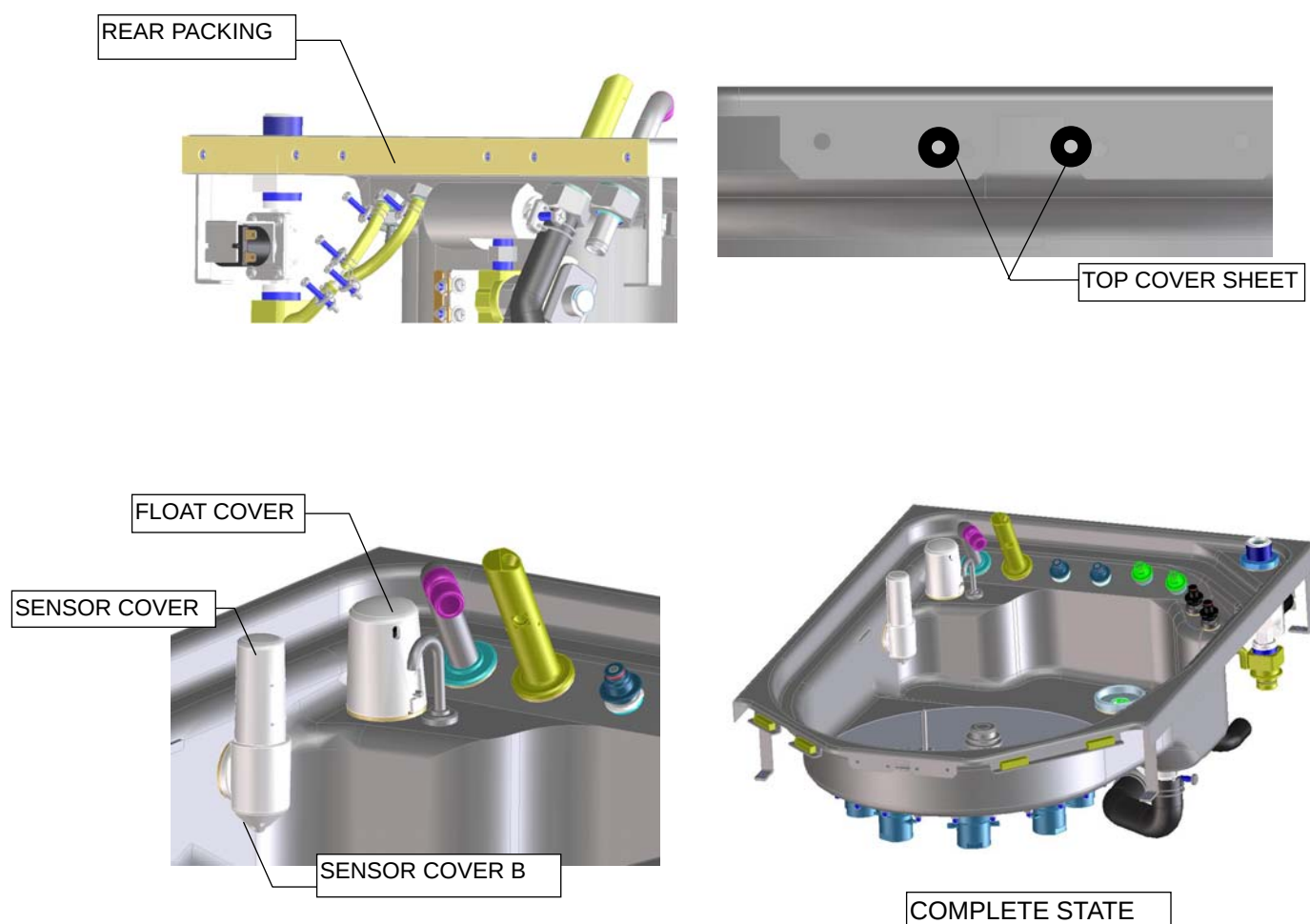
Note: Use the spanner as shown below.



(49) Put EMI GASKET as shown.

(50) Wipe with ethanol to the location of POLARITY SEAL

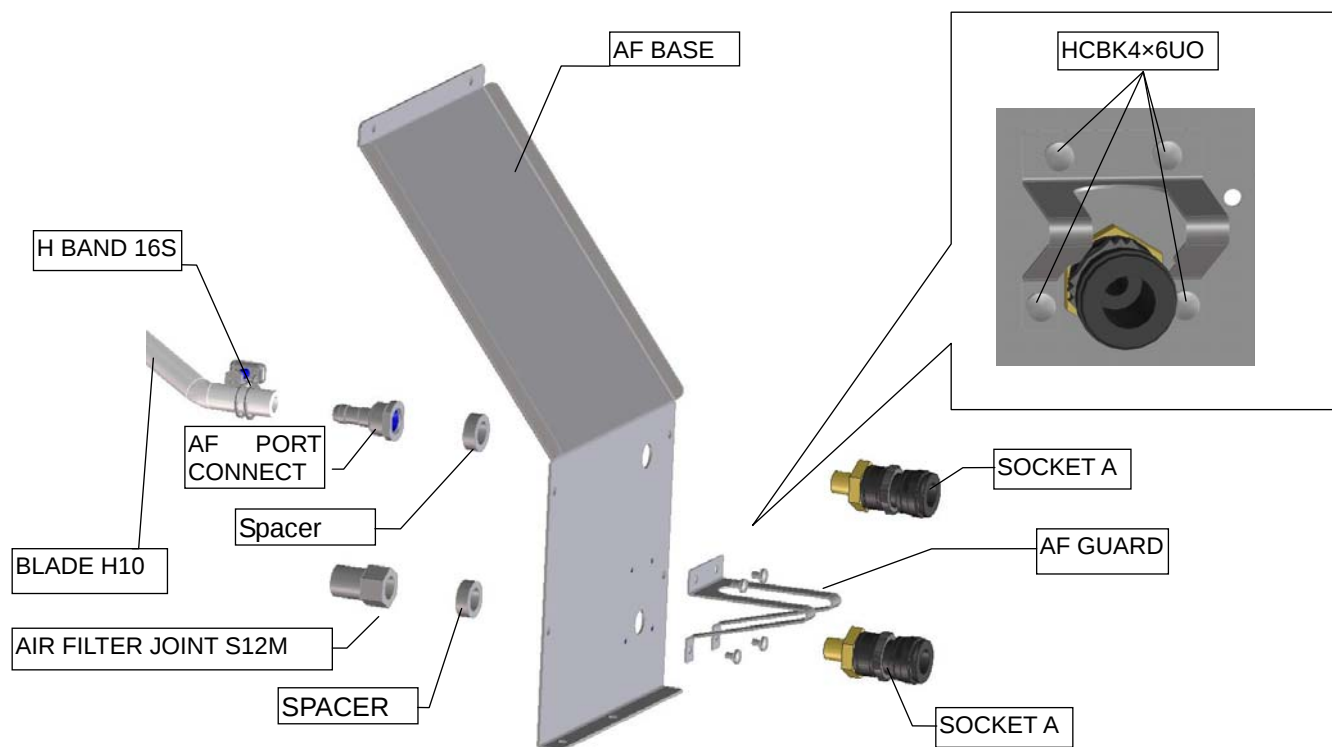
(51) Put POLARITY SEAL as shown.



- (52) Wipe out the position for attaching rear panel packing on back of cleaning tub by using ethanol
- (53) Remove plastic sheet on both sides of rear panel packing and then attach to cleaning tub
- (54) Align top cover sheet with the screw holes on the front of the cleaning tub and then attach
- (55) Assemble a float cover to float switch, a sensor cover A to electrode sensor and sensor cover B to electrode sensor and then ensure that each of these covers is able to remove and assemble

3-3-12 Air filter socket

Required Tools: No.2 Phillips screwdriver, Scale, Cutter, Socket stopper jig (JA3150), Adjustable wrench



- (1) Insert socket A in AF base while holding socket A, connect spacer and air filter joint S12M
- (2) Insert socket A in AF base while holding socket A, connect spacer and AF port connector
- (3) Secure screws to hold AF guard

Torque: 1.274 plus or minus 0.098 Nm

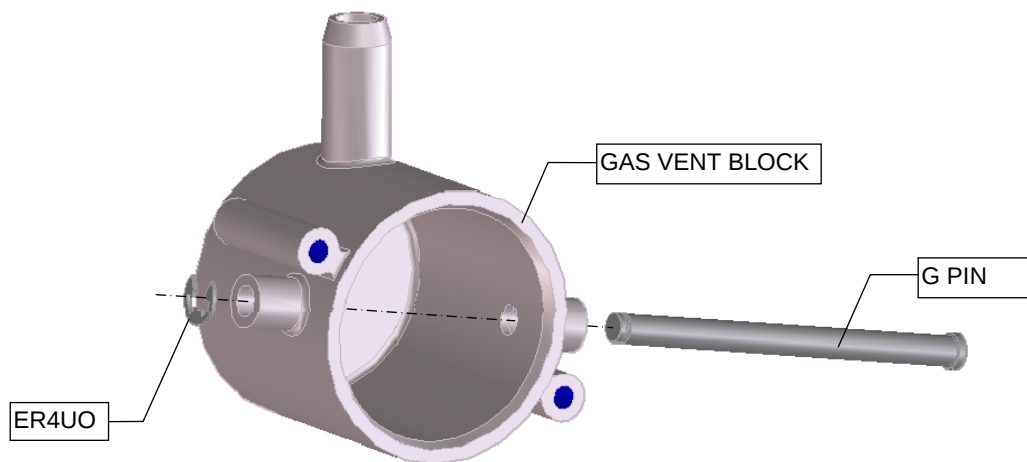
- (4) Cut AF hose to designated length and connect AF hose into the H band

Designated length: 650 plus or minus 5 mm

Torque: 2.8 plus or minus 0.1 Nm

3-3-13 Gas vent unit

Required Tools: No.2 Phillips screwdriver, Ethanol, Cleaning paper, Tweezers



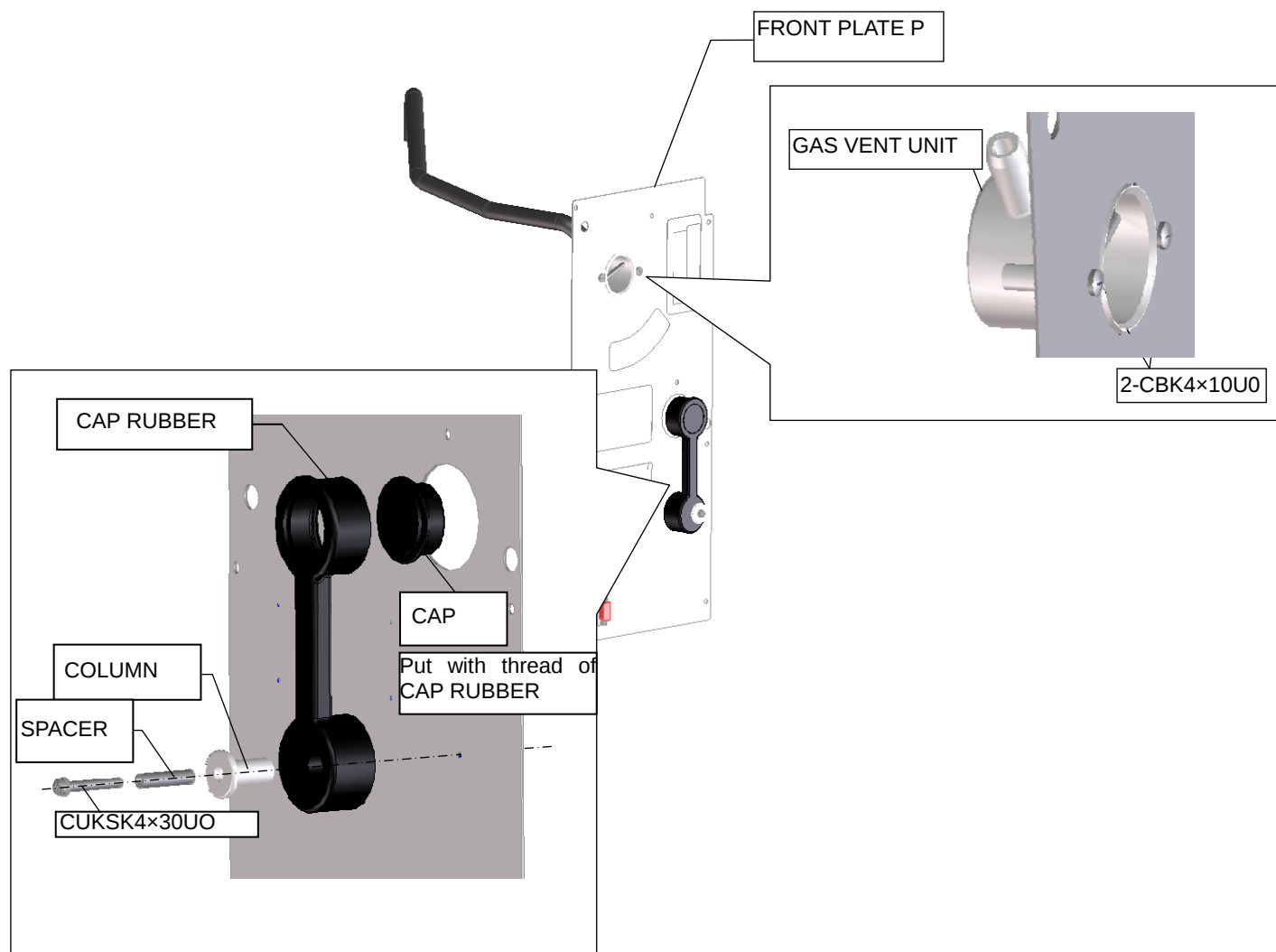
- (1) Clean GAS VENT UNIT by using ethanol
- (2) Insert G PIN in GAS VENT BLOCK and connect E RING

Note

- Ensure that a click sound after pushing E RING all the way
- Ensure that E RING is not able to pull by using tweezers
- Ensure that E RING is able to rotate by using tweezers
- An E ring that has once been detached should not be reused

3-3-14 Front plate unit

Required Tools: No.2 Phillips screwdriver, Bonding glue (white), Cleaning paper, Ethanol, Scale, Cutter



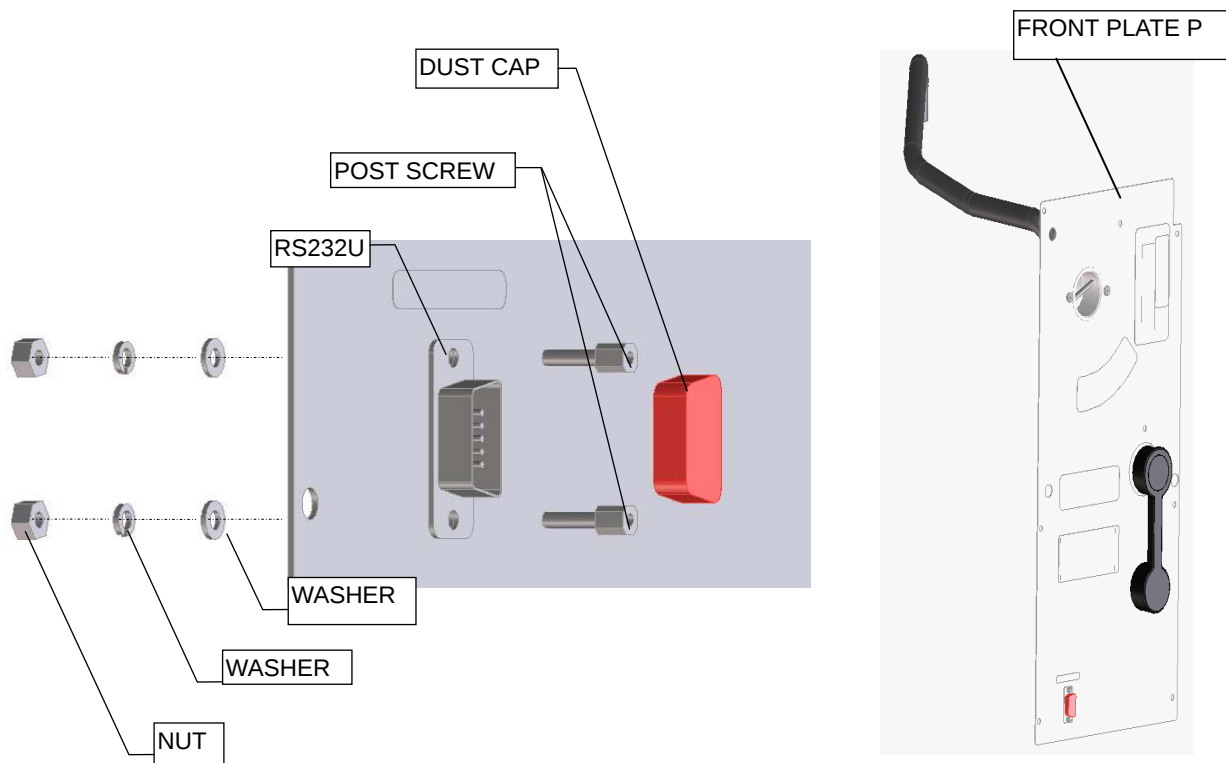
- (1) Insert a spacer in COLUMN and secure to FRONT PLATE P

Torque: 1.274 plus or minus 0.098 Nm

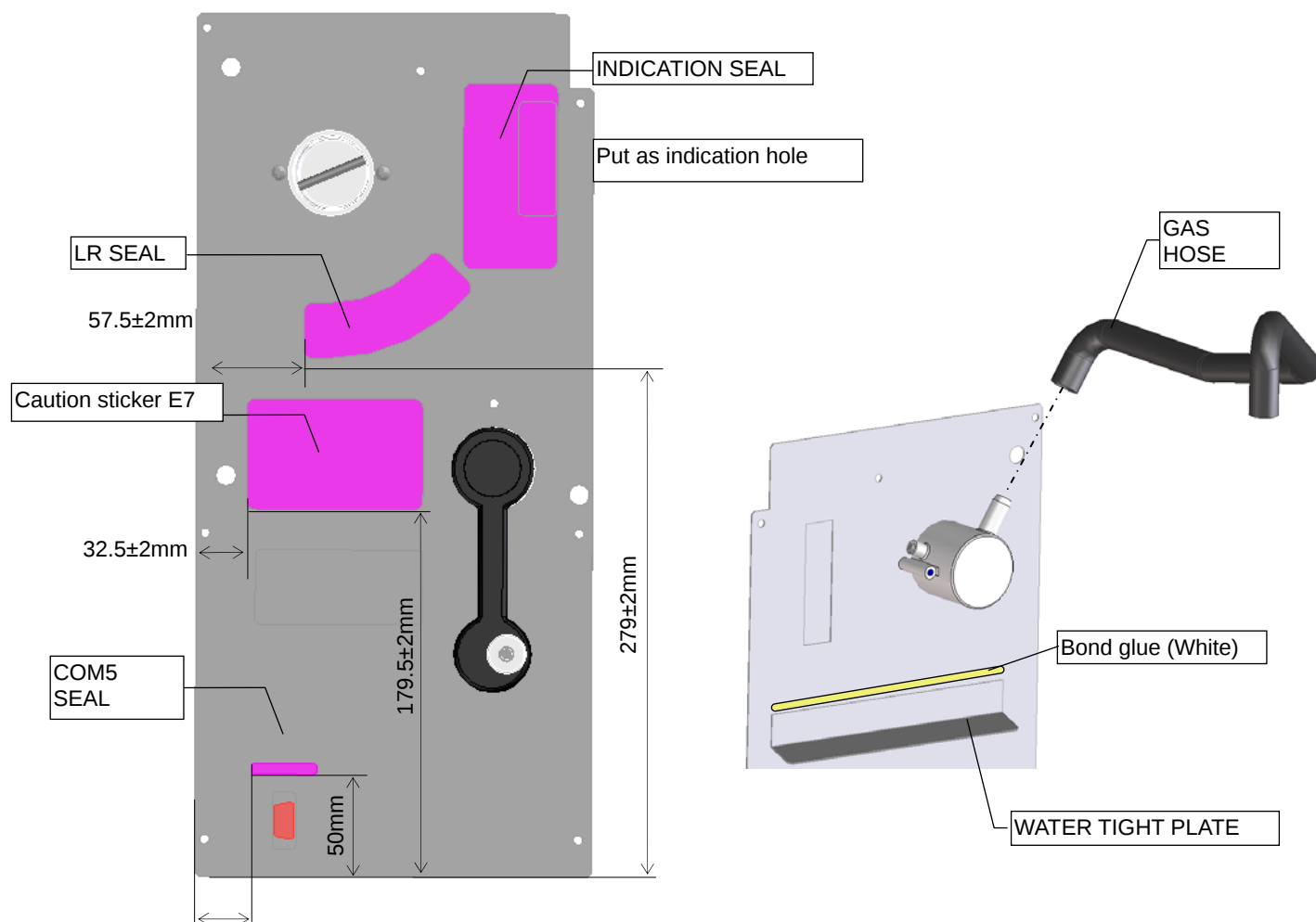
- (2) Insert a CAP in CAP RUBBER and secure to COLUMN

- (3) Secure two screws (CBK4x10U0) with GAS VENT UNIT.

Torque: 0.686 plus or minus 0.098 Nm



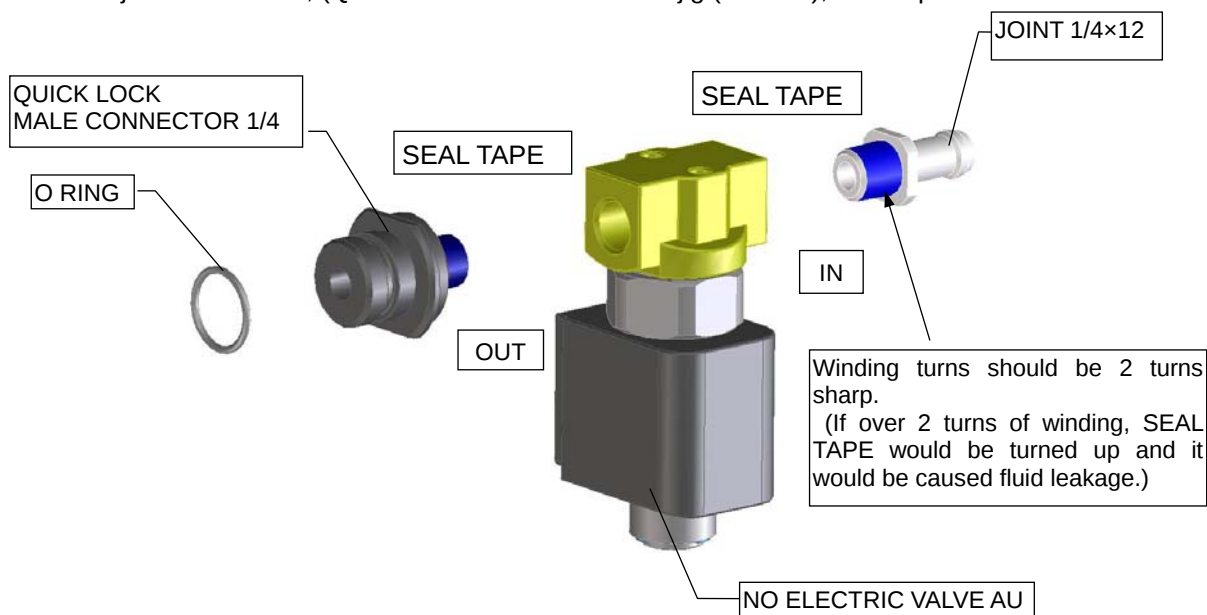
- (4) Insert RS232U and secure POST SCREW tightly by hand and apply NEJILOCK
- (5) Connect DUST CAP onto RS232C CONNECTOR



- (6) Apply bonding glue (white) around upper part of WATER TIGHT PLATE
- (7) Clean the surface of FRONT PLATE (vicinity of INDICATOR, places for attaching labels) by using ethanol
- (8) Attach INDICATOR SEAL, COM 5 LABEL, LR SEAL and Caution STICKER E7 in the position shown in the above figure
- (9) Assemble GAS HOSE to GAS VENT UNIT

3-3-15 Bypass valve unit

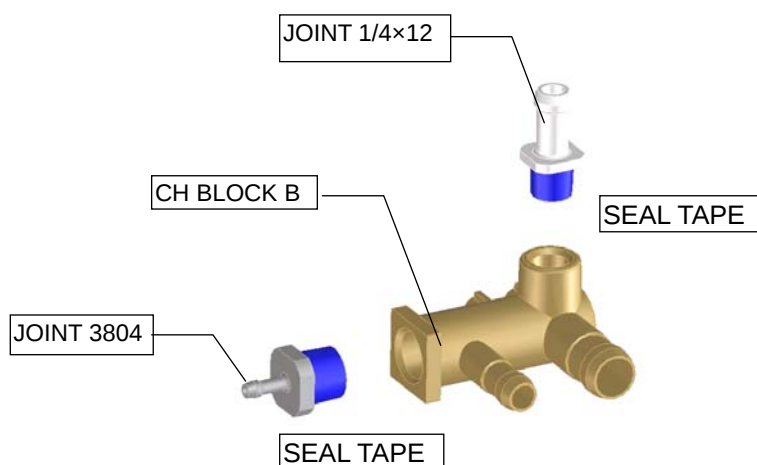
Required tools: Adjustable wrench, (Quick lock connector wrench jig (JA8798), Seal tape



- (1) After visual inspection of 1/4 QUICK LOCK CONNECTOR, wind SEAL TAPE around 1/4 QUICK LOCK CONNECTOR
- (2) Connect 1/4 QUICK LOCK CONNECTOR to NO ELECTRIC VALVE AU (OUT side)
Torque: 2.94 plus or minus 0.098 Nm
- (3) Wind SEAL TAPE twice around JOINT 1/4x12 and then connect to NO ELECTRIC VALVE AU (IN side)
Torque: 2.94 plus or minus 0.098 Nm
- (4) Insert O RING in QUICK LOCK CONNECTOR

3-3-16 CH block B unit

Required tools: Seal tape, Adjustable wrench, (quick lock connector wrench (JA8798))



- (1) Wind SEAL TAPE around screw part of JOINT 3804 and then connect CH BLOCK B
Torque: 2.94 plus or minus 0.098 Nm
- (2) Wind SEAL TAPE around JOINT 1/4x12 and connect CH BLOCK B
Torque: 2.94 plus or minus 0.098 Nm

The diagram illustrates the assembly of the valve, showing the installation of the collection block and the bypass port. The main components are labeled as follows:

- CUKSK4×10UO**: Four screws used to secure the collection block and bypass port.
- MALE Q PORT**: The port on the left side of the valve body.
- PACKING**: Two O-rings used for sealing the ports.
- BY-PASS PORT**: The port on the right side of the valve body.
- COLLECTION BLOCK**: The component being installed on the left side of the valve.

The diagram shows the collection block being installed on the left side of the valve, and the bypass port being installed on the right side. The collection block is secured with four screws (CUKSK4×10UO) and the bypass port is secured with four screws (CUKSK4×10UO). The ports are sealed with packing (O-rings).

Port

Insert it on condition that the LIB should be port side.

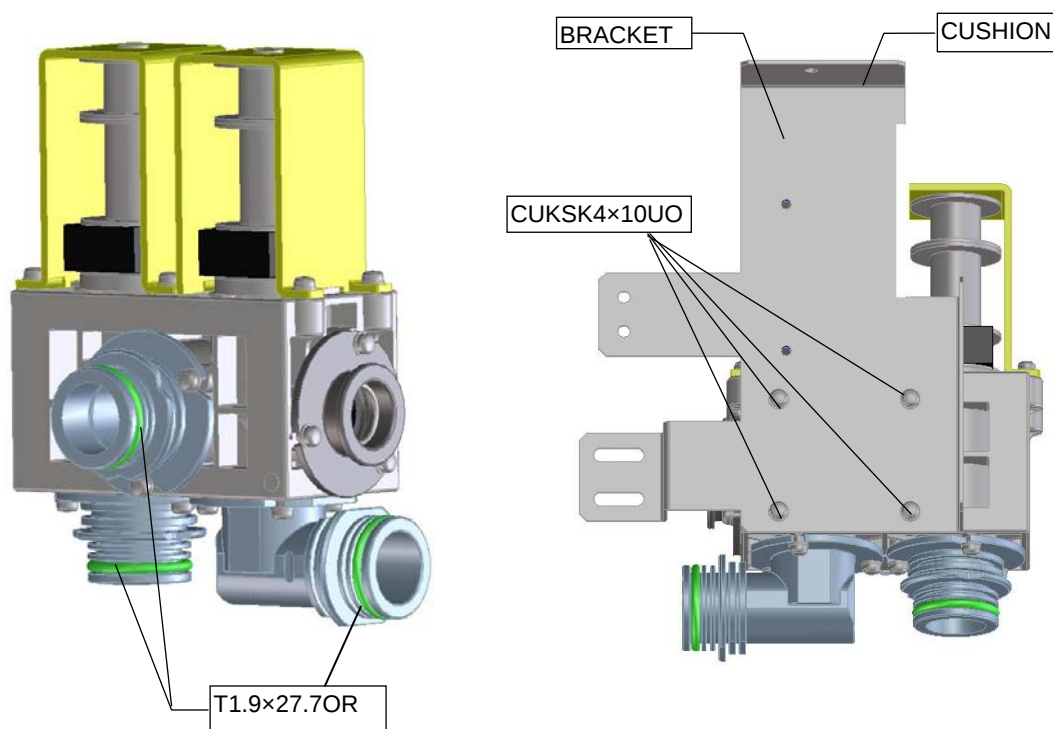
- (1) After visual inspection of PACKING to ensure that there is no dust or grime and then insert all the way in 4 holes of ELECTRIC VALVE K UNIT as shown in the above figure
- (2) Connect Male Q PORT to ELECTRIC VALVE K UNIT at the position shown in the above figure and then secure by using 3 screws (CUKSK4x10UO)

Torque: 0.686 plus or minus 0.098 Nm
- (3) Apply NEJILOCK around the head of screws
- (4) Connect BYPASS PORT and RETRIEVAL BLOCK in the position shown in the above figure and then secure by using 3 screws (CUKSK4x10UO)

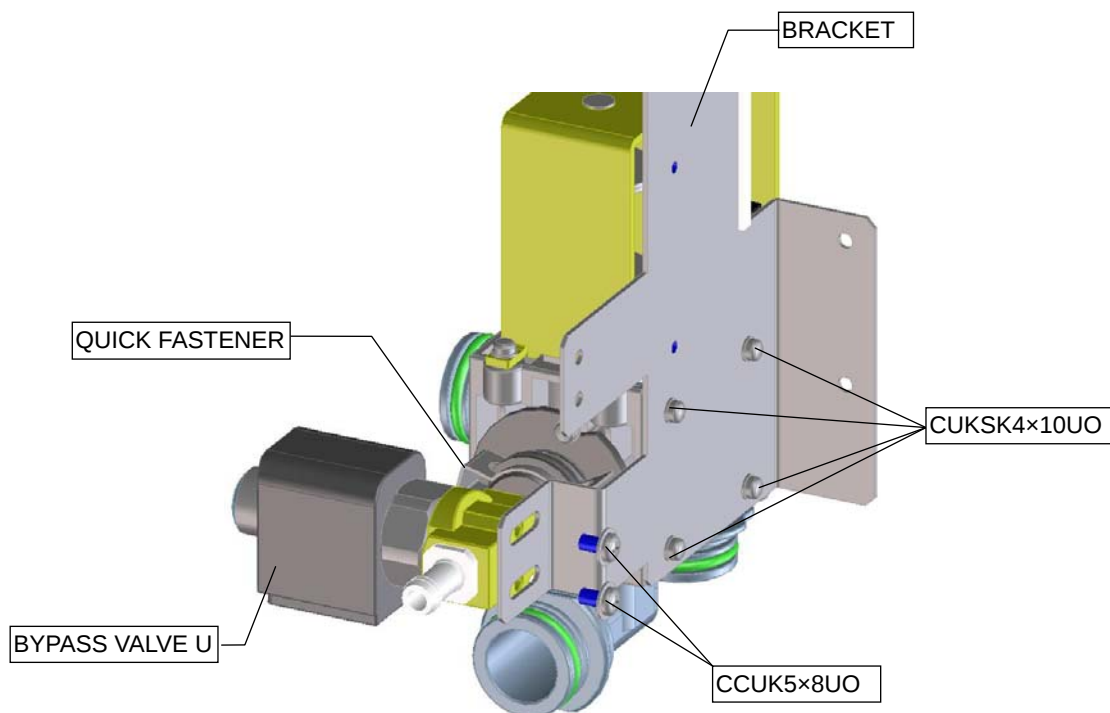
Torque: 0.686 plus or minus 0.098 Nm
- (5) Apply NEJILOCK around the head of screws

Torque: 0.686 plus or minus 0.098 Nm

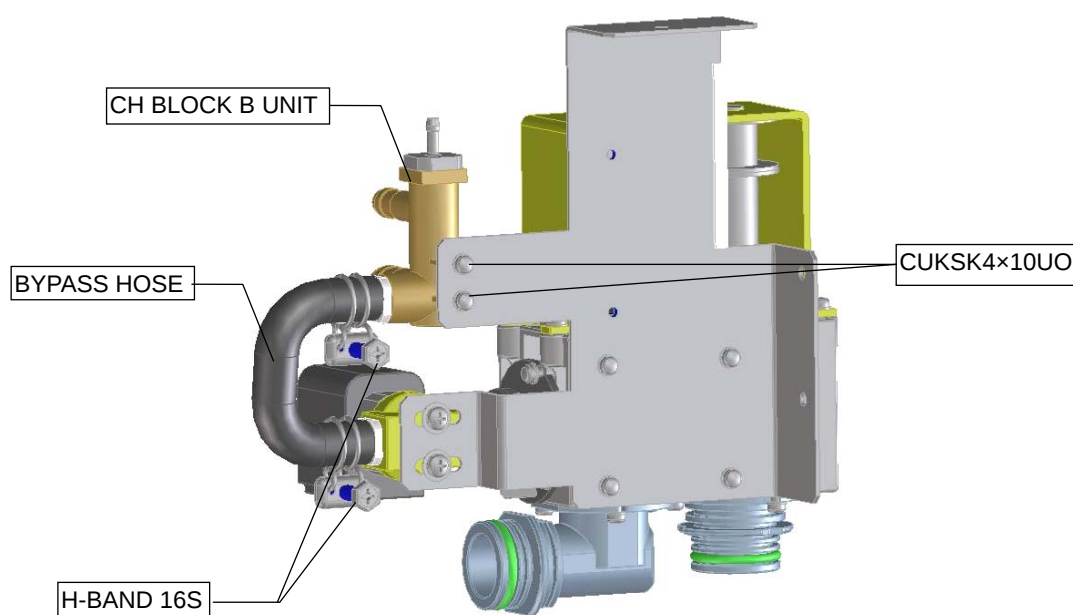
Torque: 0.686 plus or minus 0.098 Nm



- (6) After visual inspection of the O ring, connect O RING to 3 grooves in MALE Q PORT and RETRIEVAL BLOCK UNIT
- (7) Cut CUSHION at the designated length, apply SONY BOND as a drop at the inside of CUSHION and then attach in the position shown in the above figure
Designated length: 70 plus or minus 5 mm
- (8) Secure BRACKET to ELECTRIC VALVE K UNIT as a temporary by using screws



- (9) Apply ethanol around BYPASS VALVE UNIT and O RING of QUICK CONNECTOR and then insert into BYPASS PORT
- (10) Connect QUICK FASTENER straddling QUICK PORT CONNECTOR of BYPASS PORT and BYPASS VALVE UNIT
- (11) Secure BYPASS VALVE UNIT onto BRACKET as a temporary
- (12) Align BRACKET and ELECTRIC VALVE K UNIT in parallel and then secure screws tightly
Torque: 1.274 plus or minus 0.098 Nm
- (13) Apply NEJILOCK around the head of screws
- (14) Secure screws that had secured BYPASS VALVE UNIT as a temporary tightly
- (15) Apply NEJILOCK around the head of screws
- (16) Secure CH BLOCK B UNIT to BRACKET with 2 screws (CUKSK4x10UO)
Torque: 0.686 plus or minus 0.098 Nm



(17) Secure CH BLOCK B UNIT to BRACKET with 2 screws (CUKSK4x10UO)

Torque: 0.686 plus or minus 0.098 Nm

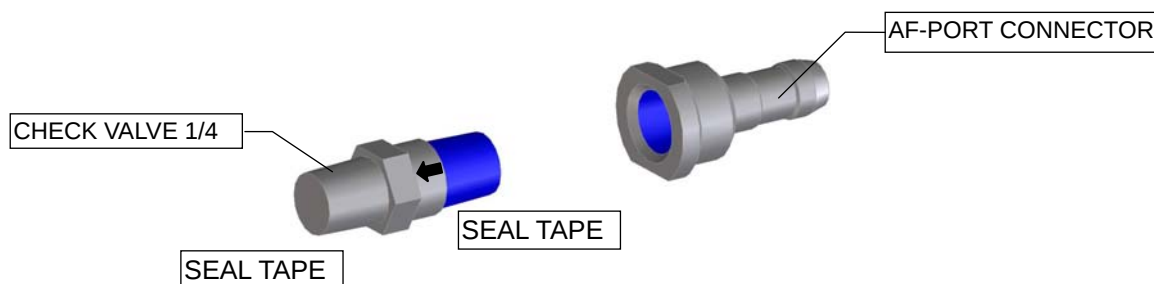
(18) Apply NEJILOCK around the head of screws

(19) Inset H BAND at 2 places on BYPASS HOSE and at the joint of CH BLOCK B UNIT and BYPASS VALVE, and then secure H BAND tightly

Torque: 2.8 plus or minus 0.1 Nm

3-3-18 Hose joint 1 unit

Required tools: Seal tape, AF connector wrench (JB4363), Torque wrench, Ethanol

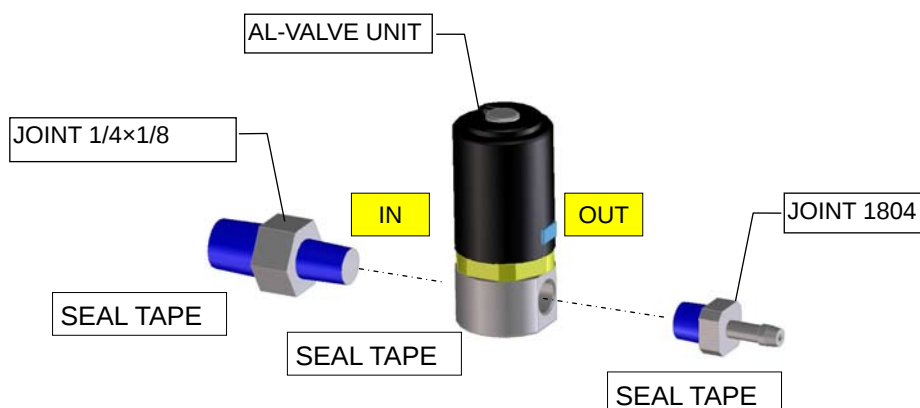


- (1) Set the jig for AF PORT CONNECTOR
- (2) Wind SEAL TAPE around CHECK VALVE 1/4 (both sides) and then connect AF PORT CONNECTOR
Torque force: $2.94 \pm 0.098 \text{ Nm}$
- (3) Remove the jig for AF PORT CONNECTOR

Note: Before winding the sealing tape, clean the threads of screw with ethanol.

3-3-19 Hose joint 2 unit

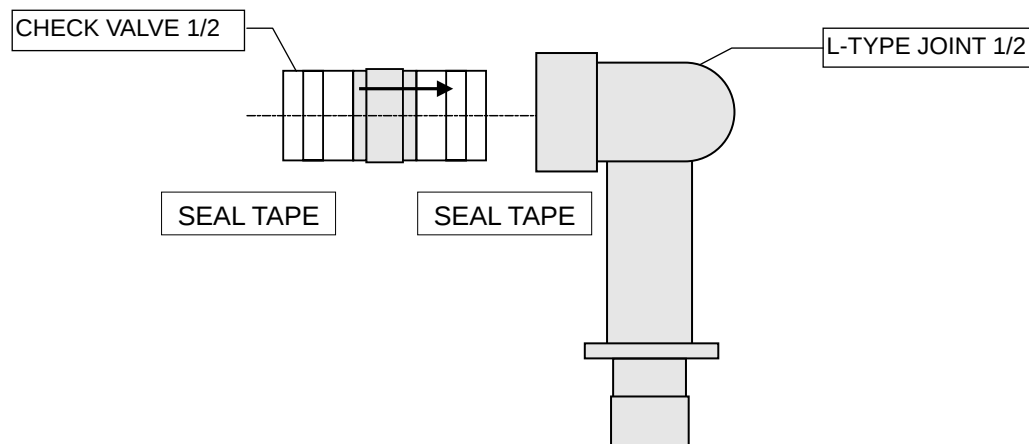
Required tools: Seal tape, Ethanol



- (1) Wind SEAL TAPE around JOINT 1804 and then connect to OUT side of AL VALVE UNIT
 - (2) Wind SEAL TAPE around JOINT 1/4x1/8 (both sides) and then connect to IN side of AL VALVE UNIT
- Note: Before winding the sealing tape, clean the threads of screw with ethanol.

3-3-20 Hose joint 3 unit

Required tools: Seal tape, Torque wrench, Ethanol



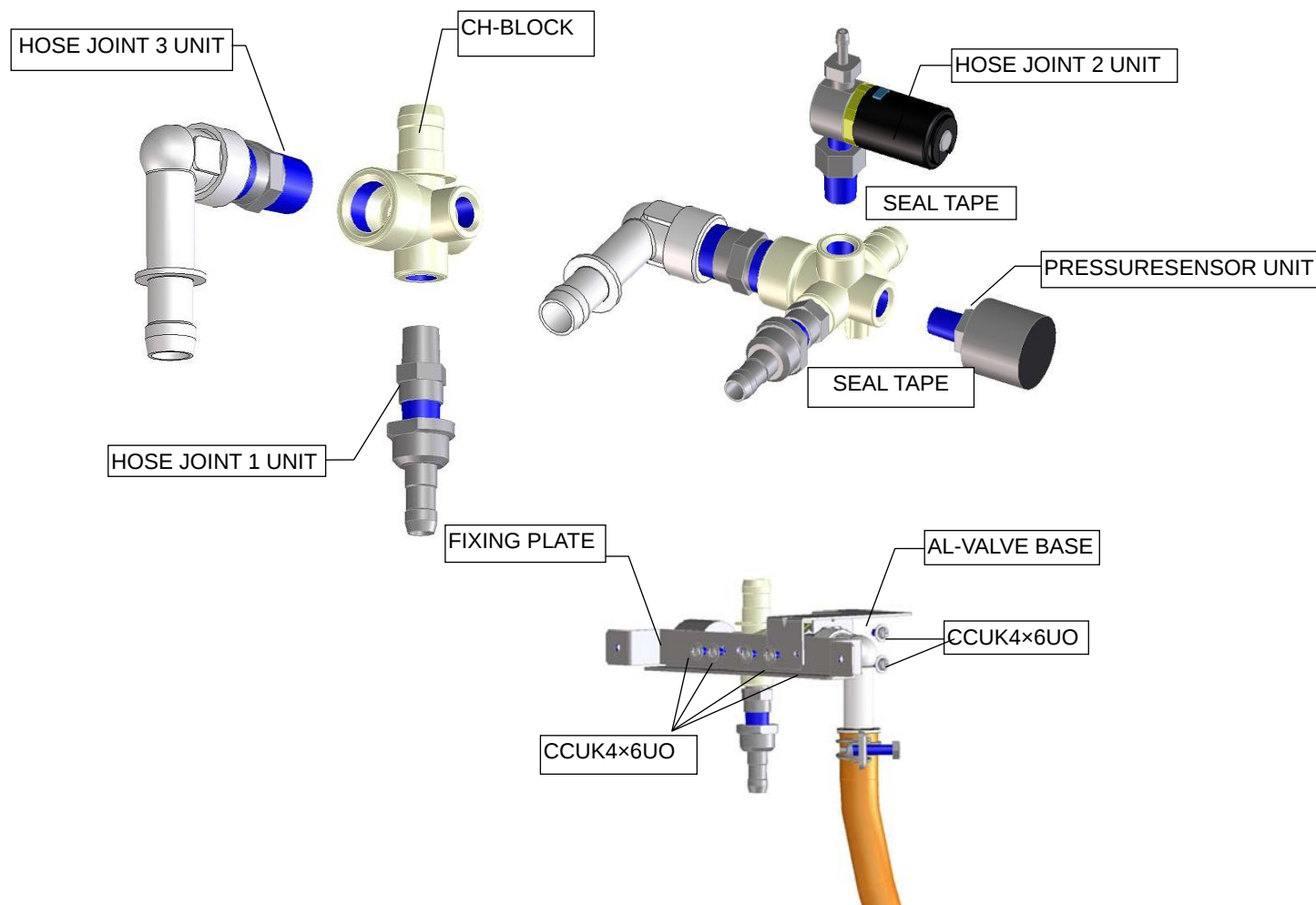
- (1) Wind SEAL TAPE around HOSE JOINT 3 and then connect L TYPE JOINT 1/2

Note: Before winding the sealing tape, clean the threads of screw with ethanol.

Torque force: $2.94 \pm 0.098 \text{ Nm}$

3-3-21 CH block CU

Required tools: NEJILOCK, Seal tape, Scale, Cutter, SE9186, Torque screwdriver, Torque screwdriver bit (No. 2)



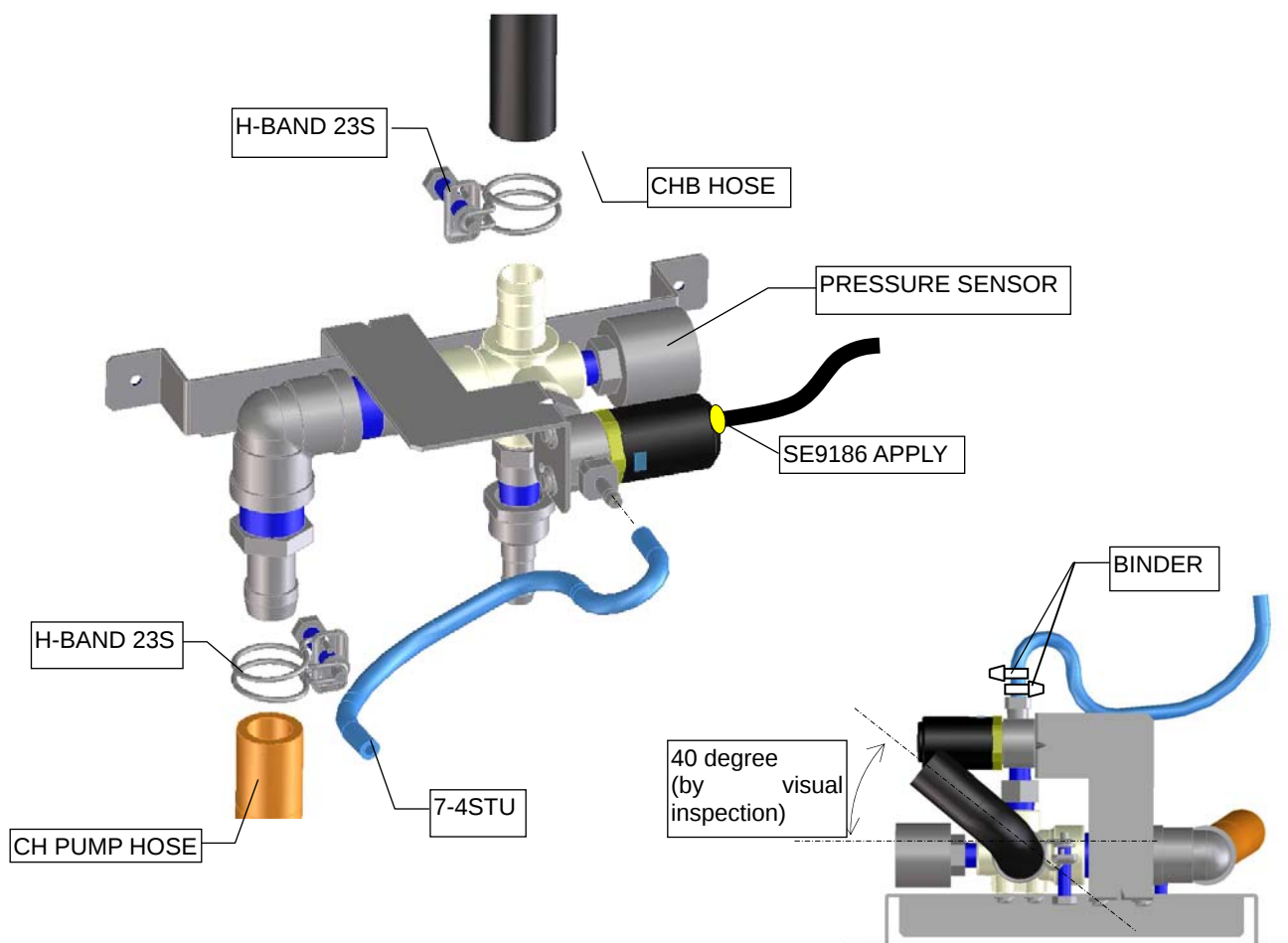
- (1) Connect HOSE JOINT 1 UNIT and HOSE JOINT 3 UNIT to CH BLOCK in the position shown in the above figure

Torque force: 2.94 plus or minus 0.98 Nm

- (2) Wind SEAL TAPE around HOSE JOINT 2 UNIT and the screw section of PRESSURE SENSOR UNIT and then connect to CH BLOCK

Torque force: 2.94 plus or minus 0.98 Nm

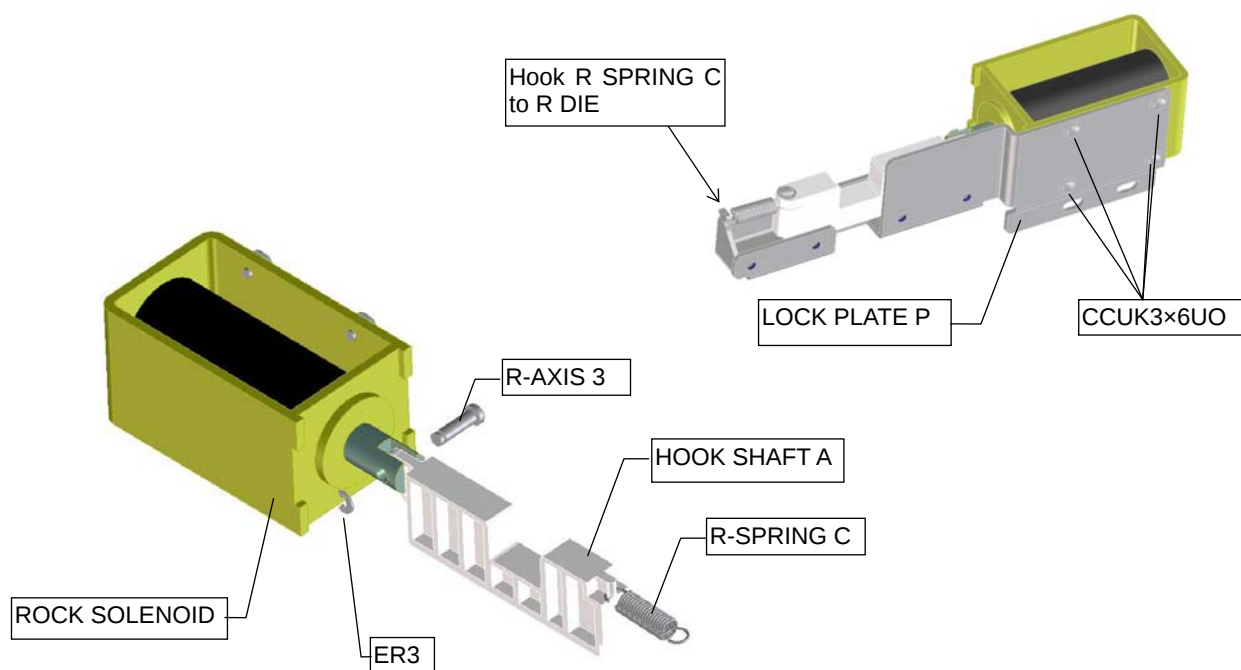
- (3) Connect FIXING PLATE to CH BLOCK
 (4) Apply NEJILOCK around the head of screw
 (5) Connect AL VALVE BASE to AL VALVE UNIT and FIXING PLATE
 (6) Apply NEJILOCK around the head of screw



- (7) Connect CHB HOSE to designated location of CH BLOCK and then secure H BAND
Torque: 1.274 plus or minus 0.098 Nm
- (8) Cut CH PUMP HOSE and insert H BAND. Assemble to CH BLOCK and secure H BAND as shown
Designated length: 175±2mm
- (9) Assemble CH PUMP HOSE with JOINT, Secure H BAND.
Torque: 2.8 plus or minus 0.1 Nm
- (10) Inset H BAND to CH PUMP HOSE, assemble to CH BLOCK and secure H BAND as shown
Torque: 2.8 plus or minus 0.1 Nm
- (11) Secure H BAND tightly
- (12) Apply SE9186 around the vicinity of the entry and exit of the circumference for the cord of PRESSURE SENSOR
- (13) Cut 7-4STU to the designated length and then secure by using JOINT assembly BINDER of AL VALVE UNIT
Designated length: 200mm

3-3-22 Lock solenoid unit

Required tools: NEJILOCK, Torque screwdriver, Torque screwdriver bit (No. 2)



- (1) Insert R SPRING C into the cutaway part of HOOK SHAFT A
- (2) Insert HOOK SHAFT A between the axis of LOCK SOLENOID UNIT and then secure E RING through R AXIS 3

Note:

- Ensure that there is a clicking sound while pushing E RING all the way in
- Ensure that even when E RING is pulled by using tweezers, E RING will not dislodge
- Ensure that E RING will rotate when rotated by using tweezers
- An E RING that has once been detached should not be reused.

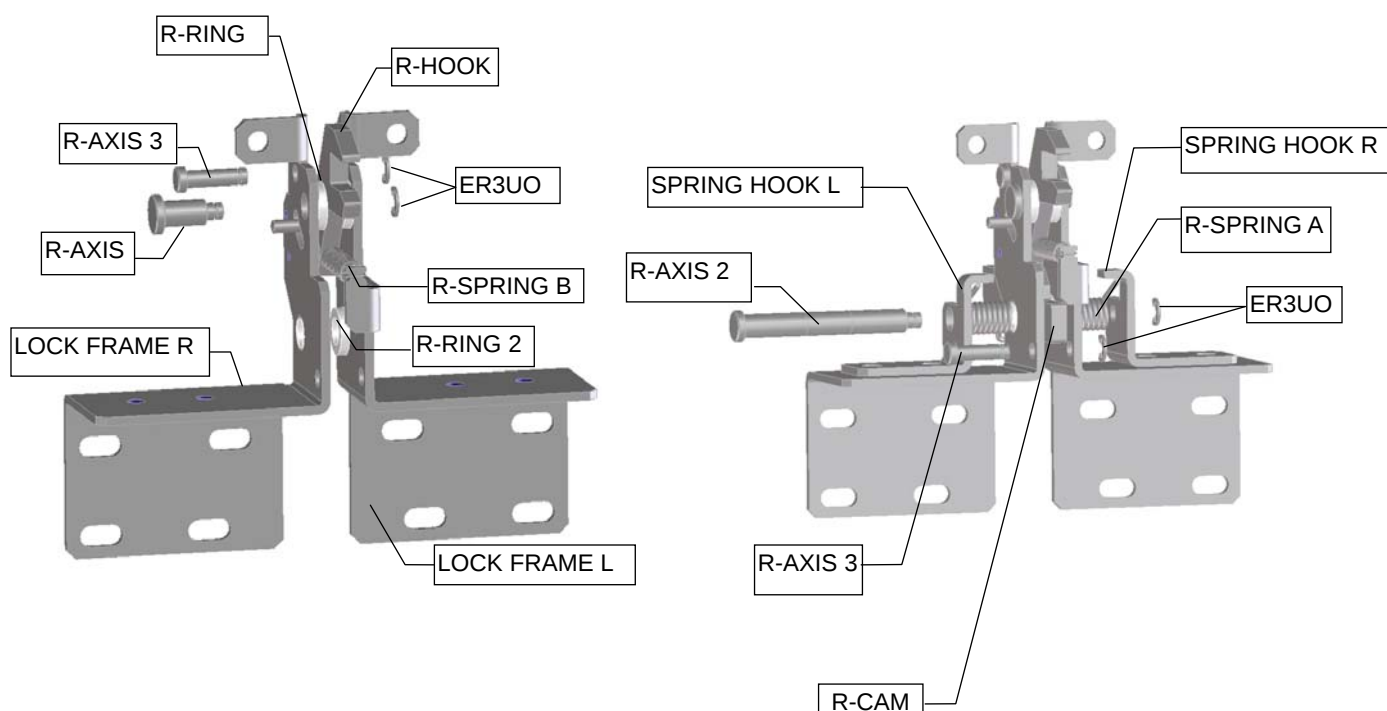
- (3) Align the holes so that LOCK PLATE P and ROCK SOLENOID are parallel and then secure with 4 screws (CCUK3x6UO)

Torque: 1.274 plus or minus 0.098 Nm

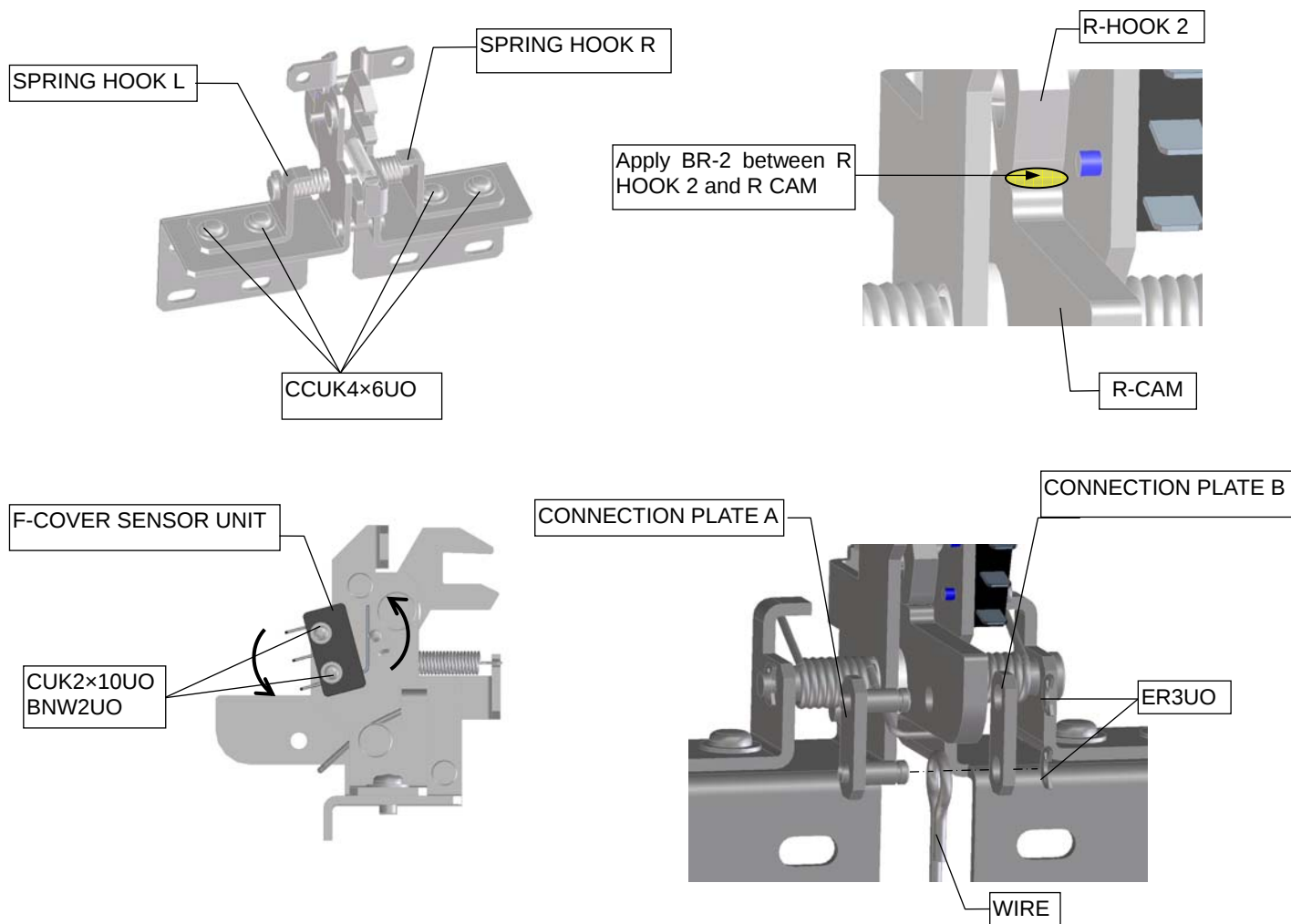
- (4) Apply NEJILOCK around the head of screw
- (5) Hook R SPRING C on LOCK PLATE P
- (6) Ensure that HOOK SHAFT A moves smoothly by SPRING force when HOOK SHAFT A shaft A moves

3-3-23 Lock unit

Required tools: NEJILOCK, Torque screwdriver, Torque screwdriver bit (No. 2), BR-2



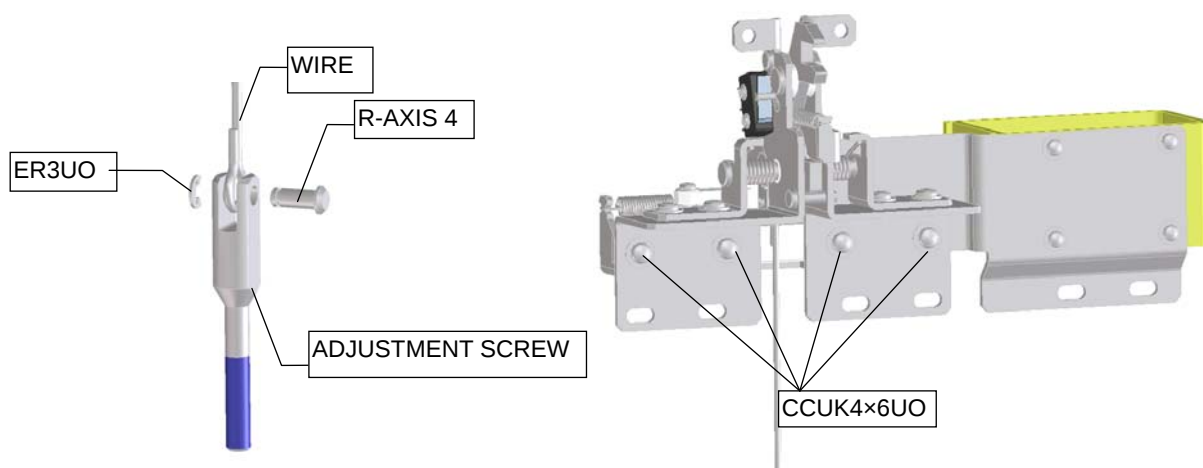
- (1) Insert R RING 2 into LOCK FRAME R
 - (2) Insert R AXIS into LOCK FRAME R and then insert R RING into R AXIS
 - (3) Hook R SPRING B onto the hole of LOCK HOOK and then insert from R AXIS
 - (4) Insert R RING through R AXIS
 - (5) Insert R RING 2 in the hole of LOCK FRAME L and insert through R AXIS and then secure by using a washer (ER3UO)
- Note:
- Ensure that there is a clicking sound while pushing E RING all the way in
 - Ensure that even when E RING is pulled by using tweezers, E RING will not dislodge
 - Ensure that E RING will rotate when rotated by using tweezers
 - An E RING that has once been detached should not be reused.
- (6) Hook R SPRING B on LOCK FRAME L
 - (7) Insert R AXIS 3 through LOCK FRAME R to L and then secure by using a washer (ER3UO)
 - (8) Apply BR-2 around R AXIS 2 and then insert SPRING HOOK L on R AXIS 2 and then insert into R SPRING A
 - (9) Straddle R CAM into LOCK FRAME R to L between R RING 2 that has been inserted into lock frame R to L, and then insert R SPRING A through SPRING HOOK R
 - (10) Secure R AXIS 2 with a washer (ER3UO)
 - (11) Insert R AXIS 3 from LOCK FRAME R to L and then secure with a washer (ER3UO)



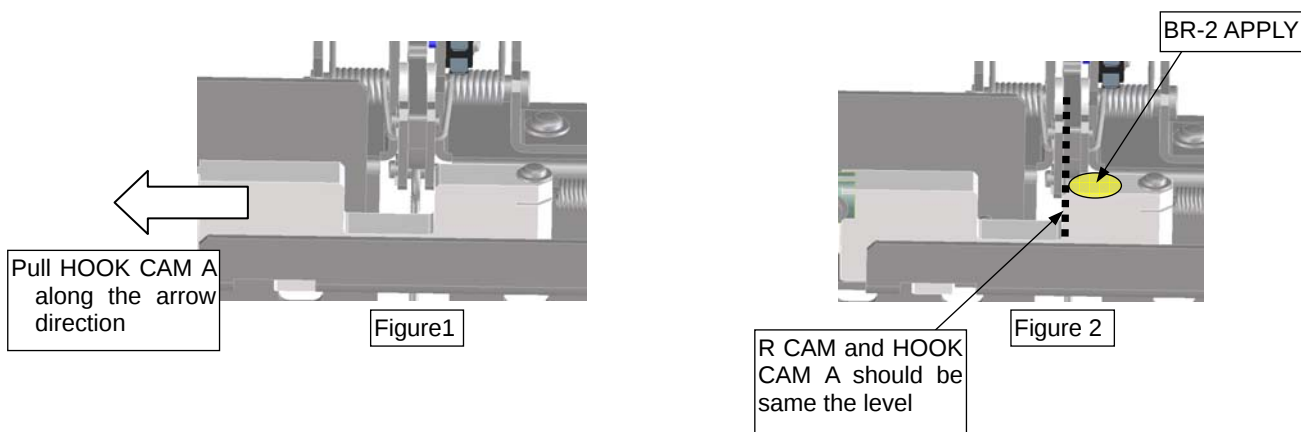
- (12) Hook R SPRING A to SPRING HOOK R and L on both sides and then secure by using 4 screws (CCUK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm

- (13) Apply NEJILOCK around the head of screws
- (14) Secure two screws (CUK2x10UO) and two washer (BNW2UO) to F-COVE SENSOR UNIT with LOCK FRAME
- (15) After screw secured, apply NEJILOCK with screw head.
- (16) Insert CONNECTION PLATE A and the pin on one side into the hole on R CAM and hook a wire rope to one of the PINs
- (17) Insert the PIN of CONNECTION PLATE A into the hole of CONNECTION PLATE B and then secure by using 2 washers (ER3UO)



Align R CAM and HOOK CAM A in parallel in the figure 2 when HOOK CAM A is pulled along the arrow direction and then secure LOCK UNIT



(18) Insert R AXIS 4 in the holes for WIRE and ADJUSTMENT SCREW and then secure by using ER3

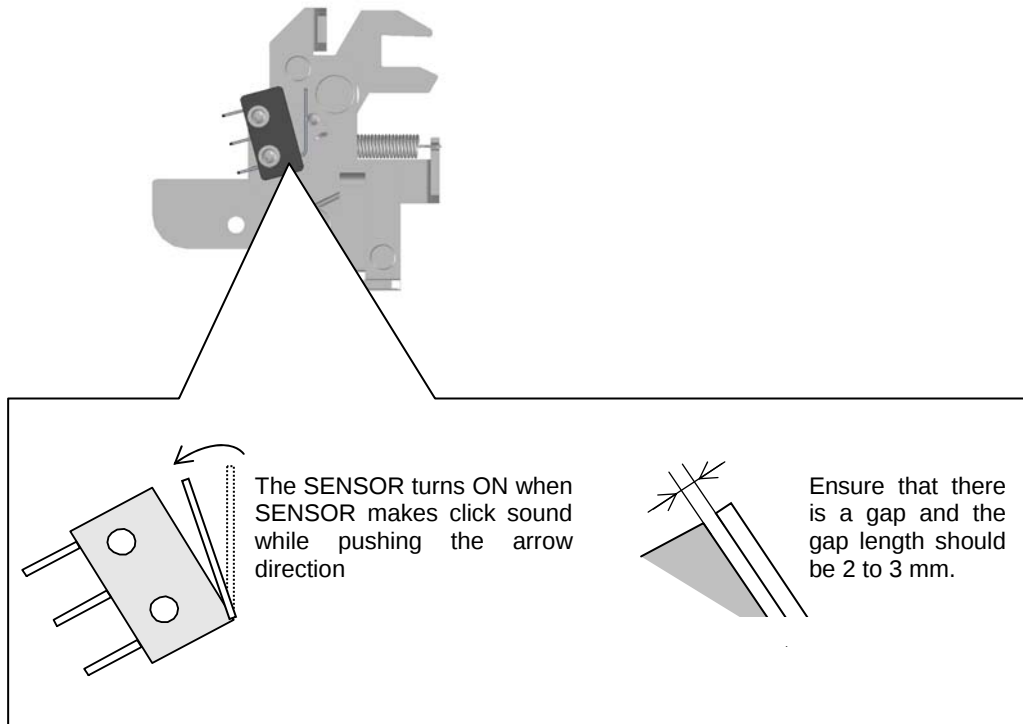
(19) Align the screw holes of LOCK FRAME R, L and LOCK UNIT and then secure with 4 screws (CCUK4x6UO) as a temporary

(20) Align R CAM is same level when HOOK CAM A operates and then secure screws tightly

Torque: 1.274 plus or minus 0.098 Nm

(21) Apply NEJILOCK around the head of screws

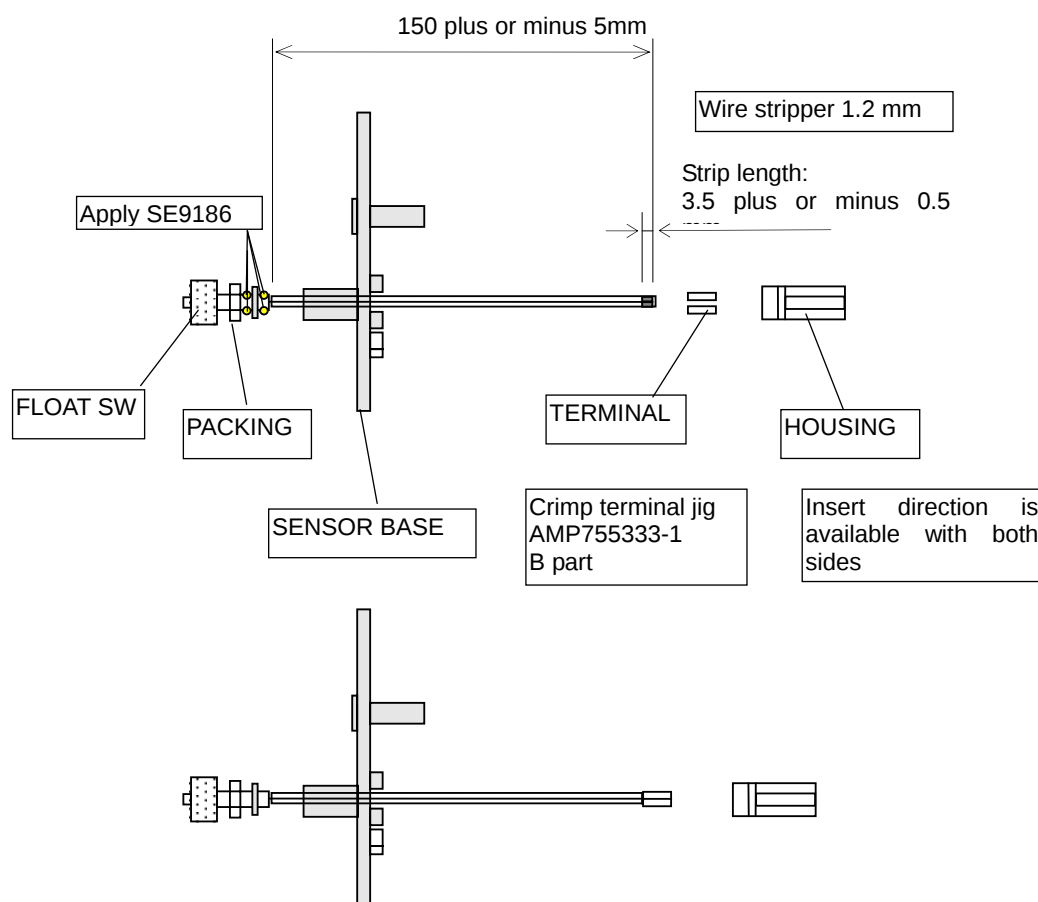
(22) Apply BR-2 at the designated position of HOOK SHAFT A and then rotate



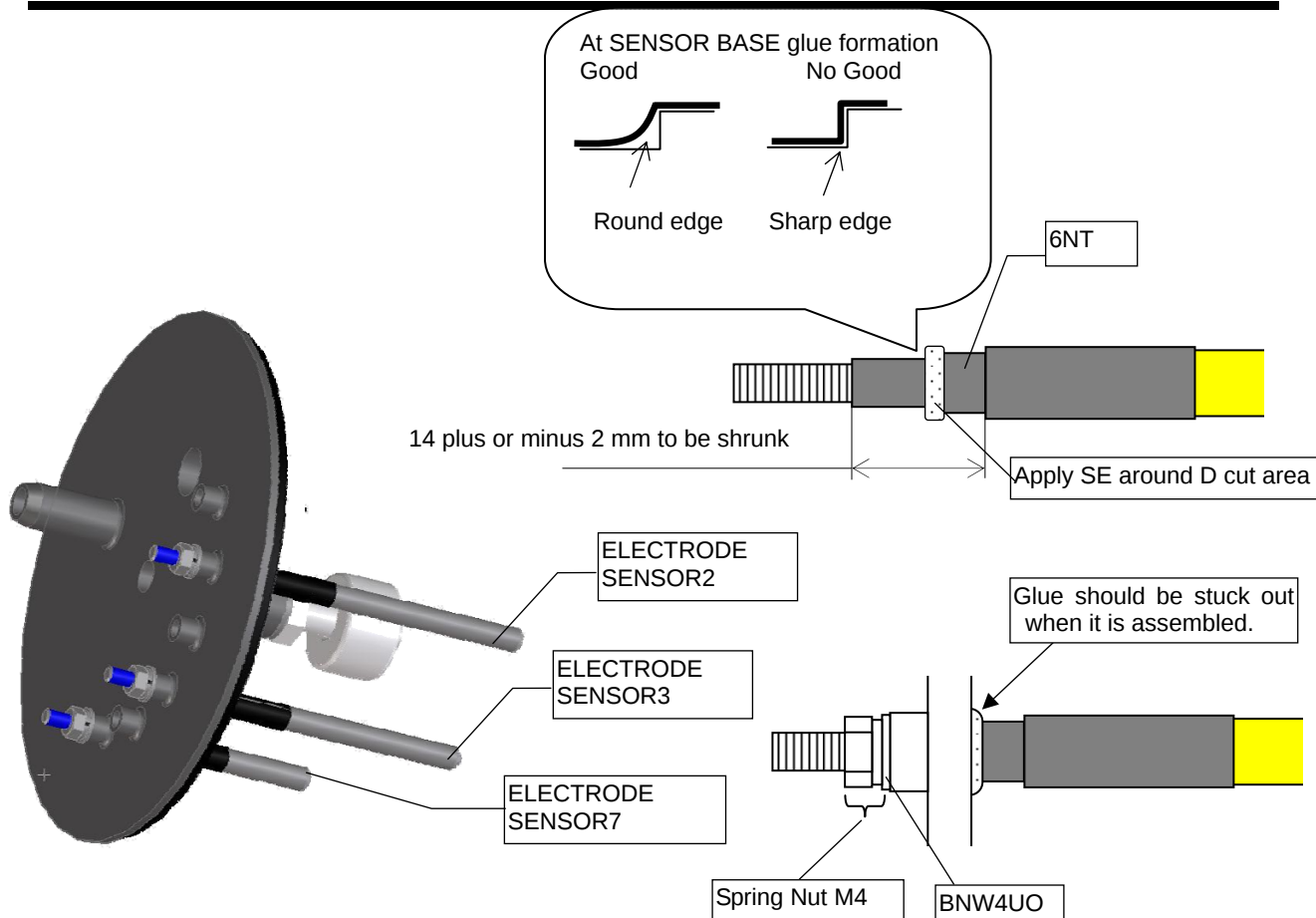
- (23) Ensure SENSOR makes a click sound and SENSOR turns ON at R cam is in a free state and when R HOOK is vertical
- (24) Ensure when in the ON state, there is a gap between the ARM of SENSOR and MAIN UNIT

3-3-24 Tank fluid level sensor unit

Required tools: SE9186, Permanent pen, Adjustable wrench, Ethanol, Scale, Cutter, Drier, Torque screwdriver, Torque screwdriver bit (hexagonal nuts), (Temperature sensor wrench (JA7821))



- (1) Detach the nut of FLOAT SWITCH and after visual inspection of PACKING and then insert FLOAT SWITCH
- (2) Apply silicon in two places, around the front and back of screw section of FLOAT SWITCH and SENSOR BASE
- (3) Insert HOUSING
Note: In order to avoid defective contact as a result of incomplete insertion, each should be inserted until there is a clicking sound
- (4) Attach LABEL "14" to HOUSING



- (5) Clean about half of the screws of ELECTRODE SENSORS 1, 2, 3, 4 and 7 by using ethanol
- (6) Cut 6NT to the designated length and then insert into ELECTRODE7 and then align to the position shown in the above figure and heat.
Note: In heat contraction, a dryer should be used. If a heat gun is used for contraction, the 6NT will be prone to melting and breaking down.

- (7) Mold 6NT by pushing down on the hole in SENSOR BASE
- (8) Apply silicon throughout the circumference of 6NT and attach ELECTRODE 7 in the position shown in the above figure.

Torque: 0.588 plus or minus 0.098 Nm

- (9) Cut 6NT to the designated length and then insert into ELECTRODE 3 and then align to the position shown in the above figure and heat

Designated length: 40 mm

Note: In heat contraction, a dryer should be used. If a heat gun is used for contraction, the 6NT will be prone to melting and breaking down.

- (10) Mold 6NT by pushing down on the hole in SENSOR BASE
- (11) Apply silicon throughout the circumference of 6NT and attach ELECTRODE 3 in the position shown in the above figure

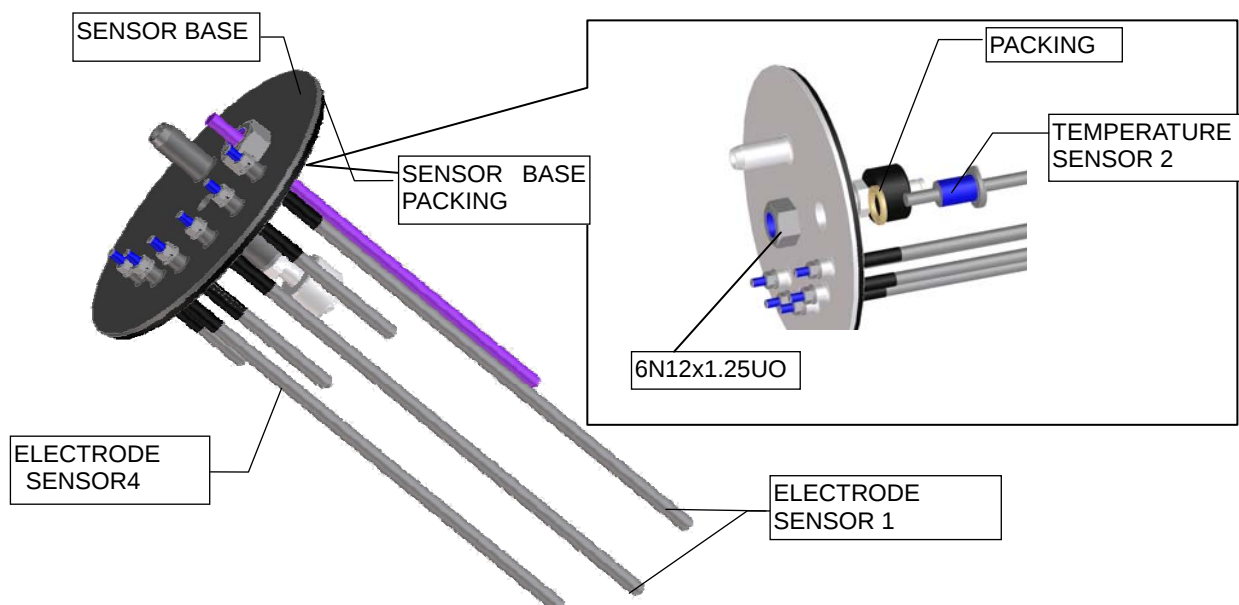
Torque: 0.588 plus or minus 0.098 Nm

- (12) Cut 6NT to the designated length and then insert in ELECTRODE 2 and align to the position shown in the above figure and heat

Designated length: 40 mm

- (13) Mold 6NT by pushing down on the hole in SENSOR BASE
- (14) Apply silicon throughout the circumference of 6NT and attach ELECTRODE 2 in the position shown in the above figure

Torque: 0.588 plus or minus 0.098 Nm



(15) Cut 6NT to the designated length and then insert in ELECTRODE 4 and then align to the position shown in the above figure and heat

Designated length: 40 mm

(16) Mold 6NT by pushing down on the hole in SENSOR BASE

(17) Apply silicon throughout the circumference of 6NT and then attach ELECTRODE 4 in the position shown in the above figure

Torque: 0.588 plus or minus 0.098 Nm

(18) Cut 6NT to the designated length and then insert in ELECTRODE 1 and then align to the position shown in the above figure and heat

Designated length: 40 mm

(19) Mold 6NT by pushing down on the hole in SENSOR BASE

(20) Apply silicon throughout the circumference of 6NT and attach ELECTRODE 1 in the position shown in the above figure

Torque: 0.588 plus or minus 0.098 Nm

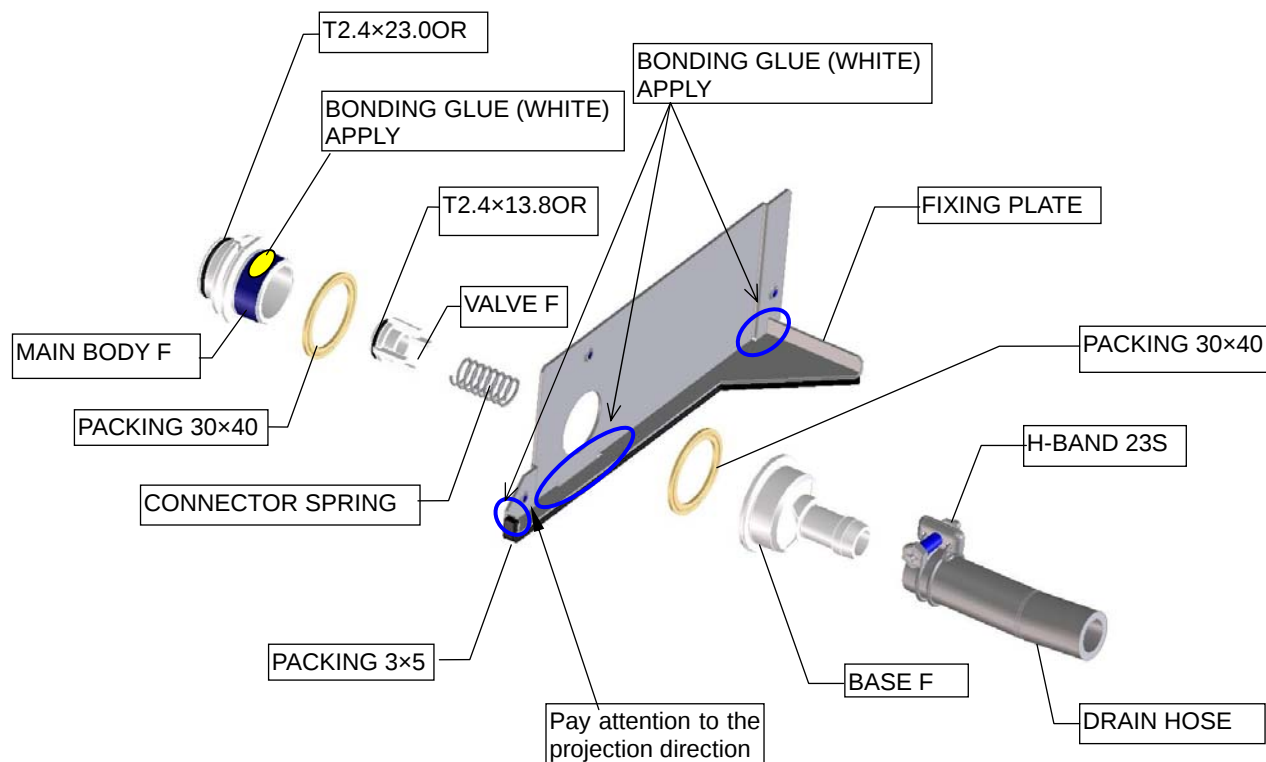
(21) After visual inspections of PACKING and then insert TEMPERATURE SENSOR 2 UNIT and then apply NEJILOCK

Torque: 0.588 plus or minus 0.098 Nm

(22) After visual inspection of SENSOR PACKING, and then insert into SENSOR BASE

3-3-25 Connector FU

Required tools: Base F wrench (JA7811), Bonding glue (white), Torque wrench, Cutter, Scale, Torque screwdriver, Torque screwdriver bit (No. 2)

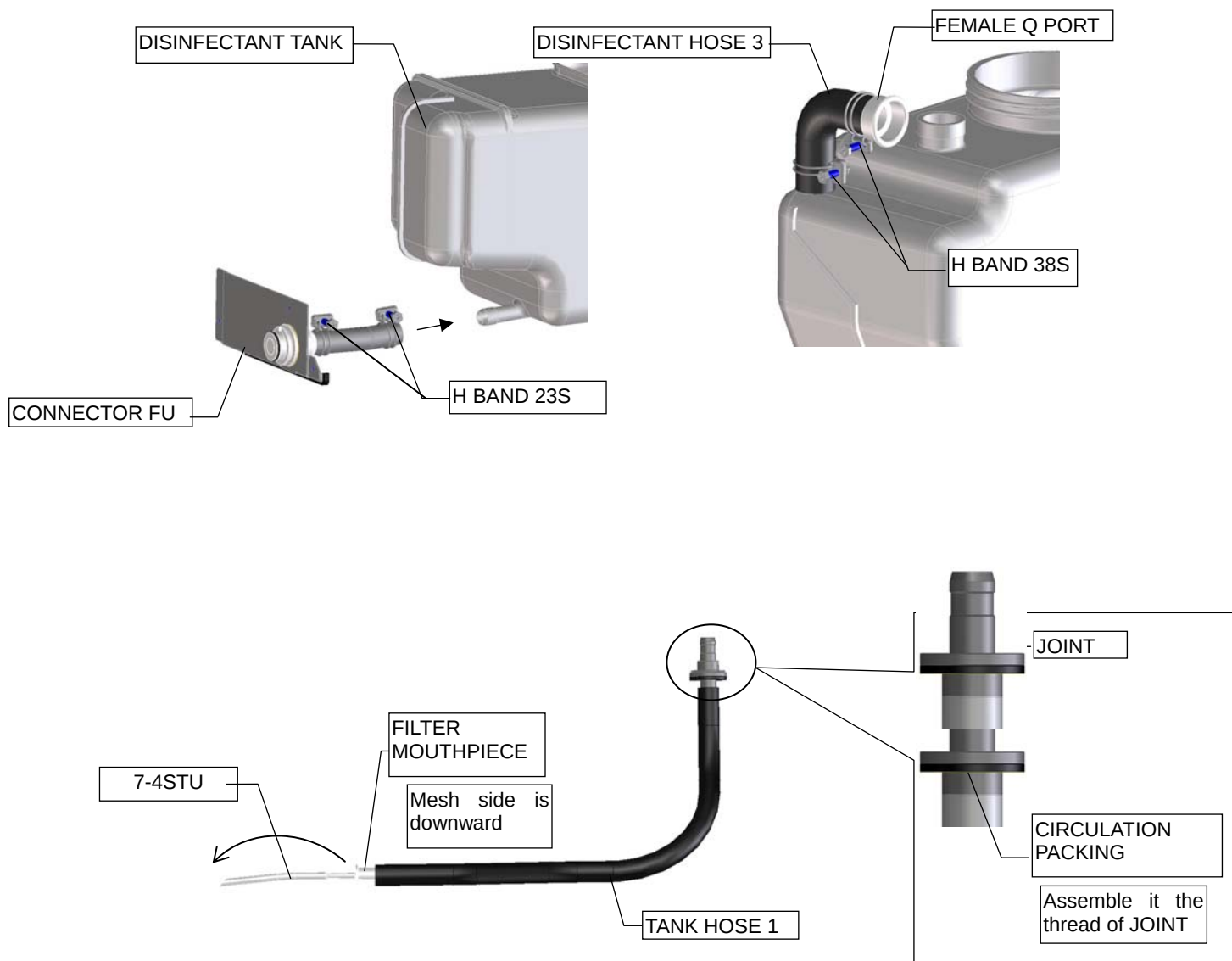


- (1) Apply BONDING GLUE with FIXING PLATE gap. No gaps are required, so apply it completely.
- (2) Assemble T2.4x23.0OR to the thread of MAIN BODY F
- (3) Assemble T2.4x13.8OR to the thread of VALVE F, after that insert it to MAIN BODY F
- (4) Assemble PACKING 30x40 to MAIN BODY F and CONNECTOR SPRING F.
- (5) First, assemble MAIN BODY F to FIXING PLATE, after that assemble PACKING 30x40 to FIXING PLATE
- (6) Apply SE9186 to the thread of MAIN BODY F, after that assemble BASE F. The notch of BASE F is upper position
- (7) Insert H BAND to DRAIN HOSE, and assemble it to BASE F JOINT. Secure H BAND.
Torque: 2.8 plus or minus 0.1 Nm
- (8) Cut PACKING 3x5 as designated length, put it FIXING PLATE.

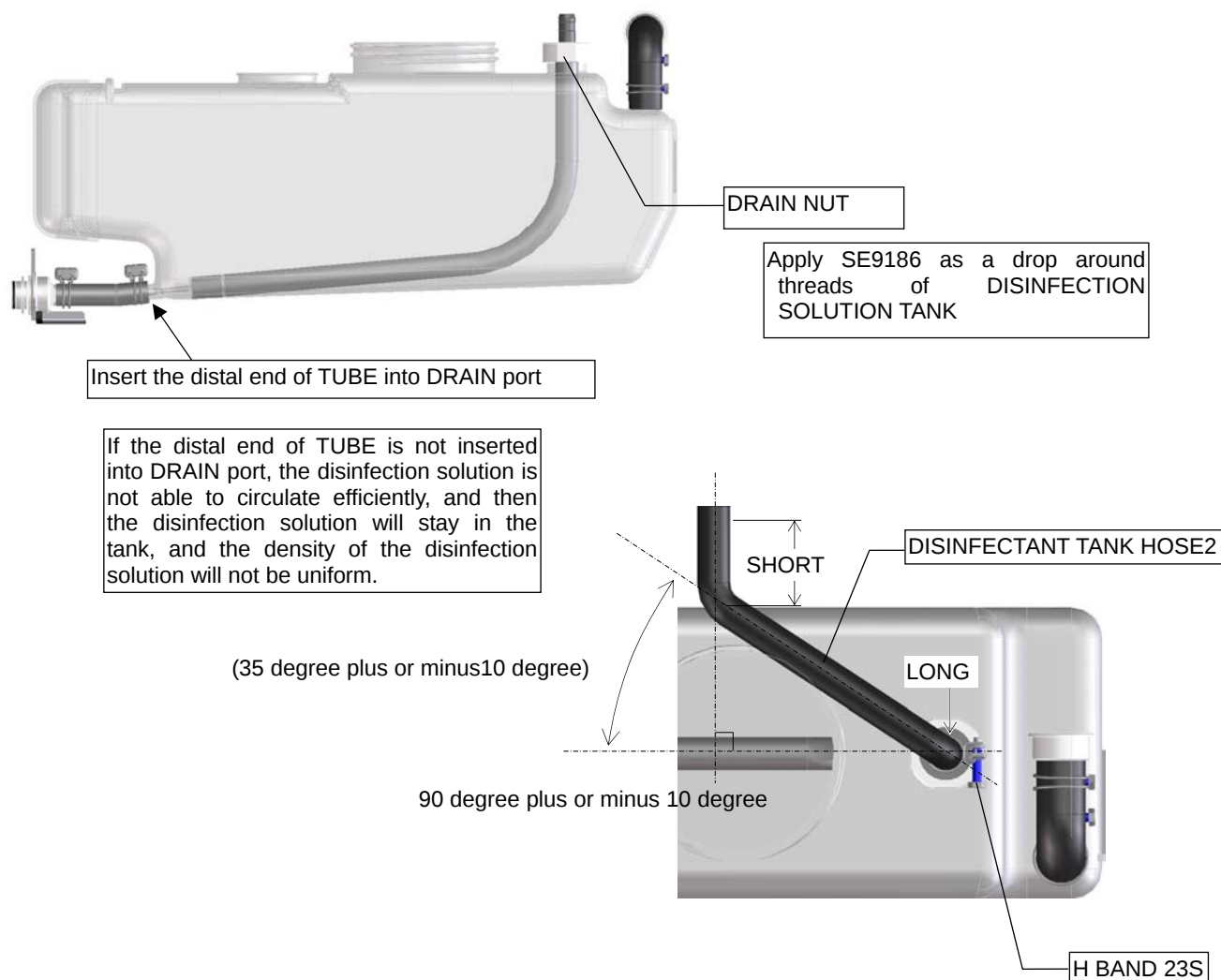
Designated length: 225 plus or minus 5mm

3-3-26 Disinfectant solution tank unit

Required tools: Torque driver, Torque driver bit (No. 2), Cutter, Scale, SE9186, Torque driver, Hexagonal bit

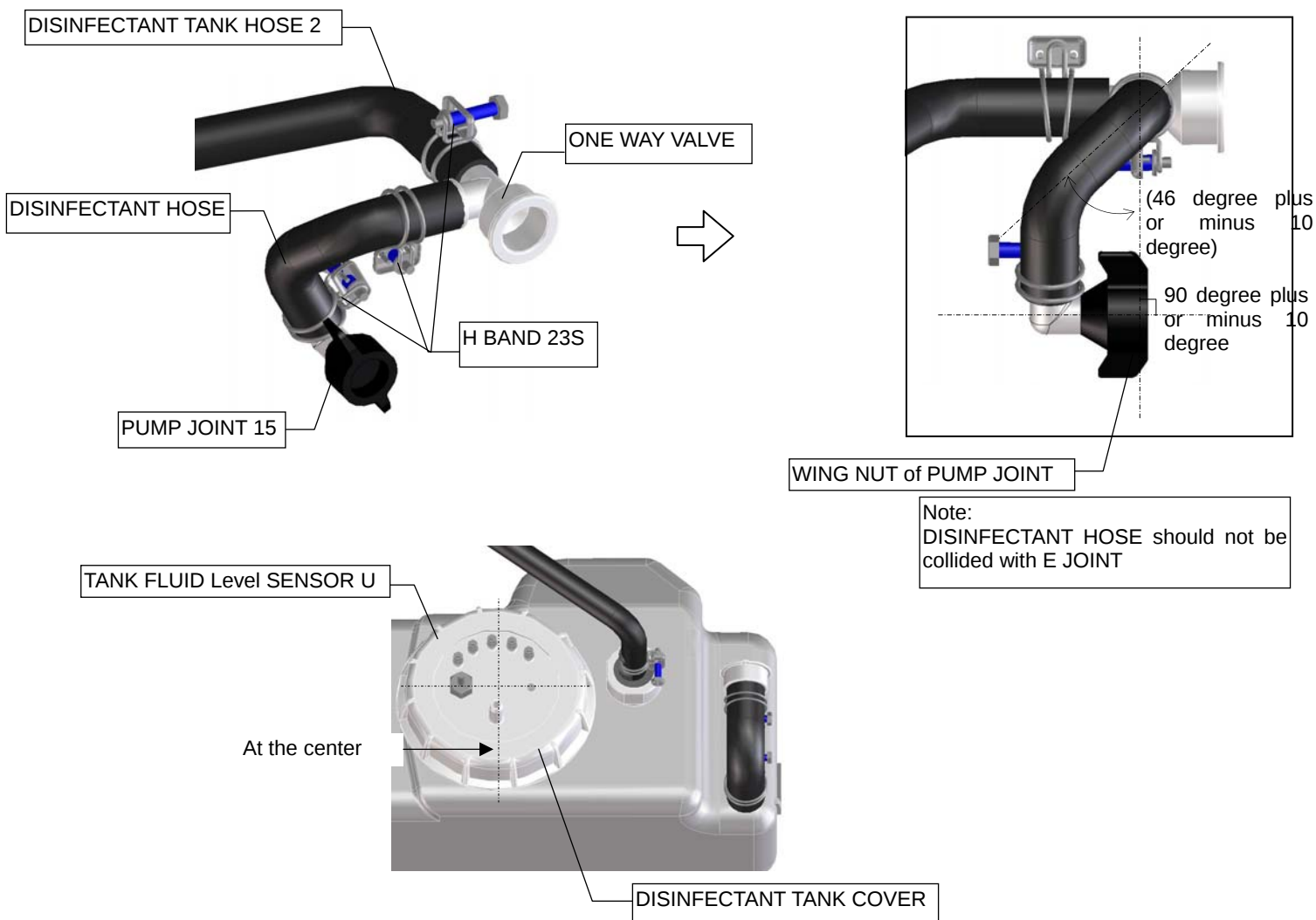


- (1) Insert HOSE of CONNECTOR F UNIT in H BAND
- (2) Attach HOSE of CONNECTOR F UNIT to DRAIN of MAIN UNIT of TANK and then secure H BAND
Torque: 2.8 plus or minus 0.1 Nm
- (3) Insert TANK HOSE 3 into H BAND and then attach H BAND to FEMALE Q PORT
Torque: 2.8 plus or minus 0.1 Nm
- (4) Insert TANK HOSE 3 into H BAND and then attach to MAIN UNIT of TANK and then secure H BAND tightly
- (5) After visual inspection of CIRCULATION PACKING, attach CIRCULATION PACKING to the circumference of JOINT
- (6) Insert JOINT into TANK HOSE 1 and FILTER MOUTHPIECE into other end of TANK HOSE 1
- (7) Cut 7-4STU in the designated length and cut the edge of one side in a diagonal
Designated length: 110 plus or minus 5 mm
- (8) Attach tube 7-4STU to FILTER MOUTHPIECE via straight cut edge



- (9) Insert TANK HOSE 1 from the screw hole of MAIN UNIT of TANK and then insert the diagonal tip of tube 7-4STU into the DRAIN TUBE
- (10) Apply a drop of silicon at the screw sections of the drain entry and then secure the DRAIN NUT all the way in
- (11) Attach JOINT to TANK HOSE 2 and then secure H BAND tightly

Torque: 2.8 plus or minus 0.1 Nm



(12) Attach ONE WAY VALVE to DISINFECTANT HOSE and then secure H BAND tightly
Torque: 2.8 plus or minus 0.1 Nm

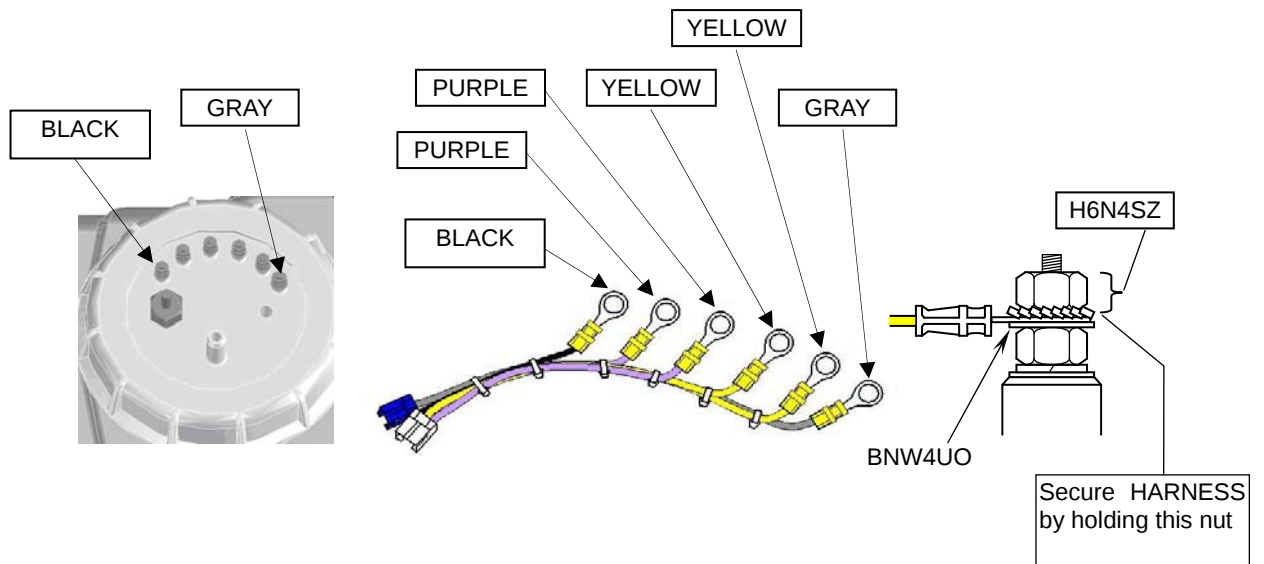
(13) Attach E PUMP JOINT to DISINFECTANT HOSE and then secure H BAND tightly
Torque: 2.8 plus or minus 0.1 Nm

Note: When doing this, DISINFECTANT HOSE should not interfere with WING NUT of E PUMP JOINT

(14) Attach ONE WAY VALVE to TANK HOSE 2 and then secure H BAND tightly
Torque: 2.8 plus or minus 0.1 Nm

(15) Attach WATER LEVEL SENSOR to the central hole of MAIN UNIT of TANK and then attach SENSOR LID

Note: When attaching SENSOR LID, the position may be misaligned due to the WATER SENSOR turning together. The joint of WATER LEVEL SENSOR needs to be held in while attaching the SENSOR LID. The SENSOR LID needs to be securely fastened using both hands
 This nut should be held when securing the HARNESS



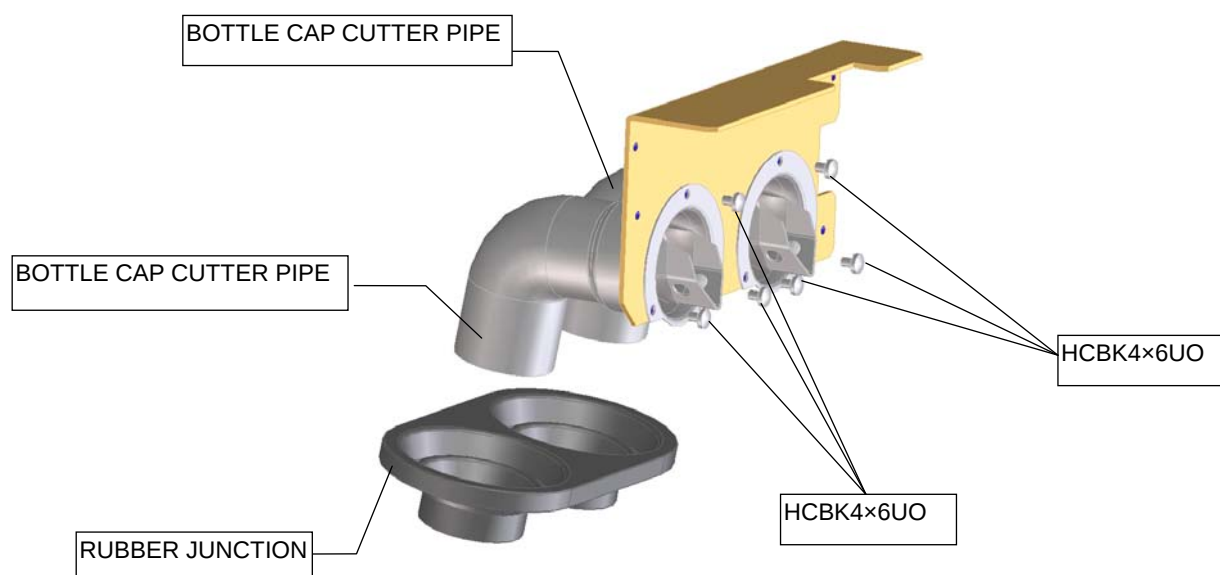
(16) Secure TANK HARNESS P UNIT to the various electrodes

Torque: 0.588 plus or minus 0.098 Nm

Note: The nut that secures ELECTRODE should be held when the nut is secured

3-3-27 Bottle cap cutter unit

Required tools: Torque driver, Torque driver bit (No. 2), Scale



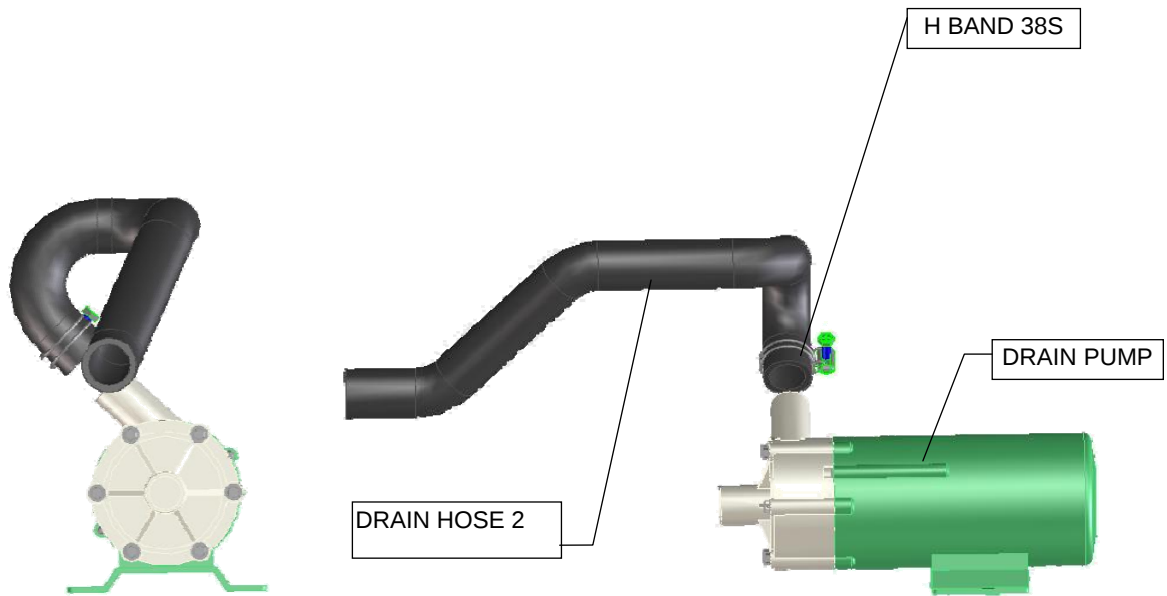
- (1) Insert BOTTLE CAP CUTTER BRACKET in the position shown in the above figure and then secure by using 6 screws (HCBK4x6UO)

Torque: 1.274 plus or minus 0.098 Nm

- (2) Insert RUBBER JUNCTION up to 1 to 6 mm from the tip of BOTTLE CAP CUTTER BRACKET

3-3-28 Drain pump unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Permanent pen

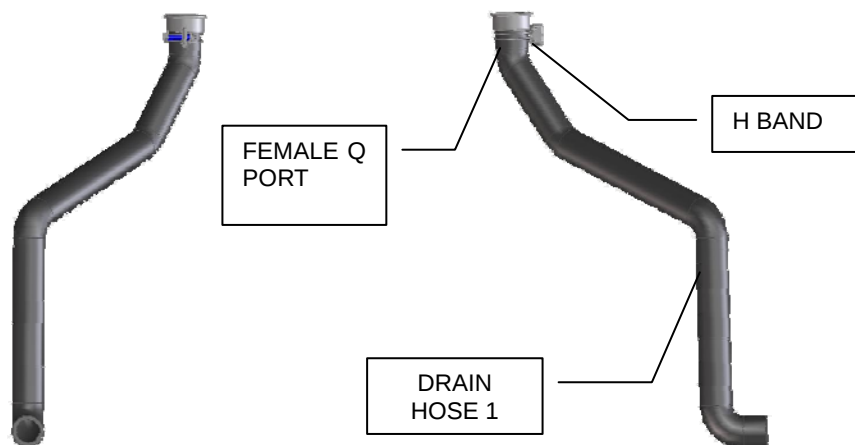


- (1) Pull HARNESS of PUMP to make sure that HARNESS does not become detached
- (2) Write "DR-P" to connector housing
- (3) Insert DRAIN HOSE2 to DRAIN PUMP.

Torque: 2.8 plus or minus 0.1 Nm

3-3-29 DRAIN HOSE UNIT

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Permanent pen

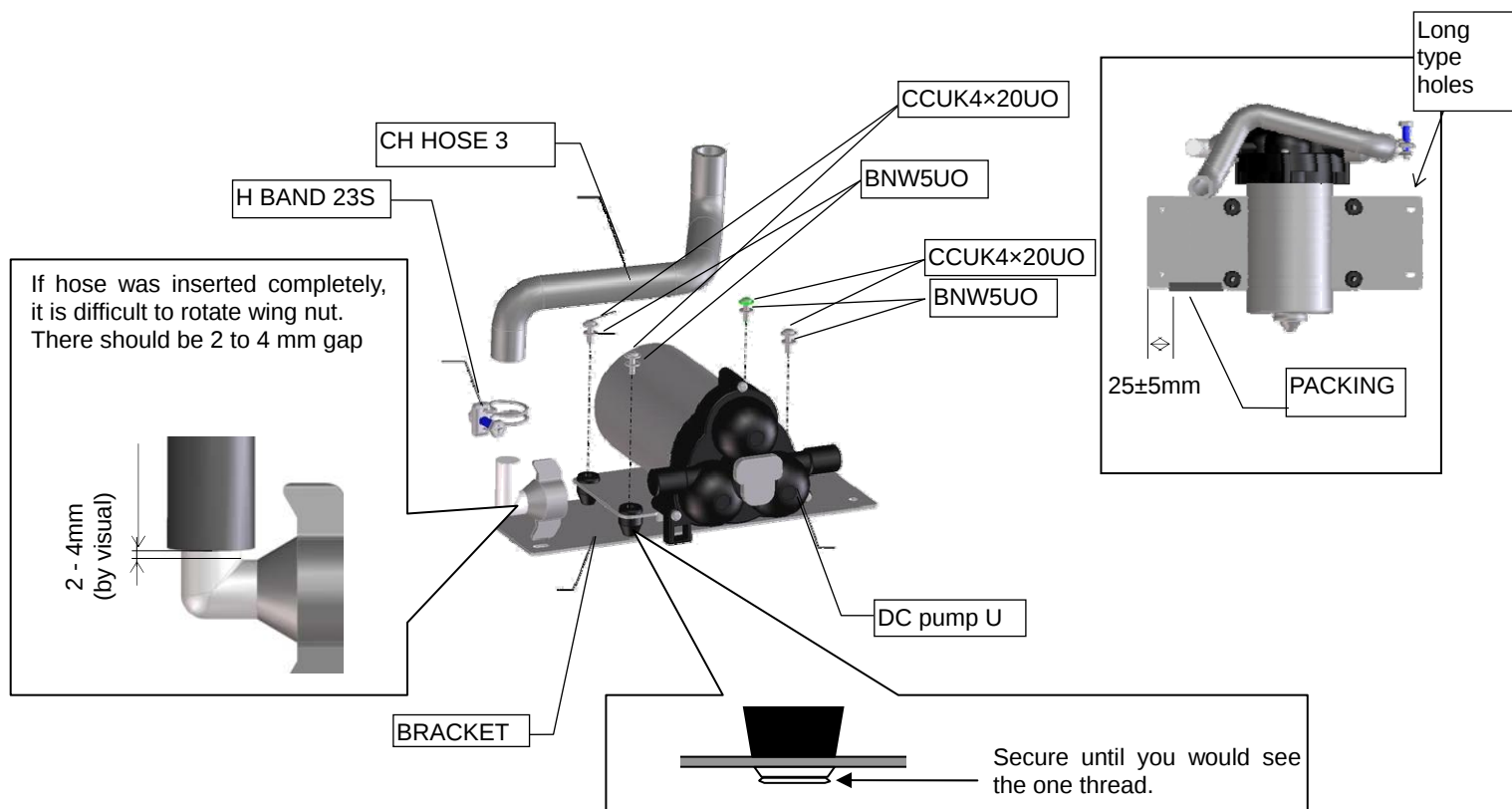


- (1) Insert H BAND to DRAIN HOSE 1
- (2) Assemble FEMALE Q PORT with DRAIN HOSE1, secure H BAND

Torque: 2.8 plus or minus 0.1 Nm

3-3-30 CH pump unit

Required tools: NEJILOCK, Scale, Cutter, Bonding glue (SC-12N), Ethanol, Cleaning paper



- (1) Remove CAP that is accessory to PUMP (both sides) and then ensure that there is no dust or grime in PORT CONNECTOR
- (2) Secure wing nut completely.
- (3) Insert H BAND into CH HOSE 3, apply ethanol, and then attach in the position shown in the above diagram

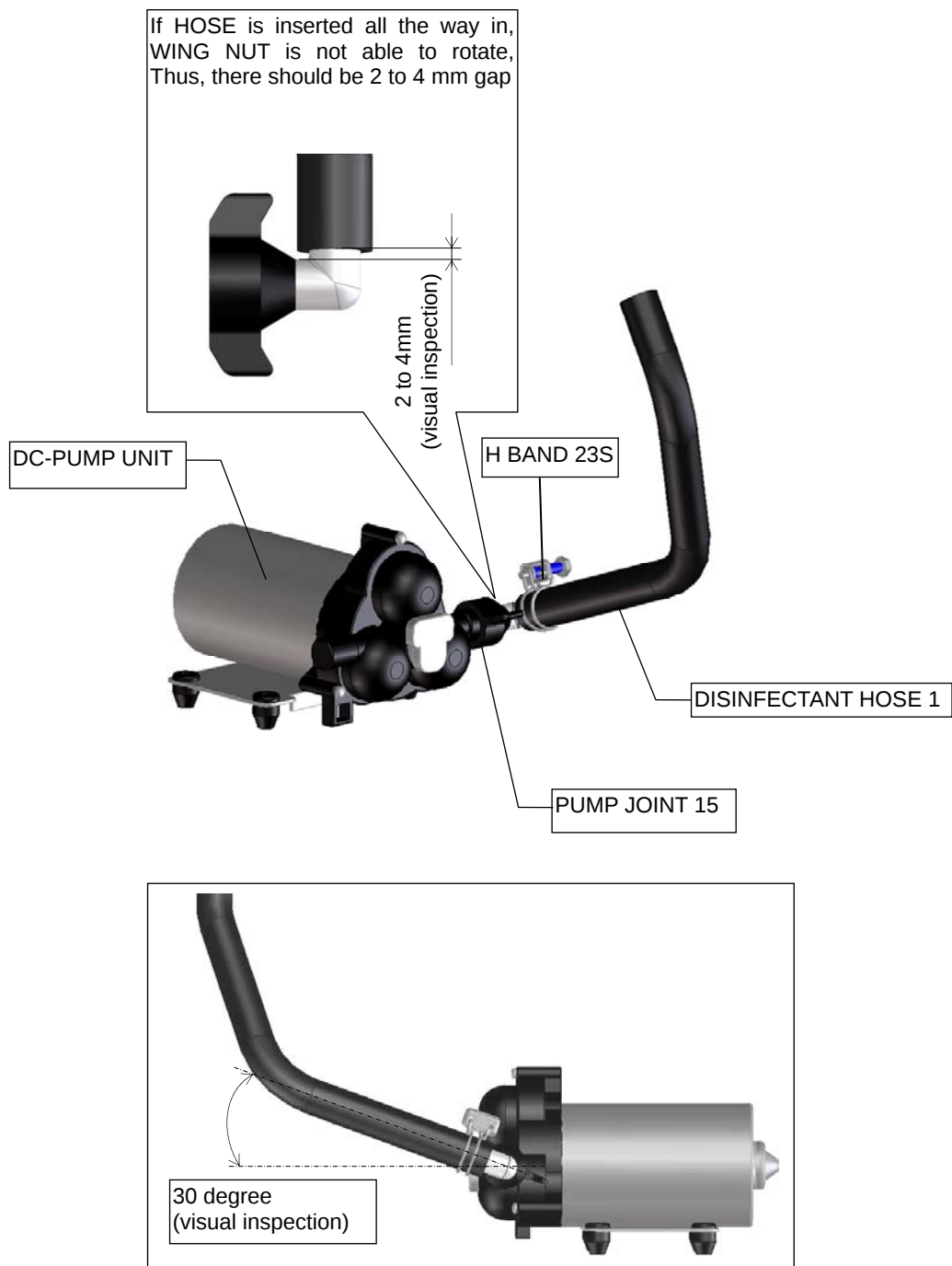
Torque: 2.8 plus or minus 0.1 Nm

- (4) Align PUMP to the position on the bracket shown in the figure and apply NEJILOCK around the head of the screw (tighten until one thread is protruding)
- (5) Both front and back surfaces of cushion attachment of BRACKET should be immersed in ethanol and cleaned using lens cleaning paper
- (6) Cut PACKING in the designated length and then apply bonding glue around the inside, and then attach to BRACKET

Designated length: 40 plus or minus 2 mm

3-3-31 Disinfectant pump unit

Required tools: Torque driver, Torque driver bit (No. 2)



- (1) Insert DISINFECTANT HOSE 1 into H BAND

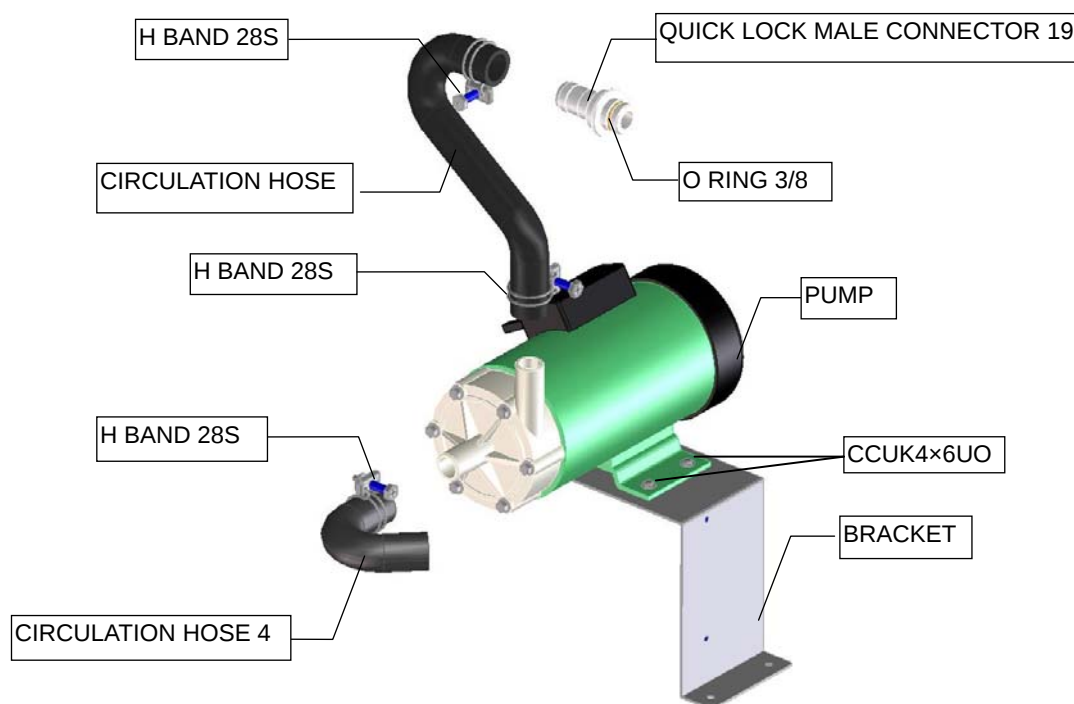
Angle of attachment: 30 degrees

- (2) Connect DISINFECTANT HOSE 1 to PUMP JOINT and then secure H BAND

Torque: 2.8 plus or minus 0.1 Nm

3-3-32 Circulation pump unit

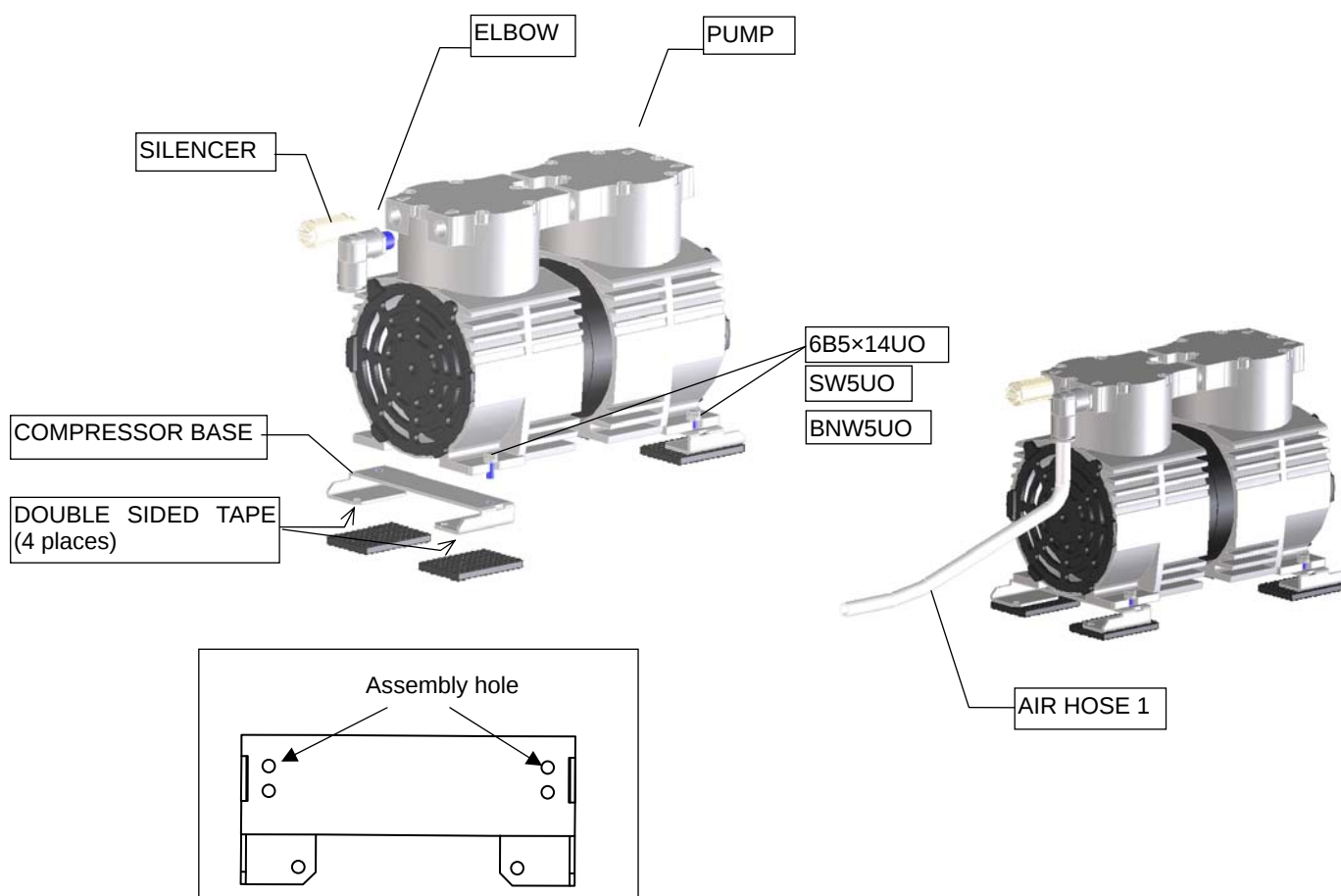
Required tools: Torque screwdriver, Torque screwdriver bit (No. 1), NEJILOCK, Permanent pen



- (1) Pull the harness of the pump to make sure that the harness does detach from the pump
- (2) Attach LABEL "RY-P"
- (3) Insert H BAND in CIRCULATION HOSE 4 and then connect CIRCULATION HOSE 4 to the pump
Torque: 2.8 plus or minus 0.1 Nm
- (4) Insert H BAND in CIRCULATION HOSE and then connect CIRCULATION HOSE to PUMP
Torque: 2.8 plus or minus 0.1 Nm
- (5) After visual inspection of O RING, insert QUICK LOCK MALE CONNECTOR 19
- (6) Insert H BAND in CIRCULATING HOSE, connect QUICK LOCK MALE CONNECTOR 19 and secure H BAND tightly
Torque: 2.8 plus or minus 0.1 Nm
- (7) Secure PUMP to BRACKET by using 4 screws (CCUK4x6UO) and apply NEJILOCK around the head of the screws.
Torque: 1.274 plus or minus 0.098 Nm

3-3-33 Compressor unit

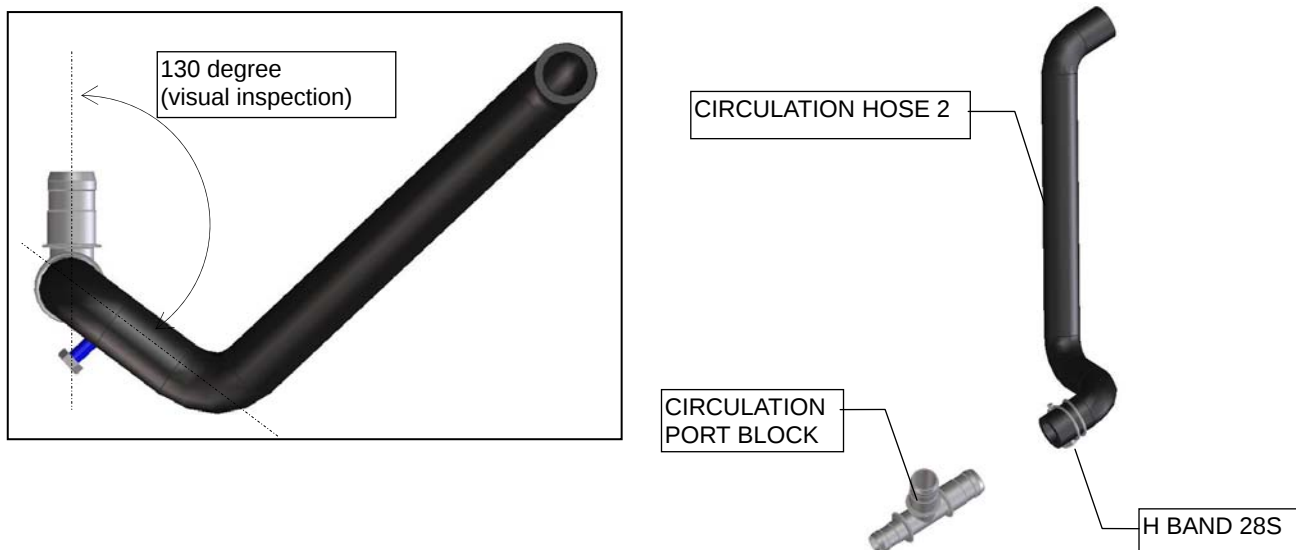
Required tools: Cutter, Scale, Permanent pen, NEJILOCK



- (1) Attach DOUBLE SIDED TAPE to RUBBER MAT and align with COMPRESSOR BASE
 - (2) Align PUMP screw holes with COMPRESOR BASE and then secure by using 4 screws (6B5x14UO), 4 washers (SW5UO) and 4 washers (BNW5UO)
 - (3) After securing, apply NEJILOCK around the head of screws
 - (4) Secure SILENCER on to the IN screw hole of PUMP by hand (no tool should be used and the silencer should be screwed by hands)
 - (5) Connect PORT CONNECTOR L12 to the screw hole on the OUT screw hole
 - (6) Connect AIR HOSE 1 to PORT CONNECTOR L12
 - (7) Pull harness of pump and ensure that harness does not detach from the pump
- Note: "COMP" should be labeled on harness housing

3-3-34 Circulation port block unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2)

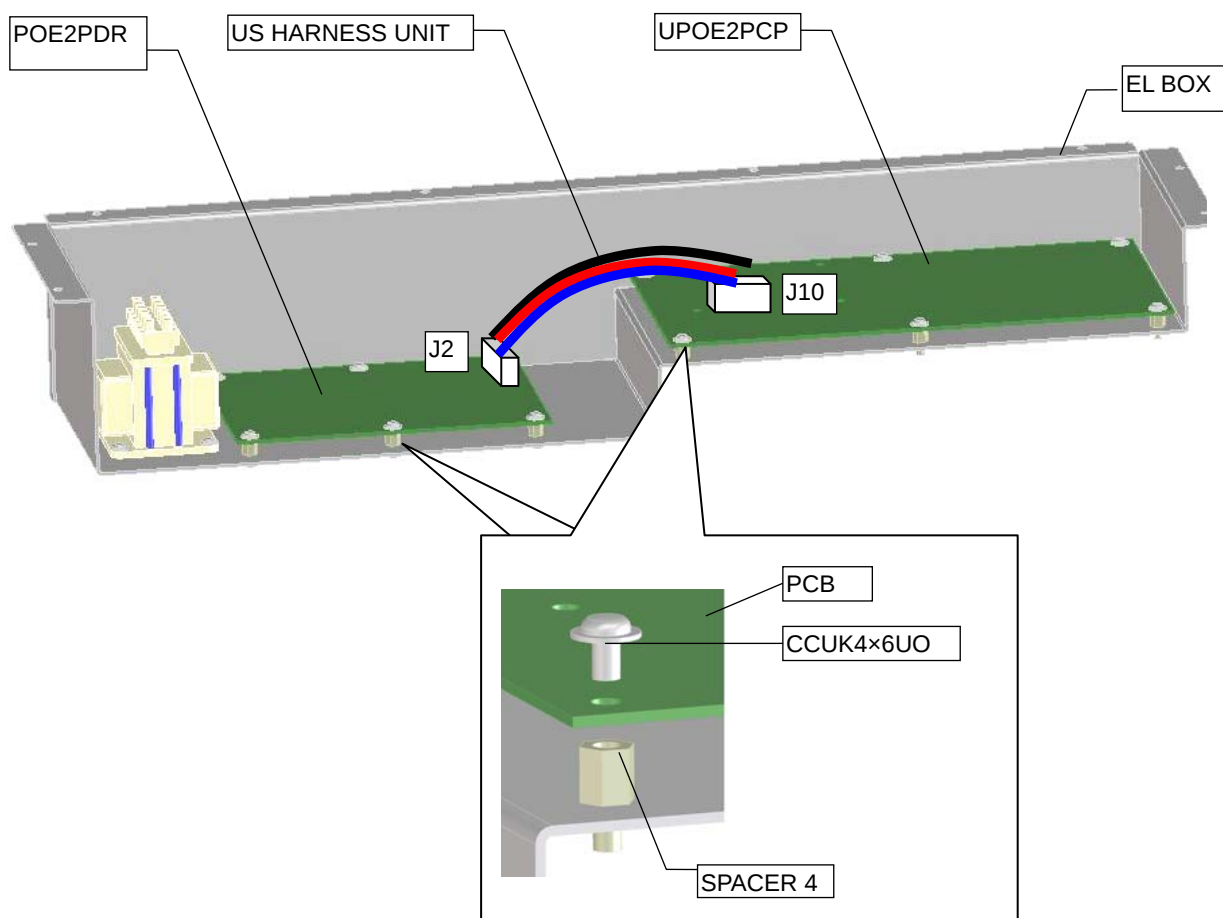


- (1) Insert H BAND in CIRCULATION HOSE and then connect to SWITCHING VALVE

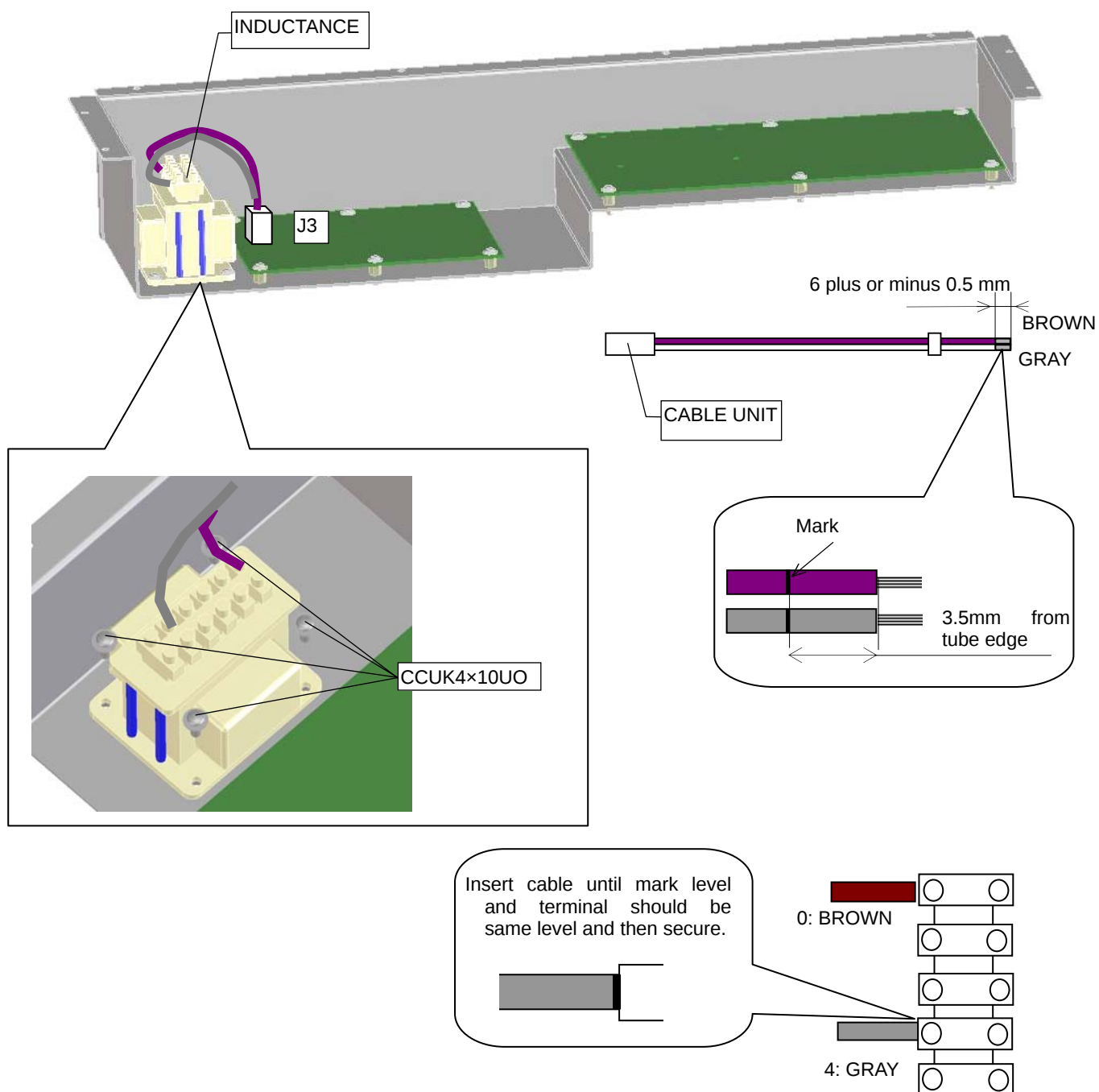
Torque: 2.8 plus or minus 0.1 Nm

3-3-35 EL box unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Scale, Permanent pen, Wire stripper, Flat screwdriver (for tightening the terminals)



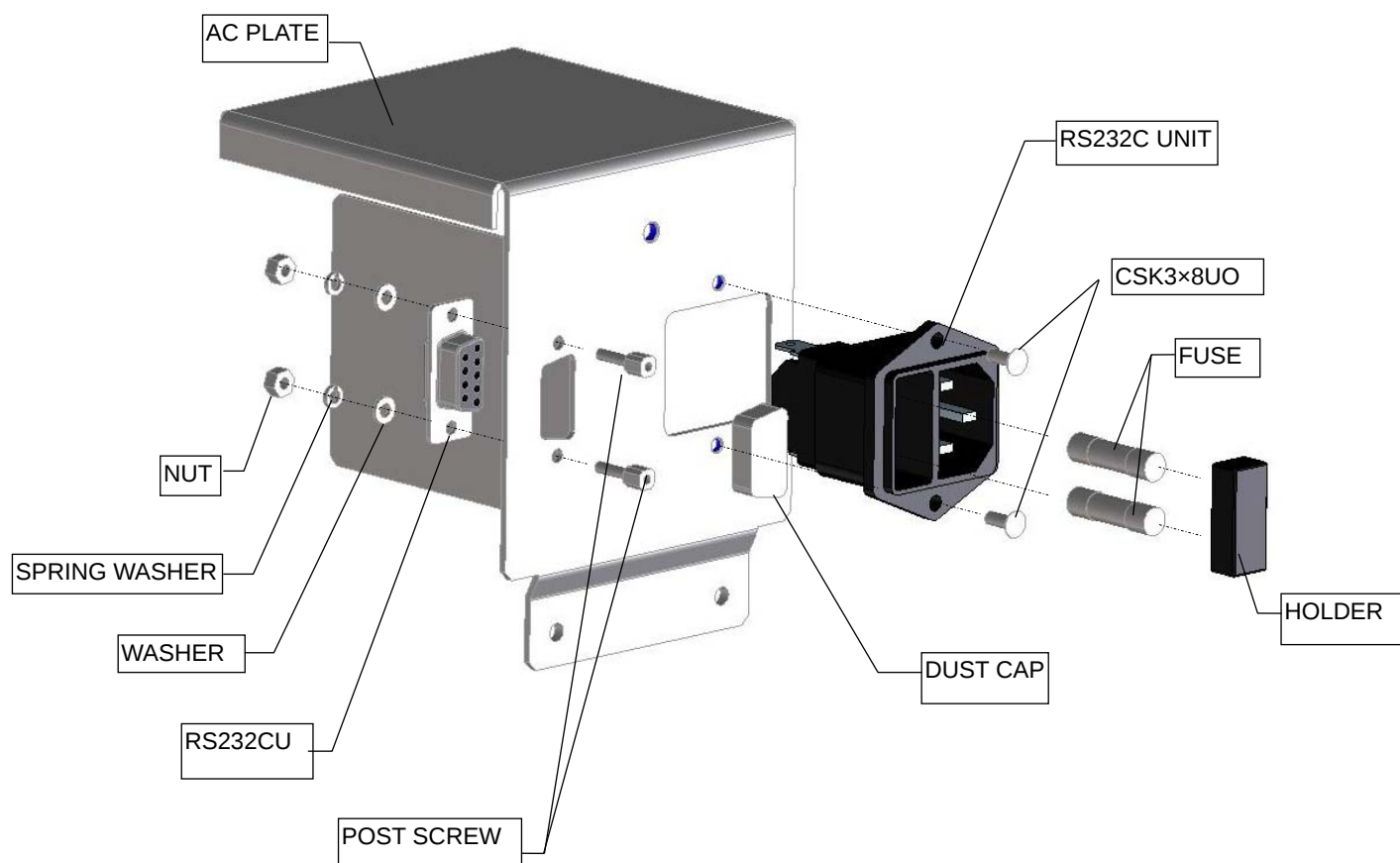
- (1) Attach SPACER 4 to MAIN BOX UNIT (12 locations)
- (2) Place UPOE2PDR on SPACER 4 and then secure by using 6 screws (CCUK4x6UO) aligned with the screw hole
Torque: 1.274 plus or minus 0.098 Nm
- (3) Place UPOE2PCP on SPACER 4 and then secure by using 6 screws (CCUK4x6UO) aligned with the screw hole
Torque: 1.274 plus or minus 0.098 Nm
- (4) Insert US HARNESS UNIT P into the connectors of both PCBs



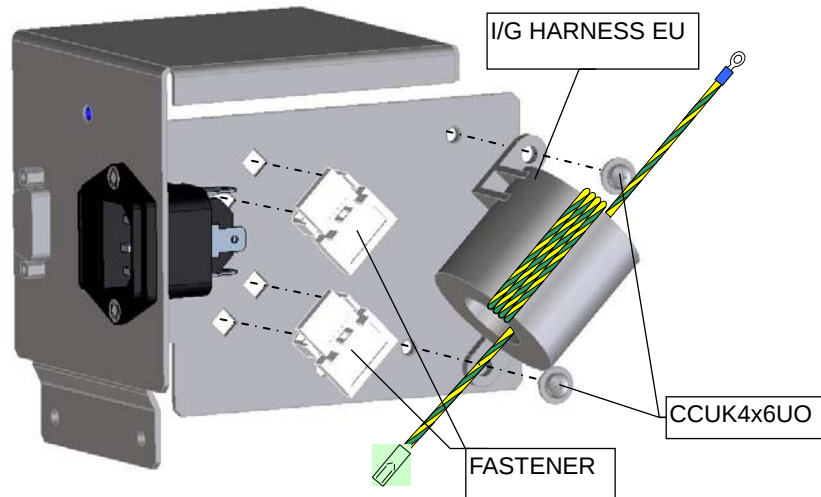
- (5) Strip MATCHING HARNESS and a mark should be made at a position of 3.5 mm from uncovered part using a marker
- (6) In the position shown in the above figure of TERMINAL BOX of INDUCTANCE, and then insert MATCHING HARNESS until MARKING is at the same level as the edge of the TERMINAL BLOCK and then secure by using WING NUTS
- (7) Secure INDUCTANCE to MAIN UNIT of BOX by using 4 screws (CCUK4x10UO)
Torque: 1.274 plus or minus 0.098 Nm
- (8) Insert MATCHING HARNESS into J3

3-3-36 AC inlet unit

Required tools: NEJILOCK, Hexagonal nut screwdriver



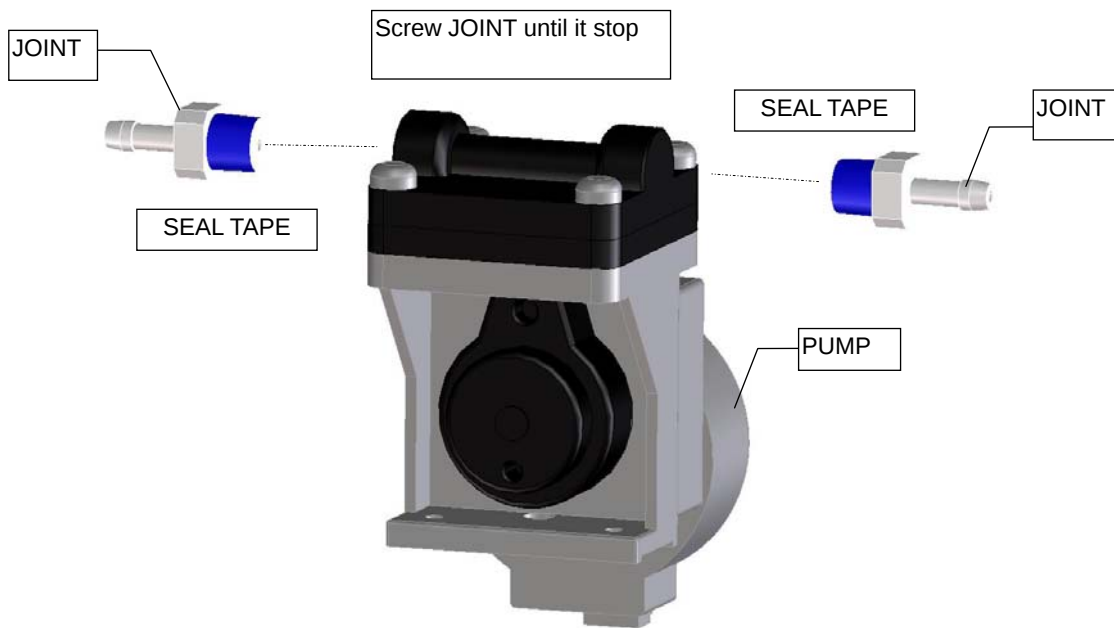
- (1) Insert RS232CU in the position shown in the above figure of AC PLATE and then secure, and then apply NEJILOCK
- (2) Attach DUST CAP to TERMINAL of RS232CU
- (3) Insert 2 FUSES in HOLDER and then connect to EXTERNAL CONNECTOR
- (4) Insert EXTERNAL CONNECTOR in the position on AC PLATE shown in the above figure
- (5) Apply NEJILOCK around the head of 2 screws (CSK3x8UO) and then secure from the side of HOLDER



- (6) Put two fastener on the plate as shown
- (7) Apply nejllock on the thread of screw, secure I/G HARNESS EU with two screws (CCUK4x6UO)

3-3-37 Diaphragm pump unit

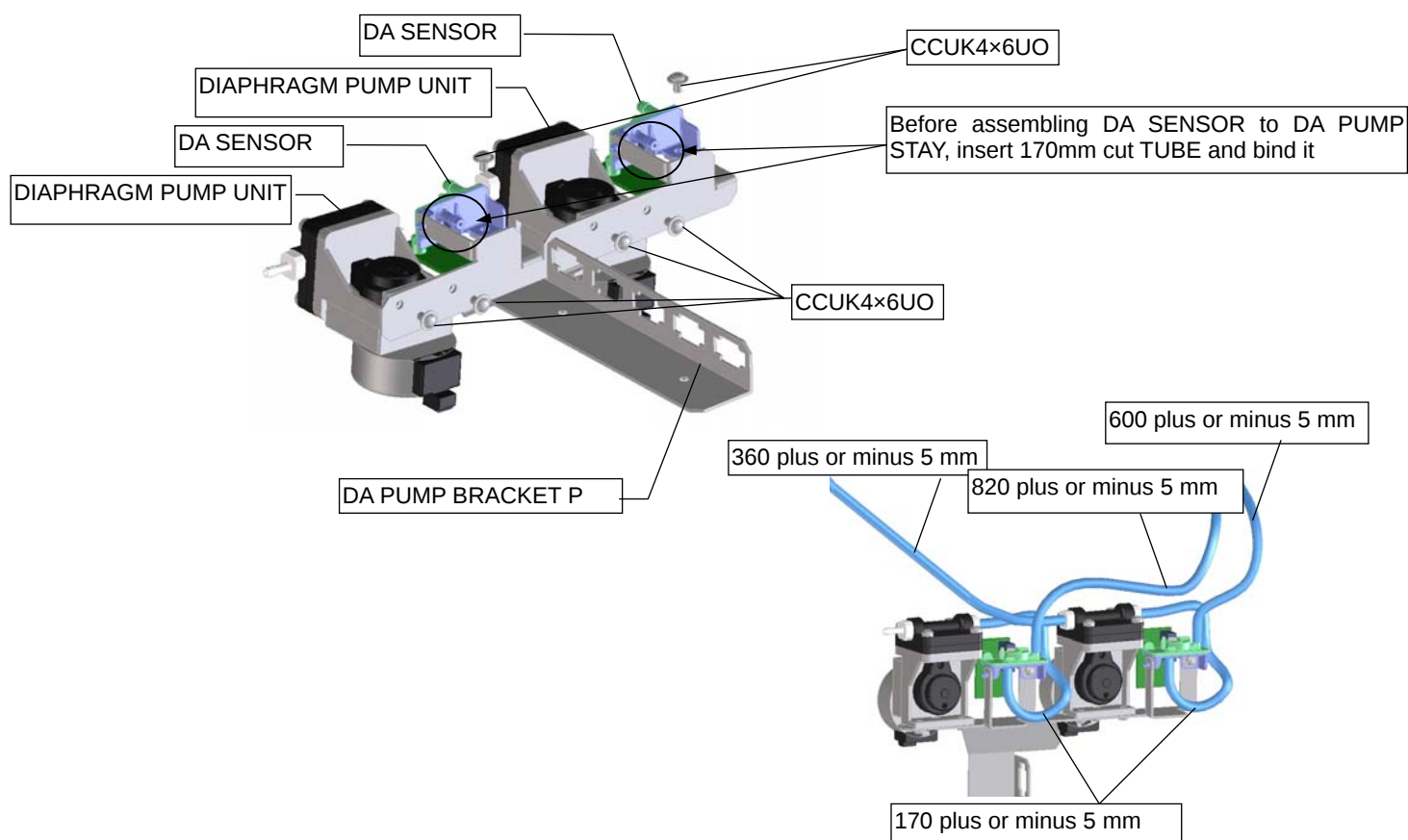
Required tools: Seal tape



- (1) Remove CAPs on both sides of PUMP and ensure that there is no dust or grime on the inside of the SCREW HOLE
- (2) Wind SEAL TAPE around JOINT
- (3) Secure JOINT tightly

3-3-38 DA pump unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Cutter, Scale, NEJILOCK, Nippers



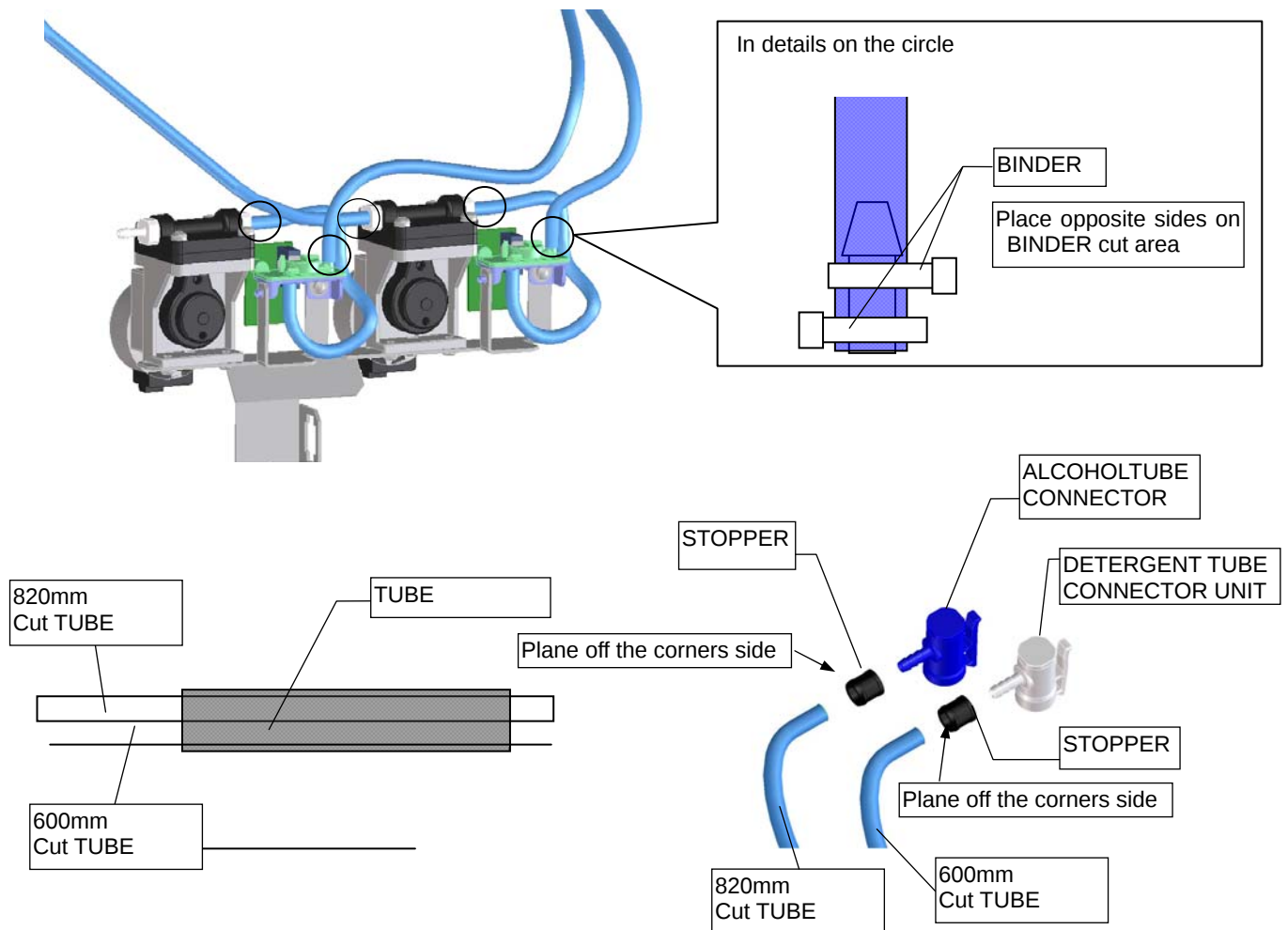
- (1) Align DA PUMP BLOCK P and DIAPHRAM P UNIT to the screw holes and then secure by using 2 screws (CCUK4x6UO) (2 locations)
- (2) Apply NEJILOCK around the head of the screw
- (3) Secure TUBEs attached to JOINTs by using BINDERS
- (4) Insert the protruding part of DA SENSOR UNIT in the hole of DA PUMP BLOCK P and then secure DA SENSOR UNIT by using 1 screw (CCUK4x6UO) (2 locations)
- (5) Cut TUBEs to the designated length and then attach to the positions shown in the figure above

Designated length: 600 plus or minus 5 mm

820 plus or minus 5 mm

360 plus or minus 5 mm

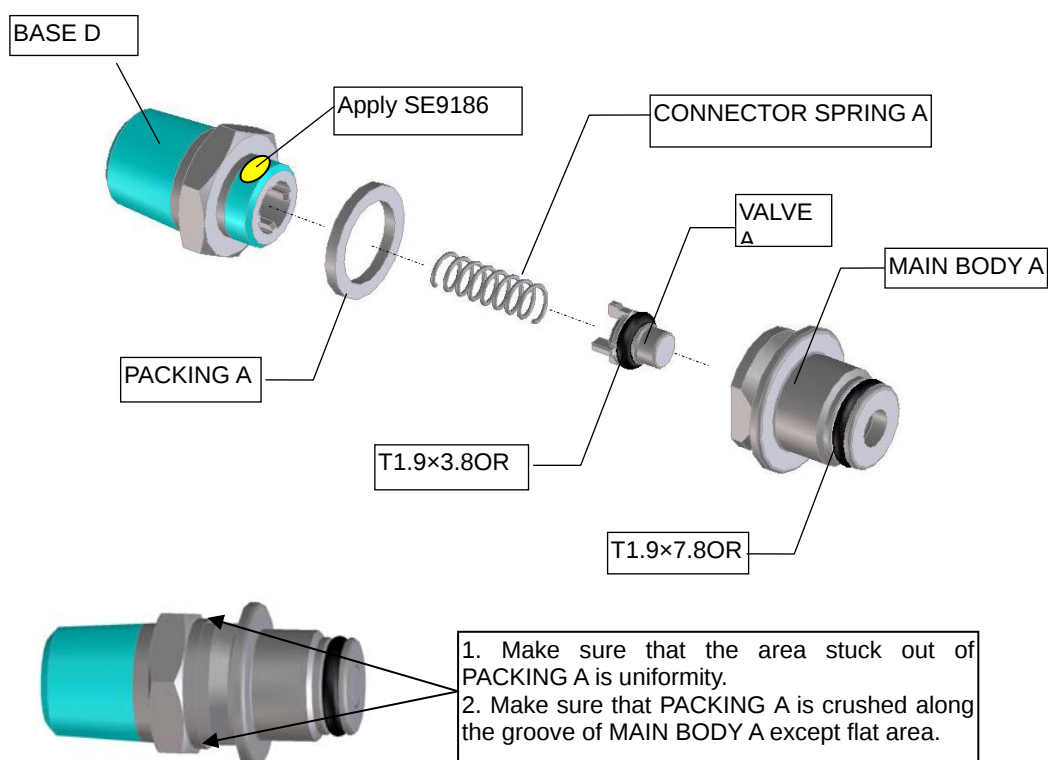
170 plus or minus 5mm



- (6) Connect TUBES to each joint with 2 binders (5 places) each
- (7) Strip TUBE to the designated length and then connect DETERGENT TUBE CONNECTOR UNIT and ALCOHOL TUBE CONNECTOR UNIT
- (8) Insert DA TUBE STOPPER through detergent and alcohol TUBES covered with outer tubing
- (9) Attach DETERGENT CONNECTOR UNIT to DETERGENT TUBE CONNECTOR and then connect ALCOHOL CONNECTOR UNIT to ALCOHOL DETERGENT TUBE CONNECTOR and secure by using TUBE STOPPERS
- (10) Write down "23" on SENSOR CONNECTOR of DA SENSOR on detergent side, and "24" on SENSOR CONNECTOR on ALCOHOL SIDE

3-3-39 Connector D unit

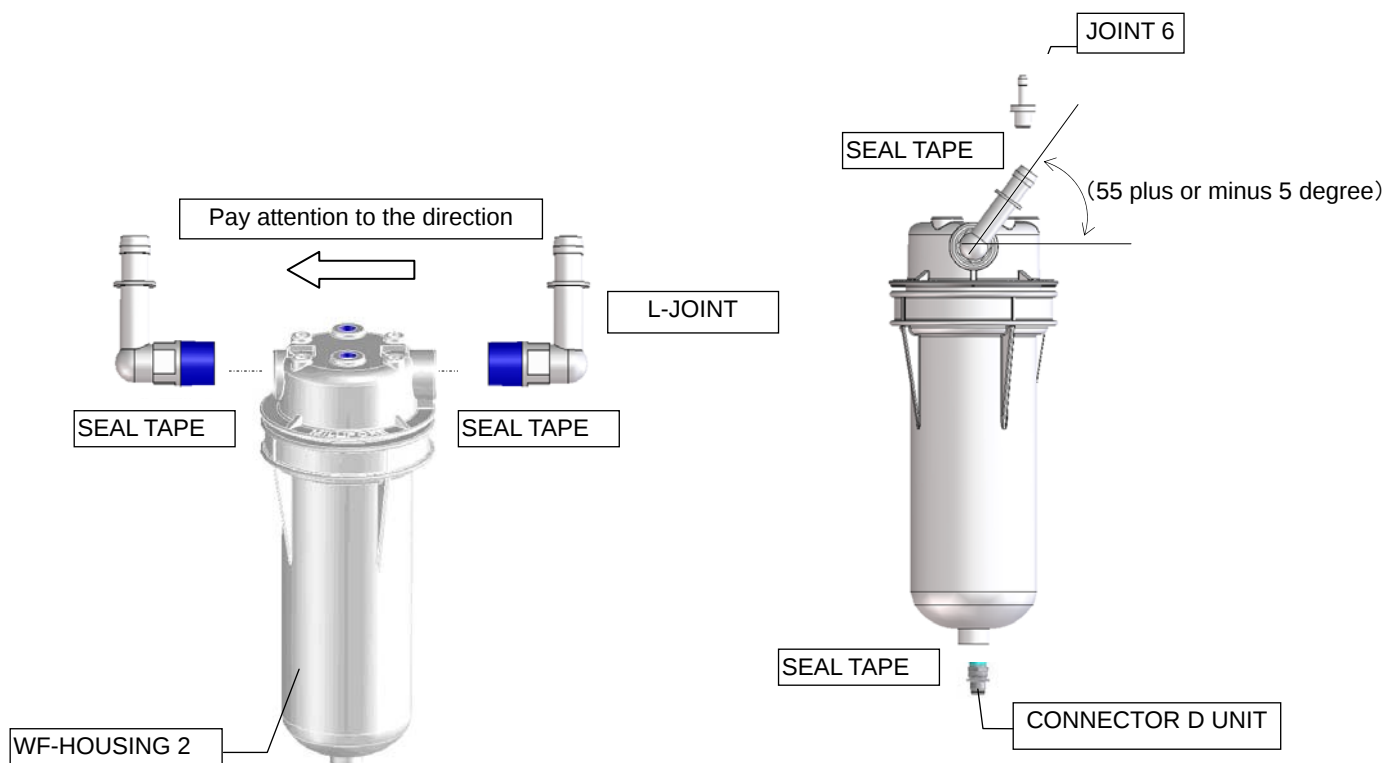
Required tools: Connector B securing jig (JA9823), Connector rotating jig (JA7697), SE9186, Seal tape



- (1) Insert BASE D in hole of JIG (JA9823 connector B securing jig)
- (2) After visual inspection of PACKING A, insert BASE D, and then apply SE9186 around the head of threads section
- (3) Insert CONNECTOR SPRING A into BASE D
- (4) After visual inspection of O RING, insert O RING in the groove of VALVE A
- (5) Place VALVE A on CONNECTOR SPRING A
- (6) After visual inspection of O RING, insert O RING into the groove of MAIN BODY A
- (7) Connect MAIN BODY A to BASE D (JA7697 connector rotating jig)

3-3-40 Water filter unit

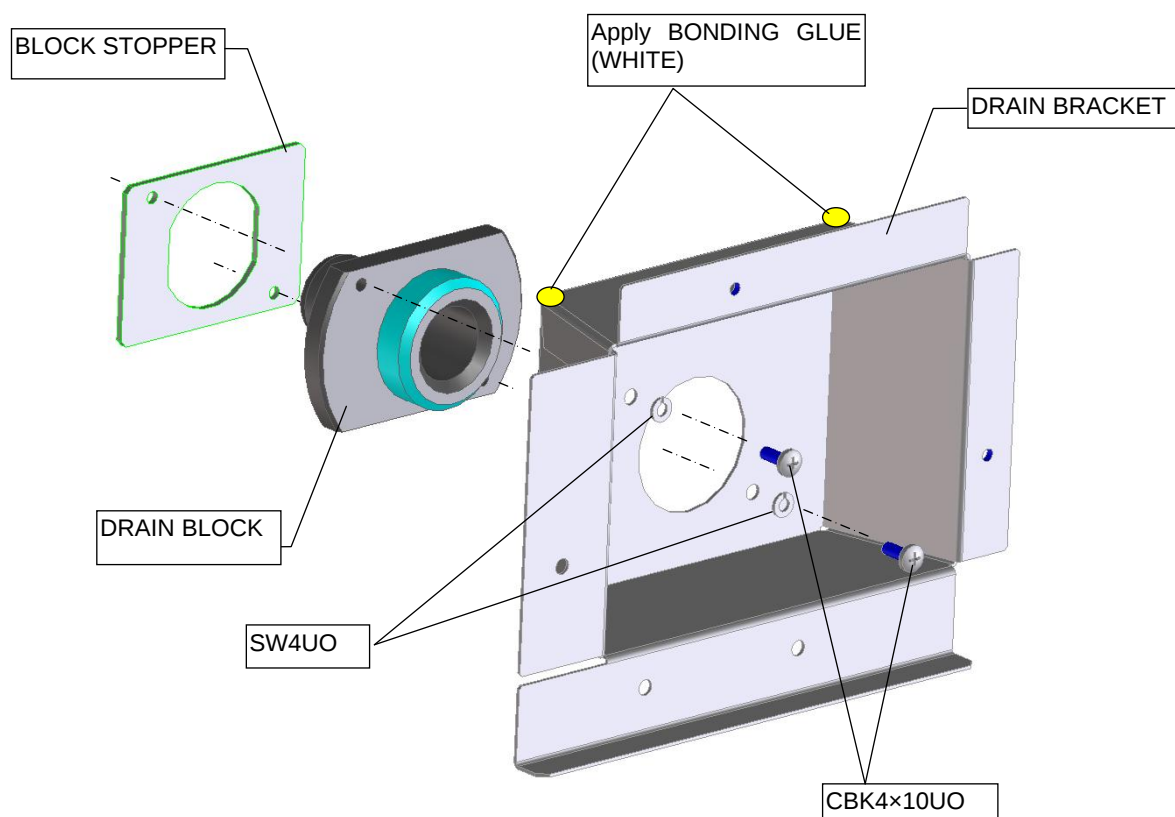
Required tools: Torque wrench, Seal tape, SE9186, Connector DU securing jig (OT3609), Ethanol



- (1) Wind SEAL TAPE around JOINT 6 and then connect all the way
- (2) Wind SEAL TAPE 10 turns around L JOINT and then insert all the way in
Note: Before winding the sealing tape, clean the threads of screw with ethanol.
- (3) Wind SEAL TAPE 2 to 3 turns around CONNECTOR D UNIT and then insert all the way
(OT3609 Connector DU securing jig)

3-3-41 Drain block unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Bonding glue (white)

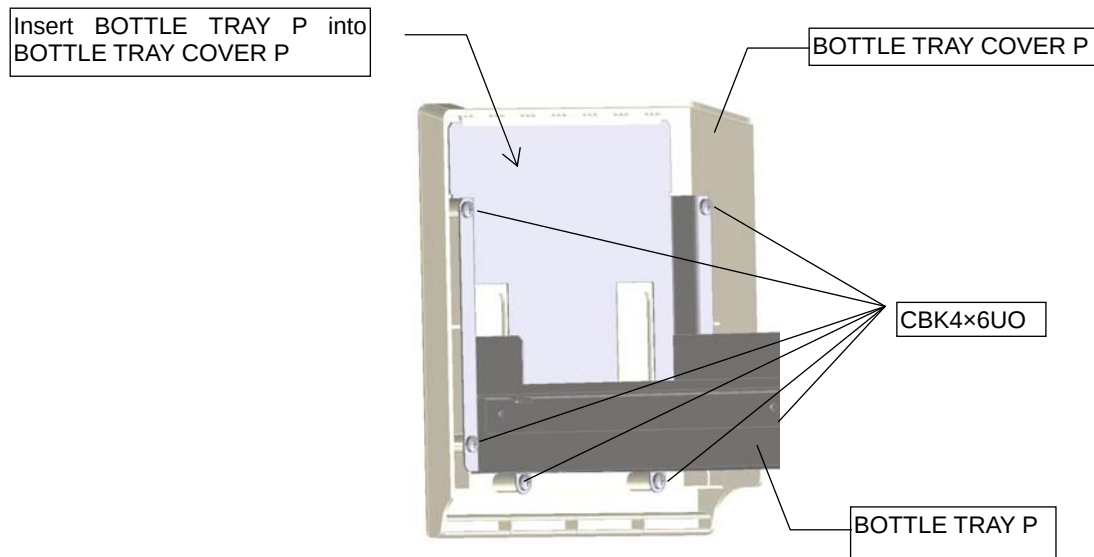


- (1) Align screw holes of DRAIN BRACKET and DRAIN BLOCK
- (2) Connect BLOCK STOPPER to PUMP JOINT side of DRAIN BLOCK and secure by screws from DRAIN BRACKET side
- (3) Apply bonding glue on the 4 corners of DRAIN BRACKET and then apply bonding glue around the gaps

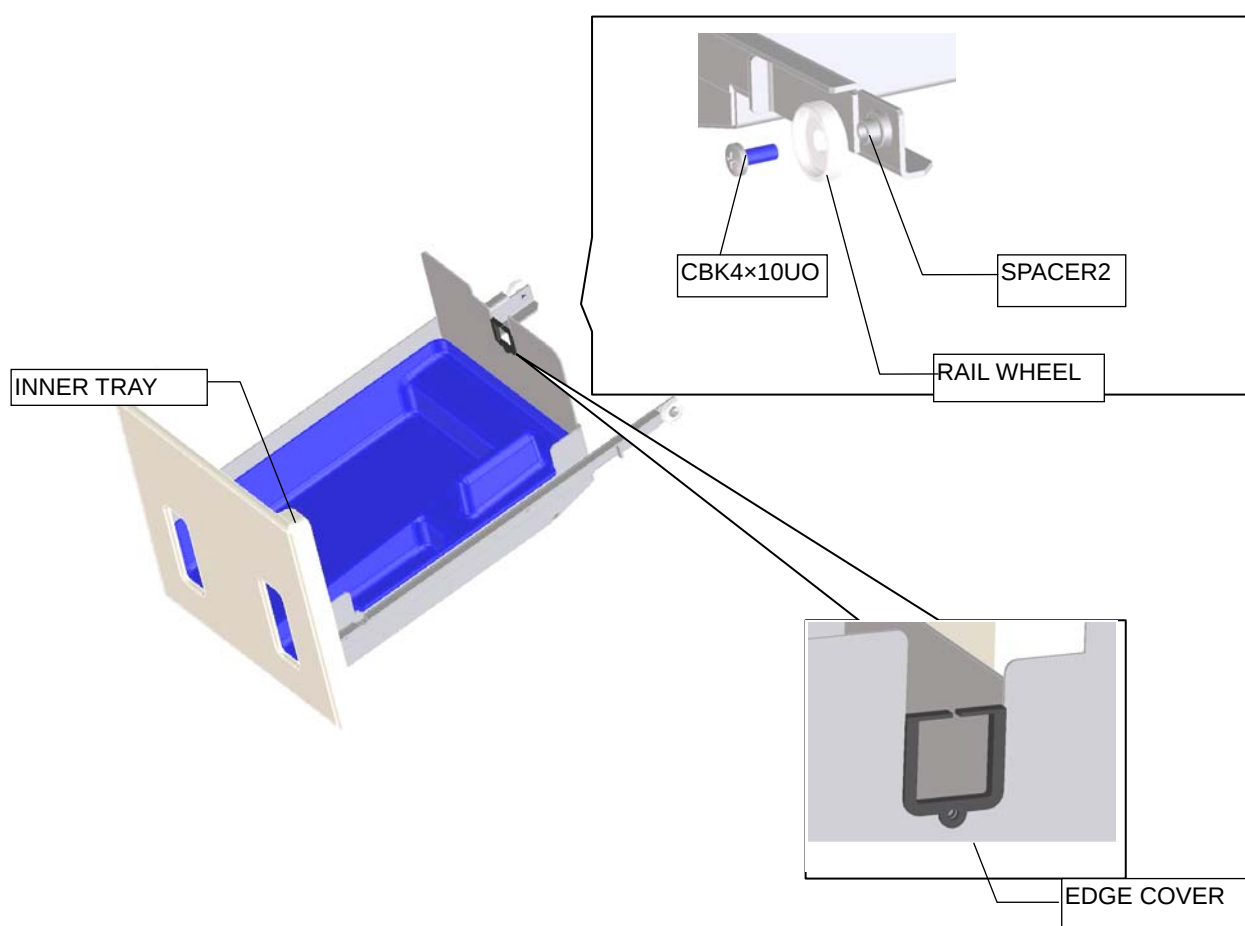
Torque: 1.274 plus or minus 0.098 Nm

3-3-42 Bottle tray unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), NEJILOCK



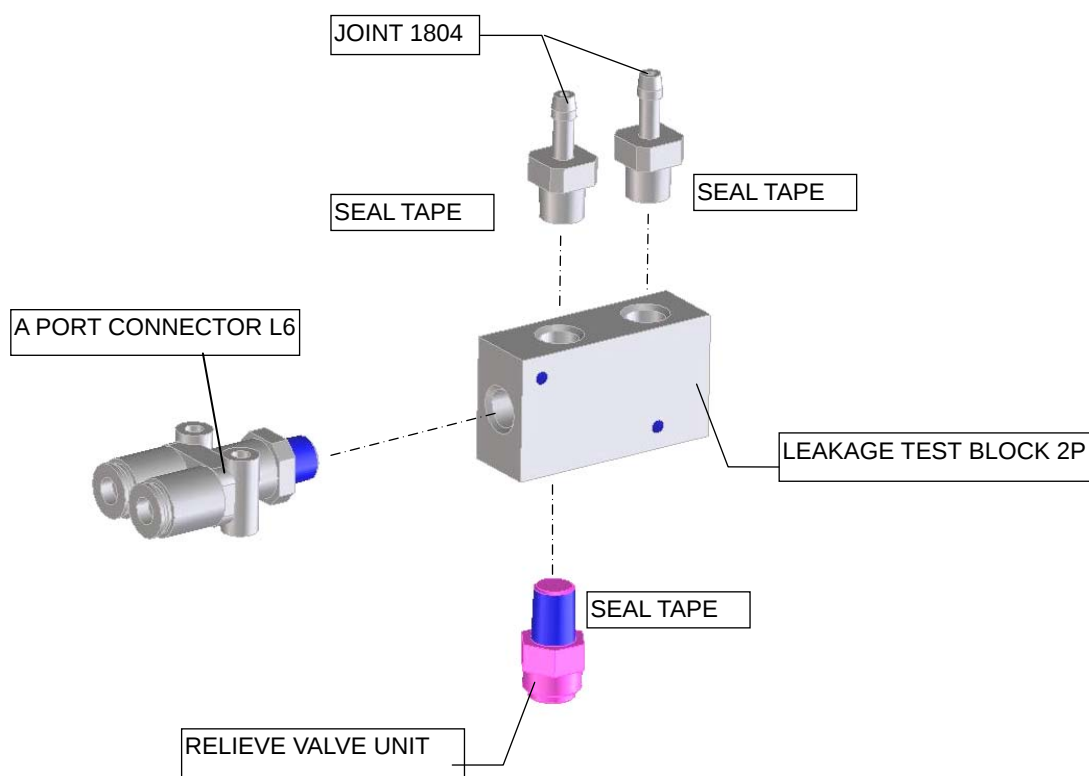
- (1) Insert BOTTLE TRAY P on the hook of BOTTLE TRAY COVER P and then align the screw holes
- (2) Apply nejilock to the thread of screw, secure the six screws (CBK4x6UO) from BOTTLE TRAY P side
Torque: 1.274 plus or minus 0.098 Nm



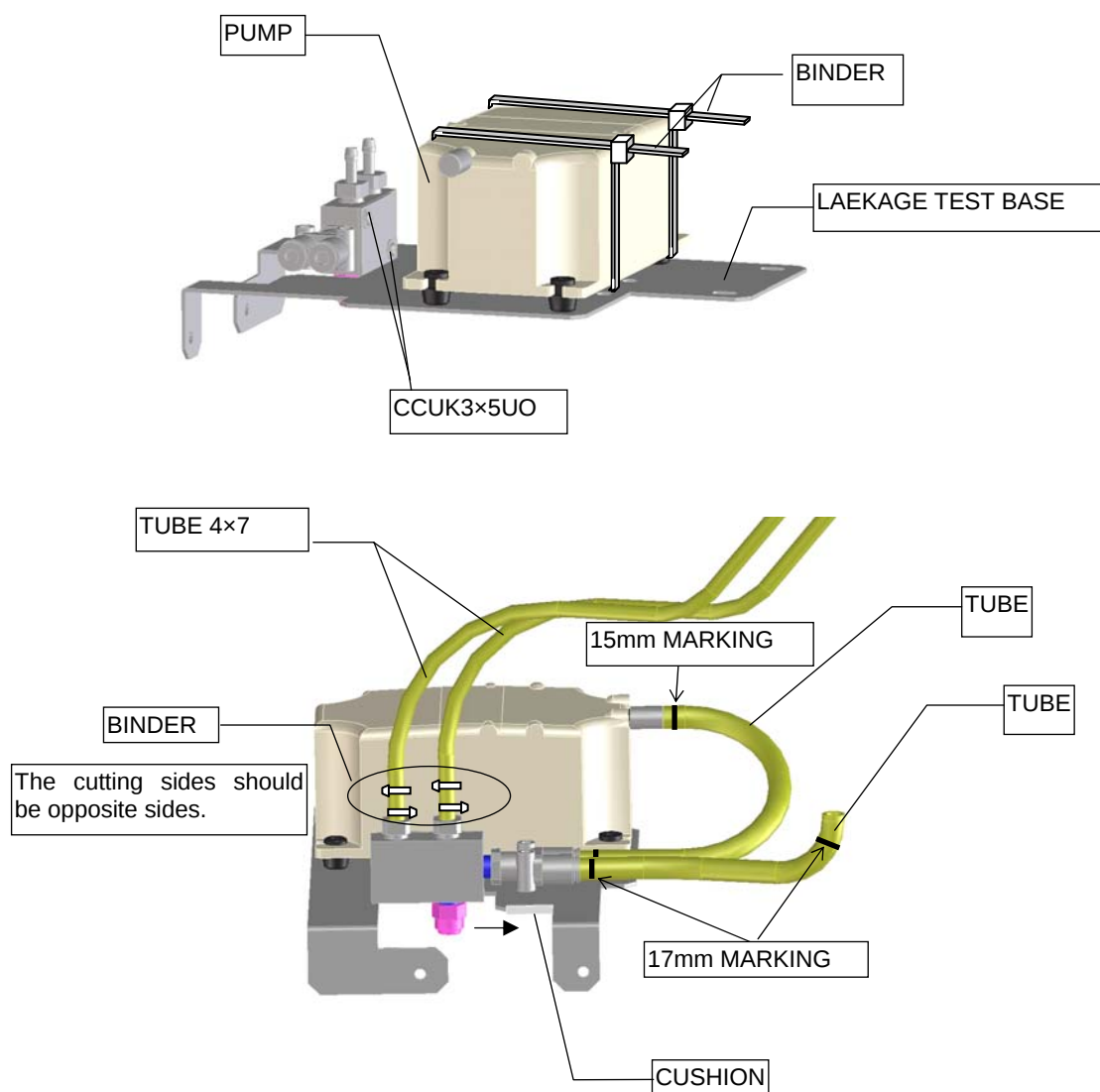
- (3) Attach the EDGE COVER to the notch section of BOTTLE TRAY P
- (4) Insert RAIL WHEEL in the hole of SPACER2 and then secure 2 screws (CBK4x10UO)
- (5) Apply NEJILOCK around the head of screws and secure screws on BOTTLE TRAY P
- (6) Make sure that RAIL WHEEL turns smoothly
- (7) Insert the INNER TRAY in BOTTLE TRAY P and then ensure that BOTTLE TRAY P opens and closes smoothly
- (8) Wipe BOTTLE TRAY P surface with ethanol.
- (9) Put CIC label on BOTTLE TRAY P

3-3-43 Leakage test pump unit

Required tools: Seal tape, No.2 Phillips screwdriver, NEJILOCK, Permanent pen, Scale, Cutter, Nippers



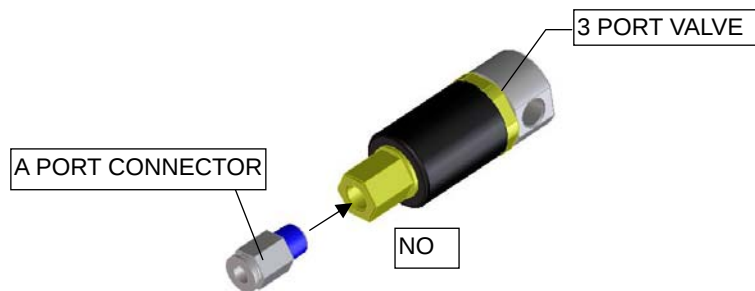
- (1) Wind SEAL TAPE around the threads part of JOINT 1804 and screw into LEAKAGE TEST BLOCK 2P at the designated holes in the above figure (2 places)
- (2) Wind SEAL TAPE around the threads part of RELIEVE VALVE UNIT and screw into LEAKAGE TEST BLOCK 2P at the designated hole in the above figure
- (3) Screw A PORT CONNECTOR L6 into the designated holes of LEAKAGE TEST BLOCK 2P



- (4) Secure LEAKAGE TEST BLOCK 2P to which JOINTs have been attached to LEAKAGE TEST BASE by using 2 screws (CCUK3x5UO) and apply NEJILOCK around the head of screws
Torque: 1.274 plus or minus 0.098 Nm
- (5) Insert 2 of BINDER through the holes in LAEKAGE TEST BASE
- (6) Ensure that HARNESS of PUMP does not become detached from HOUSING to pull and then write down "AIR" and the number on HOUSING
- (7) Place PUMP on LEAKAGE TEST BASE and then secure PUMP by using a BINDER (Note: The pump should be tied at the corners)
- (8) Cut TUBE to the designated length and mark in a position 17 mm from the one edge and 15 mm from the other edge
Designated length: 170 plus or minus 1 mm
- (9) Insert the side marked at the 15 mm position into PUMP and then insert the side marked at the 17 mm side into the A PORT CONNECTOR
- (10) Cut TUBE to the designated length and then insert one side in A PORT CONNECTOR
Designated length: 170 plus or minus 1 mm
- (11) Cut TUBE 4x7 to into two parts to the stipulated length and inserted in JOINT
Designated length: 680 plus or minus 5 mm
- (12) Connect TUBE inserted in JOINT by using a BINDER
- (13) Cut CUSHION to the designated length and apply BONDING GLUE around the inside and then connect to the designated location of LEAKAGE TEST BASE in the above figure
Designated length: 170 plus or minus 1 mm

3-3-44 Exhaust port valve

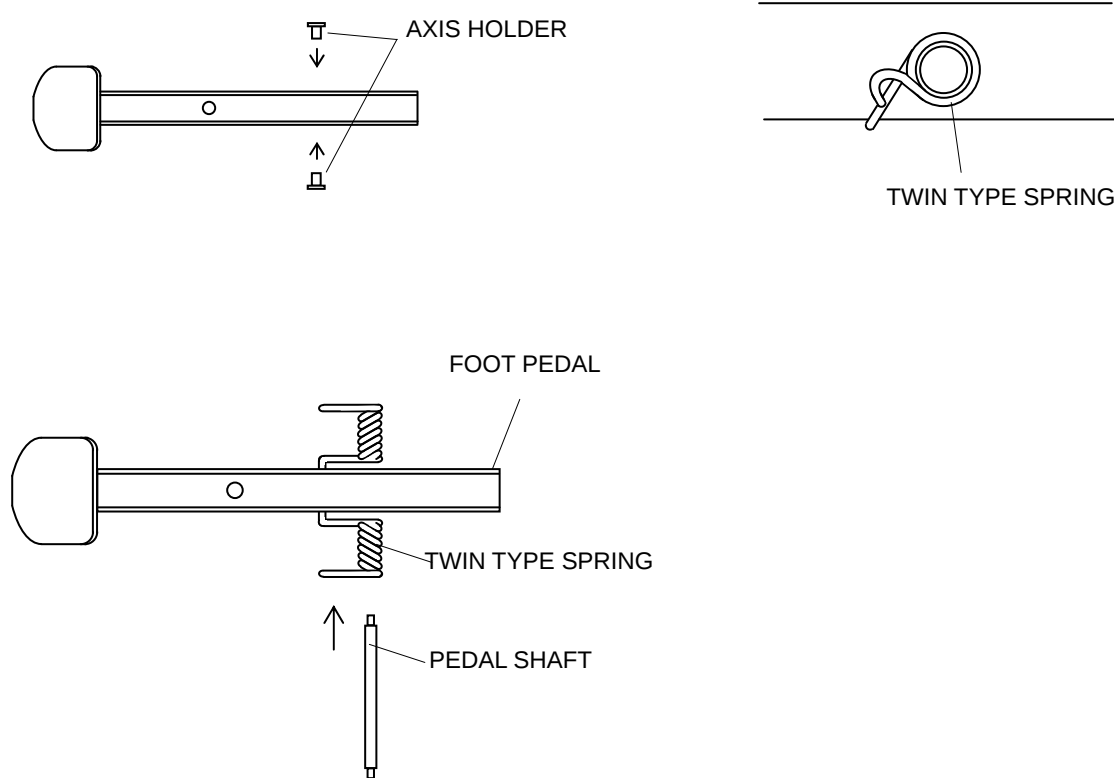
Required tools: Adjustable wrench, (Exhaust port valve securing jig (JB4141))



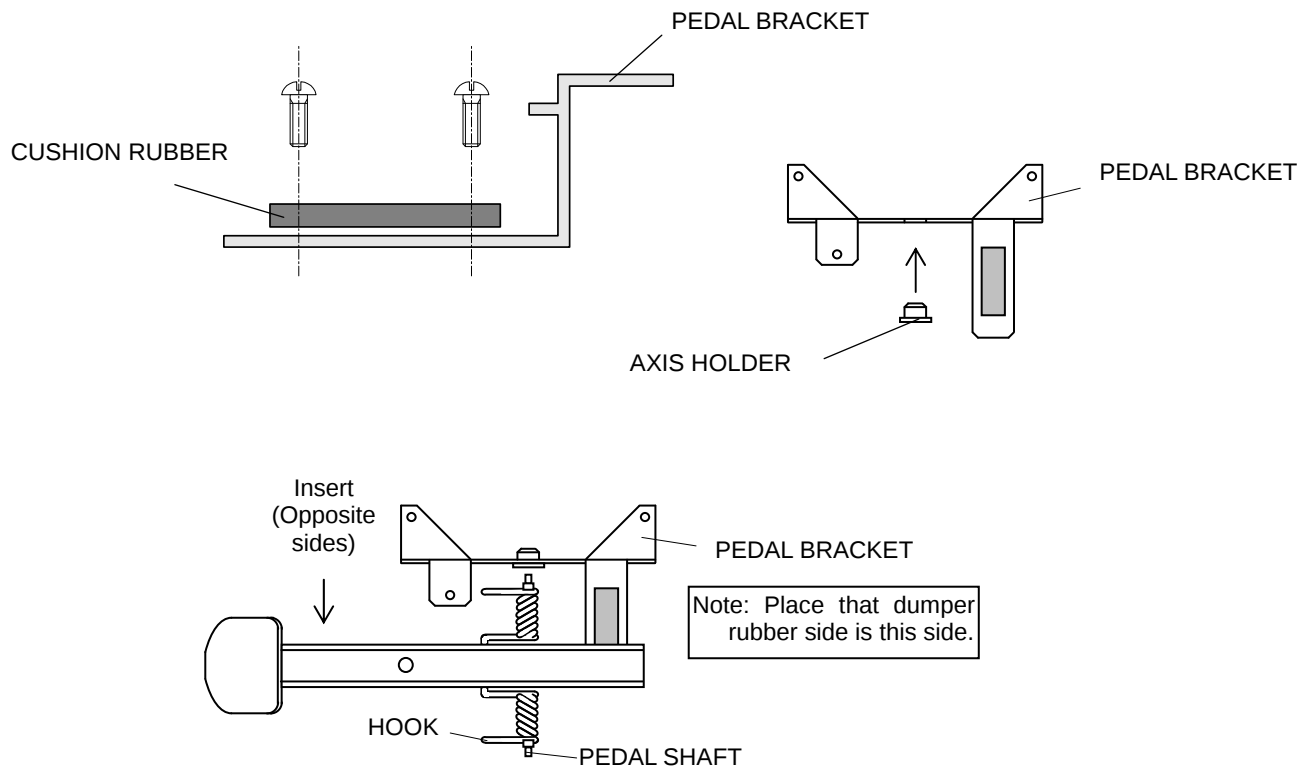
- (1) Connect A PORT CONNECTOR to 3 PORT VALVE
- (2) Ensure that the dust protection seal of 3 PORT VALVE UNIT is removed without fail (or CAP)
Note: If the dust protection seal of 3 PORT VALVE UNIT (or CAP) is attached, the exhaust function of the device will be impacted and for this reason, these shall be removed without fail

3-3-45 Foot switch unit

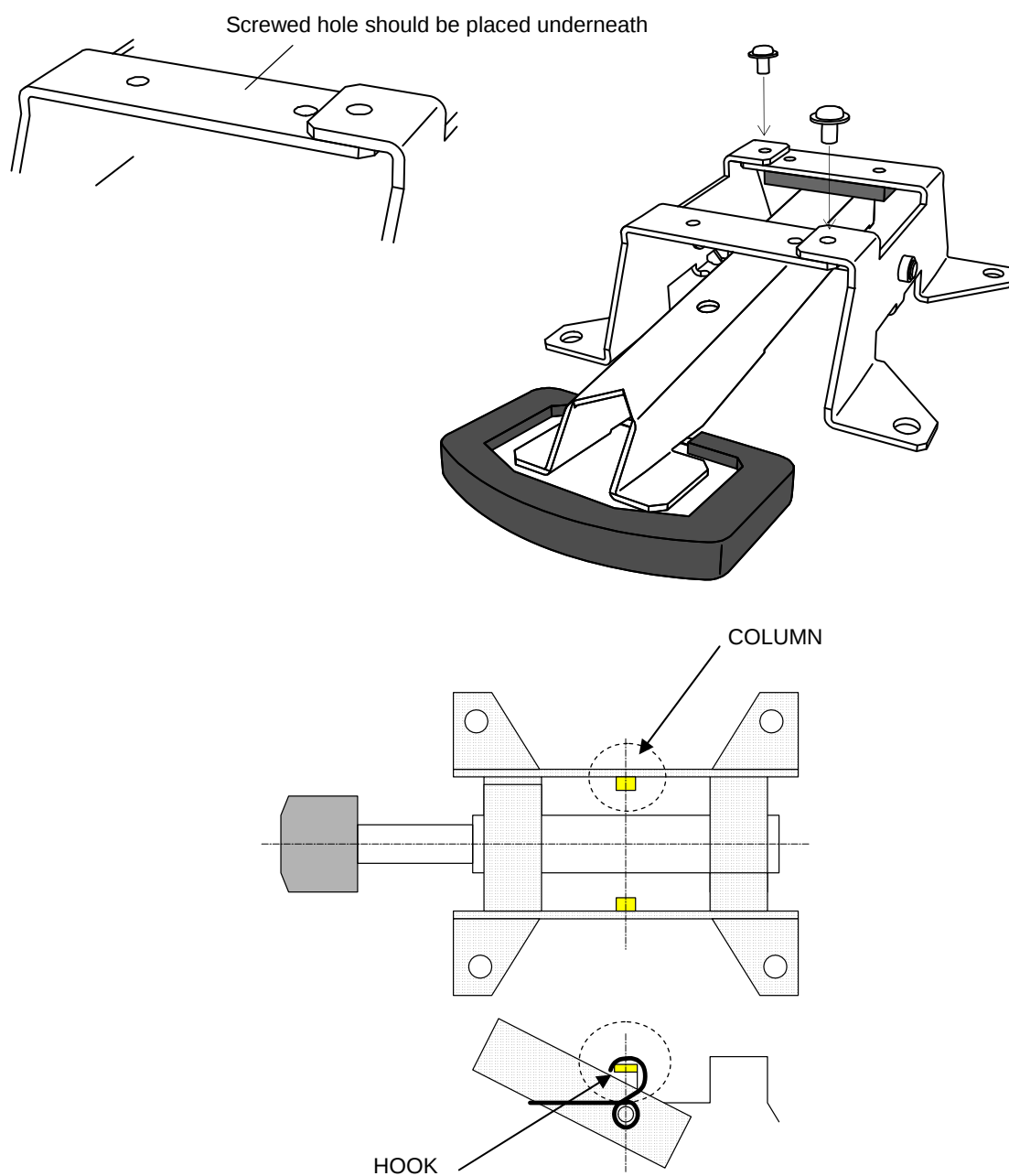
Required tools: NEJILOCK, No. 2 Phillips screwdriver, Torque screwdriver, Torque screwdriver bit (No. 2)



- (1) Insert 2 of jig holders from both sides of the holes in FOOT PEDAL
- (2) Align the axis of TWIN TYPE SPRING and the holes on both sides of FOOT PEDAL
- (3) Insert PEDAL SHAFT through TWIN TYPE SPRING and FOOT PEDAL



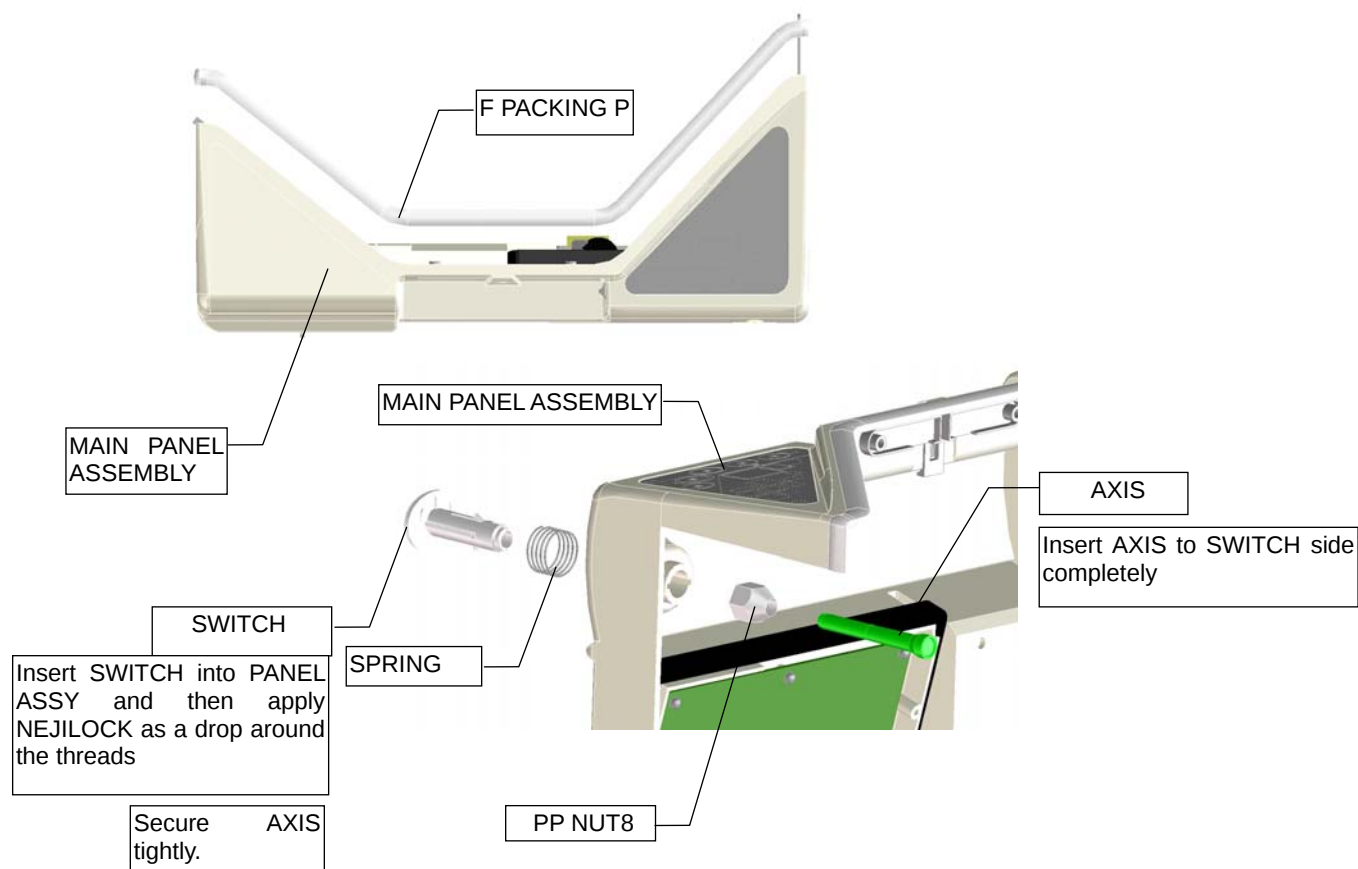
- (4) Connect DAMPER RUBBER to PEDAL BR and then apply NEJILOCK around the head of 2 screws (CCUK4x6UO)
 Note) Perform this procedure only for one PEDAL BR
- (5) Insert AXIS HOLDER in the hole of PEDAL BR (insertion should be to both PEDAL BR)
- (6) Place PEDAL BR in both sides of PEDAL SHAFT



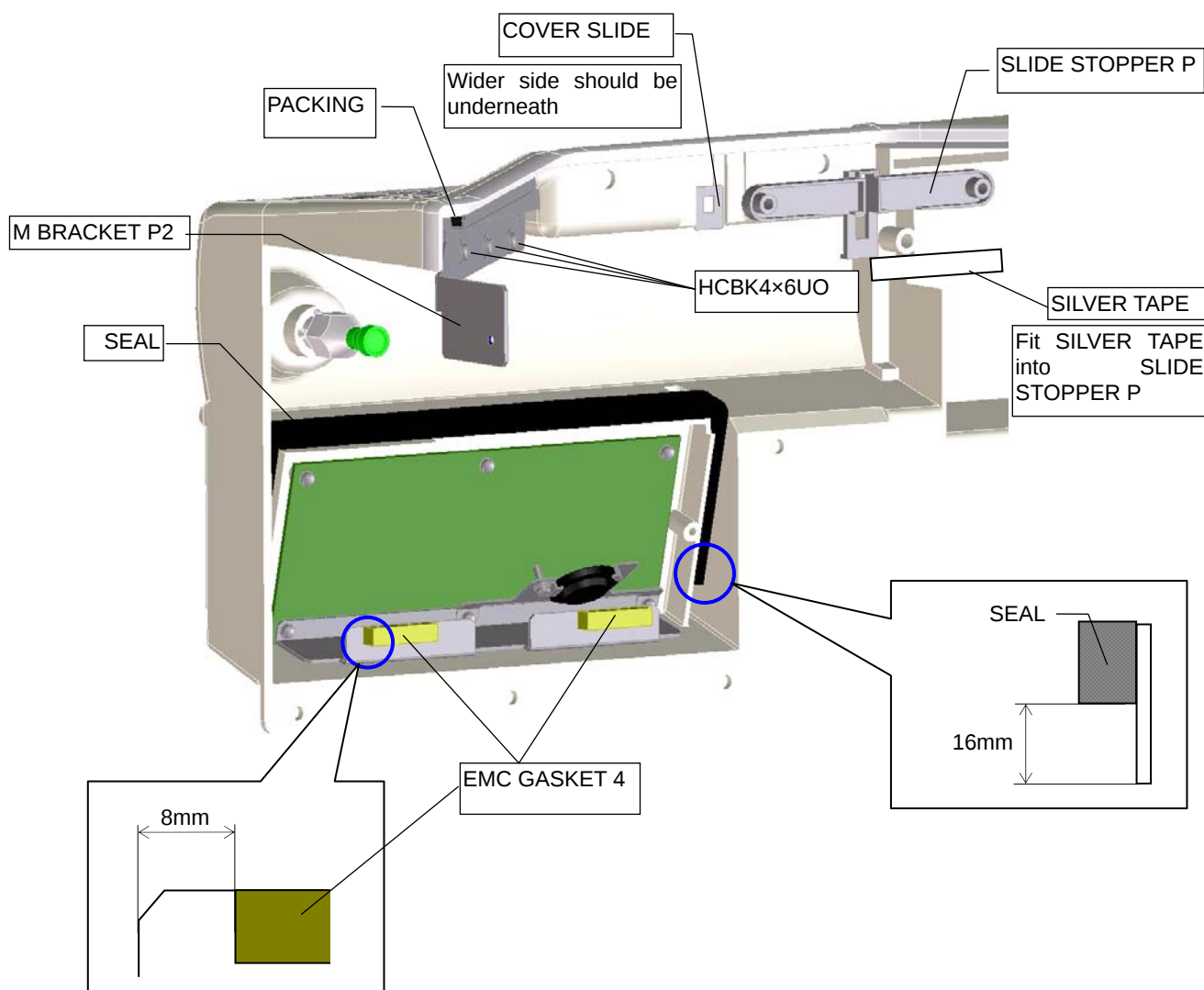
- (7) Align 2 of PEDAL BRACKET so that the screw holes are facing down and then secure by 2 screws (CCUK4x6UO), and then apply NEJILOCK around the head of screws
Torque: 1.274 plus or minus 0.098 Nm
- (8) Connect the hook of TWIN TYPE SPRING to 2 locations on PEDAL BRACKET

3-3-46 Front panel unit

Required tools: SE9186, Silver tape, NEJILOCK, Scale, Cutter, Ethanol, Cleaning paper



- (1) Ensure that there is a click sound to push the various BUTTONs on PANEL ASSEMBLY UNIT
- (2) Apply silicon thinly on the inside of F PACKING P and connect PANEL ASSEMBLY UNIT
- (3) Attach the F PACKING with TAPE and allow to dry
- (4) Insert SWITCH into SPRING and then push in at the location of PANEL ASSEMBLY UNIT shown in the above diagram
- (5) Apply a drop of silicon around the screw of SWITCH and then secure temporarily by using PP NUT
- (6) Completely insert AXIS to switch side, and secure PP NUT 8
- (7) Ensure that operation is smooth when pushing SWITCH several times



- (8) Place COVER SLIDE in the inside of PANEL ASSEMBLY UNIT at the dent position (the wider part should be underneath)
- (9) Connect SLIDE STOPPER in the dent position in which COVER SLIDE was placed and then attach SILVER TAPE at the lower position
- (10) Cut PACKING to the designated length and then attach to M BRACKET P2 and then secure to PANEL ASSEMBLY UNIT by using 3 screws (HCBK4x6UO)

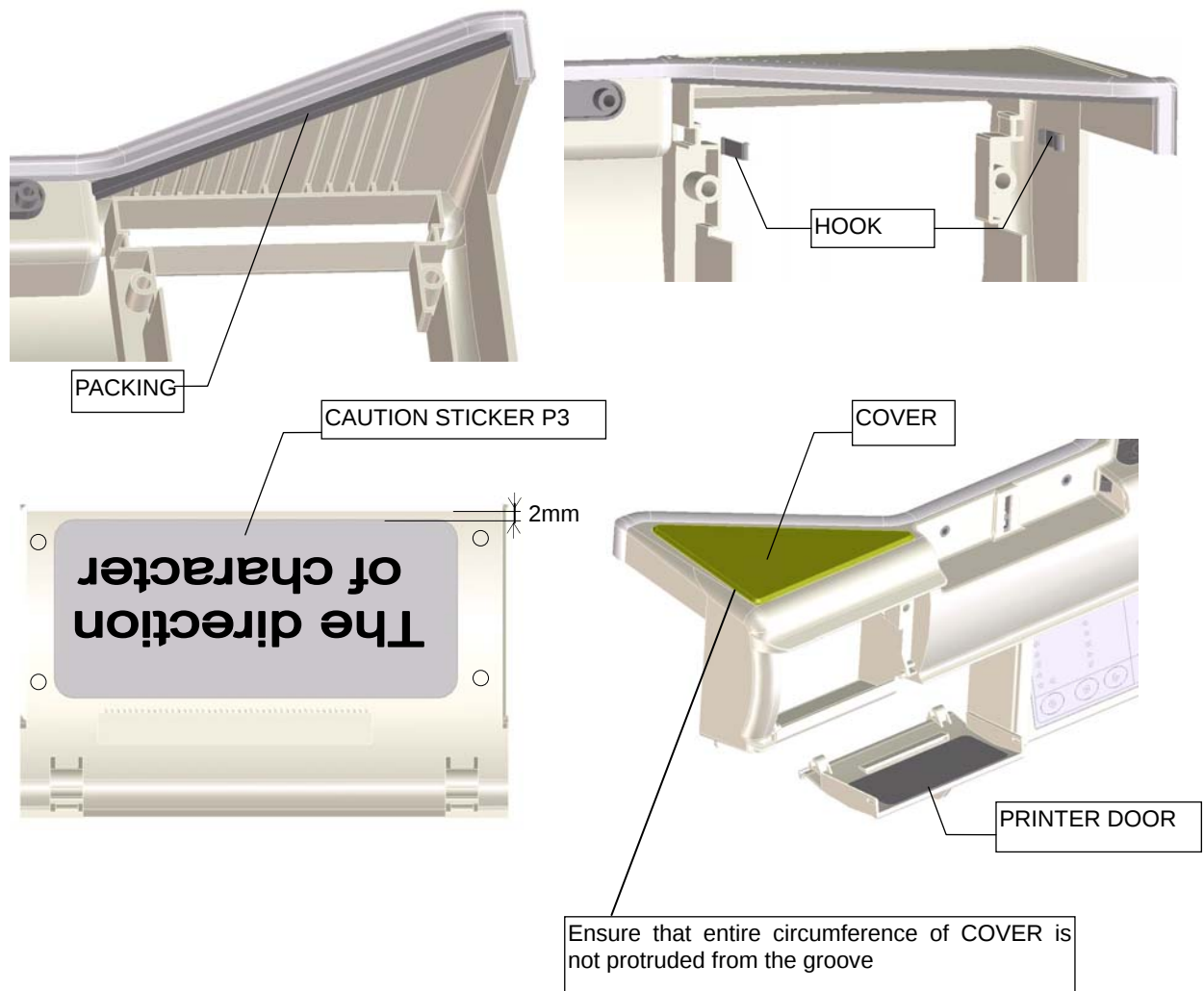
Designated length: 145 plus or minus 10 mm

Torque: 1.274 plus or minus 0.098 Nm

- (11) Apply NEJILOCK around the head of screws
- (12) Cut SEAL to the designated length and then attach to the location shown in the above figure on PANEL ASSEMBLY UNIT

Designated length: 340 plus or minus 10 mm

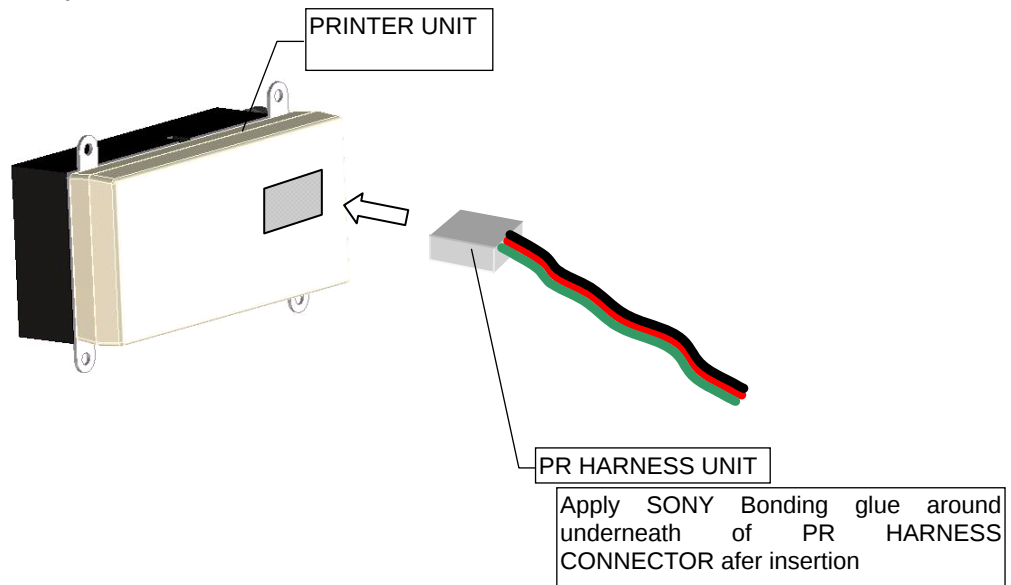
- (13) Creep HARNESS of MAIN PANEL and SUB PANEL into PACKING TAPE
- (14) Attach EMC GASKET to the location shown in the above figure on PANEL ASSEMBLY UNIT



- (15) Cut PACKING to the designated length and then attach to the location shown in the above figure from behind PANEL ASSEMBLY UNIT
 - (16) Insert HOOK into the location shown in the above figure from behind PANEL ASSEMBLY UNIT
 - (17) Wipe the back of the PR door with ethanol and the warning label P3 needs to be attached at the location shown in the above figure
 - (18) Attach PRINTER DOOR to the location shown in the above figure of PANEL ASSEMBLY UNIT and then ensure that opening and closing operation is smooth
 - (19) Wipe CUSHION of PANEL ASSEMBLY UNIT at the side for attaching F PACKING P by using ethanol
 - (20) Attach CUSHION to the dent position of PANEL ASSEMBLY UNIT
- Note: Ensure that the entire circumference of the cushion is not protruding from the groove

3-3-47 Printer unit

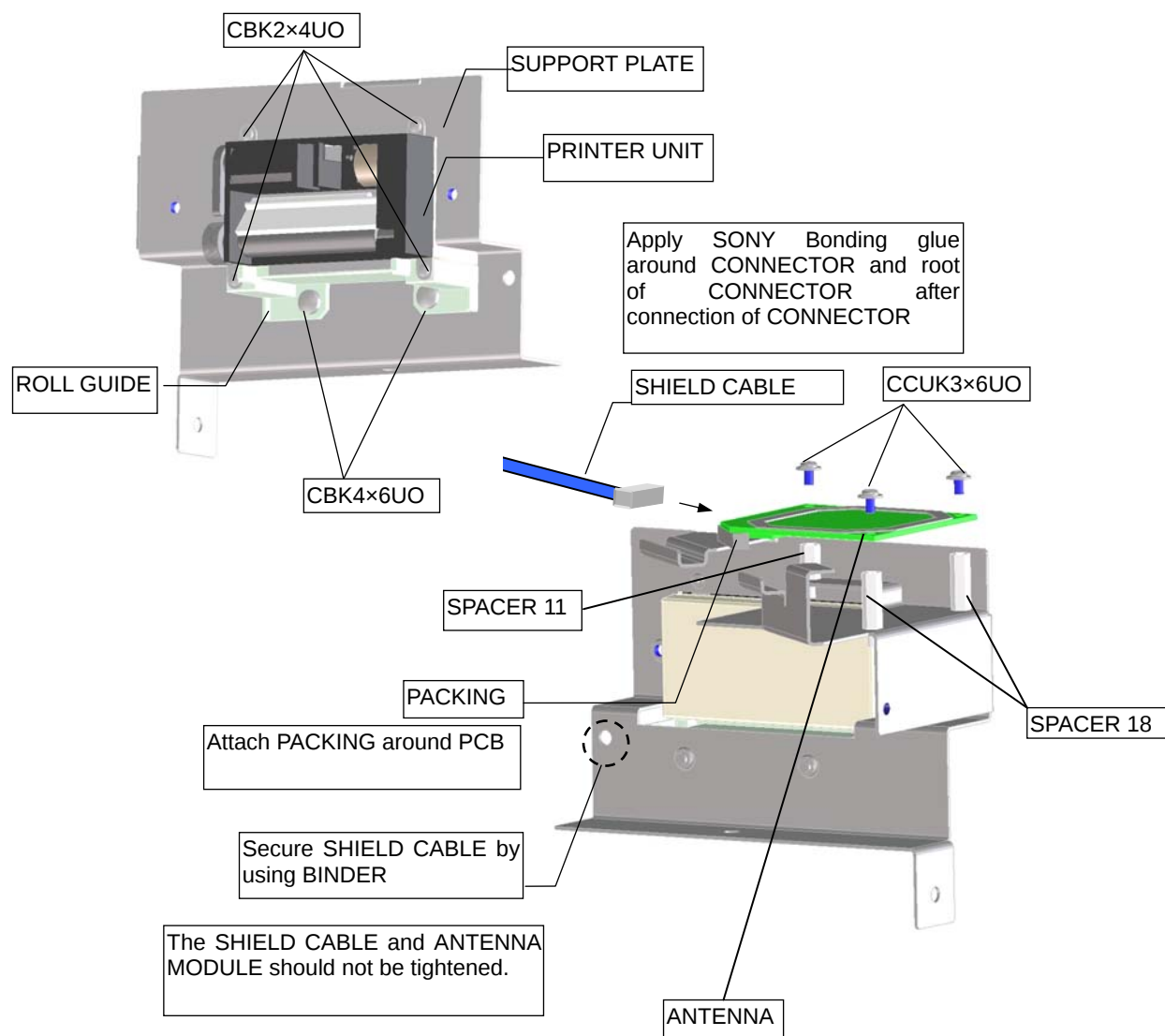
Required tools: Sony bond



- (1) Insert PR HARNESS UNIT into the connector part of PRINTER UNIT
- (2) Apply SONY bonding glue around PR HARNESS UNIT underneath, after insertion

3-3-48 Printer head unit

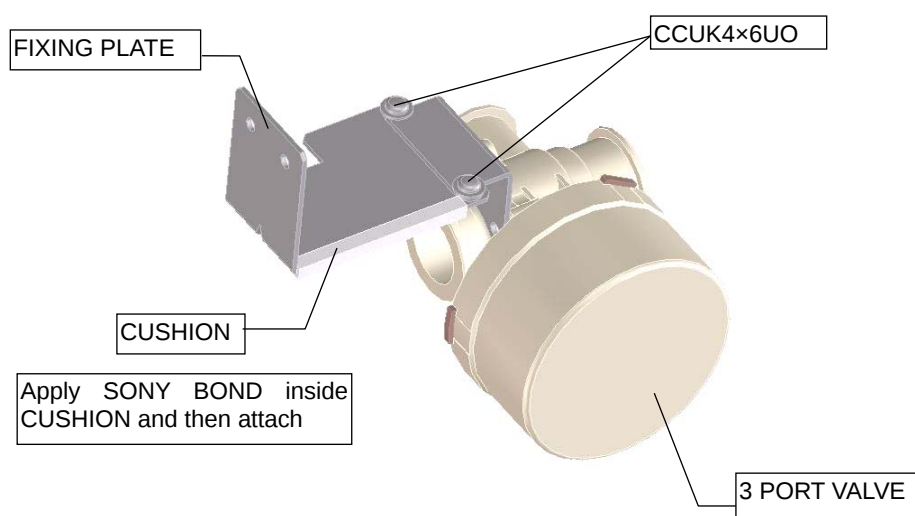
Required tools: No.1 Phillips screwdriver, No.1 Phillips screwdriver, Torque screwdriver, Torque screwdriver bit (No.2), NEJILOCK, Scale, Cutter, Bonding glue



- (1) Attach ROLL GUIDE with 2 screws (CBK4x6UO) temporarily to SUPPORT PLATE
- (2) Align SUPPORT PLATE and ROLL GUIDE to the hole in PRINTER and then apply NEJILOCK around 4 screws (CBK2x4UO)
- (3) Secure 2 screws (CBK4x6UO) tightly
Torque: 0.686 plus or minus 0.098 Nm
- (4) Apply NEJILOCK around the screw part of SPACER 11 and SPACER 18 to attach SUPPORT PLATE
- (5) Cut PACKING to a designated length and then attach ANTENNA MODULE
Designated length: 25 plus or minus 1 mm
- (6) Secure the hole of ANTENNA MODULE by using 3 screws (CCUK3x6UO)
Torque: 0.49 plus or minus 0.098 Nm
- (7) Apply NEJILOCK around the head of screws
- (8) Connect SHIELD CABLE to CONNECTOR of ANTENNA MODULE and then apply SONY Bonding glue above CONNECTOR
- (9) Secure SHIELD CABLE by using BINDER

3-3-49 3 port valve unit

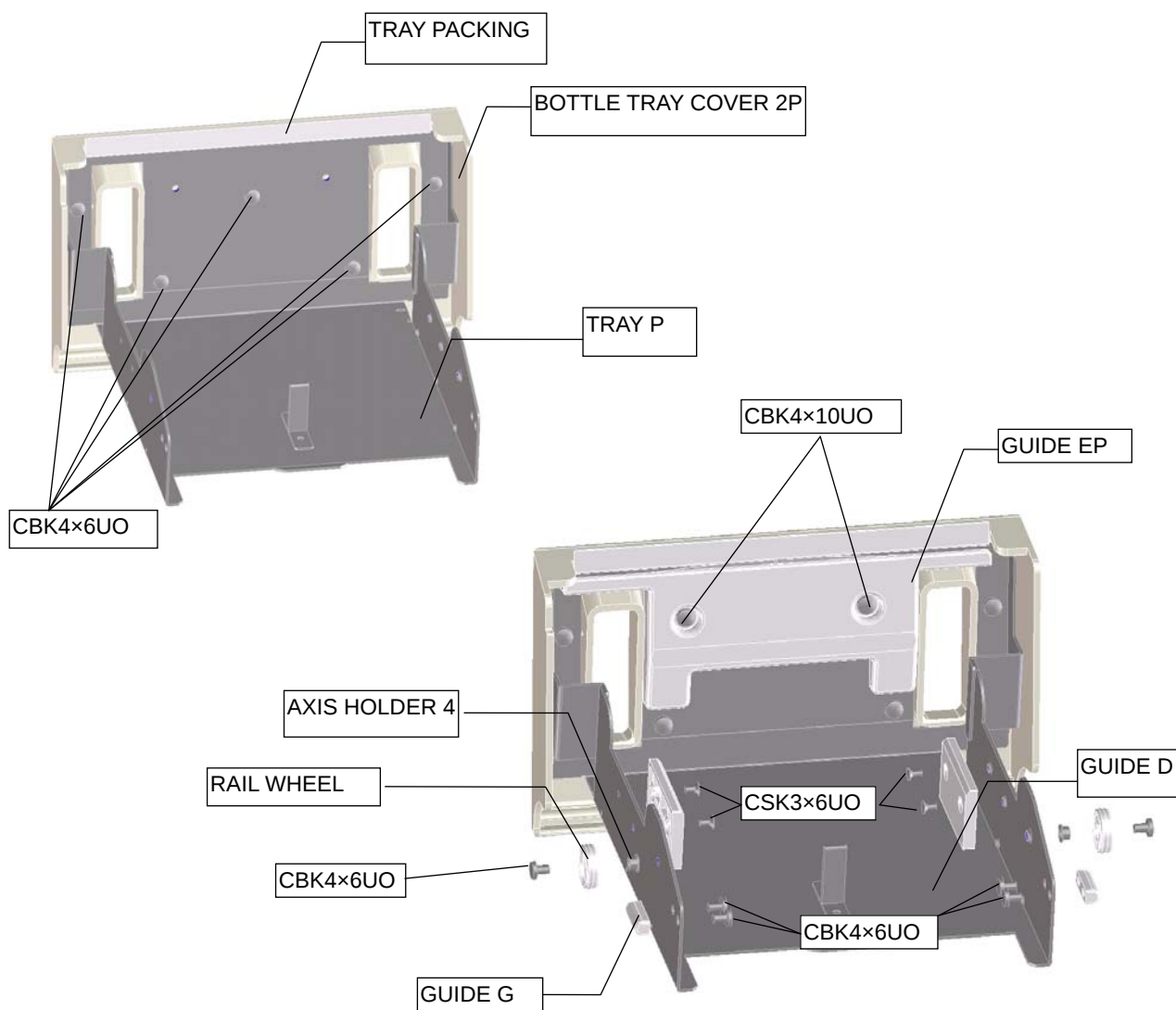
Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Sony bond, NEJILOCK



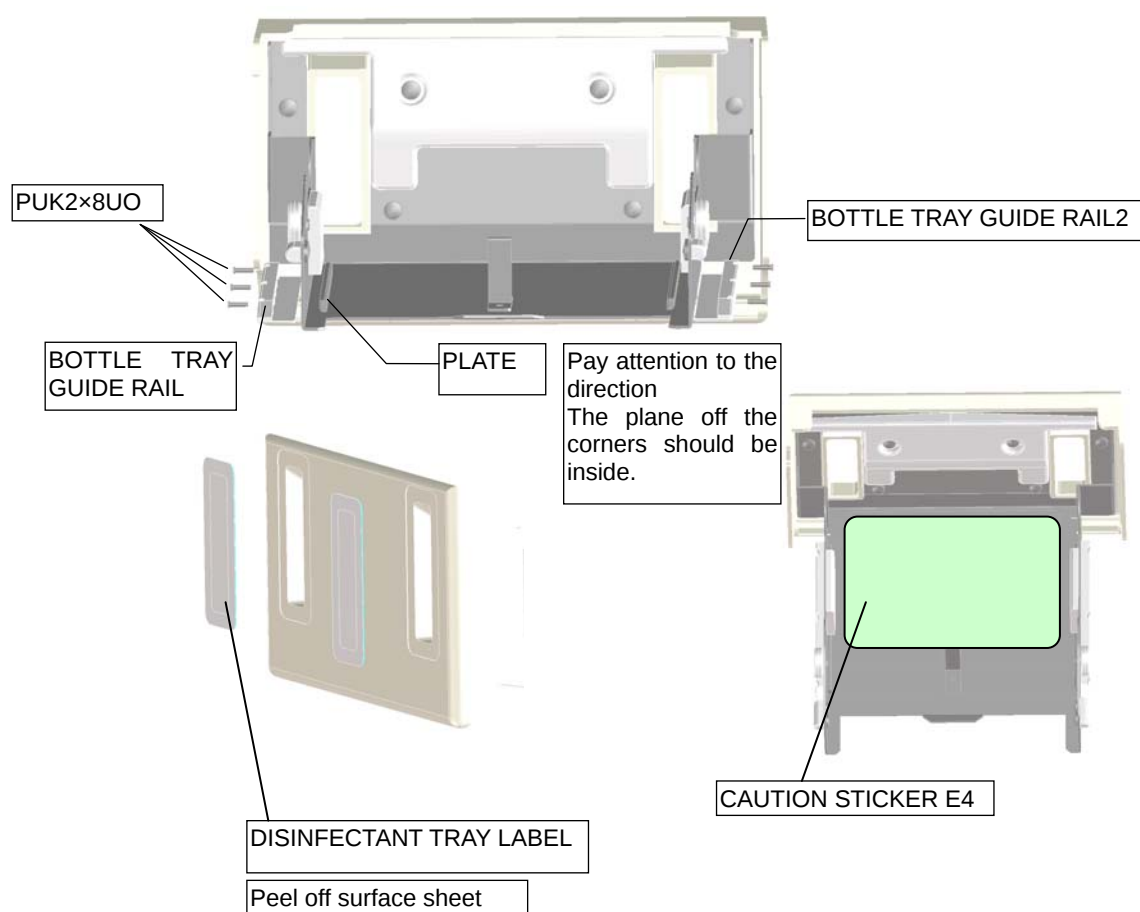
- (1) Assemble EDGE HOLDER to FIXING PLATE
- (2) Align BRACKET of 3 PORT VALVE UNIT of FIXING PLATE to screw holes
- (3) Secure FIXING PLATE by using 2 (CCUK4x6UO) screws
Torque: 1.274 plus or minus 0.098 Nm
- (4) Apply NEJILOCK around the head of screws
- (5) Cut CUSHION to the designated length and apply SONY BOND at 2 points on the inside and attach to FIXING PLATE

3-3-50 Disinfectant bottle tray unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), NEJILOCK, Ethanol, Cleaning paper



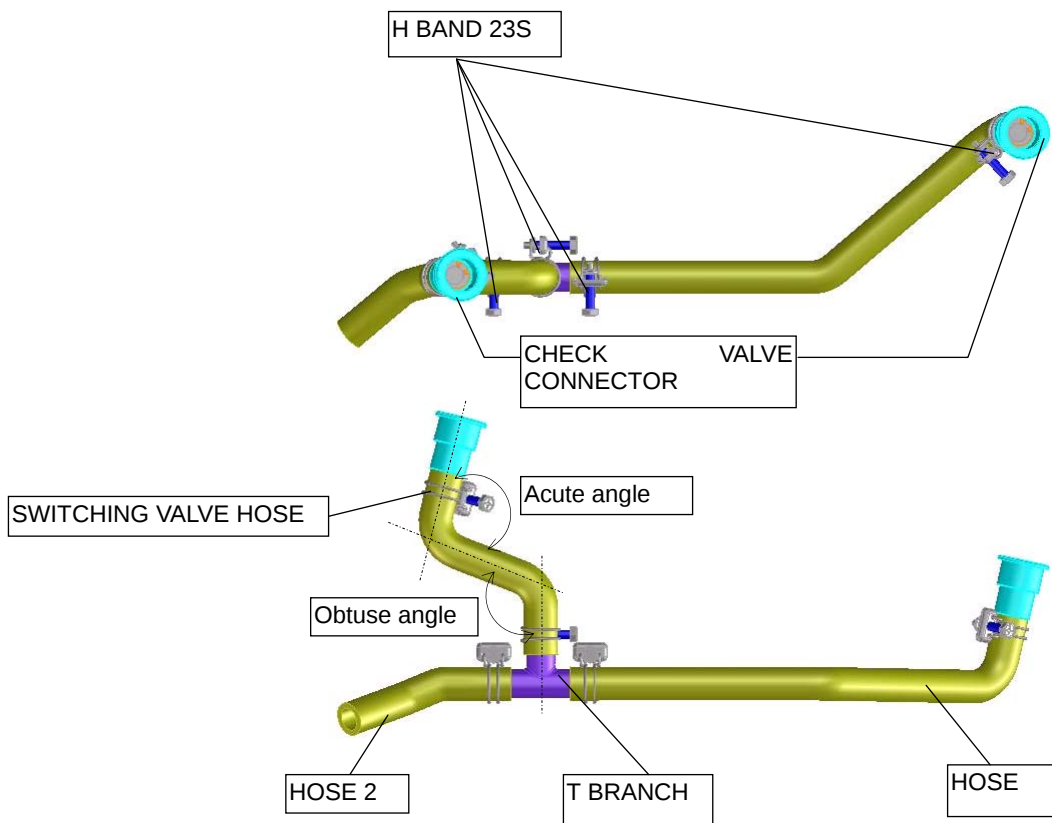
- (1) Connect TRAY PACKING to BOTTLE TRAY COVER 2P
- (2) Align screw holes of BOTTLE TRAY COVER 2P and TRAY P and then apply NEJILOCK around the head of 5 screws (CBK4x6UO) and then secure
Torque: 1.274 plus or minus 0.098 Nm
- (3) Apply NEJILOCK around the screw holes of TRAY P and GUIDE EP and then secure
Torque: 1.274 plus or minus 0.098 Nm
- (4) Apply NEJILOCK around the screw holes of GUIDE D and then align TRAY P and secure 4 screws (CSK3x6UO)
- (5) Attach AXIS HOLDER 4 to RAIL WHEEL 2
- (6) Insert screws into AXIS HOLDER 4 and then apply NEJILOCK around 2 of screws (CBK4x6UO) and then secure
- (7) Apply NEJILOCK around threads of Guide G and then secure to TRAY P by using 4 screws (CBK4x6UO)



- (8) Attach PLATE from the inside of TRAY P and BOTTLE TRAY GUIDE RAIL 2 and then apply NEJILOCK around the threads of screws and then secure to TRAY P by using 3 screws (PUK2x8UO)
- (9) Wipe the surface of BOTTLE TRAY COVER 2P by using ethanol and then attach DISINFECTANT STICKER P4 to the dent position
- (10) Wipe out the inner surface of TRAY P with ethanol and attach CAUTION STICKER E4 at the location shown in the above diagram

3-3-51 T branch

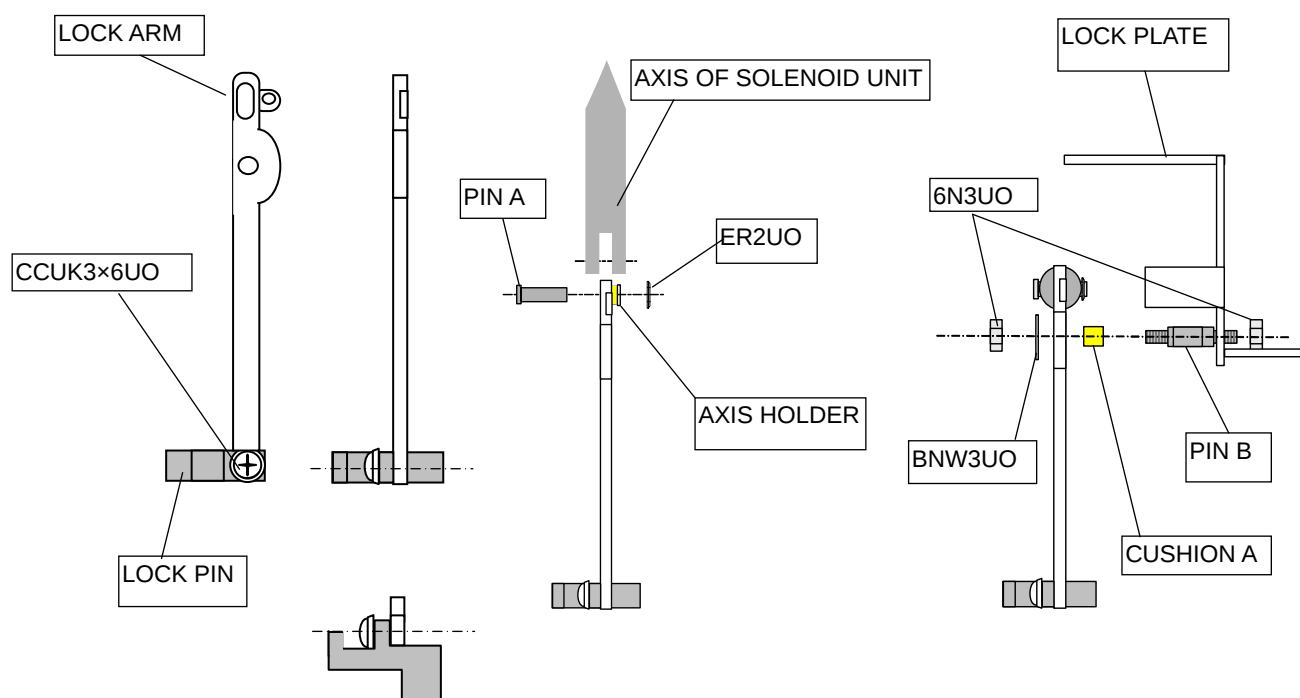
Required tools: Torque screwdriver, Torque screwdriver bit (No. 2)



- (1) Insert H BAND in HOSE 2, and then attach to T BRANCH and then secure H BAND
Torque: 2.8 plus or minus 0.1 Nm
- (2) Insert H BAND in HOSE and then attach to T BRANCH and then secure H BAND
Torque: 2.8 plus or minus 0.1 Nm
- (3) Insert H BAND in T BRANCH and then attach to T BRANCH and then secure H BAND
Torque: 2.8 plus or minus 0.1 Nm
- (4) Insert H BAND inserted into T BRANCH and HOSE
- (5) Connect CHECK VALVE CONNECTOR to T BRANCH and HOSE and then secure H BAND
Torque: 2.8 plus or minus 0.1 Nm

3-3-52 Disinfectant tray lock unit

Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), NEJILOCK, Sony bond, Scale, Cutter



- (1) Secure LOCK PIN on LOCK ARM with a screw (CCUK3x6UO), and then apply NEJILOCK around the head of screws

Torque: 1.274 plus or minus 0.098 Nm

- (2) Insert AXIS HOLDER in LOCK ARM, PIN A, AXIS OF SOLENOID UNIT and then attach by using E RING

Note)

- Ensure that there is a click sound when E RING pushes all the way in
- Ensure that E RING does not dislodge even when E RING pulls by using tweezers
- Ensure that E ring is able to rotate by using tweezers
- An E ring that has once been detached should not be reused.

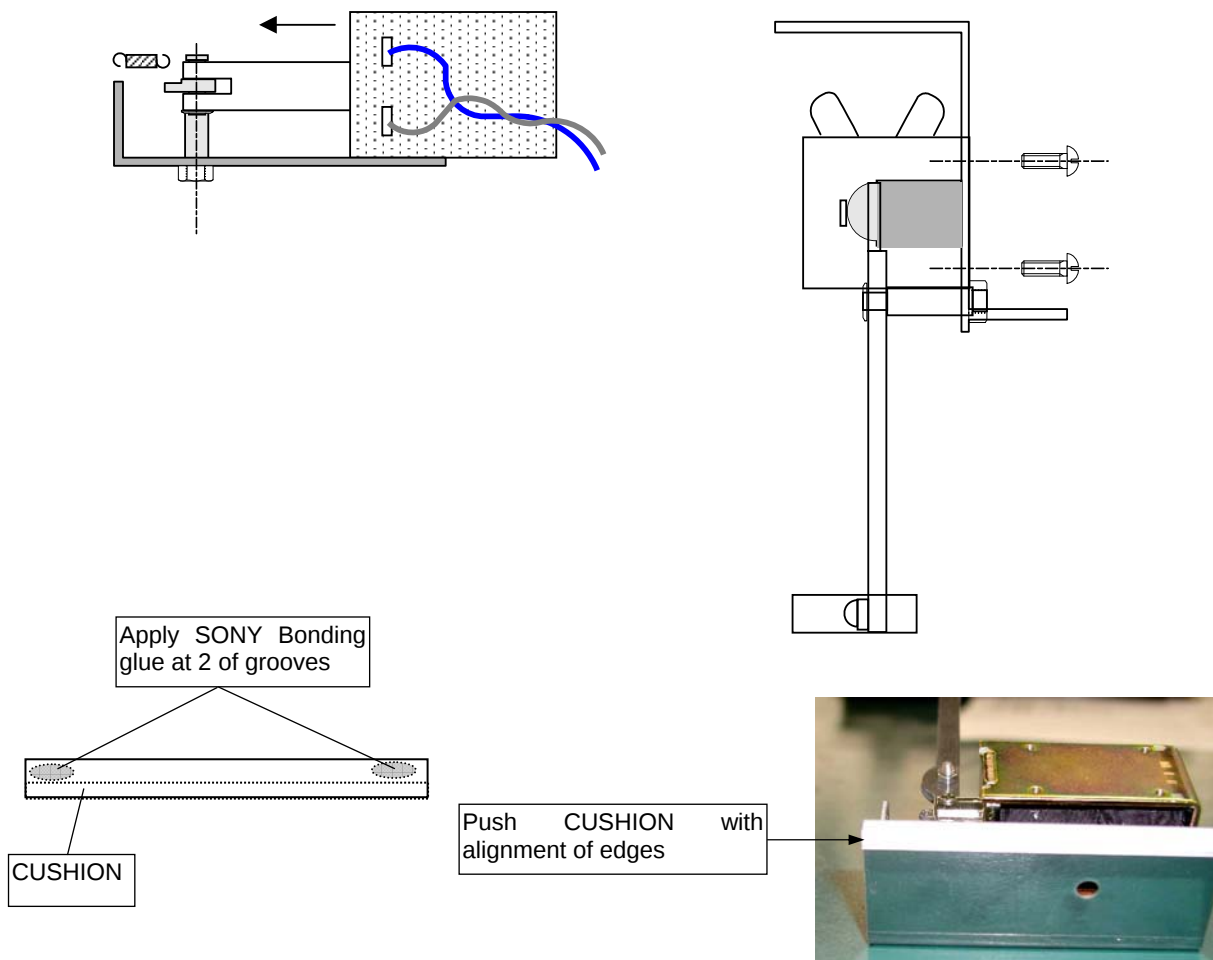
- (3) Attach PIN B all the way in the screw hole of LOCK PLATE

- (4) Insert washer (6N3UO) to the screw of PIN B screwed into LOCK PLATE and then apply NEJILOCK

- (5) Insert CUSHION A and PIN B in LOCK ARM and then secure by using washer (6N3UO) and apply NEJILOCK

Note)

- The tightening should be to the extent avoiding the crushing of CUSHION A



- (6) Insert the main unit of AXIS OF SOLENOIDE in the axis of AXIS OF SOLENOID and then secure to LOCK PLATE by using 4 screws (CCUK3x6UO)

Torque: 1.274 plus or minus 0.098 Nm

- (7) Apply NEJILOCK around the head of screws

- (8) Insert LOCK SPRING into the holes on LOCK PLATE and LOCK PIN

Note)

- After insertion, the winded spring should be crimped

- (9) Move LOCK ARM and ensure that LOCK SPRING returns smoothly

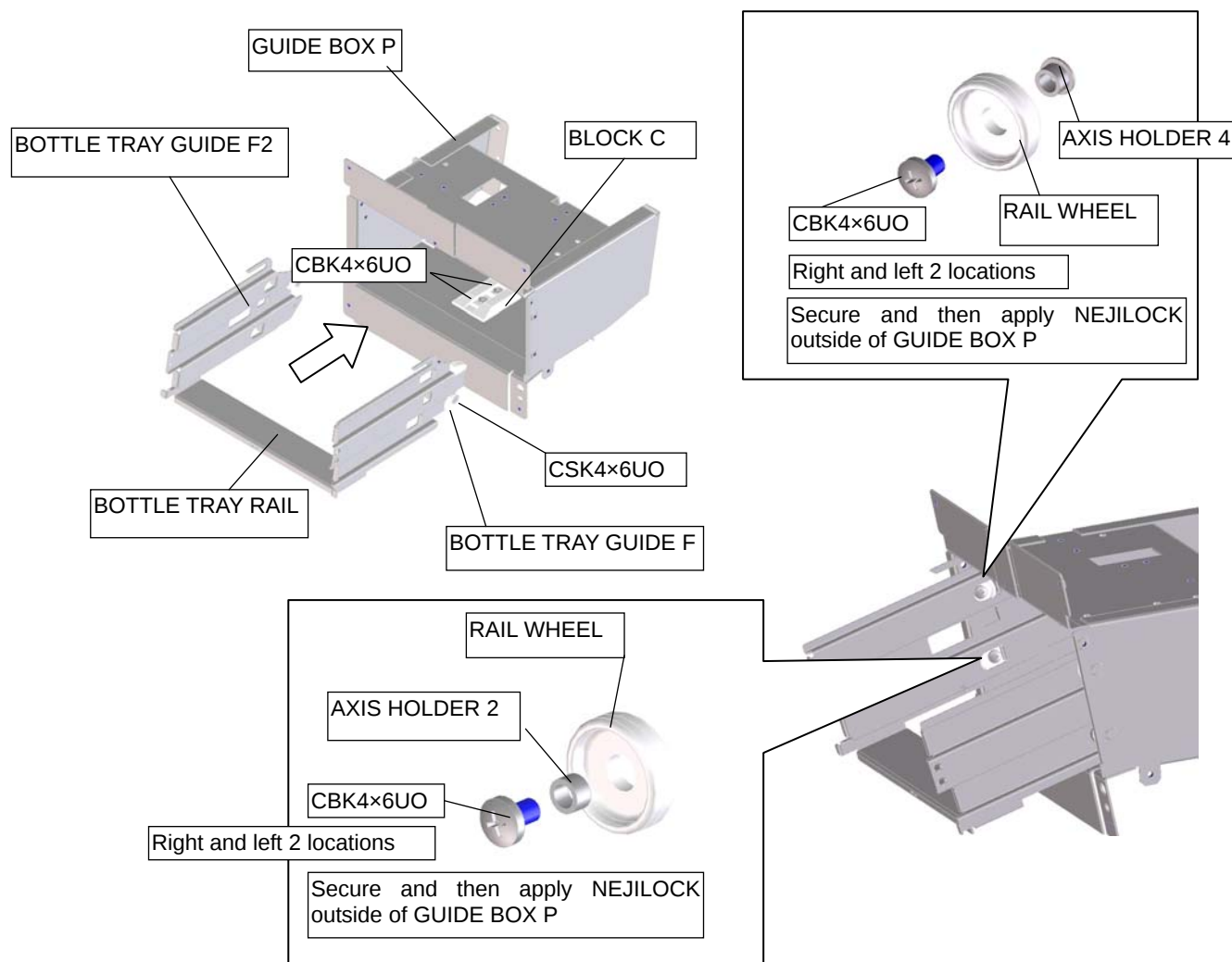
- (10) Cut CUSHION to the designated length and apply SONY Bonding glue at two locations on both edges of the groove

Designated length: 80-3 mm

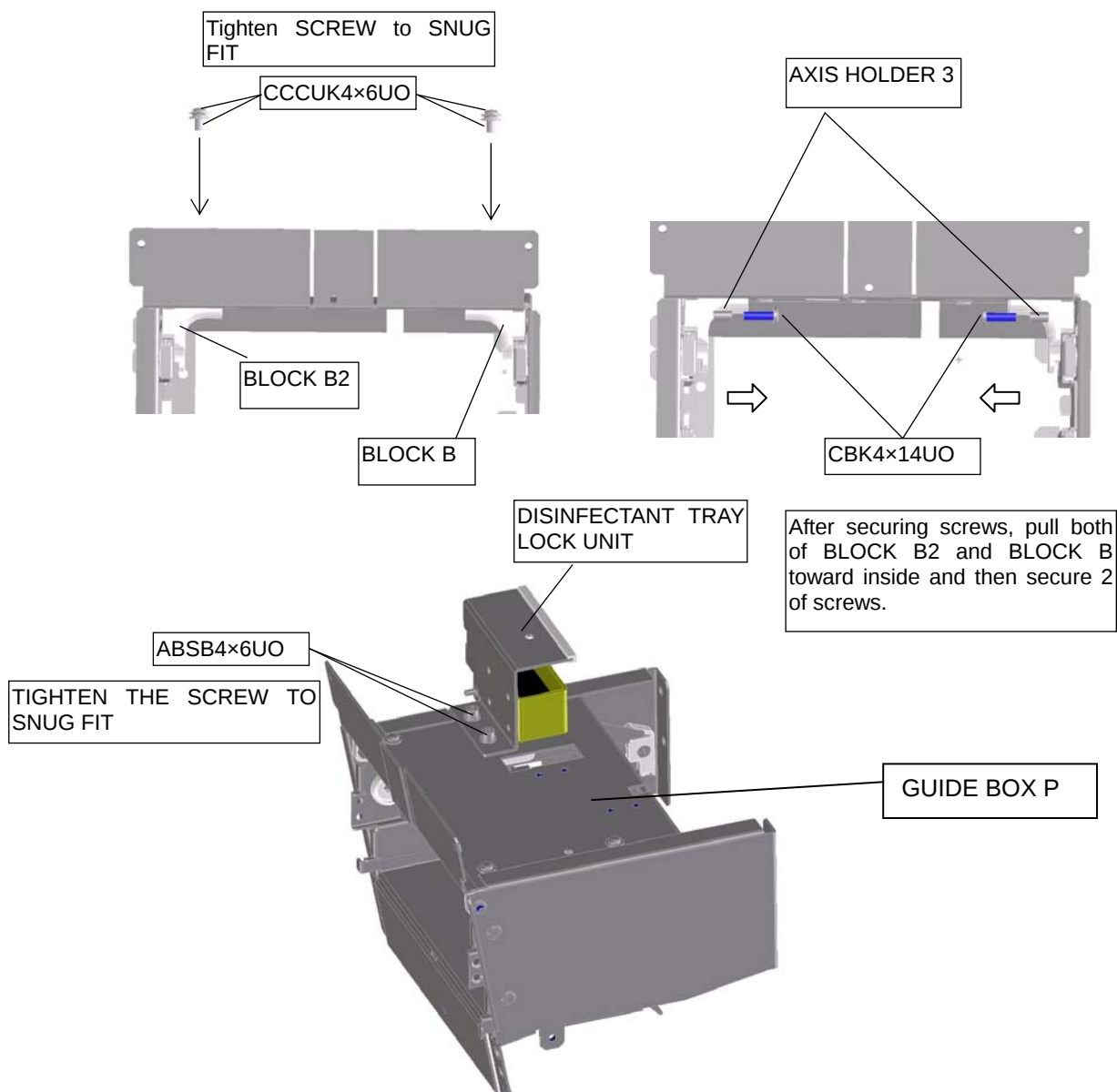
- (11) Push CUSHION all the way in to the position shown in the above figure of LOCK PLATE

3-3-53 Disinfectant bottle guide unit

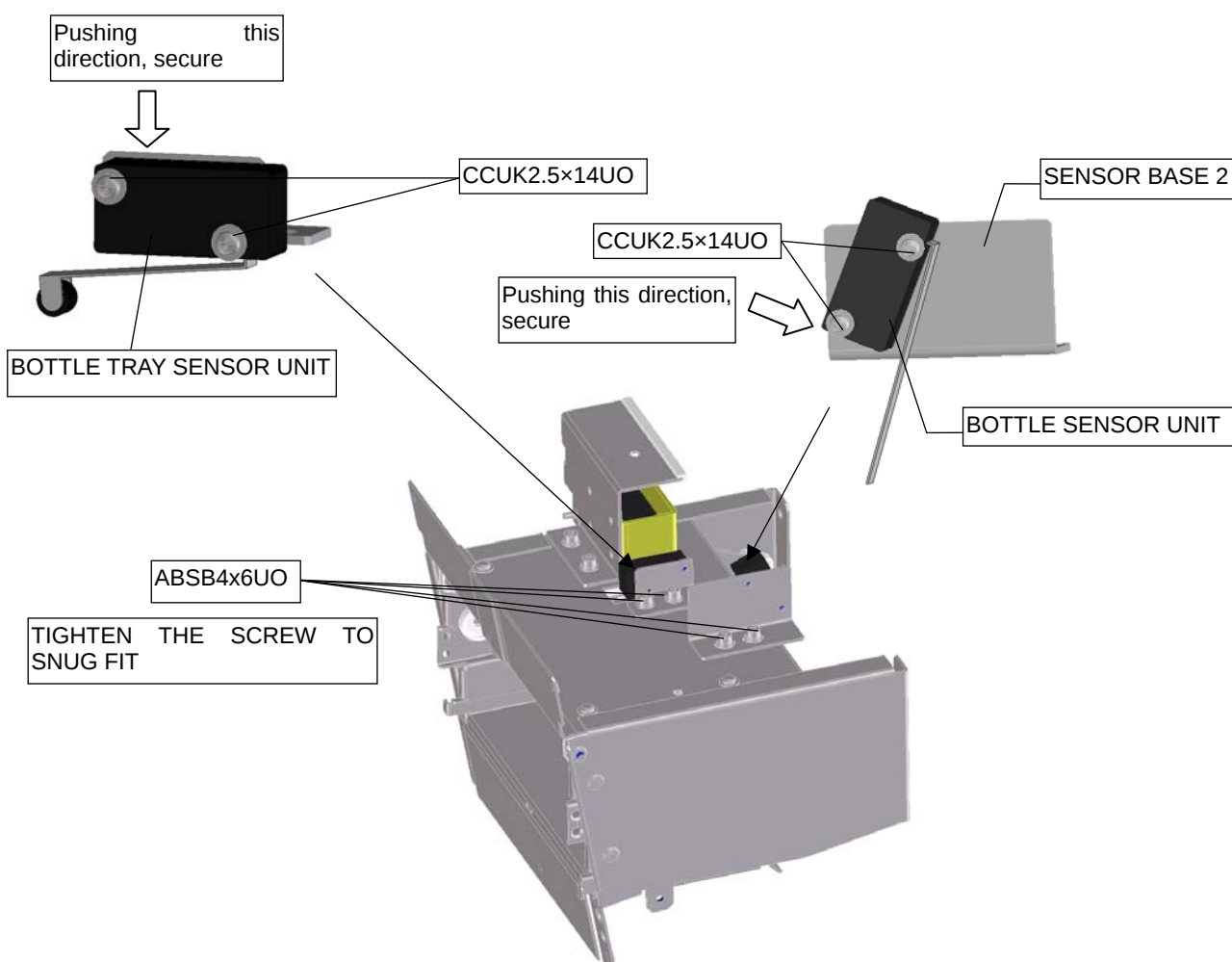
Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), Philips driver (No. 2), NEJILOCK, Hexagonal wrench, Philips driver (No. 1)



- (1) Align the screw holes of GUIDE BOX P and BLOCK C, secure with 2 screws (CSK4x6UO) and then apply NEJILOCK from the back of GUIDE BOX P
- (2) Connect both GUIDE F and GUIDE F2 to BOTTLE TRAY RAIL and then apply NEJILOCK around 4 screws (CSK4x6UO) and then secure
- (3) Insert BOTTLE TRAY RAIL in GUIDE BOX P
- (4) Insert AXIS HOLDER 4 and screws in RAIL WHEEL, secure and then apply NEJILOCK on the screw at two places on the left and right from the outside of GUIDE BOX
Torque: 1.274 plus or minus 0.098 Nm
- (5) Insert AXIS HOLDER 2 and screws in RAIL WHEEL 2, secure and then apply NEJILOCK on the screw at two places on the left and right from the outside of GUIDE BOX
Torque: 1.274 plus or minus 0.098 Nm



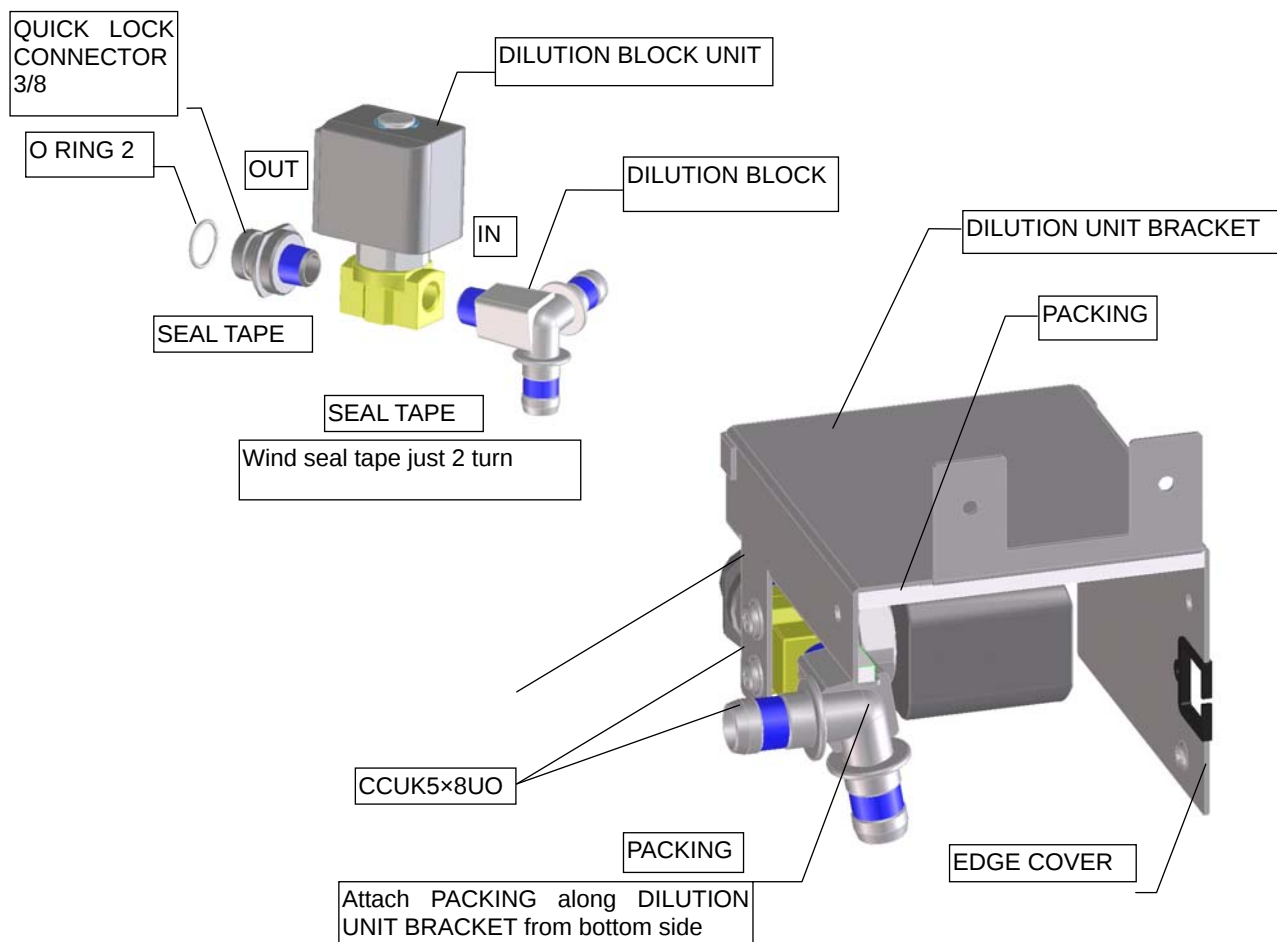
- (6) Connect both of BLOCK B and BLOCK B2 temporarily to GUIDE BOX P
- (7) Insert 2 screws (CBK4×14UO) in AXIS HOLDER 3 and then secure on GUIDE BOX P and then apply NEJILOCK from the outside of GUIDE BOX
- (8) Secure screws tightly while pulling BLOCK B and BLOCK B2 from the inside
Torque: 1.274 plus or minus 0.098 Nm
- (9) Apply NEJILOCK around the head of the screws
- (10) Secure DISINFECTANT TRAY LOCK UNIT temporarily by using 2 screws (ABSB4×6UO) at the top of GUIDE BOX P



- (11) Align the screw holes of SENSOR BASE 2 and BOTTLE SENSOR UNIT and secure screws by using 2 screws (CCU2.5x14UO)
- (12) Attach BOTTLE TRAY SENSOR 2 temporarily to the top of GUIDE BOX P by using 2 screws (ABSB4x6UO)
- (13) Apply NEJILOCK around the screw holes of SENSOR BASE 2 and BOTTLE SENSOR UNIT, the threads of the 2 screws (CCUK2.5x14UO) and then secure
- (14) Attach BOTTLE TRAY SENSOR 2 in the same fashion using 2 screws (ABSB4x6UO) to the top of GUIDE BOX P

3-3-54 Dilution unit

Required tools: NEJILOCK, Torque screwdriver, Torque screwdriver bit (No.2), Bonding glue (white), Ethanol



- (1) Wind SEAL TAPE around the threads of QUICK LOCK CONNECTOR 3/8 and then connect to DILUTION BLOCK UNIT (OUT side)

Torque: 2.94 plus or minus 0.098 Nm

Note) Wind SEAL TAPE just 2 turns. If this is exceeded, SEAL TAPE will curl up and cause water leakage.

- (2) Ensure that there is no dust or grime in O RING 2 and then attach to QUICK LOCK CONNECTOR 3/8 groove
- (3) Wind SEAL TAPE around the threads of DILUTION BLOCK UNIT and then attach to DILUTION BLOCK UNIT (IN side)

Note: Before winding the sealing tape, clean the threads of screw with ethanol.

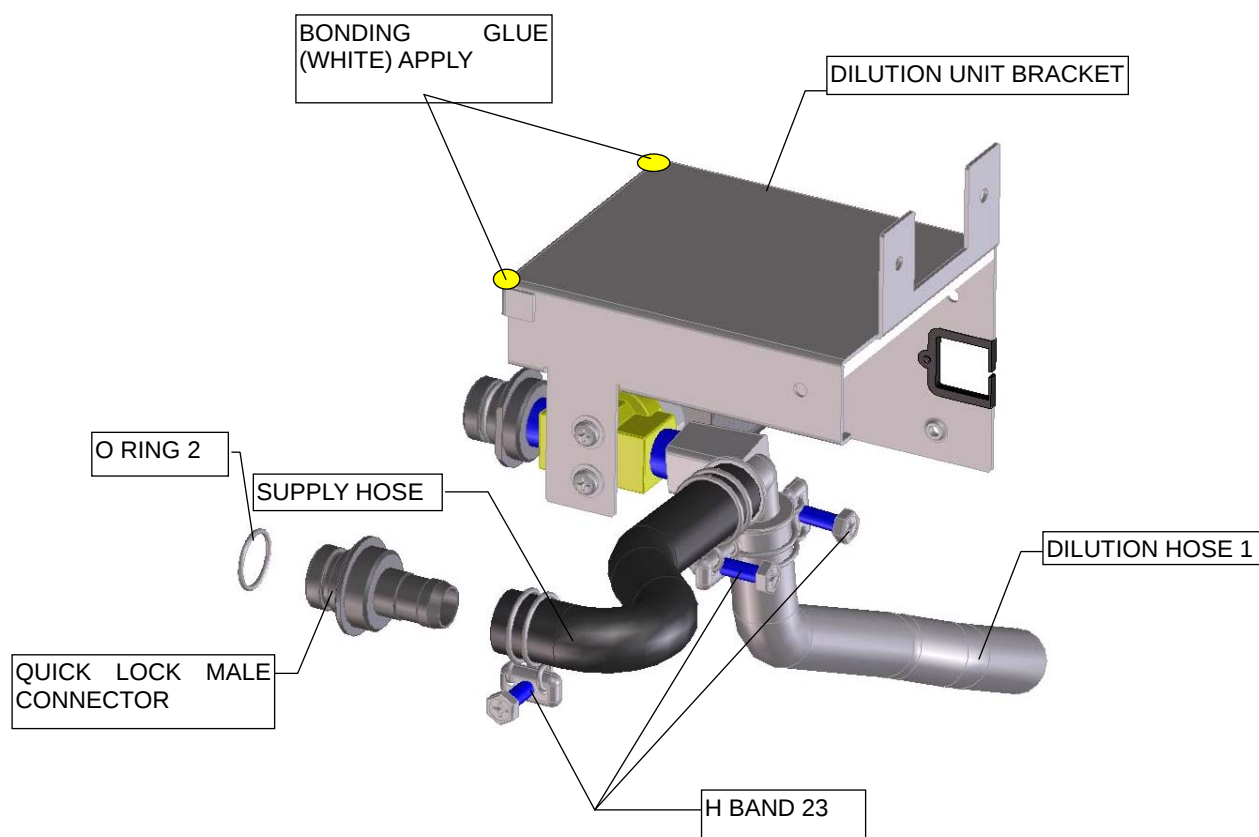
Torque: 2.94 plus or minus 0.098 Nm

- (4) Secure EDGE COVER to DILUTION UNIT BRACKET
- (5) Wind PACKING TAPE to the designated length and then attach along the edge of DILUTION BLOCK UNIT

Designated length: 125 plus or minus 5 mm

- (6) Secure DILUTION BLOCK UNIT to DILUTION BLOCK by using 2 screws (CCUK5x8UO) and apply NEJILOCK around the head of the screws

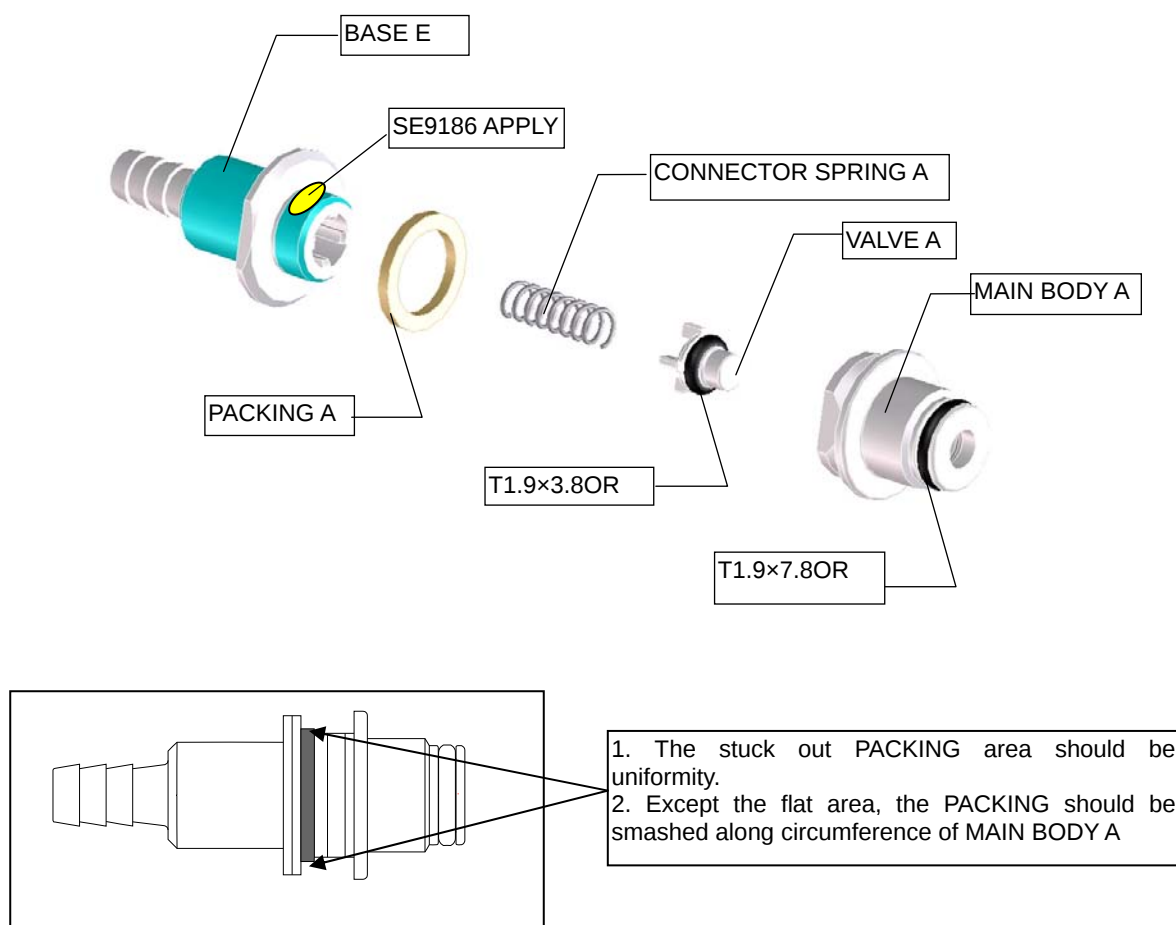
Torque: 1.274 plus or minus 0.098 Nm



- (7) Insert H BAND in DILUTION HOSE 1 and then attach DILUTION BLOCK
Torque: 2.8 plus or minus 0.1 Nm
- (8) Insert H BAND in SUPPLY HOSE and the groove of QUICK LOCK CONNECTOR 15
Torque: 2.8 plus or minus 0.1 Nm
- (9) Insert H BAND in SUPPLY HOSE and then secure DILUTION BLOCK
Torque: 2.8 plus or minus 0.1 Nm
- (10) Ensure that there is no dust or grime in O RING 2 and then attach to QUICK LOCK CONNECTOR 15 groove
- (11) Apply SONY Bonding glue at 2 corners of DILUTION BLOCK

3-3-55 Connector E unit

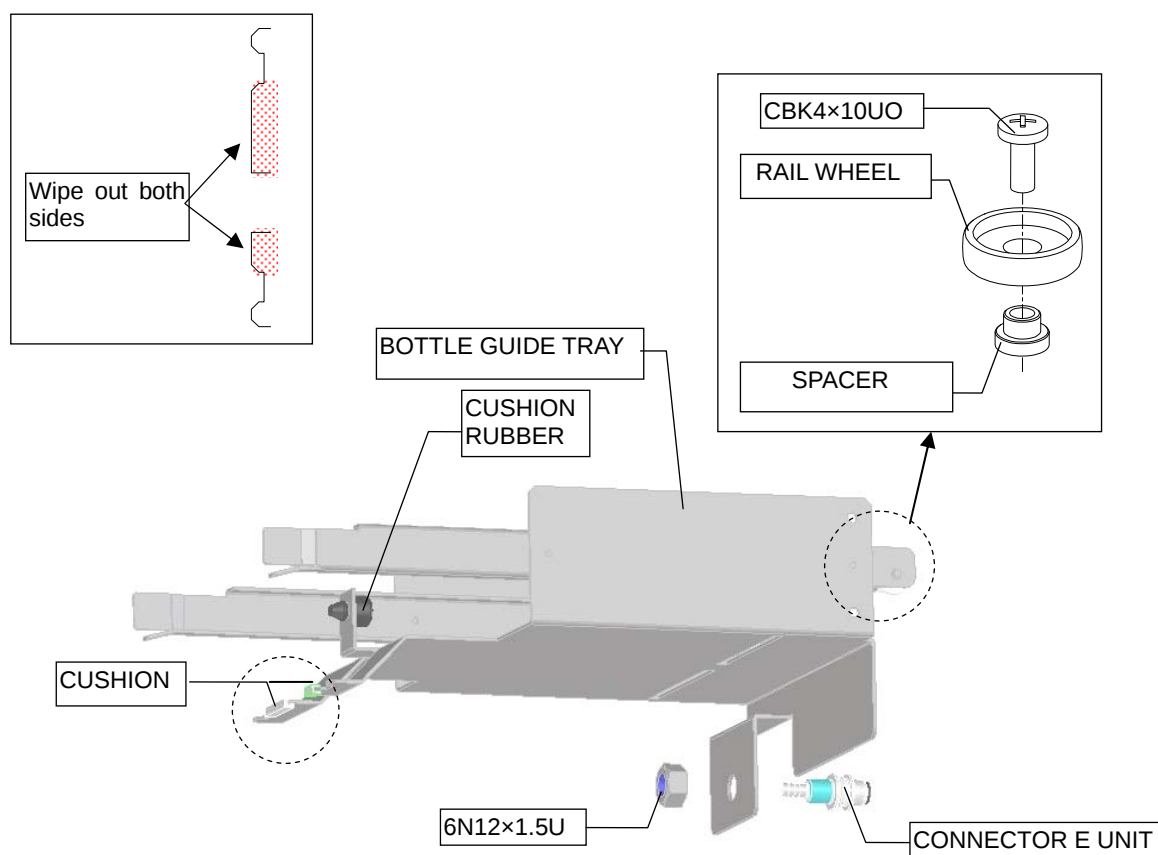
Required tools: Connector A securing jig (JA9822), SE9186, Connector rotating jig (JA7697)



- (1) Secure BASE E
- (2) After visually inspection of PACKING A, insert BASE E and then apply silicon as a drop on the head of screws
- (3) Insert CONNECTOR SPRING A in BASE E
- (4) After visual inspection of T1.9x3.8OR, insert to VALVE A groove
- (5) Place VALVE A on CONNECTOR SPRING A
- (6) After visual inspection of T1.9x7.8OR, insert to the groove of MAIN BODY A
- (7) Connect the MAIN BODY A to BASE E

3-3-56 Tray guide unit

Required tools: Ethanol, Cleaning paper, NEJILOCK, Hexagonal wrench, Sony bond



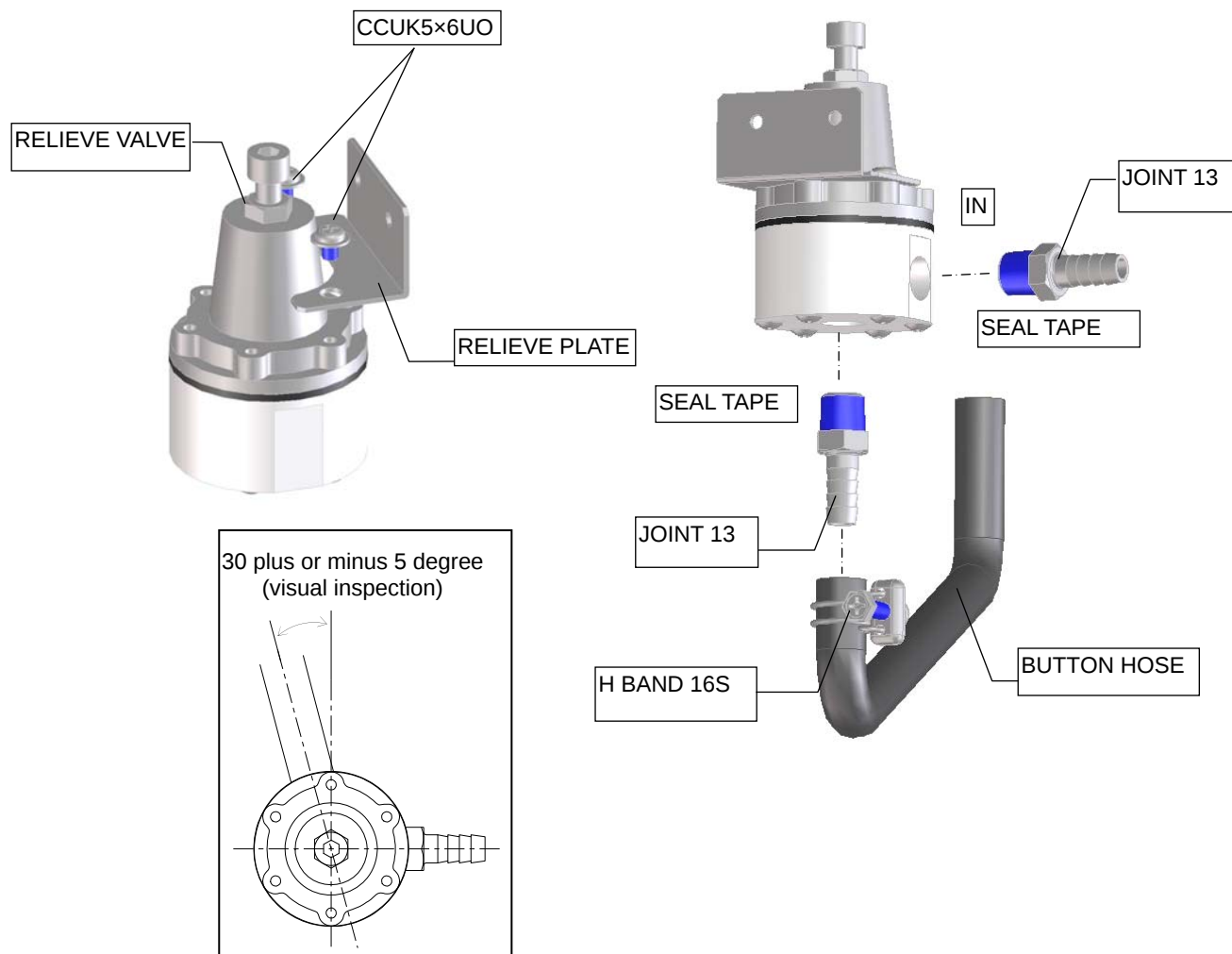
- (1) Insert CUSHION RUBBER in the hole of BOTTLE GUIDE TRAY
- (2) Secure CONNECTOR E UNIT by using NUT(6N12x1.5UO) and apply NEJILOCK
- (3) Insert RAIL WHEEL in SPACER and then secure by using a screw (CBK4x10UO)
- (4) Wipe the front and back of the CUSHION attachment section with ethanol
- (5) Cut CUSHION to the designated length

Designated length: 30 mm 1 section
10 mm 1 section

- (6) Apply a drop of SONY BOND around the interior part of the CUSHION and then secure to BOTTLE GUIDE TRAY

3-3-57 Relieve valve unit

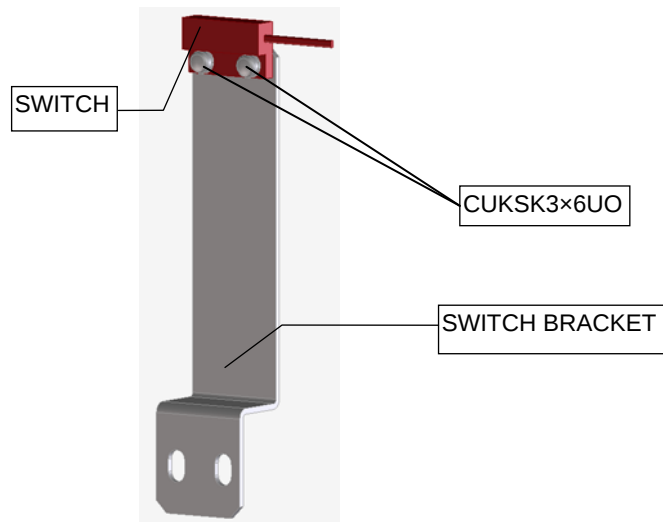
Required tools: Torque screwdriver, Torque screwdriver bit (No. 2), NEJILOCK, Seal tape



- (1) Secure RELIEVE PLATE by using 2 screws (CCUK5x6UO) to RELIEVE VALVE and apply NEJILOCK
Torque: 1.274 plus or minus 0.098 Nm
- (2) Wind SEAL TAPE around the screw of JOINT 13 and then connect RELIEVE VALVE
Torque: 2.94 plus or minus 0.098 Nm
- (3) Insert H BAND in BUTTON HOSE and then apply with ethanol and then attach in the designated angle of the above figure
Torque: 2.8 plus or minus 0.1 Nm

3-3-58 Switch unit

Required tools: Torque screwdriver, Torque screwdriver bit (No.2), NEJILOCK

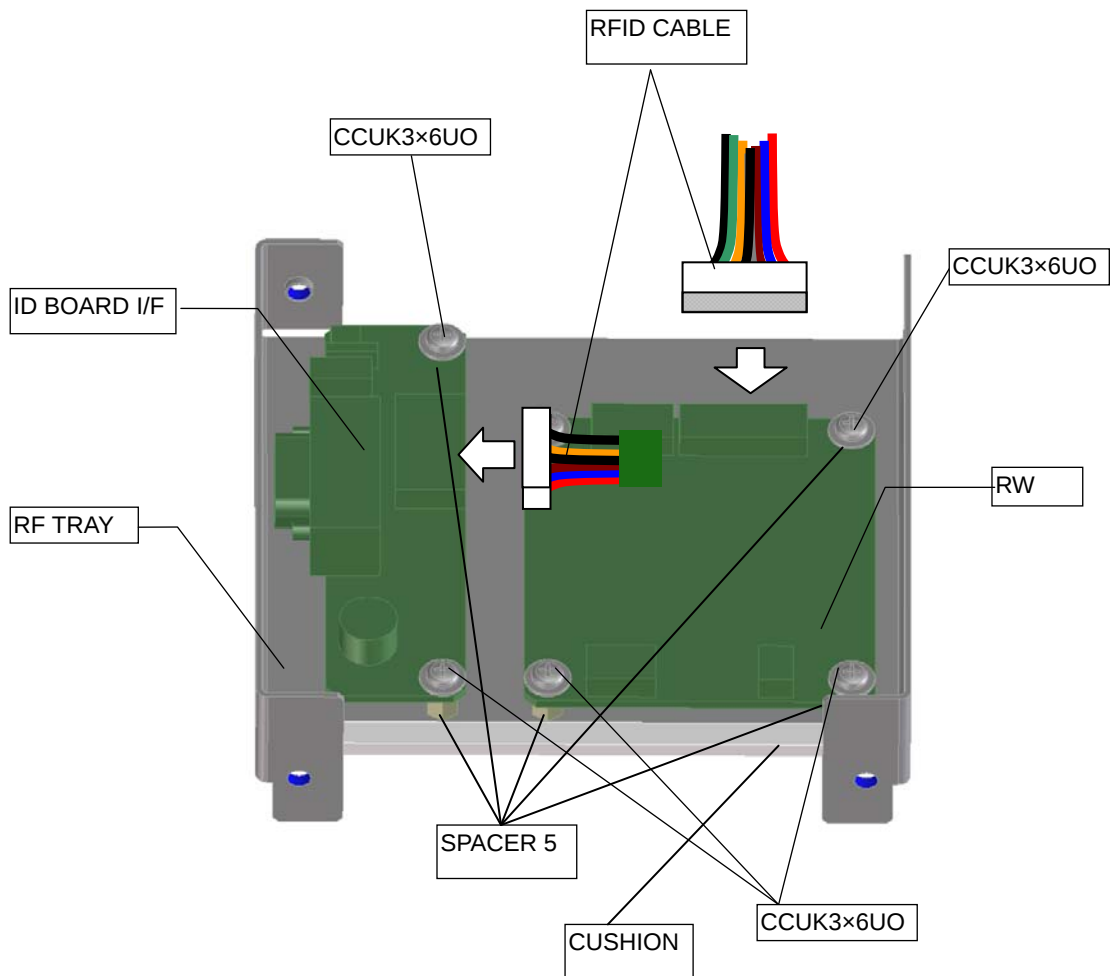


- (1) Apply NEJILOCK around 2 screws (CUKSK3x6UO) and then secure SWITCH on SWITCH BRACKET

Torque: 0.686 plus or minus 0.098 Nm

3-3-59 ID board unit

Required tools: NEJILOCK, No.2 Phillips screwdriver, Torque screwdriver, Torque screwdriver bit (No.2), Bonding glue, Scale, Cutter



Note) Since no parts such as interface or RW will be supplied, in the event it is necessary to replace the interface or RW, the supply shall be as units

- (1) Assemble six SPACER 5 in holes of RF stay

Torque: 0.49 plus or minus 0.098 Nm

- (2) Place RW on top of SPACER and then secure by using 4 screws (CCUK3x6UO)

Torque: 0.49 plus or minus 0.098 Nm

- (3) Secure ID BOARD I/F on SPACER and then secure by using 2 screws (CCUK3x6UO)

Torque: 0.49 plus or minus 0.098 Nm

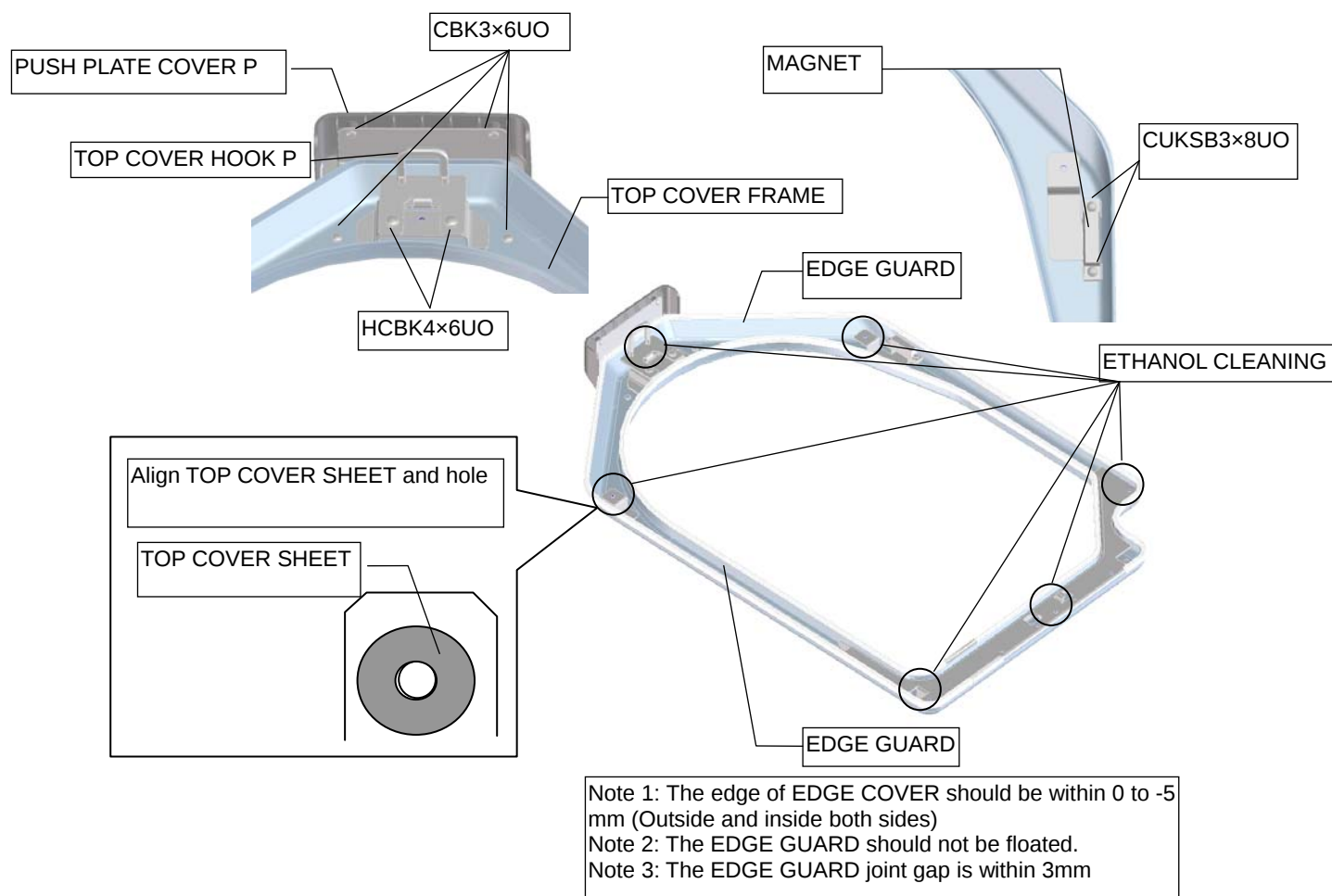
- (4) Connect RW cable to ID BOARD I/F and connector of RW

- (5) Cut CUSHION to the designated length and then apply SONY Bonding glue around the inner side of CUSHION and then attach to the position of RF TRAY in the above diagram

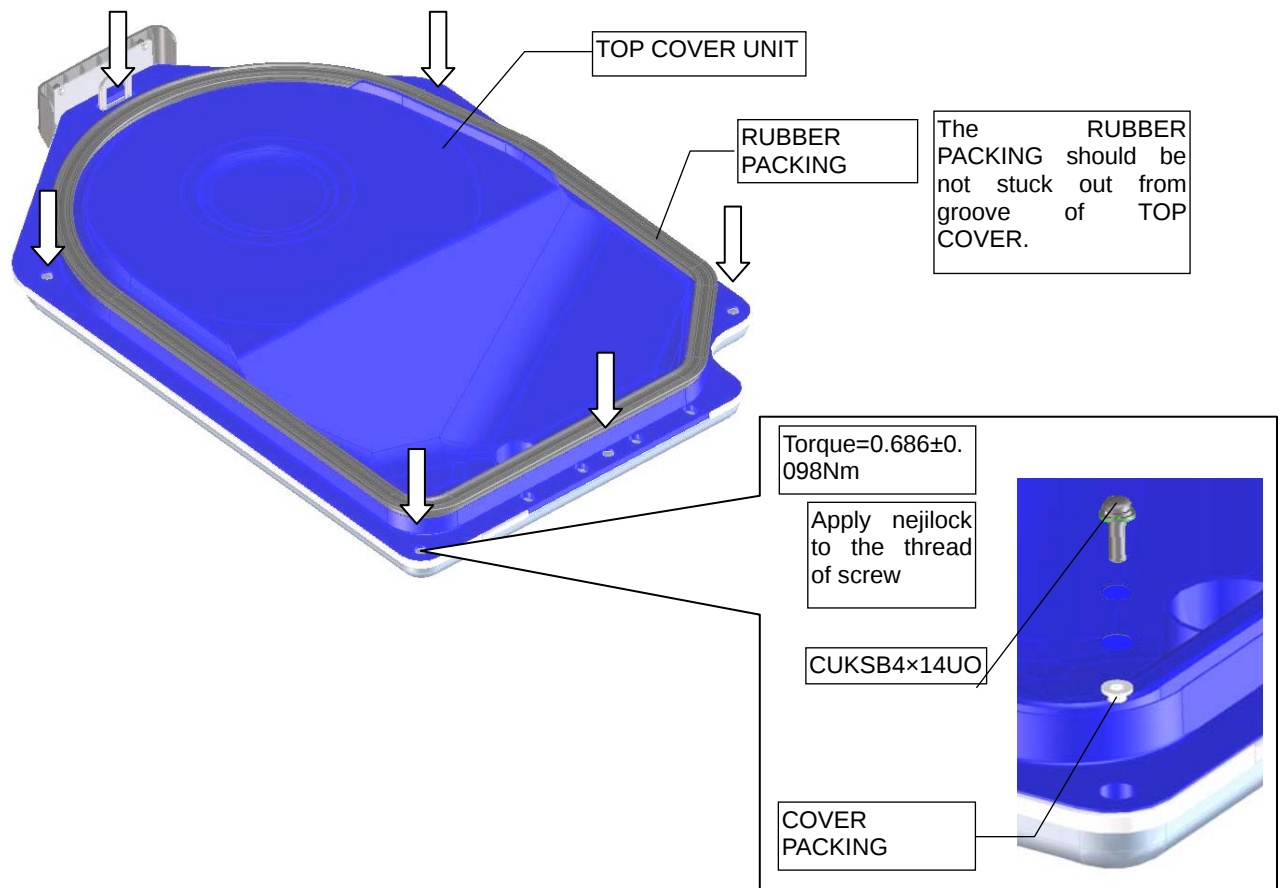
Designated length: 108 plus or minus 2 mm

3-3-60 Top cover unit

Required tools: Ethanol, Cleaning paper, cutter, No.2 Phillips screwdriver, NEJILOCK, Torque screwdriver, Torque screwdriver bit (No.2), SE9186

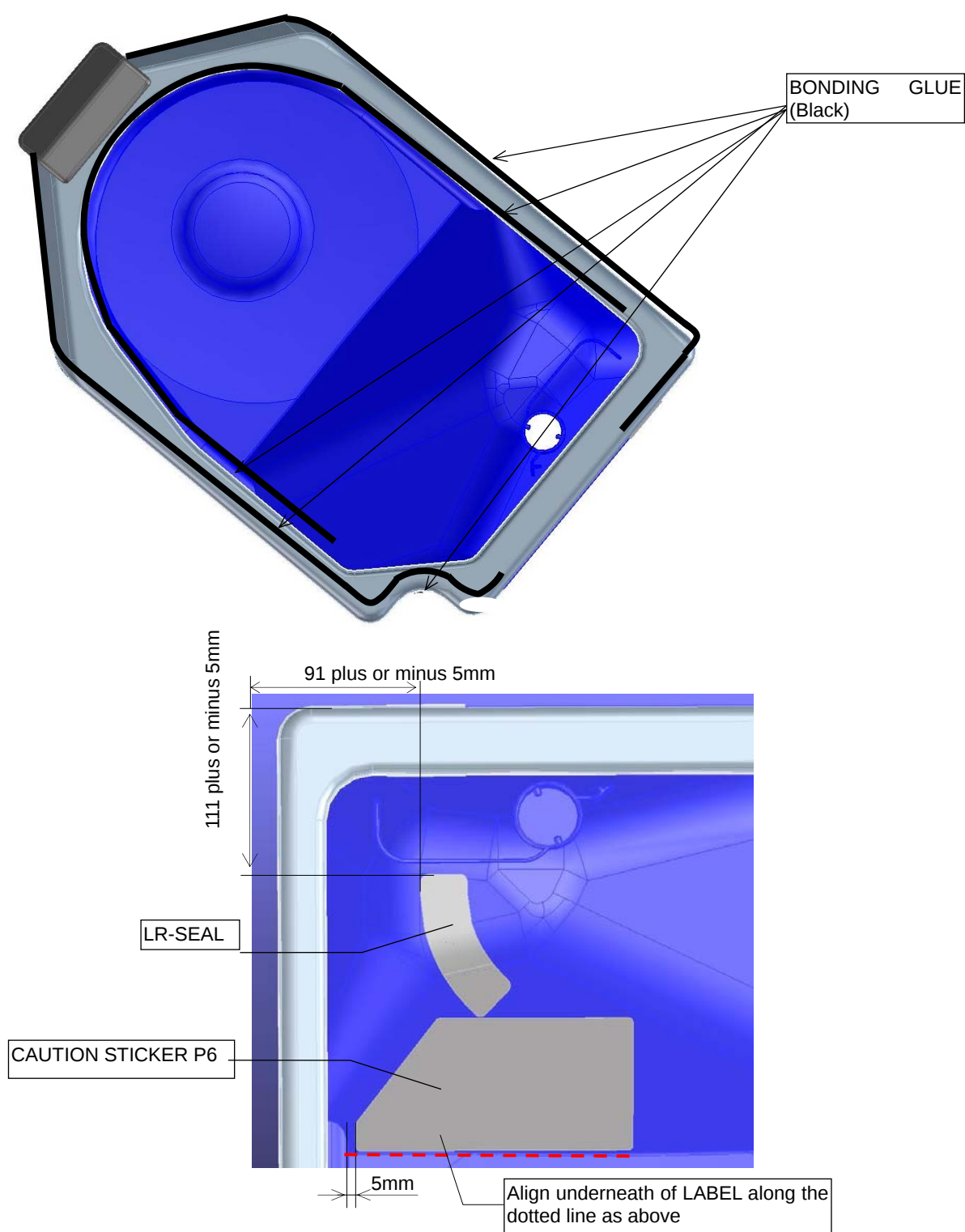


- (1) Insert EDGE GUARD to the outer TOP COVER FRAME and inner TOP COVER FRAME and cut EDGE GUARD
- (2) Insert TOP COVER FRAME to PUSH PLATE COVER P and apply NEJILOCK around the 4 screws on the back (CBK3x6UO) and then secure
Torque: 0.686 plus or minus 0.098 Nm
- (3) Align the screw hole of TOP COVER FRAME and TOP COVER HOOK P and after the screw is adjusted to be at the center of the oblong hole in TOP COVER HOOK P, then secure TOP COVER FRAME by using 2 screws (HCBK4x6UO)
Torque: 1.274 plus or minus 0.098 Nm
- (4) Align the screw hole of TOP COVER FRAME and MAGNET and then secure by using 2 screws (CUKSB3x8UO)
Torque: 0.686 plus or minus 0.098 Nm
- (5) Wipe out around the vicinity of 6 screw holes of TOP COVER with ethanol
- (6) Align and secure the screw holes at 6 locations of TOP COVER



- (7) Place TOP COVER FRAME P on TOP COVER UNIT and then align the screw holes
- (8) Apply nejllock to the thread of screw. Secure TOP COVER P with six screws (CUKSB4x14UO) and COVER PACKING as shown.
- (9) Insert RUBBER PACKING P into groove of TOP COVER P

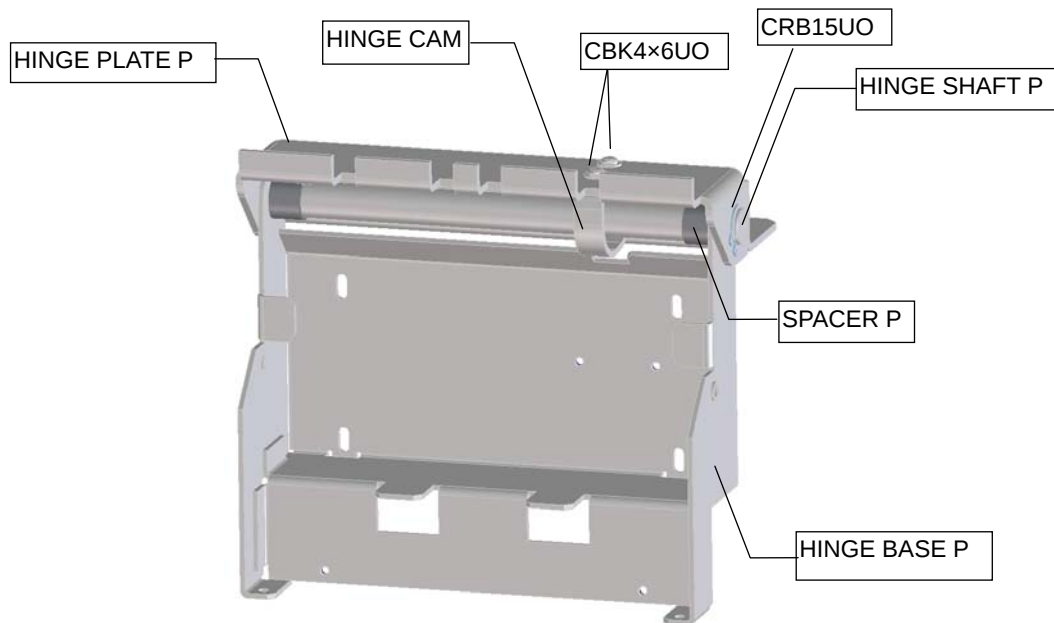
Torque: 0.686 plus or minus 0.098 Nm



- (10) Apply SONY BOND between TOP COVER FRAME and EDGE GUARD. Moreover, wipe out protruded glue by dedicated tissue.
- (11) Wipe out at the surface for attaching LR SEAL and CAUTION STICKER P6 on the surface of TOP COVER P by using ethanol
- (12) Attach LR SEAL and CAUTION STICKER P6 at surface of TOP COVER P as shown in the above figure

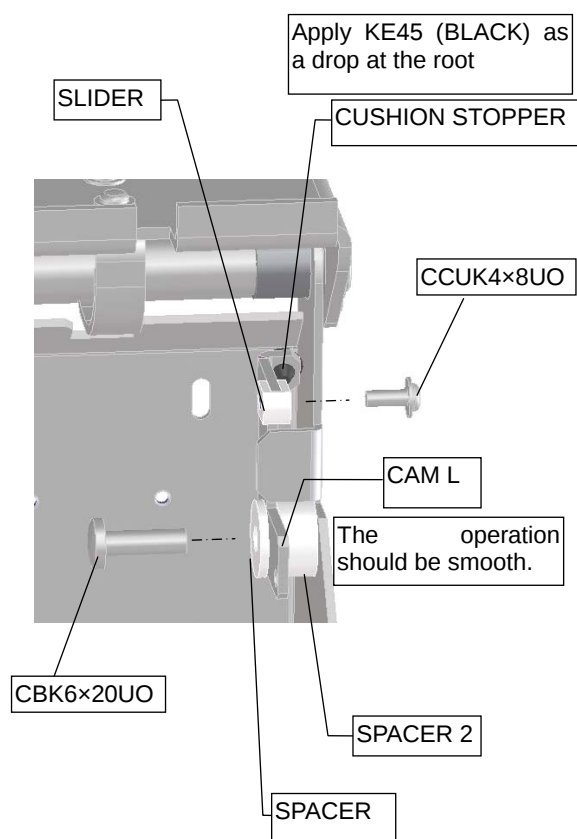
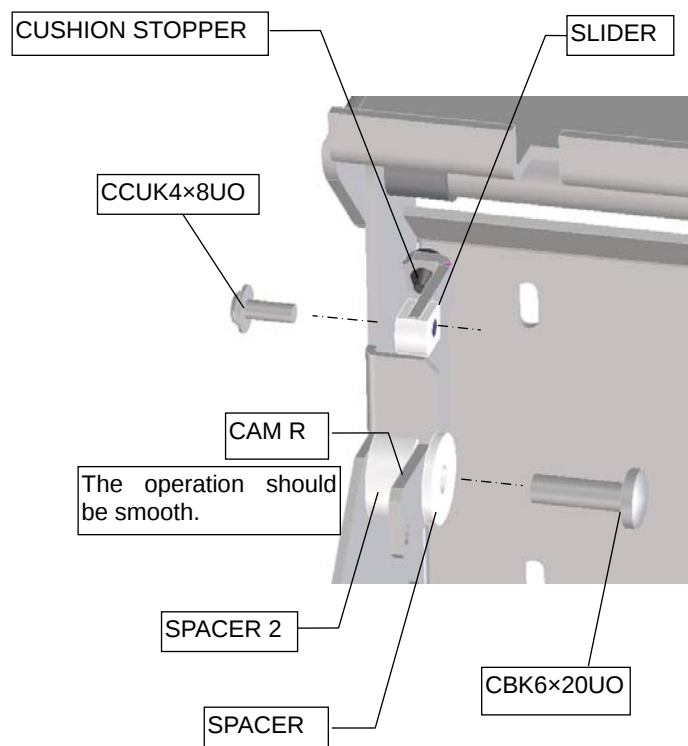
3-3-61 Hinge unit

Required tools: Torque screwdriver, Torque screwdriver bit (No.2), NEJILOCK, KE45(black)

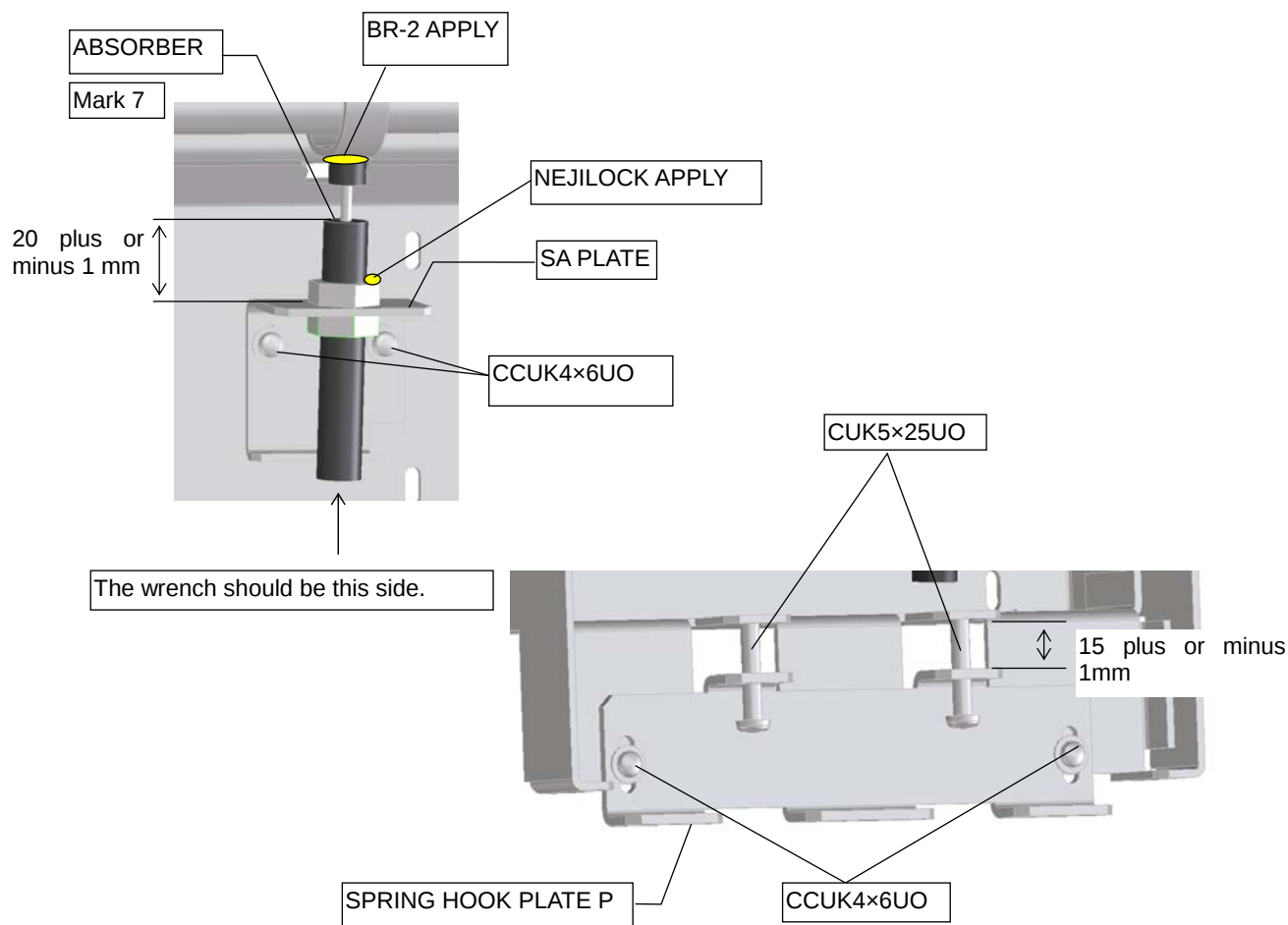


- (1) Insert SPACER P in both holes of HINGE BASE P
- (2) Apply NEJILOCK on 2 screws (CBK4x6UO) and then secure HINGE CAM to HINGE SHAFT P
Torque: 1.274 plus or minus 0.098 Nm
- (3) Secure HINGE BASE P and HINGE PLATE P and then align the hole in HINGE PLATE P to the hole in HINGE PLATE P and pass through HINGE SHAFT P to secure to a E RING (CRB15UO)

Apply KE45 (BLACK) as a drop at the root



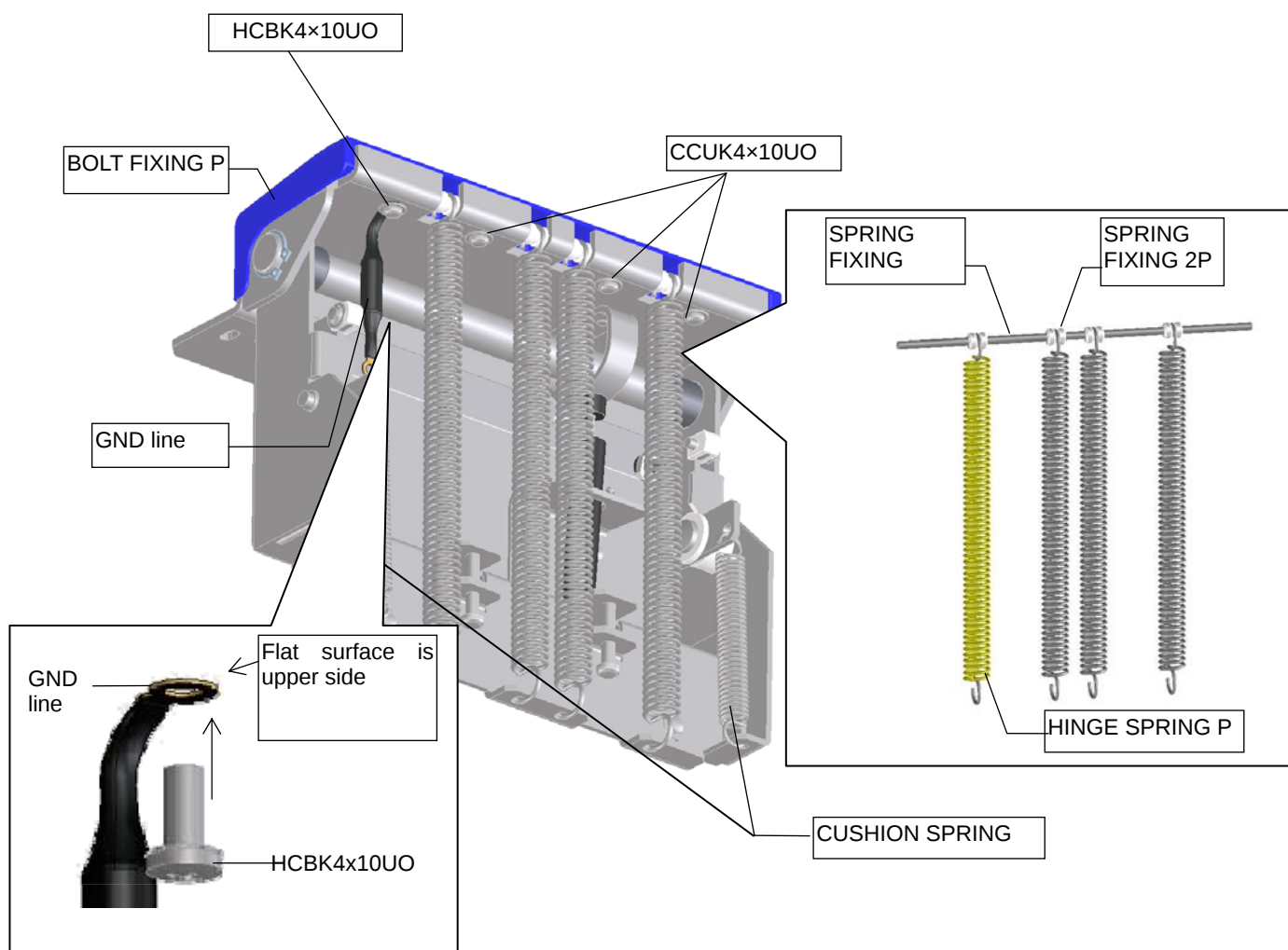
- (4) Insert CUSHION STOPPER through CAM R and apply silicon as a drop at the root of CUSHION STOPPER
- (5) Insert SLIDER to CAM R and apply NEJILOCK at a screw (CCUK4x8UO) and then secure
- (6) Insert SPACER and SPACER 2 from both sides of CAM R
- (7) Align the holes in HINGE BASE P and SPACER and then secure by using a screw (CBK6x20UO) and then apply NEJILOCK around the head of screw and then ensure that the operation of CAM R is smooth
- (8) Insert CUSHION STOPPER in CAM L and then apply silicon at root of CUSHION STOPPER
- (9) Insert SLIDER to CAM R and apply NEJILOCK at a screw (CCUK4x8UO) and then secure
- (10) Insert SPACER and SPACER 2 from both sides of OVER CAM L
- (11) Align the holes in HINGE BASE P and SPACER and then secure by using a screw (CBK6x20UO) and then apply NEJILOCK around the head of the screw and then ensure that the operation of CAM L is smooth



- (12) Secure ABSORBER to SA PLATE as shown. After that, apply nejilock.
- (13) Place ABSORBER and HINGE CAM gap within 1 to 2 mm and then secure to HINGE BASE by using 2 screws (CCUK4x6UO) and apply NEJILOCK around the head of the screw
- (14) Secure screw (CUK5x25UO) with SPRING HOOK PLATE P. Align the screw holes both SPRING HOOK PLATE P and HINGE PLATE P.
- (15) Secure SPRING HOOK PLATE P with HINGE PLATE P by screw (CCUK4x6UO). After that apply nejilock to the head of screw.

Torque: 1.274 plus or minus 0.098 Nm

- (16) Secure screw (CUK5x25UO) until attaching the HINGE PLATE P.
- (17) Apply at the root of screw that protrudes from SPRING HOOK PLATE P



(18) Attach 4 SPRING STOPPER 2P to SPRING STOPPER and then attach HINGE SPRING P aligned to the groove of SPRING STOPPER 2

(19) Ensure that SPRING STOPPER 2 is able to insert in the notch of HINGE PLATE P and then secure to HINGE PLATE P

(20) Assemble BOLT FINXING P to HINGE PLATE P, after that secure 3 screws (CCUK4x10UO) and apply nejilock to the head of screw.

Torque: 0.686 plus or minus 0.098 Nm

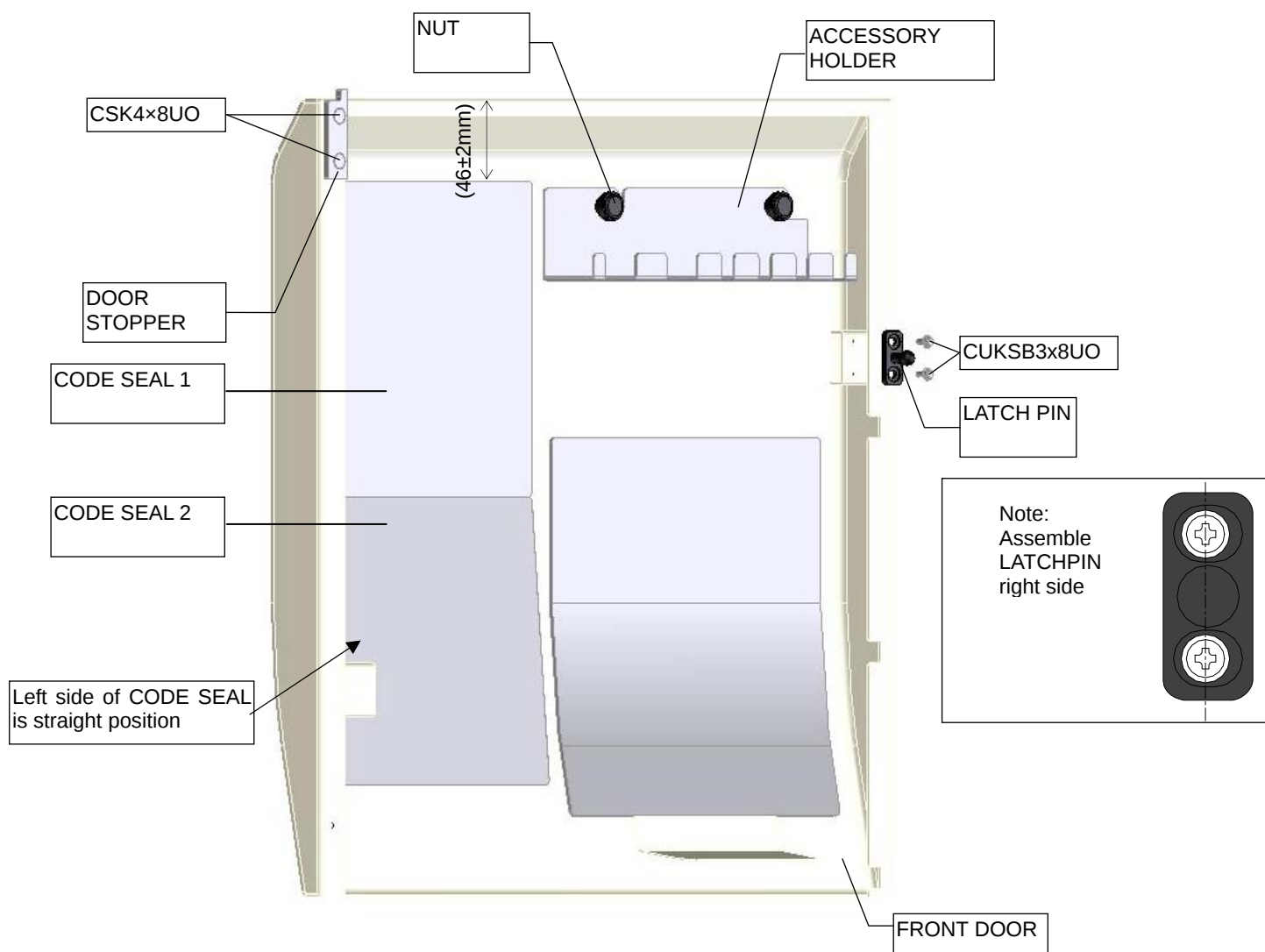
(21) The left hole, secure GND line to HINGE PLATE P with one screw (HCBK4x10UO) and one washer (HWB4UO)

(22) Hook 4 HINGE SPRING P to SPRING HOOK PLATE P

(23) Hook 2 of CUSHIONS to CAM and SPRING HOOK PLATE P

3-3-62 Door unit

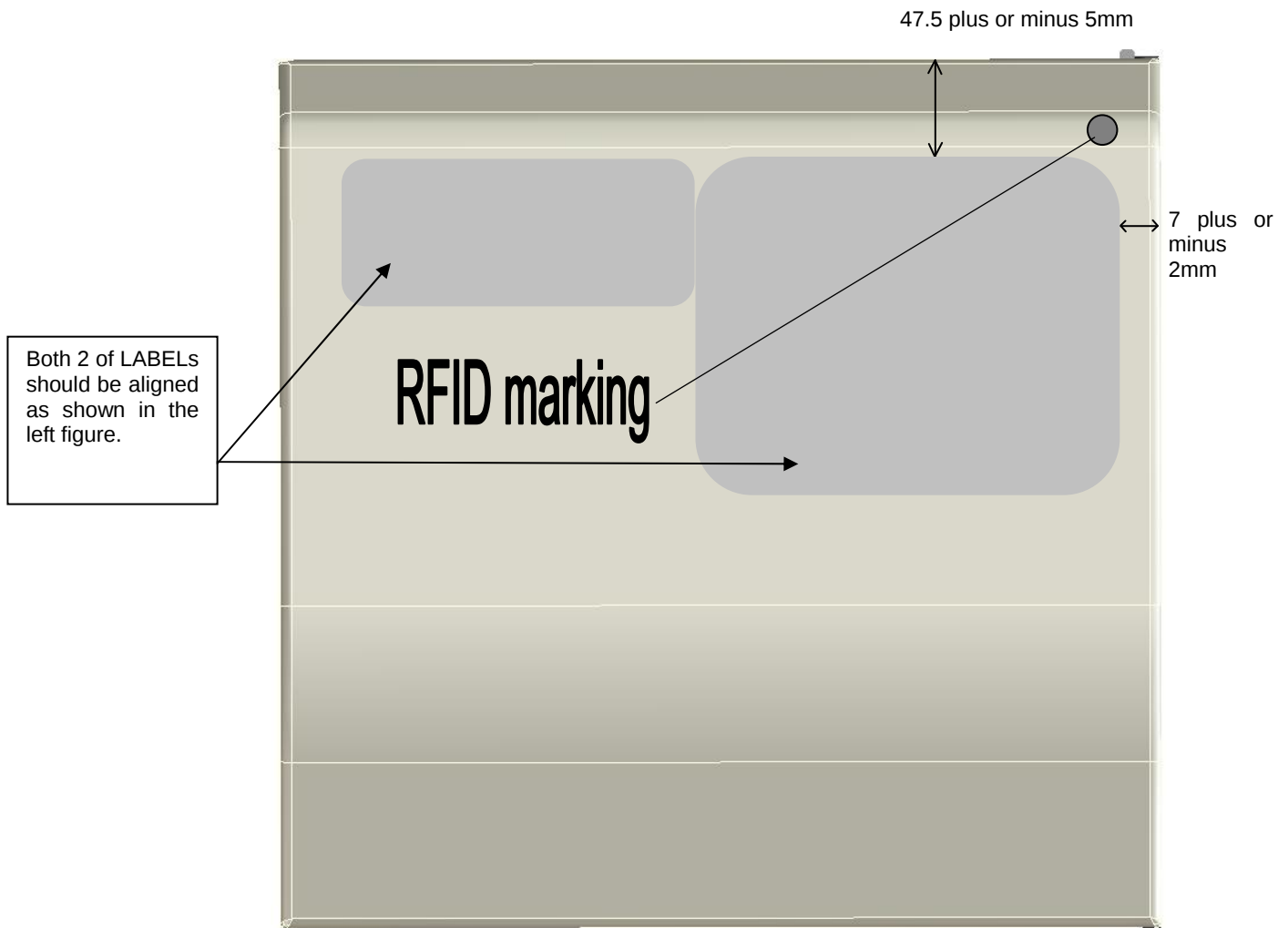
Required tools: Torque screwdriver, Torque screwdriver bit (No.2), Scale, NEJILOCK, Ethanol, Cleaning paper



- (1) Apply NEJILOCK around the head of 2 screws (CSK4x8UO) and then secure DOOR STOPPER to FRONT DOOR

Torque: 1.274 plus or minus 0.098 Nm

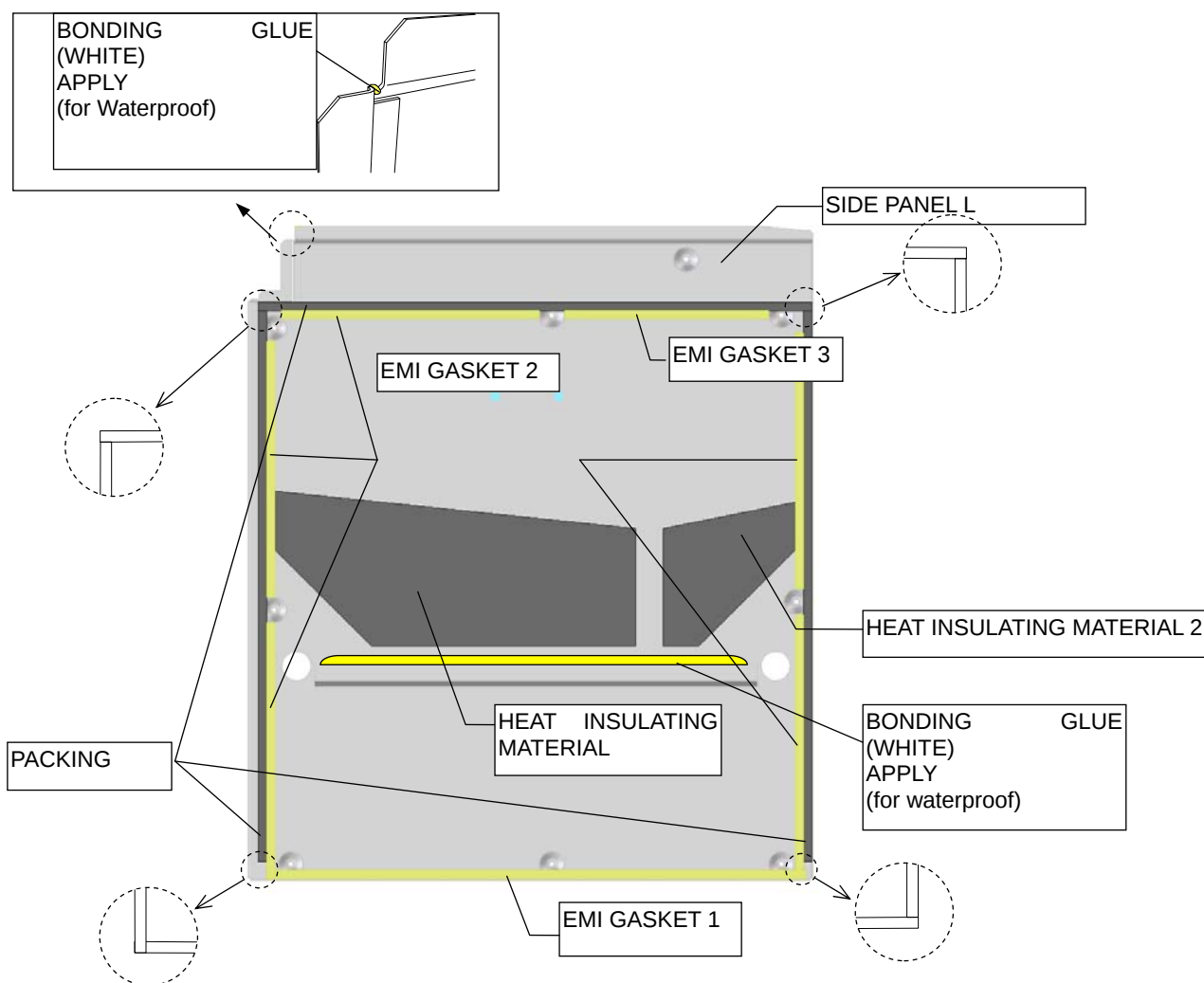
- (2) Secure 2 screws (CUKSB3x8UO) while pushing LATCH PIN 2 to the right side
- (3) Wipe the entire inner surface of FRONT DOOR with ethanol
- (4) Attach CODE SEAL 1, CODE SEAL 2 and SHEET in the position of the above figure
- (5) Secure a NUT while pushing ACCESSORY HOLDER to the right side



- (6) Wipe the entire front side of FRONT DOOR by using ethanol
- (7) Attach RFID LABEL (accessory to RFID UNIT), CAUTION LABEL P1 and CAUTION LABEL P5 in the position of the above figure

3-3-63 Side panel L unit

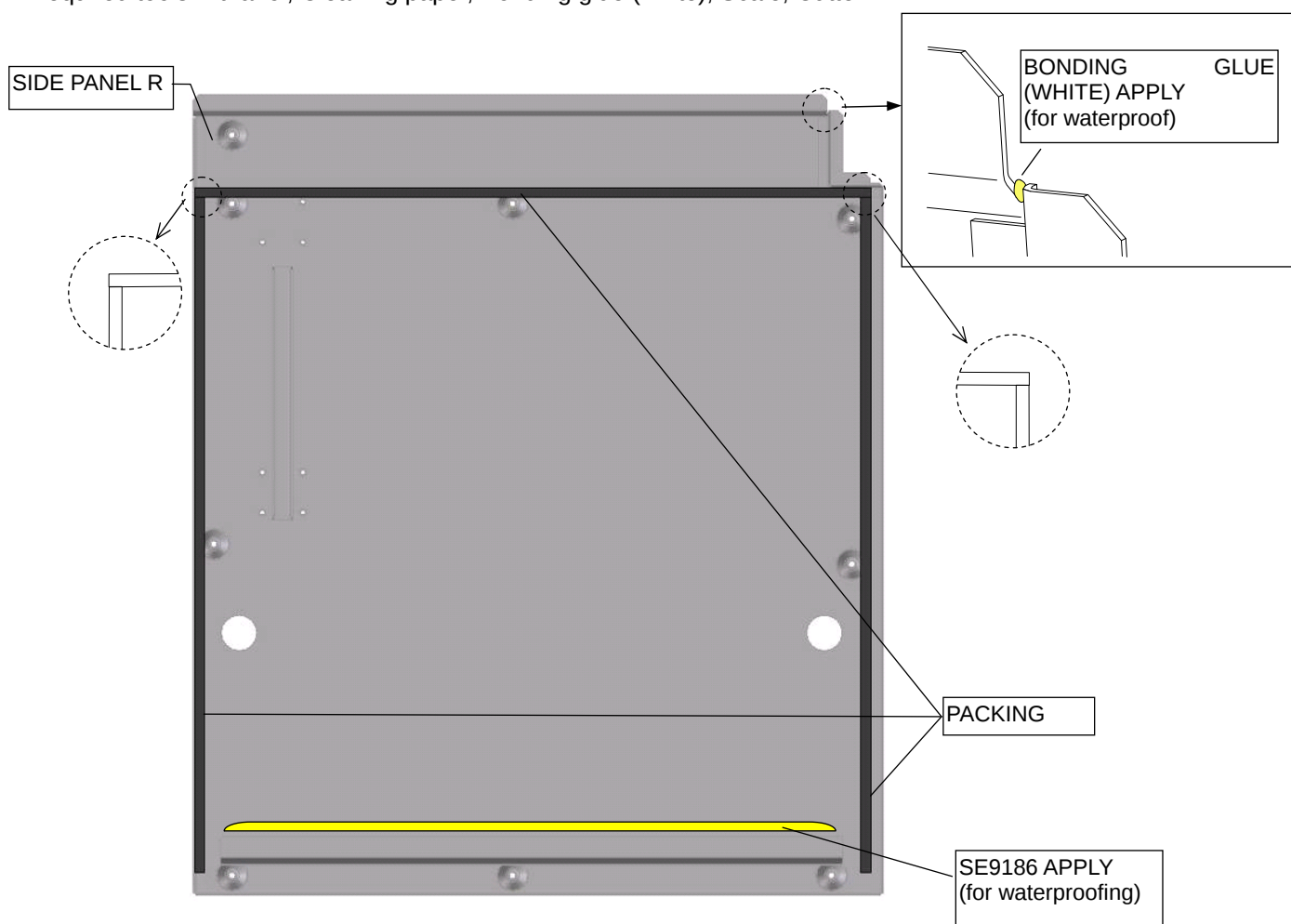
Required tools: Ethanol, Cleaning paper, Bonding glue (white), Scale, Cutter, Double sided tape



- (1) Wipe the inner side of SIDE PANEL L by using ethanol at the location where the SEAL TAPE, INSULATOR and GASKET will be attached
- (2) Cut PACKING to the designated length
Designated length: 668 plus or minus 5 mm 3 sections
- (3) Attach EMI GASKET 1, 2 and 3 to the position shown in the above figure
- (4) Attach DOUBLE SIDED TAPE to HEAT INSULATION MATERIAL 2 to the position shown in the above figure
- (5) Attach DOUBLE SIDED TAPE to HEAT INSULATION MATERIAL 2 in the position shown in the above figure (Pay attention to the direction of attachment)
- (6) Apply SONY Bonding glue (white) at the places shown in the above figure (for waterproofing)

3-3-64 Side panel R unit

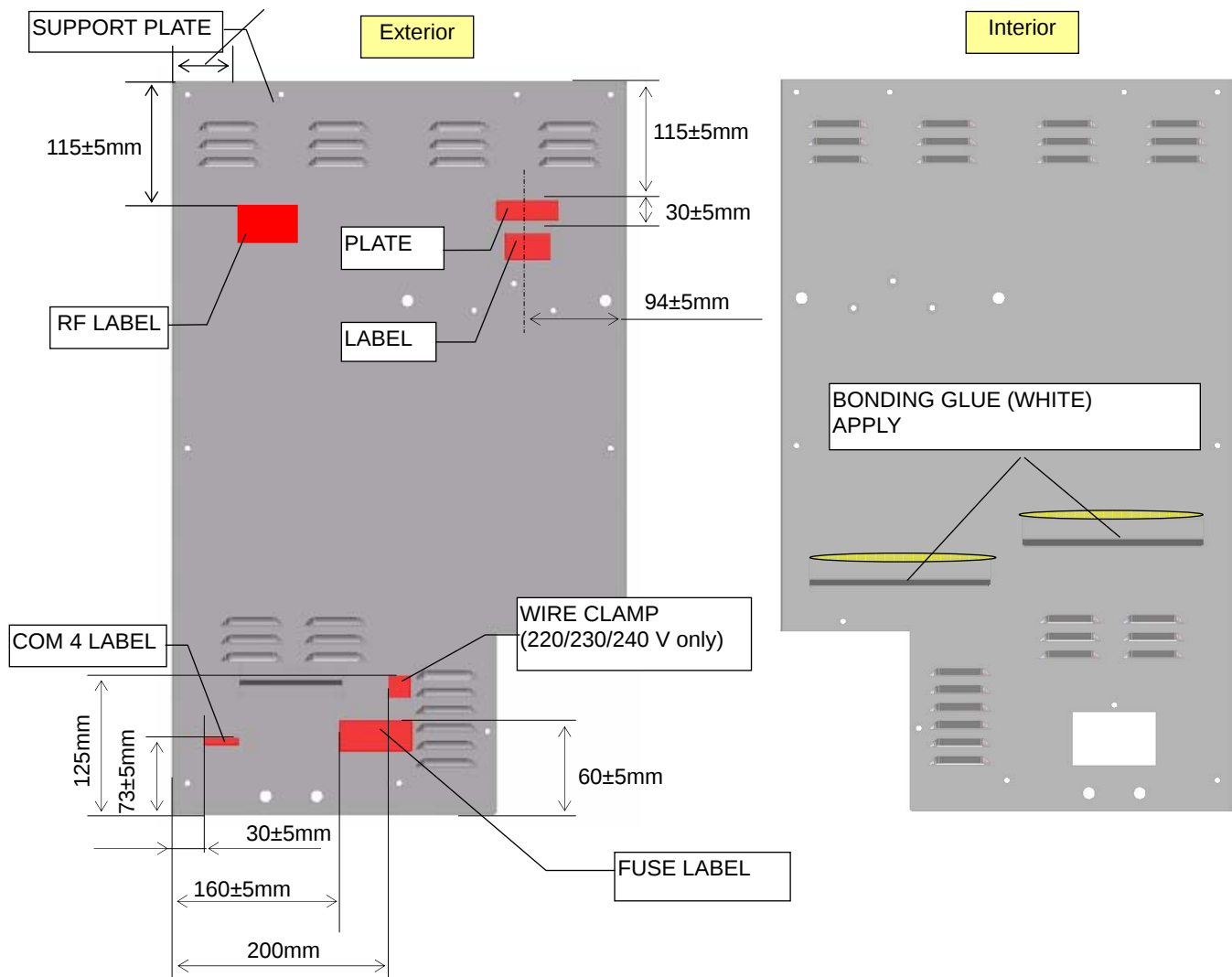
Required tools: Ethanol, Cleaning paper, Bonding glue (white), Scale, Cutter



- (1) Wipe the inner side of SIDE PANEL R by using ethanol at the location where the PACKING and INSULATOR will be attached
- (2) Cut PACKING to the designated length
Designated length: 668 plus or minus 5 mm 3 sections
- (3) Apply SONY Bonding glue (white) at the places shown in the above figure (for waterproofing)

3-3-65 Rear panel unit

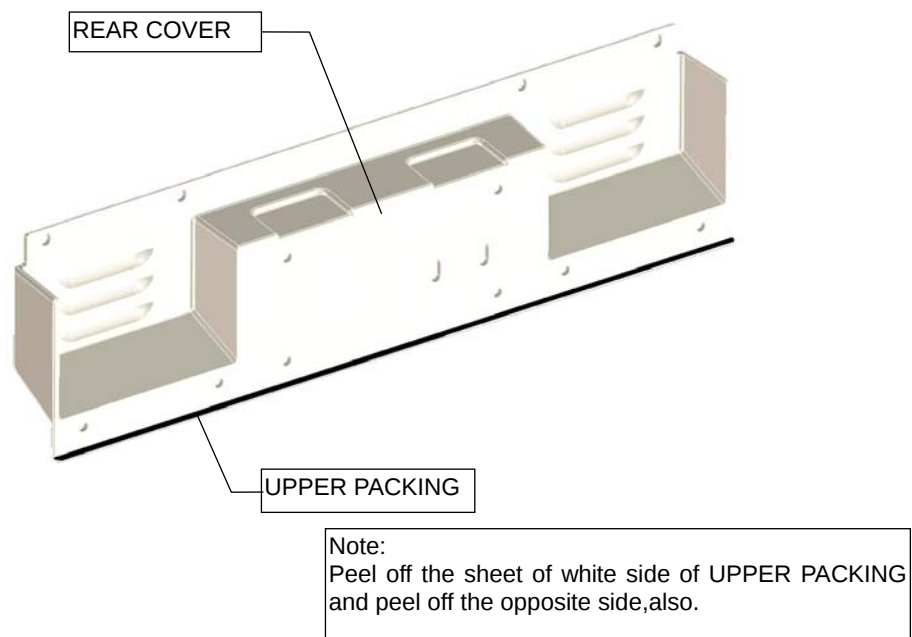
Required tools: Ethanol, Cleaning paper, Bonding glue (white), Scale



- (1) Wipe the exterior of the low REAR PANEL by using ethanol at the location where the PACKING and LABELS will be applied
- (2) Apply LABELS, EMC SEAL, COM 4 and FUSE SEAL at the places shown in the above figure
- (3) Apply SONY Bonding glue at the places shown in the above figure

3-3-66 Upper rear panel unit

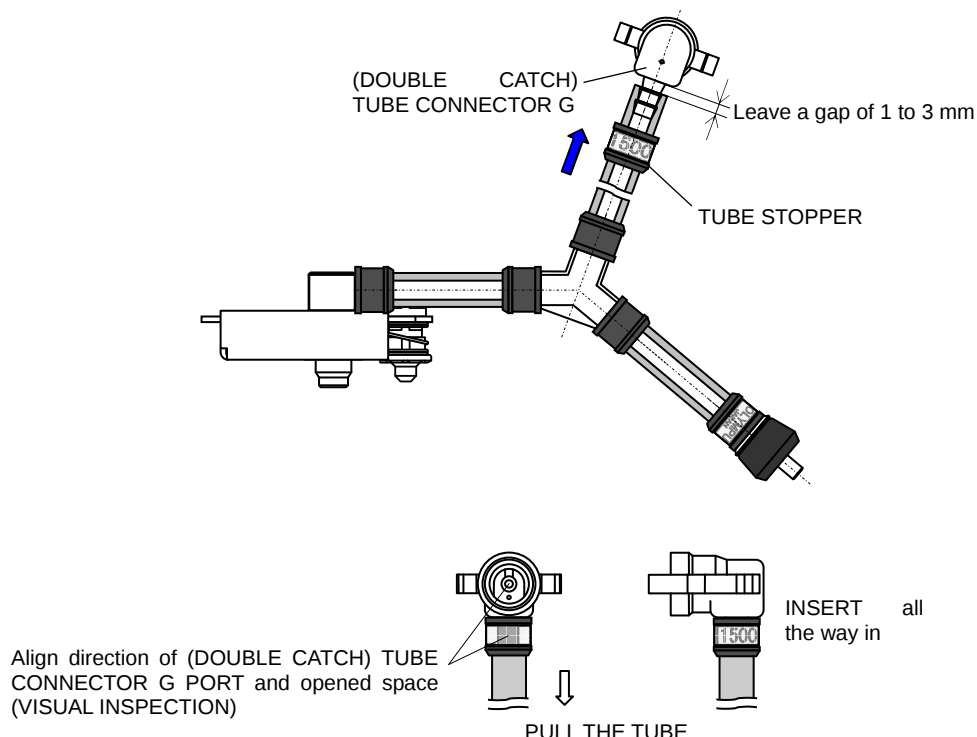
Required tools: Ethanol, Cleaning paper, Cutter



- (1) Wipe the upper REAR PANEL by using ethanol at the location where the UPPER PACKING will be attached
- (2) Align the edges of UPPER REAR PANEL to the position shown in the above figure and then cut PACKING that protrudes from the edge of UPPER REAR PANEL

3-4 Connecting Tube and Leakage Test Air Tube Assembly

3-4-1 Connecting Tube MAJ-1500 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into the tube

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR
- Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure
- Make sure that the tube is hanging around the 2nd notch of connector joint.

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

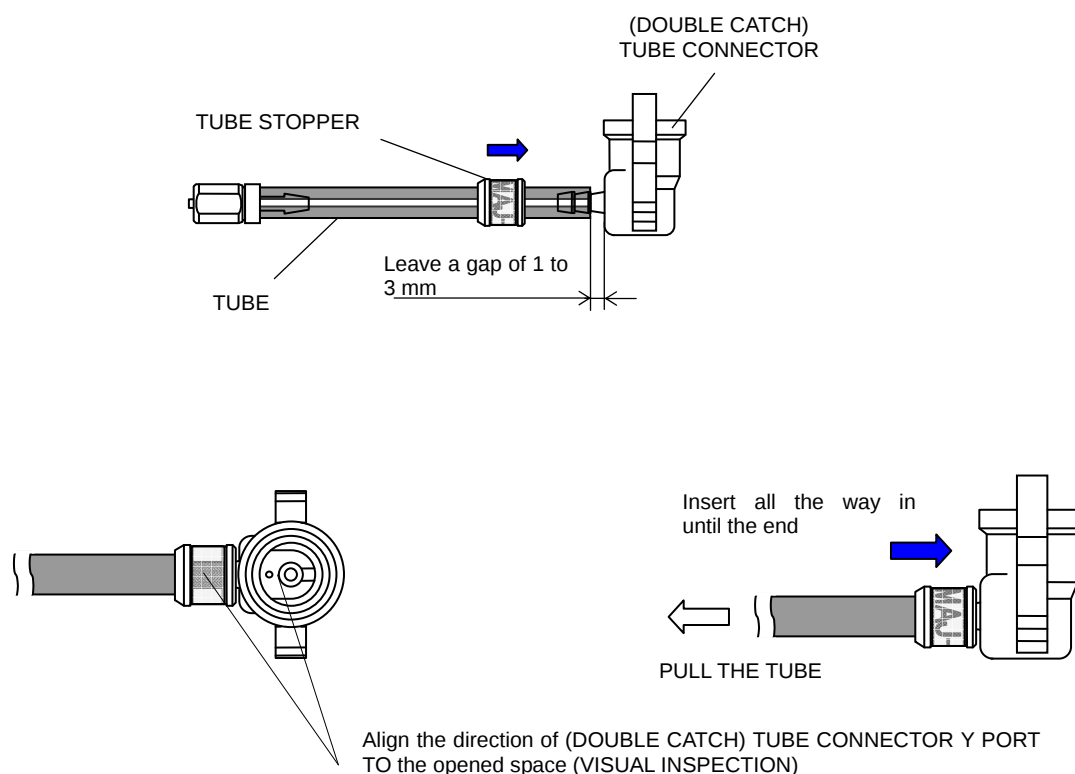
- Insert TUBE STOPPER to ensure that the distal end of TUBE is all the way in until the end
- If it is difficult to push TUBE STOPPER, ethanol should be applied on the inner and outer perimeter of TUBE STOPPER when inserting
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction shown in the above figure

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-2 Connecting Tube MAJ-1501 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR Y into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR
- Insert (DOUBLE CATCH) TUBE CONNECTOR Y in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

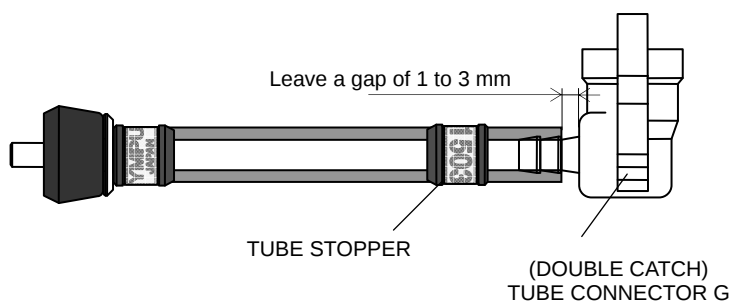
- Insert TUBE STOPPER all the way in until the end
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

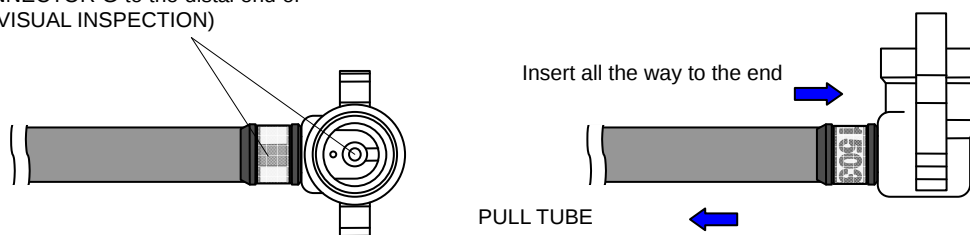
Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-3 Connecting Tube MAJ-1503 (Double Catch) Tube Connector G Assembly



Align the direction of the opening of (DOUBLE CATCH) TUBE CONNECTOR G to the distal end of LABEL POSITION (VISUAL INSPECTION)



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note))

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR Y
- Insert (DOUBLE CATCH) TUBE CONNECTOR Y in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

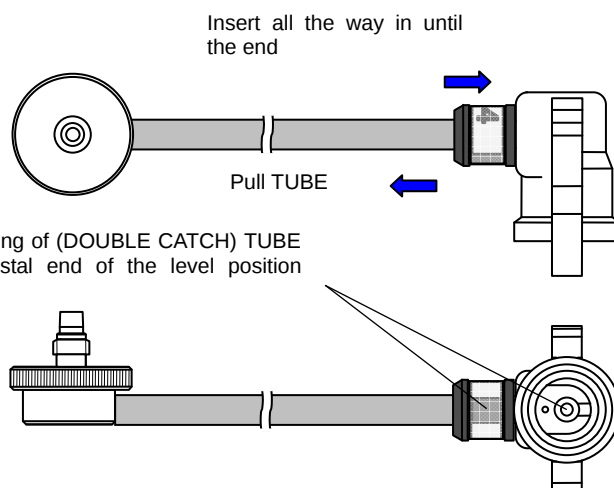
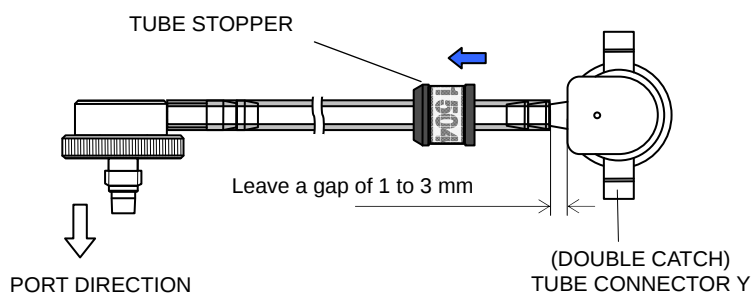
- Insert TUBE STOPPER all the way in until the end
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-4 Connecting Tube MAJ-1504 (Double Catch) Tube Connector G Assembly



Align the direction of the opening of (DOUBLE CATCH) TUBE CONNECTOR Y until the distal end of the level position (VISUAL INSPECTION)

- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR Y into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR Y
- Insert (DOUBLE CATCH) TUBE CONNECTOR Y in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

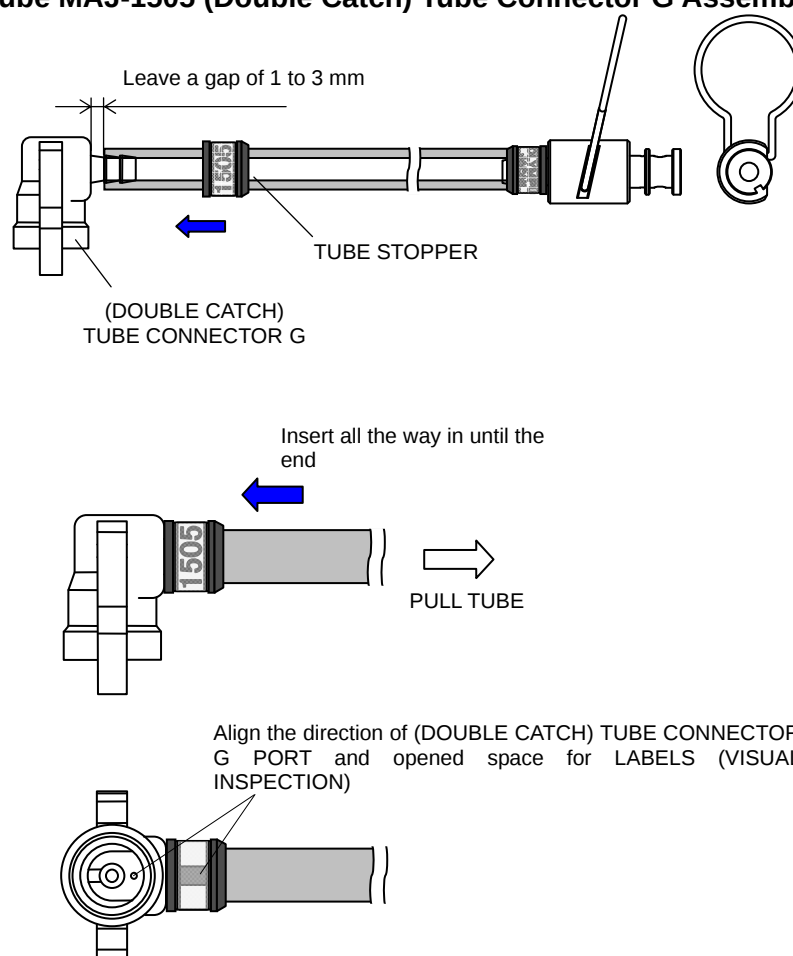
- Insert TUBE STOPPER all the way in until the end
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-5 Connecting Tube MAJ-1505 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR Y
- Insert (DOUBLE CATCH) TUBE CONNECTOR Y in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

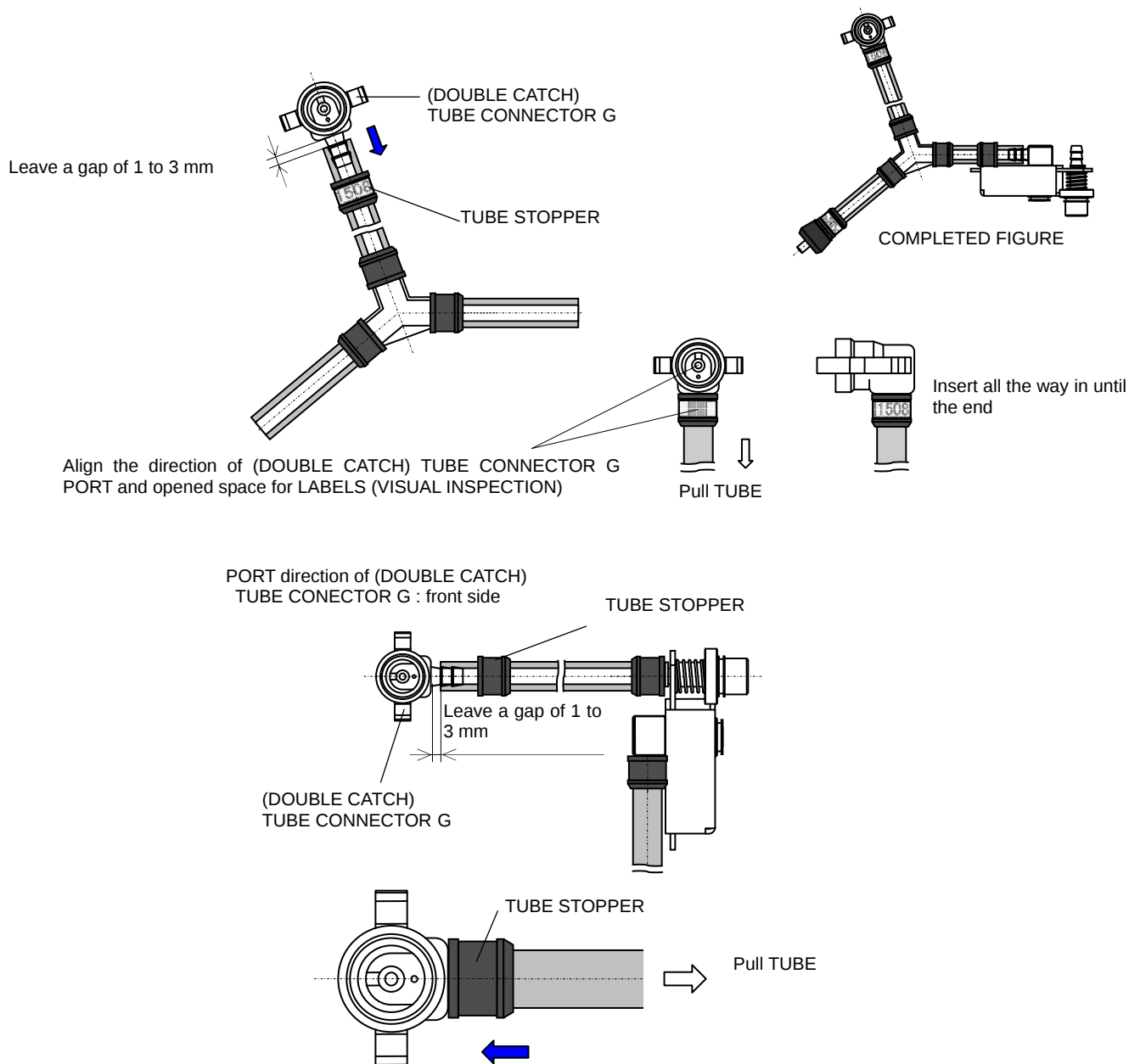
- Insert TUBE STOPPER all the way in until the end
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-6 Connecting Tube MAJ-1508 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
- Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

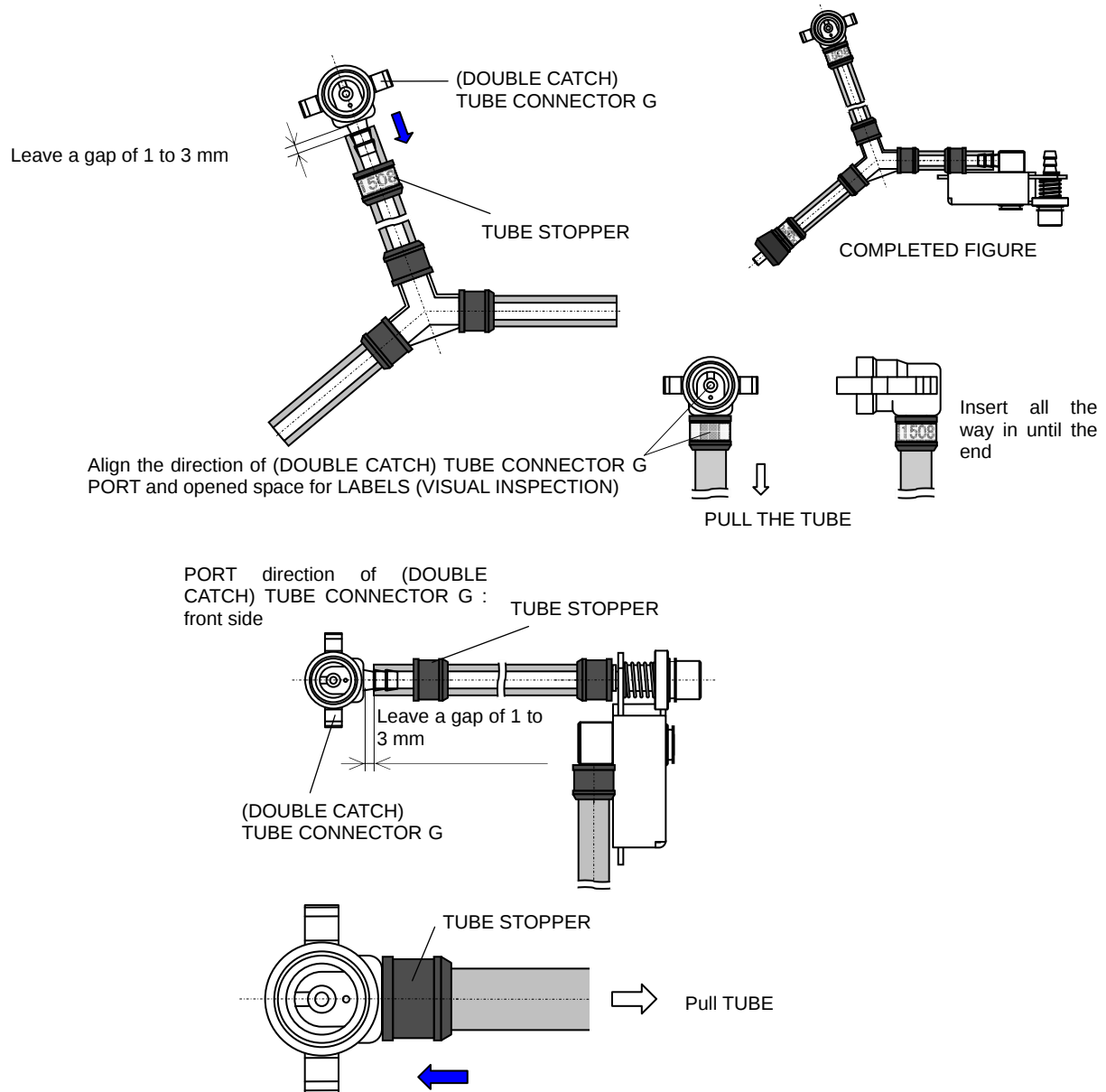
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction as shown in the above figure
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-7 Connecting Tube MAJ-1509 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
- Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

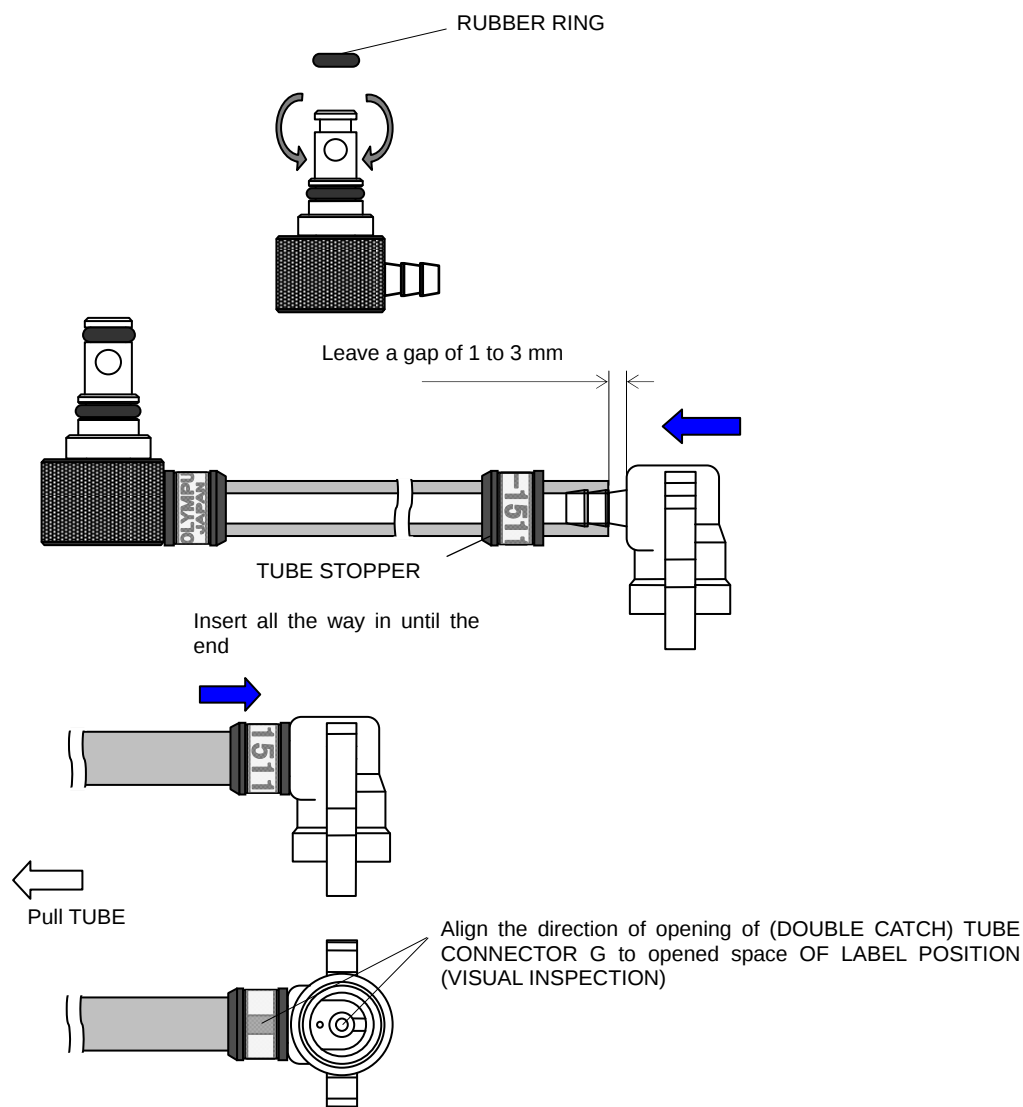
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction as shown in the above figure
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

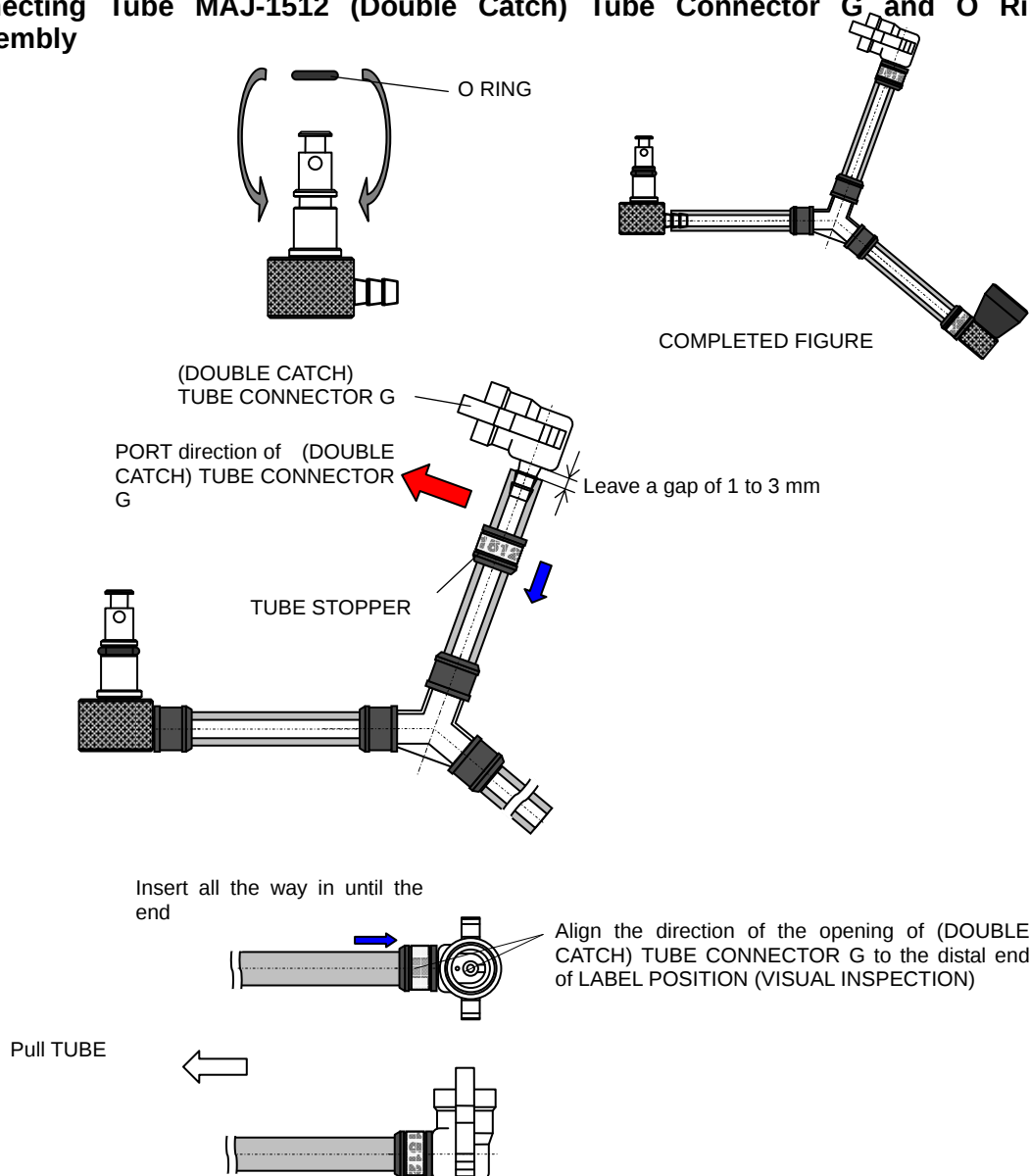
- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-8 Connecting Tube MAJ-1511 (Double Catch) Tube Connector G and Rubber Ring Assembly



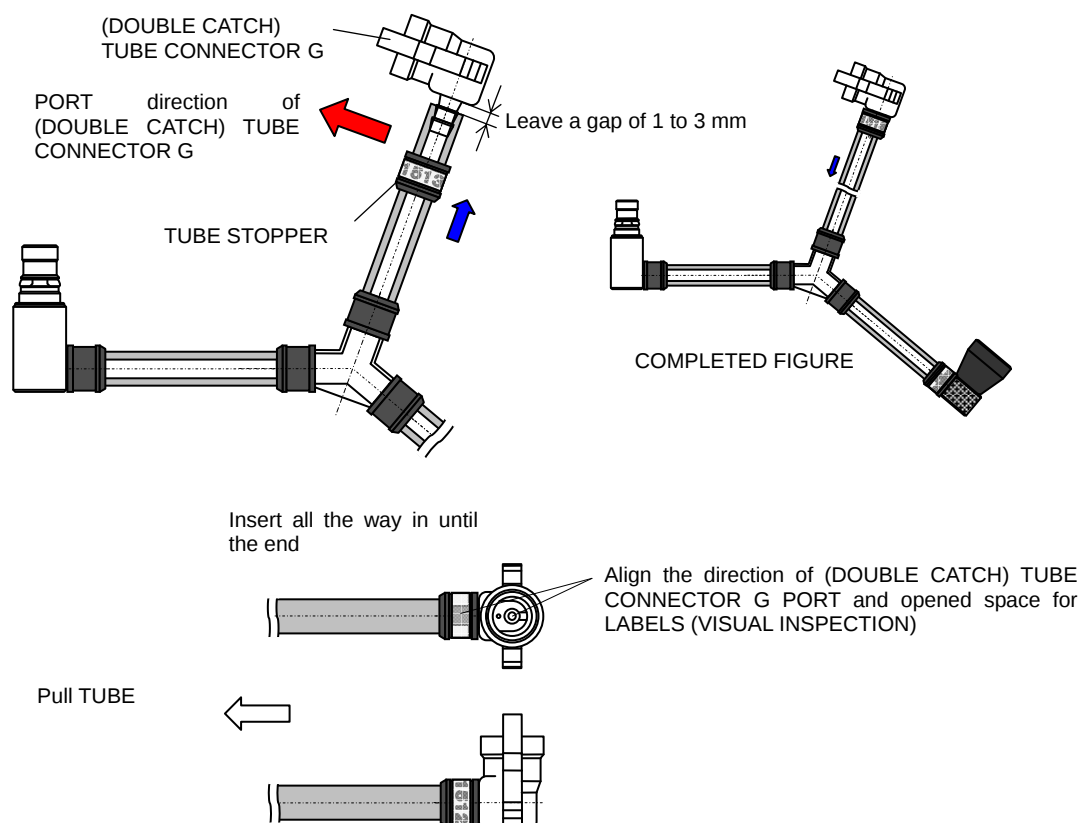
- (1) Insert RUBBER RING in the position indicated by the above figure
Note)
 - Ensure there is no scraping or cut in RUBBER RING
- (2) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE
Note)
 - Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
 - Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure
- (3) While pulling TUBE, insert TUBE STOPPER all the way in until the end
Note)
 - Insert TUBE STOPPER all the way in until the end
 - Insert TUBE STOPPER in the direction as shown in the above figure
 - Ensure that TUBE STOPPER is inserted all the way in to the end
- (4) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE
Note)
 - Ensure that the air is flowing in the conduit
 - Ensure that there is no air leakage

3-4-9 Connecting Tube MAJ-1512 (Double Catch) Tube Connector G and O Ring Assembly



- (1) Insert O RING in the position shown in the above figure
 Note)
 - Ensure there is no twisting, flaws or cuts on O RING
- (2) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE
 Note)
 - Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
 - Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure
- (3) While pulling TUBE, insert TUBE STOPPER all the way in until the end
 Note)
 - Insert TUBE STOPPER all the way in until the end
 - Insert TUBE STOPPER in the direction as shown in the above figure
 - Ensure that TUBE STOPPER is inserted all the way in to the end
- (4) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE
 Note)
 - Ensure that the air is flowing in the conduit
 - Ensure that there is no air leakage

3-4-10 Connecting Tube MAJ-1513 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
- Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

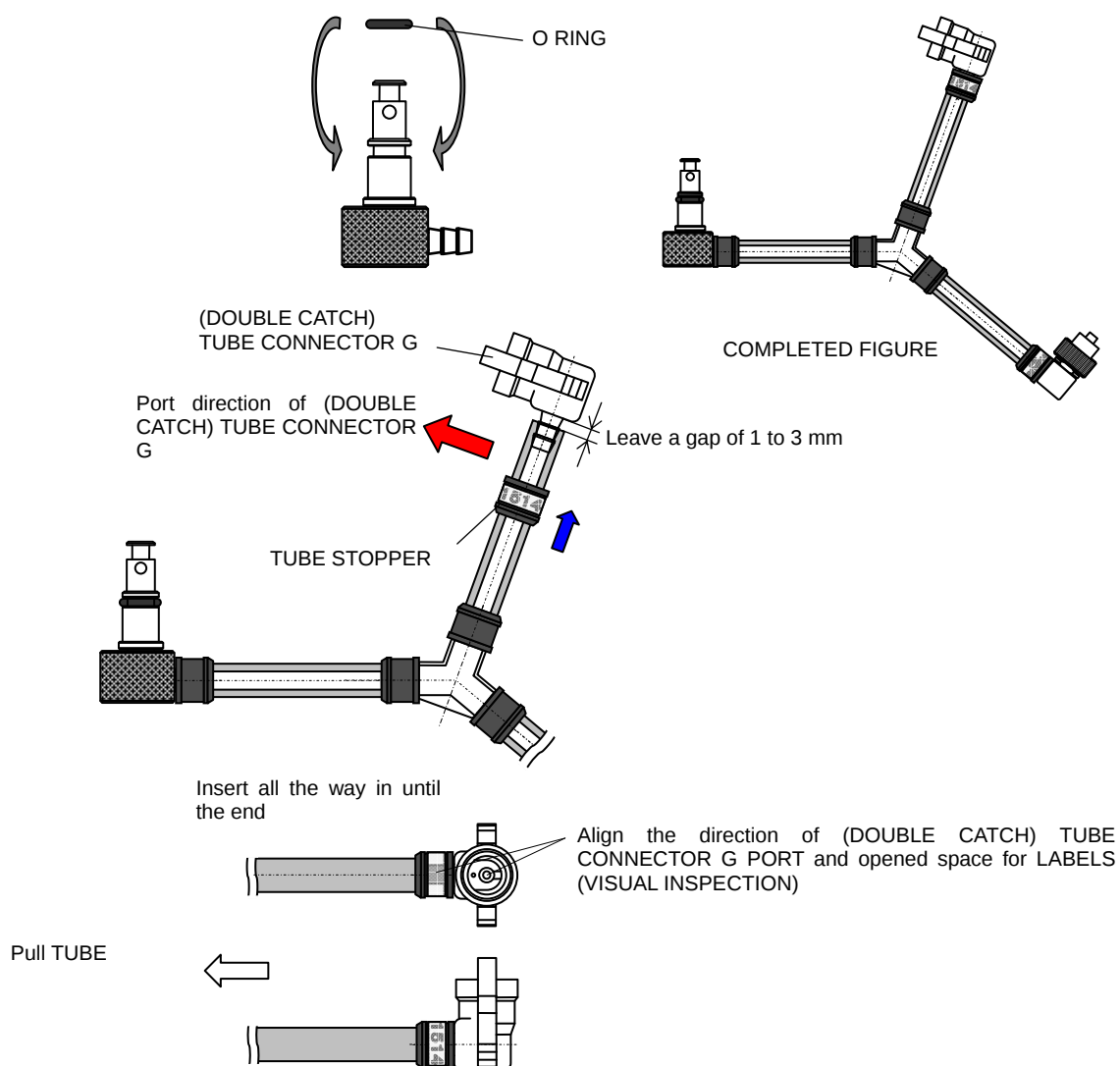
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction as shown in the above figure
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

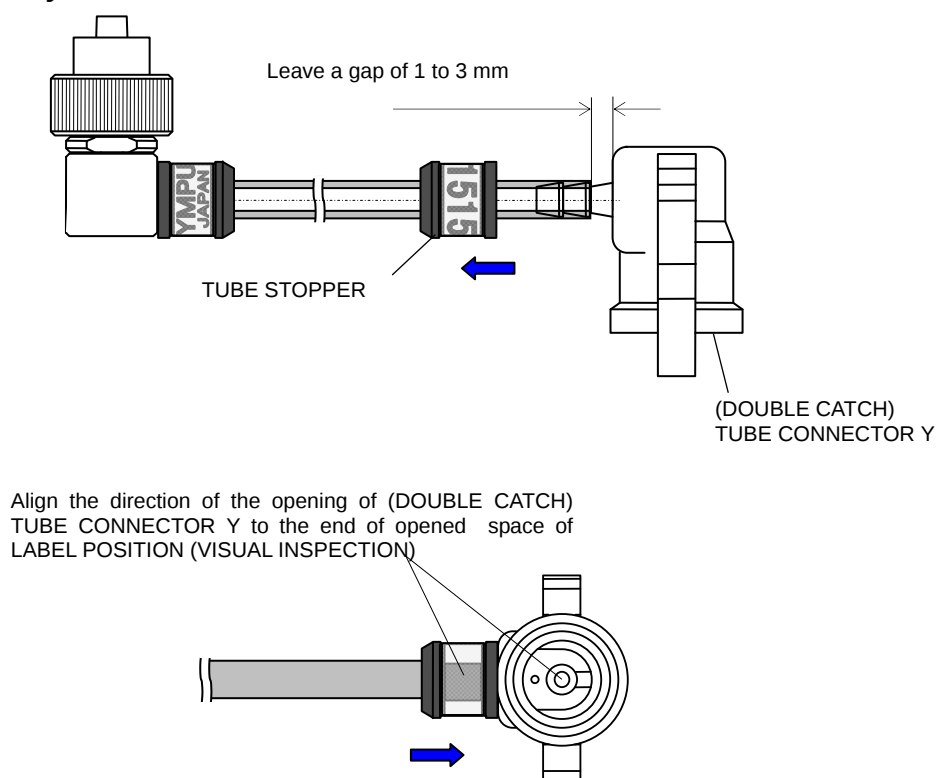
- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-11 Connecting Tube MAJ-1514 (Double Catch) Tube Connector G and O RING Assembly



- (1) Insert O RING in the position shown in the above figure
Note)
 - Ensure there is no twisting, flaws or cuts on O RING
- (2) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE
Note)
 - Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
 - Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure
- (3) While pulling TUBE, insert TUBE STOPPER all the way in until the end
Note)
 - Insert TUBE STOPPER all the way in until the end
 - Insert TUBE STOPPER in the direction as shown in the above figure
 - Ensure that TUBE STOPPER is inserted all the way in to the end
- (4) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE
Note)
 - Ensure that the air is flowing in the conduit
 - Ensure that there is no air leakage

3-4-12 Connecting Tube MAJ-1515 (Double Catch) Tube Connector G and Rubber Ring Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR Y into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR Y
- Insert (DOUBLE CATCH) TUBE CONNECTOR Y in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

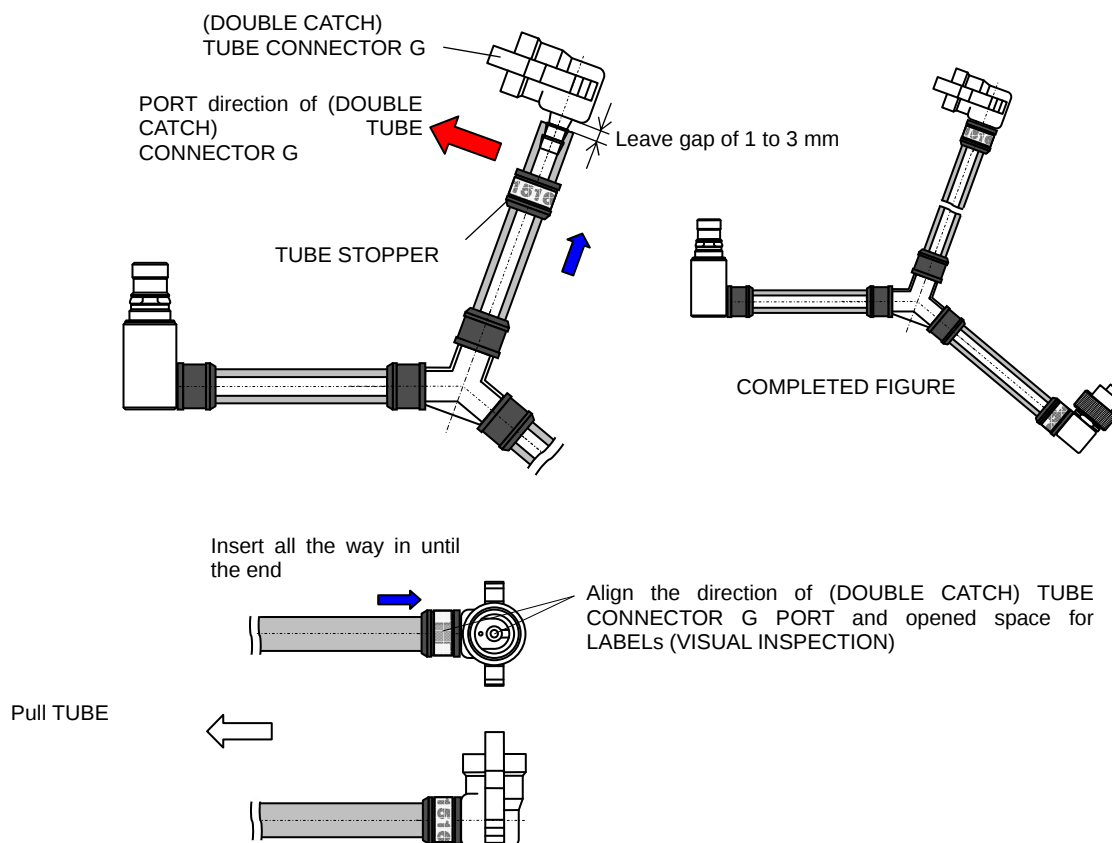
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction as shown in the above figure
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-13 Connecting Tube MAJ-1516 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
- Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

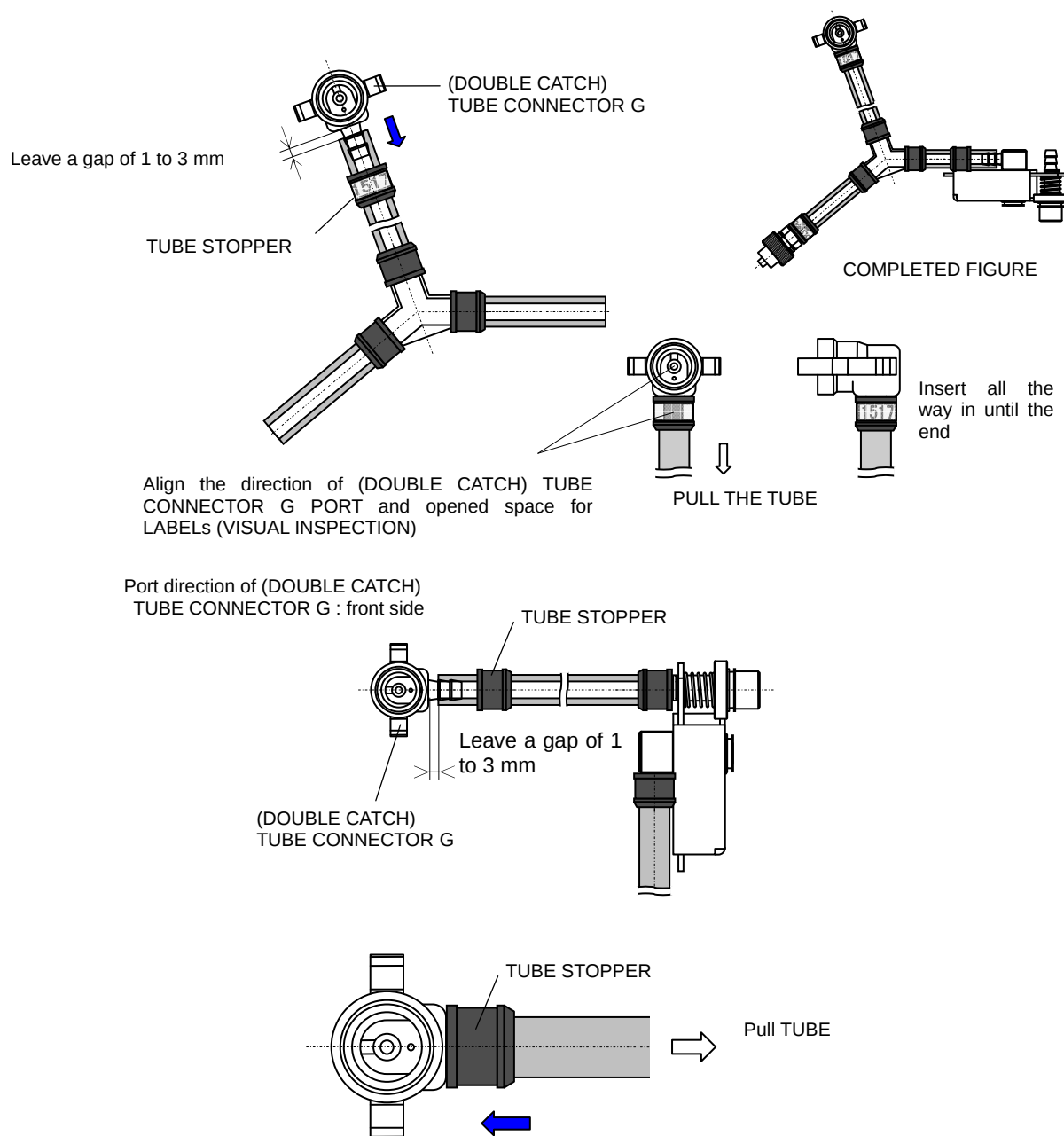
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction as shown in the above figure
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-14 Connecting Tube MAJ-1517 (Double Catch) Tube Connector G Assembly



- (1) Insert TUBE STOPPER and then insert PUMP JOINT of (DOUBLE CATCH) TUBE CONNECTOR G into TUBE

Note)

- Insert the distal end of TUBE with a gap of 1 to 3 mm from the distal end of (DOUBLE CATCH) TUBE CONNECTOR G
- Insert (DOUBLE CATCH) TUBE CONNECTOR G in the direction as shown in the above figure

- (2) While pulling TUBE, insert TUBE STOPPER all the way in until the end

Note)

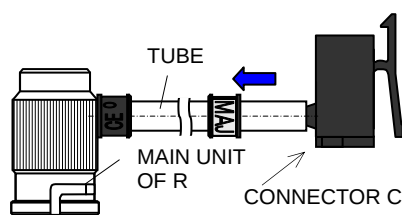
- Insert TUBE STOPPER all the way in until the end
- Insert TUBE STOPPER in the direction as shown in the above figure
- Ensure that TUBE STOPPER is inserted all the way in to the end

- (3) After assembly, ensure that the air is exhausted from the distal end of CONNECTING TUBE when the air is supplied to CONNECTING TUBE

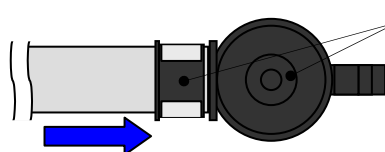
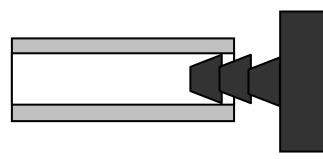
Note)

- Ensure that the air is flowing in the conduit
- Ensure that there is no air leakage

3-4-15 Leakage Test Air Tube MAJ-821 Assembly



Position of insertion
Insert until one thread of PUMP JOINT
has passed in



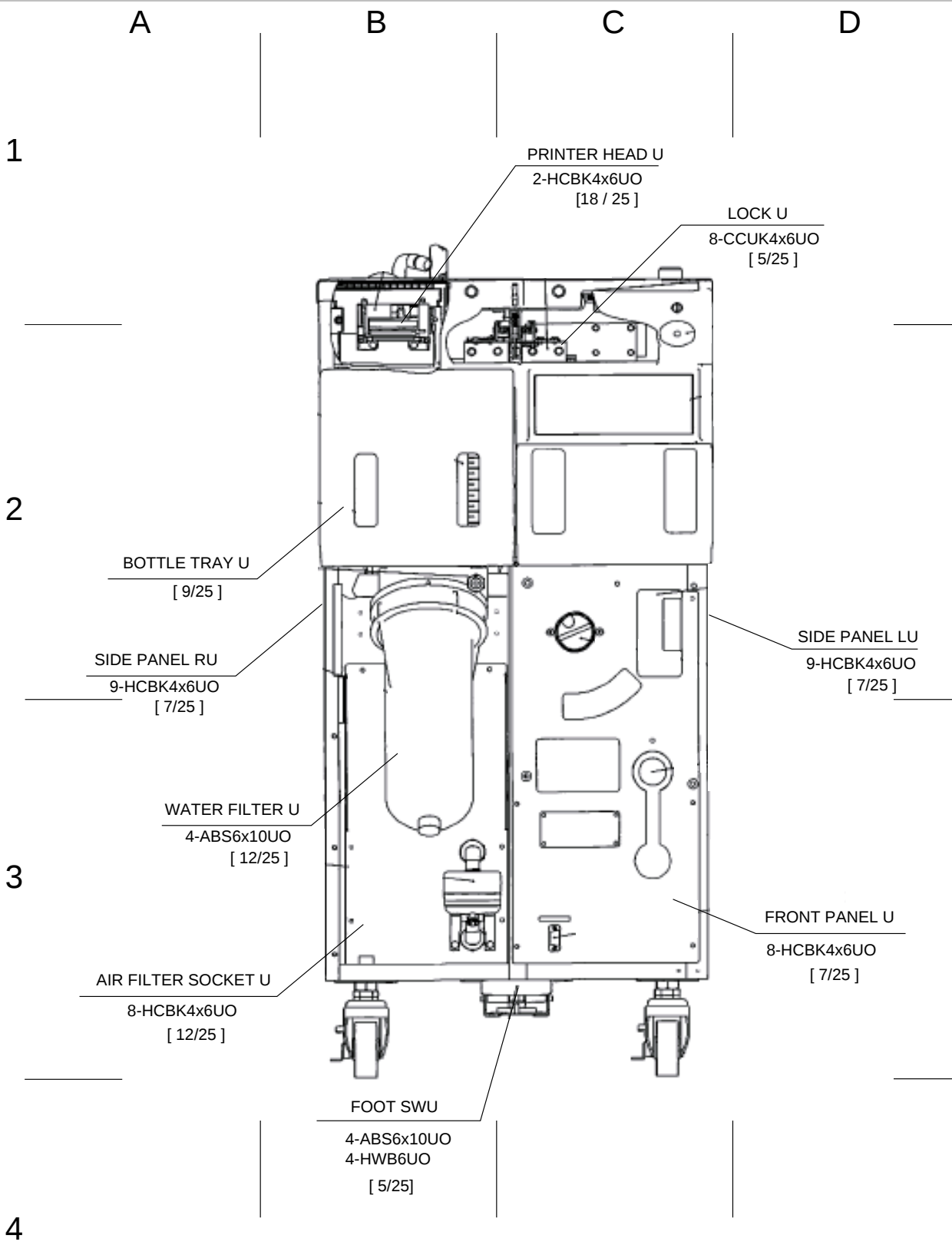
CONNECTOR: Align the direction of the opening of
(DOUBLE CATCH) TUBE CONNECTOR to opened
space for LABEL position (VISUAL INSPECTION)

- (1) With YUBE STOPPER inserted in TUBE as shown in the above figure, insert CONNECTOR C to pass one thread of PUMP JOINT
- (2) Connect TUBE STOPPER as shown in the above figure
Note)
 - When inserting TUBE STOPPER, adequately apply ethanol around the inner and the outer perimeter of TUBE (ethanol for disinfection purposes may also be able to use)
 - Ensure that the insertion direction is in the designated direction
 - Insert TUBE all the way in until the designated position
 - Insert TUBE all the way in until the end
 - Align the positions of CONNECTOR C and LABELs
- (3) After assembling, supply the air to LEAKAGE DETECTION AIR SUPPLY TUBE and then push on SEAL VALVE in the main unit of R, ensure that the air is exhausted from the distal end of LEAKAGE DETECTION AIR SUPPLY TUBE
Note)
 - Ensure that the air is flowing in the conduit
 - Ensure that there is no air leakage
- (4) Ensure that there is no air leakage from TUBE of AIR SUPPLY TUBE for LEAKAGE DETECTION and CONNECTION of CONNECTOR C

Chapter 6: Parts List

1	Exploded Parts Diagram	4-2
2	Parts List	4-27

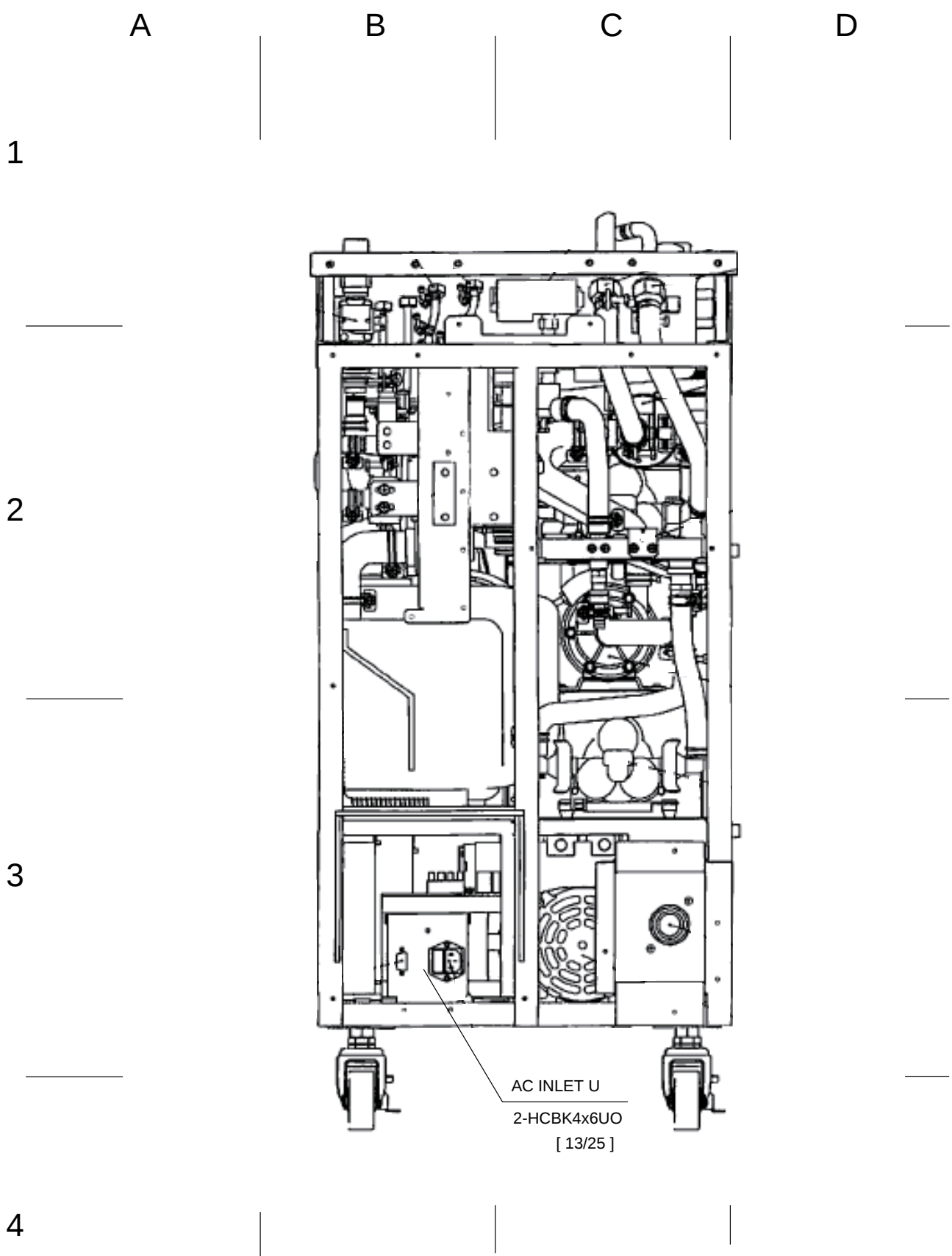
1 Exploded Parts Diagram



EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	FRONT SIDE (UNIT)	FIG.1/25
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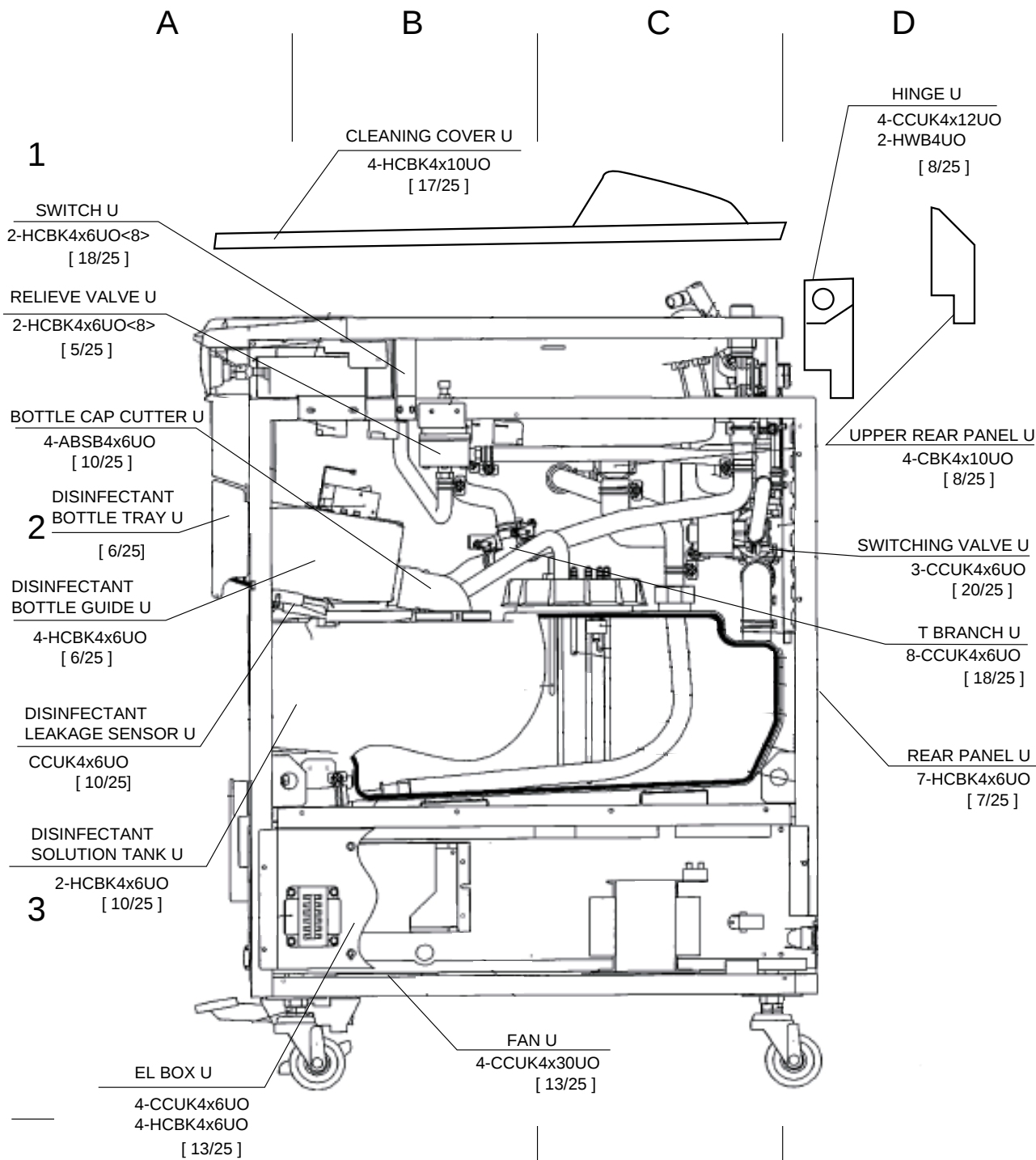


EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	REAR SIDE (UNIT)	FIG.2/25
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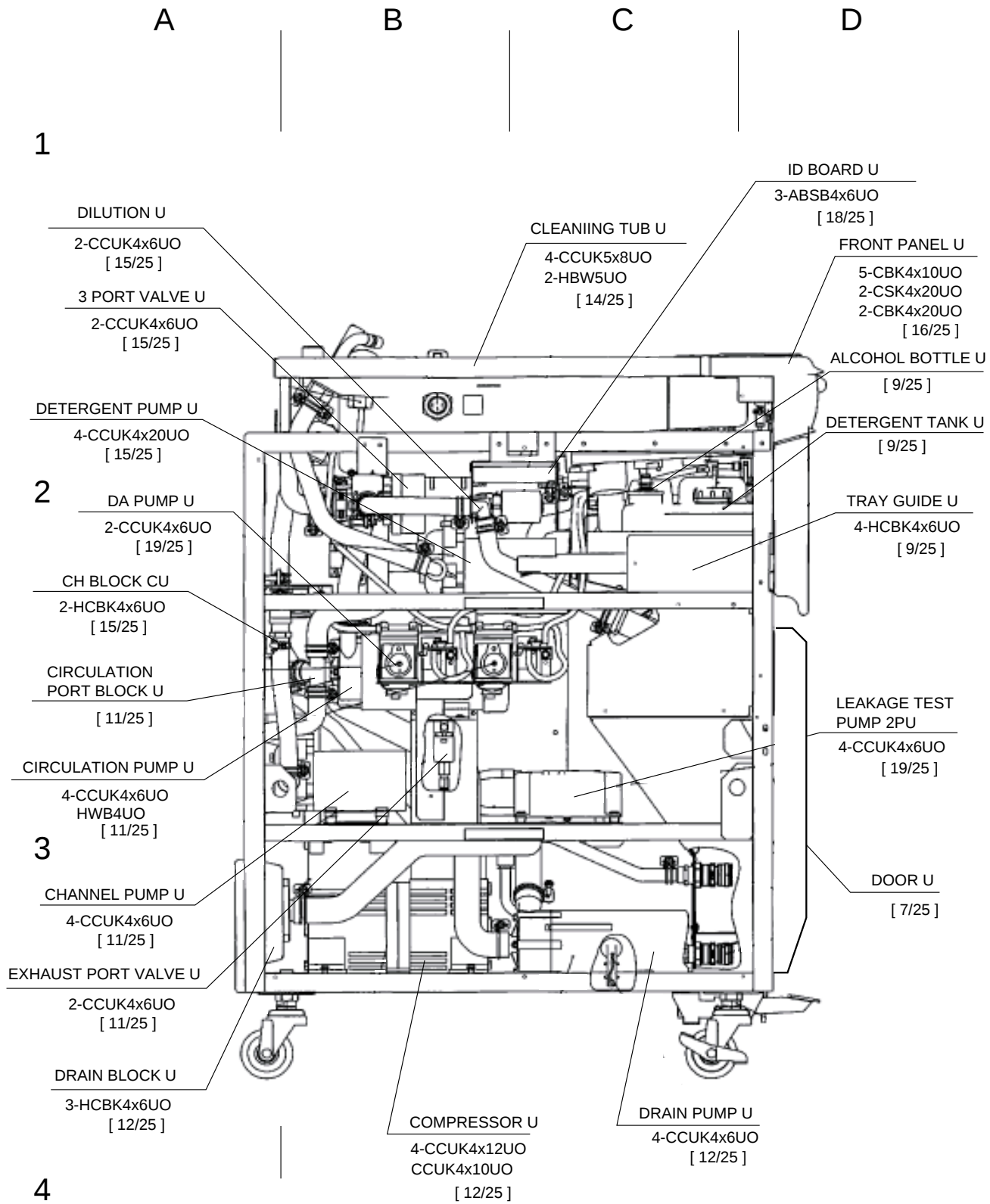


EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	LEFT SIDE (UNIT)	FIG.3/25
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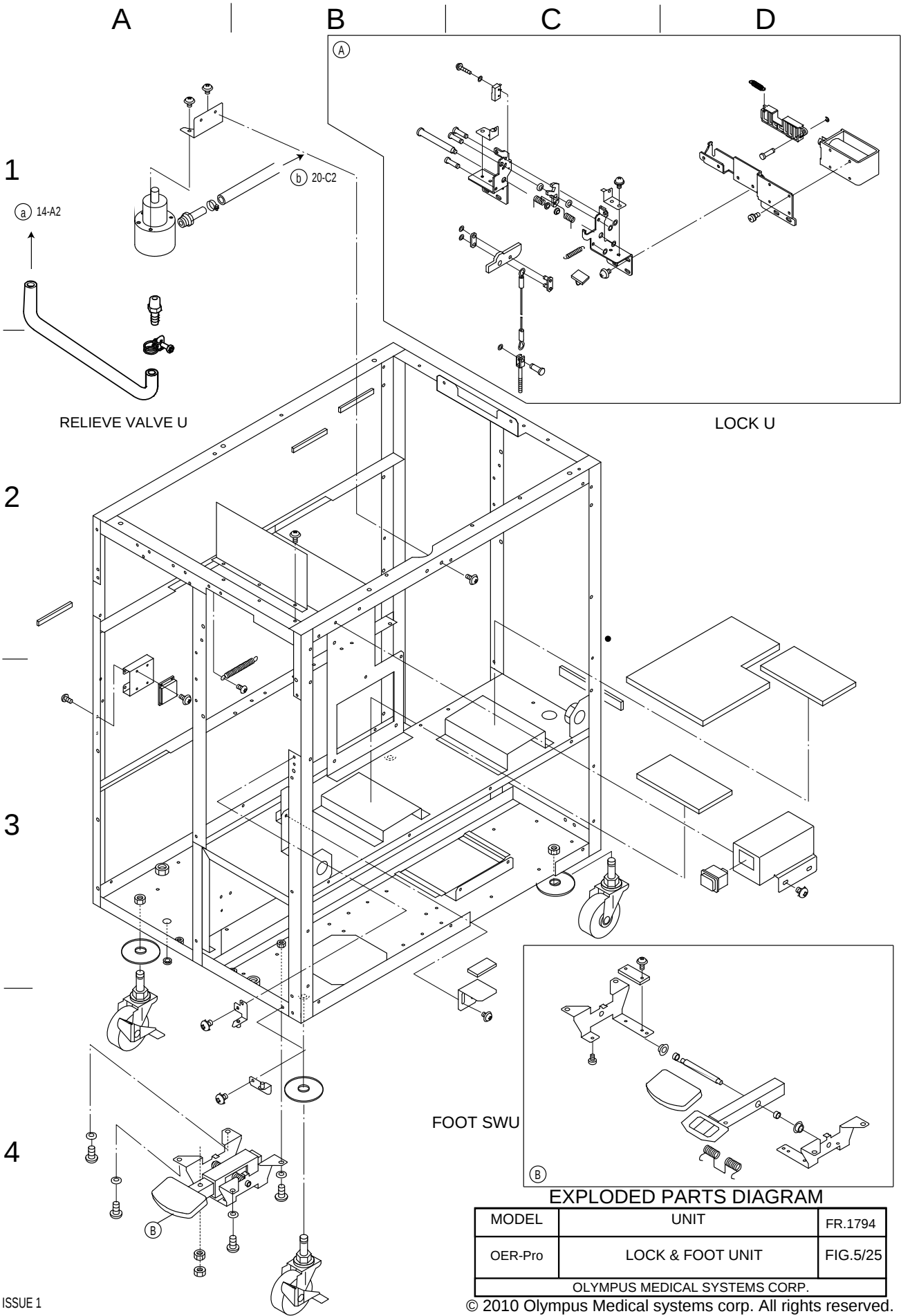


EXPLODED PARTS DIAGRAM

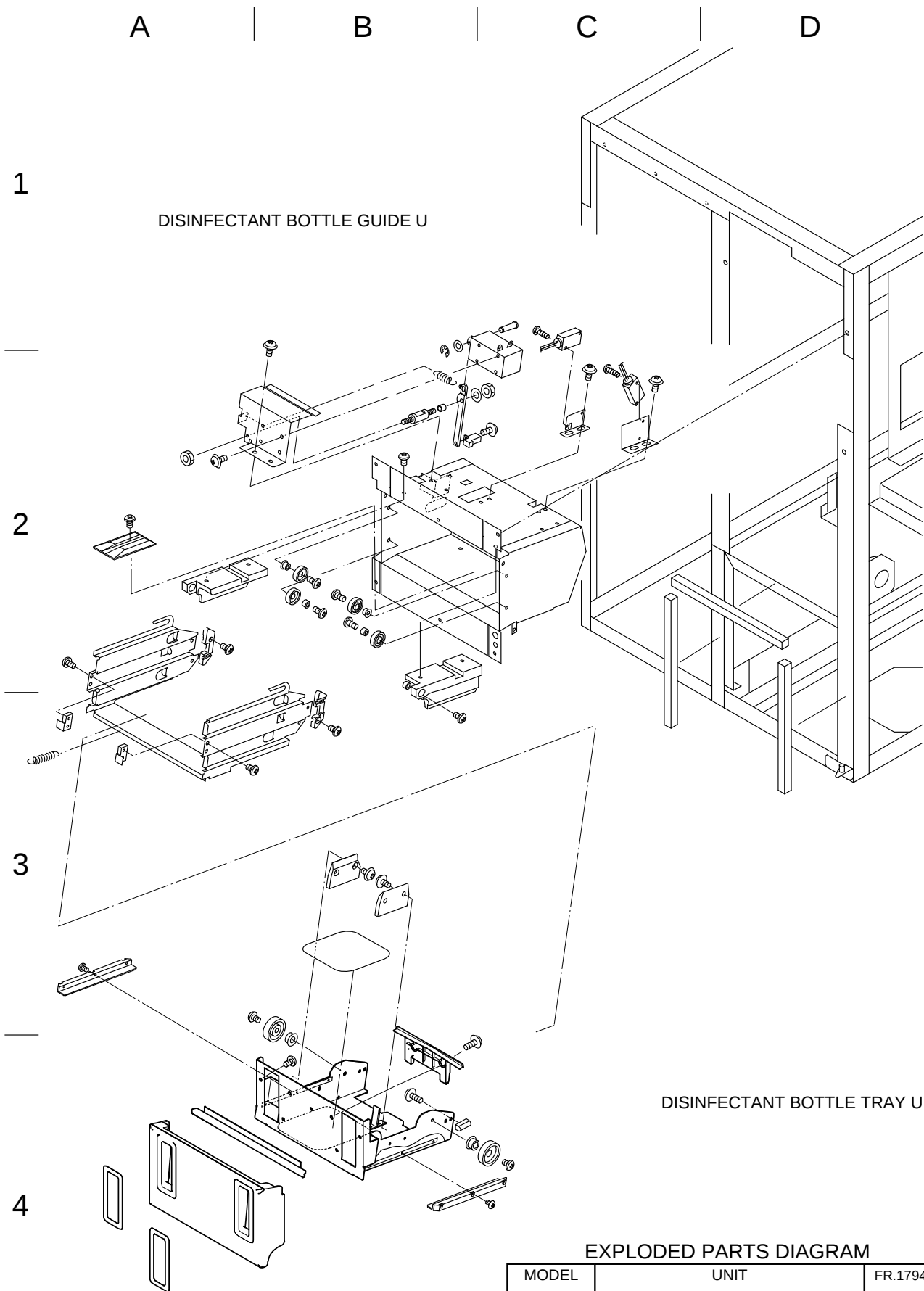
MODEL	UNIT	FR.1794
OER-Pro	RIGHT SIDE (UNIT)	FIG.4/25
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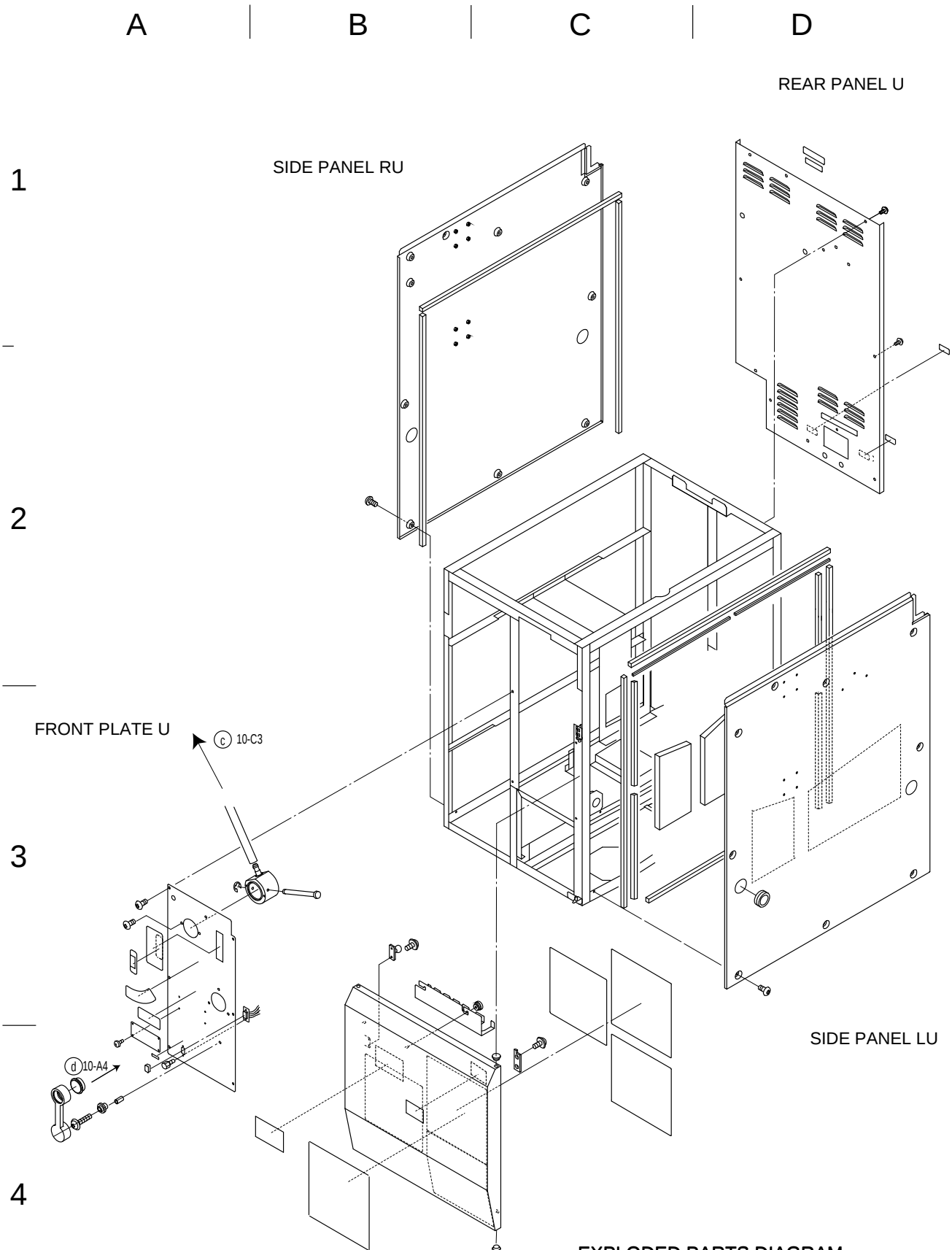
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EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	DISINFECTANT TRAY UNIT	FIG.6/25

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EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	DOOR & COVER	FIG.7/25
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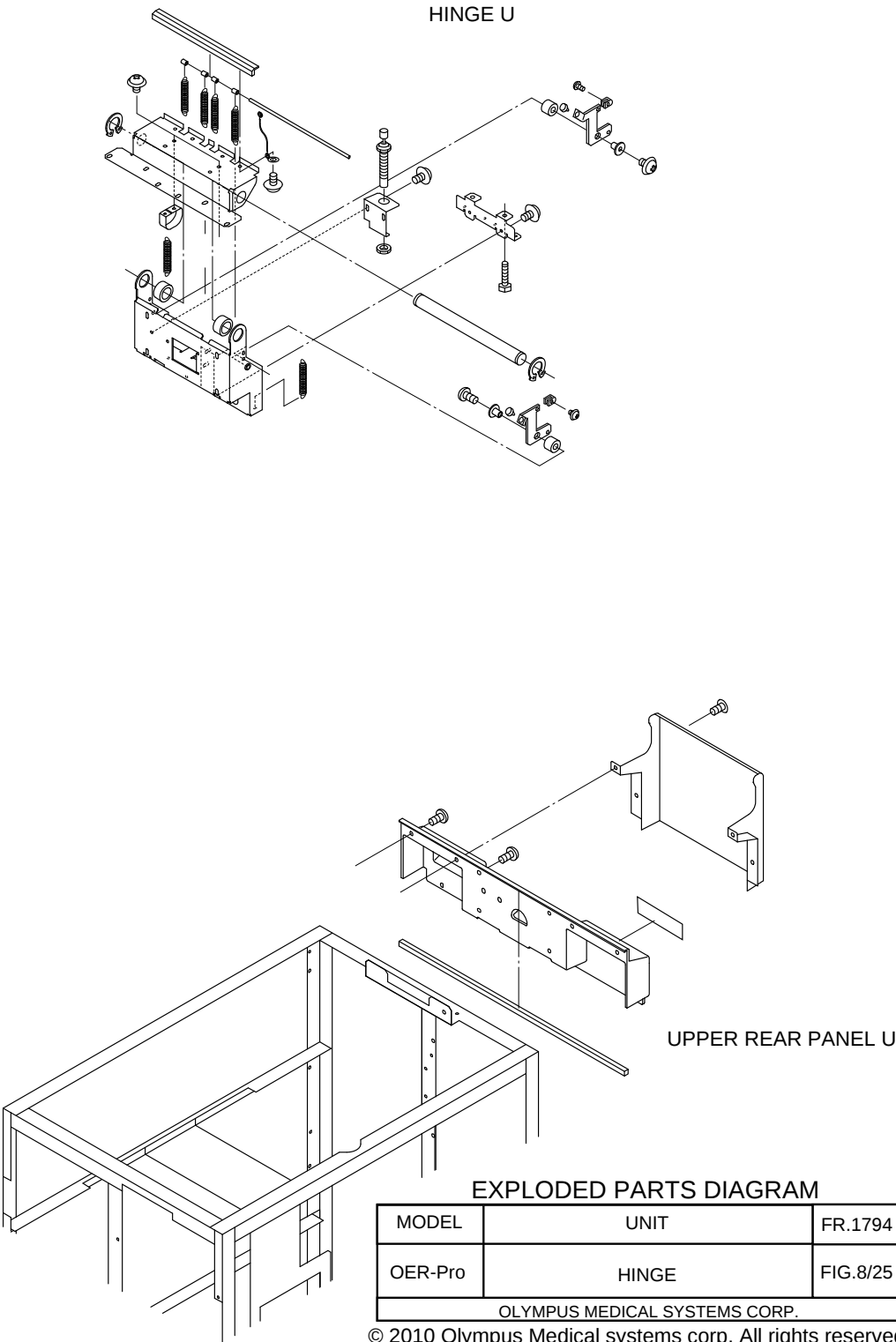
A | B | C | D

1

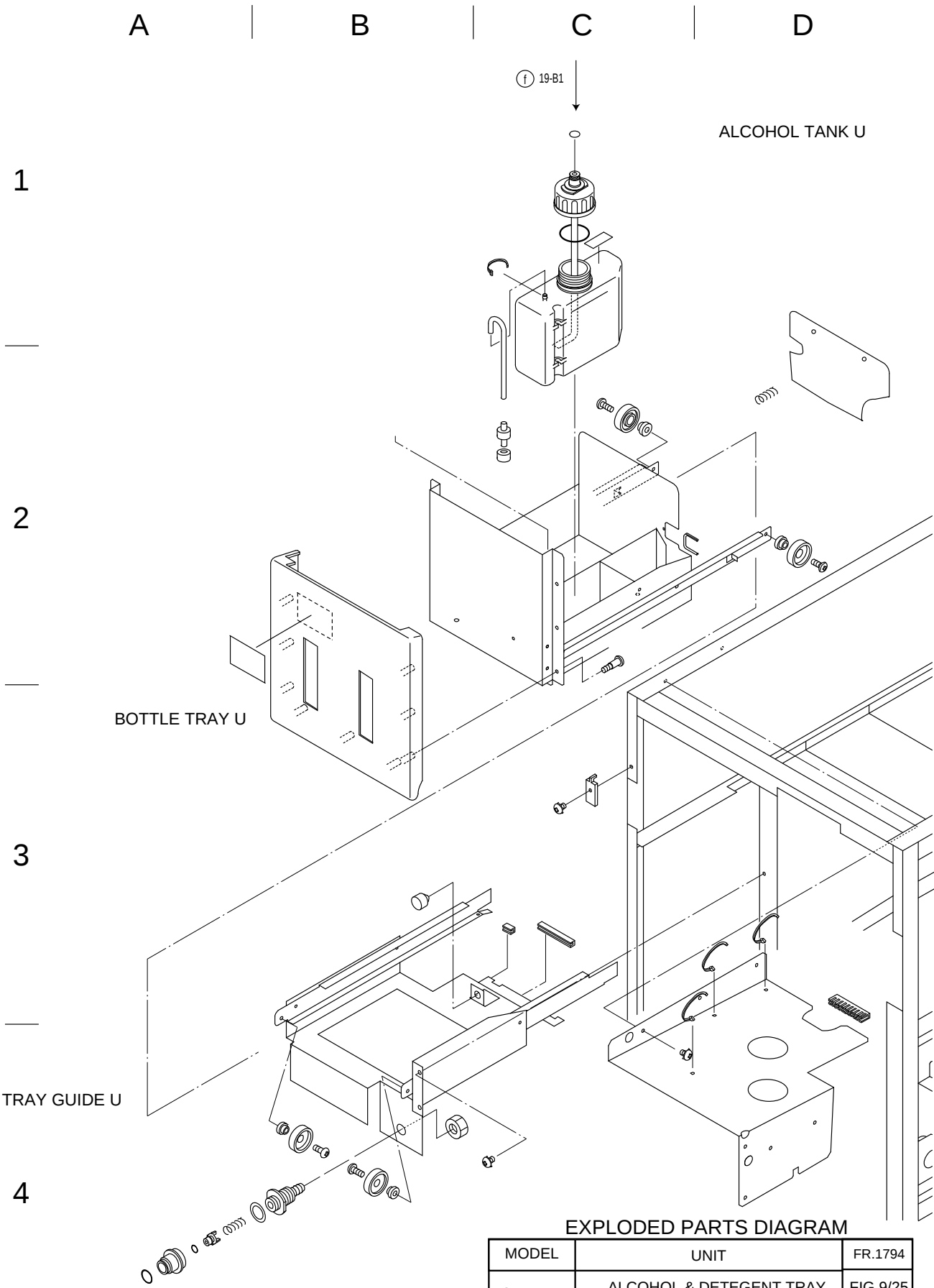
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3

4



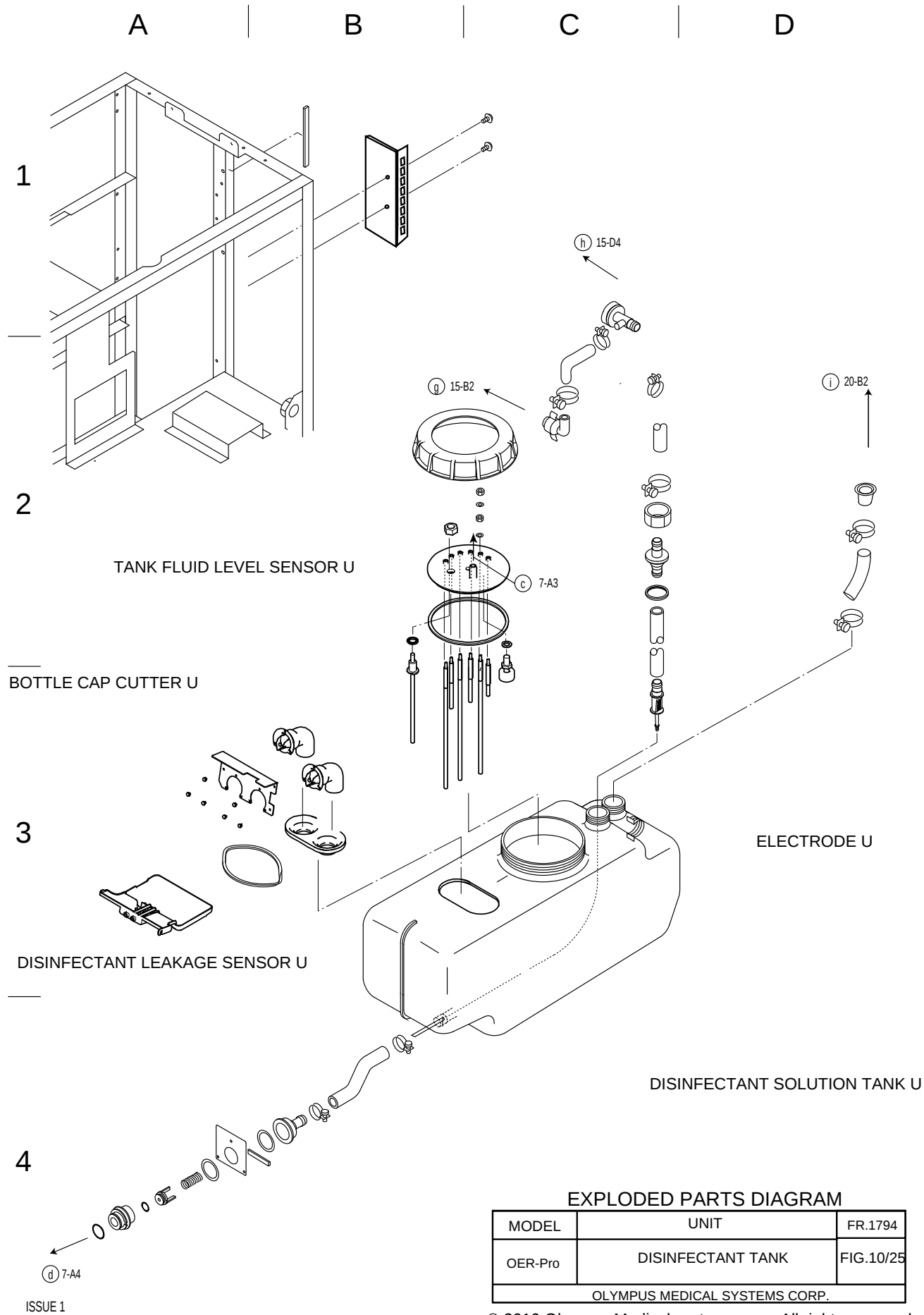
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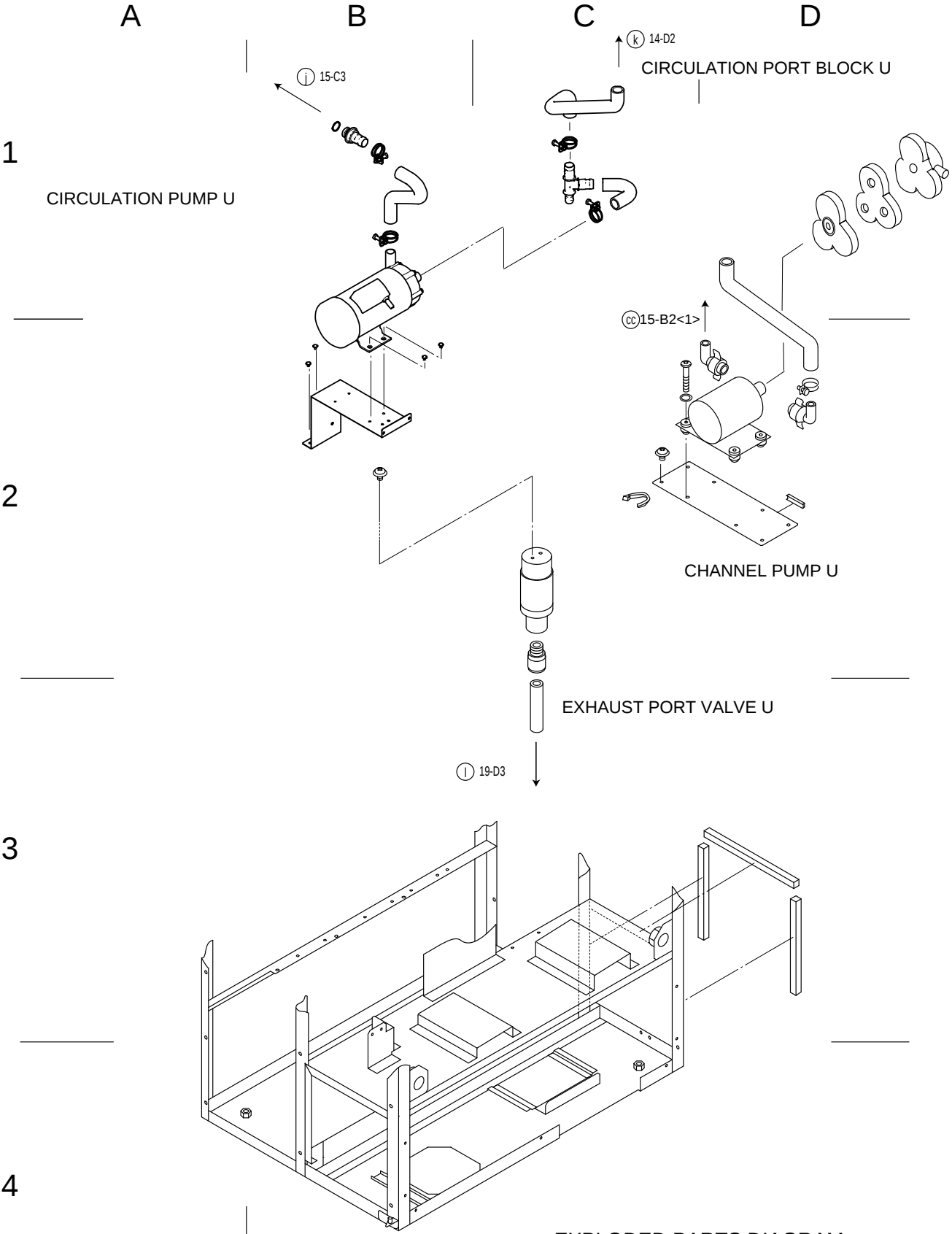


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MODEL	UNIT	FR.1794
OER-Pro	ALCOHOL & DETERGENT TRAY	FIG.9/25
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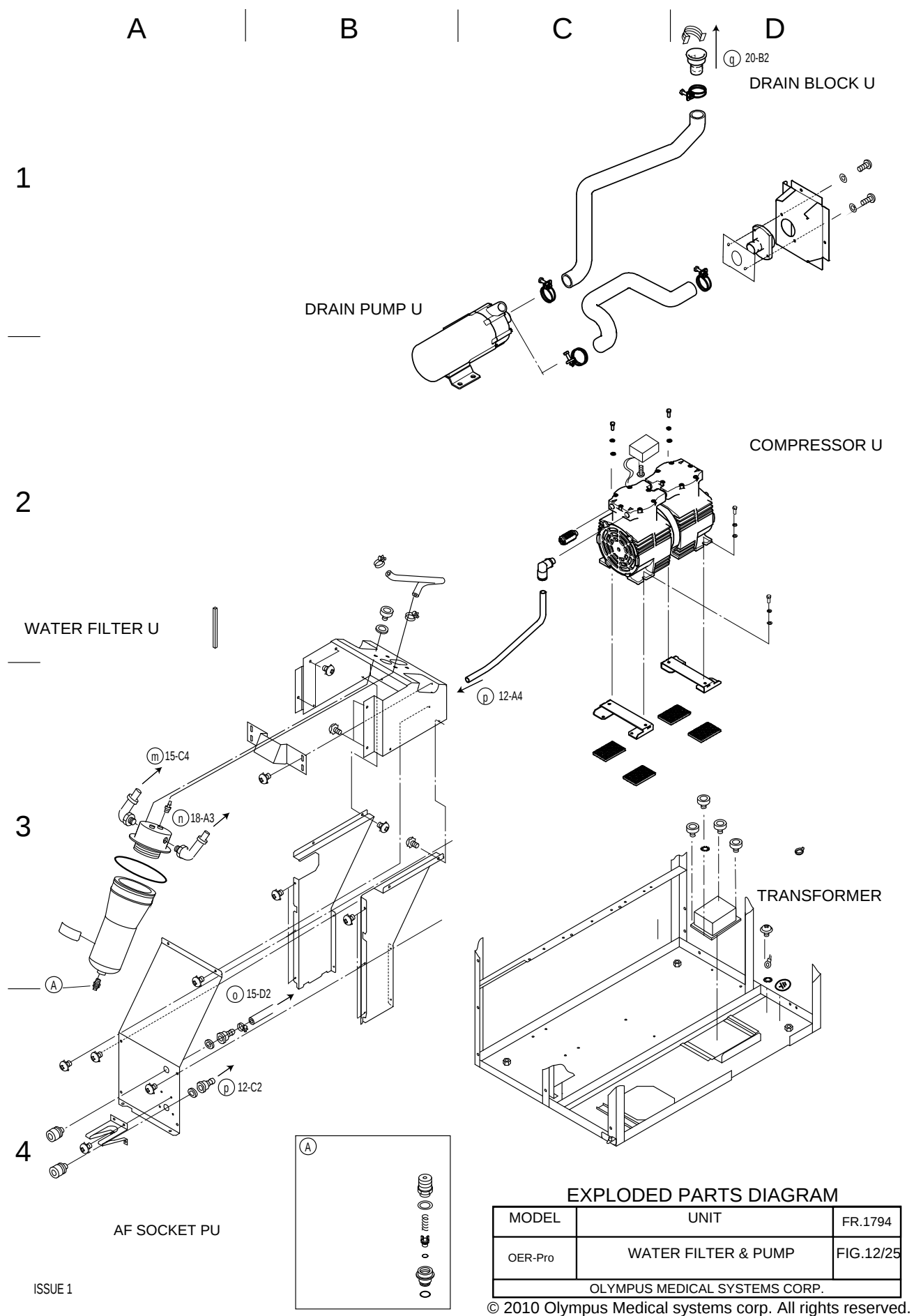
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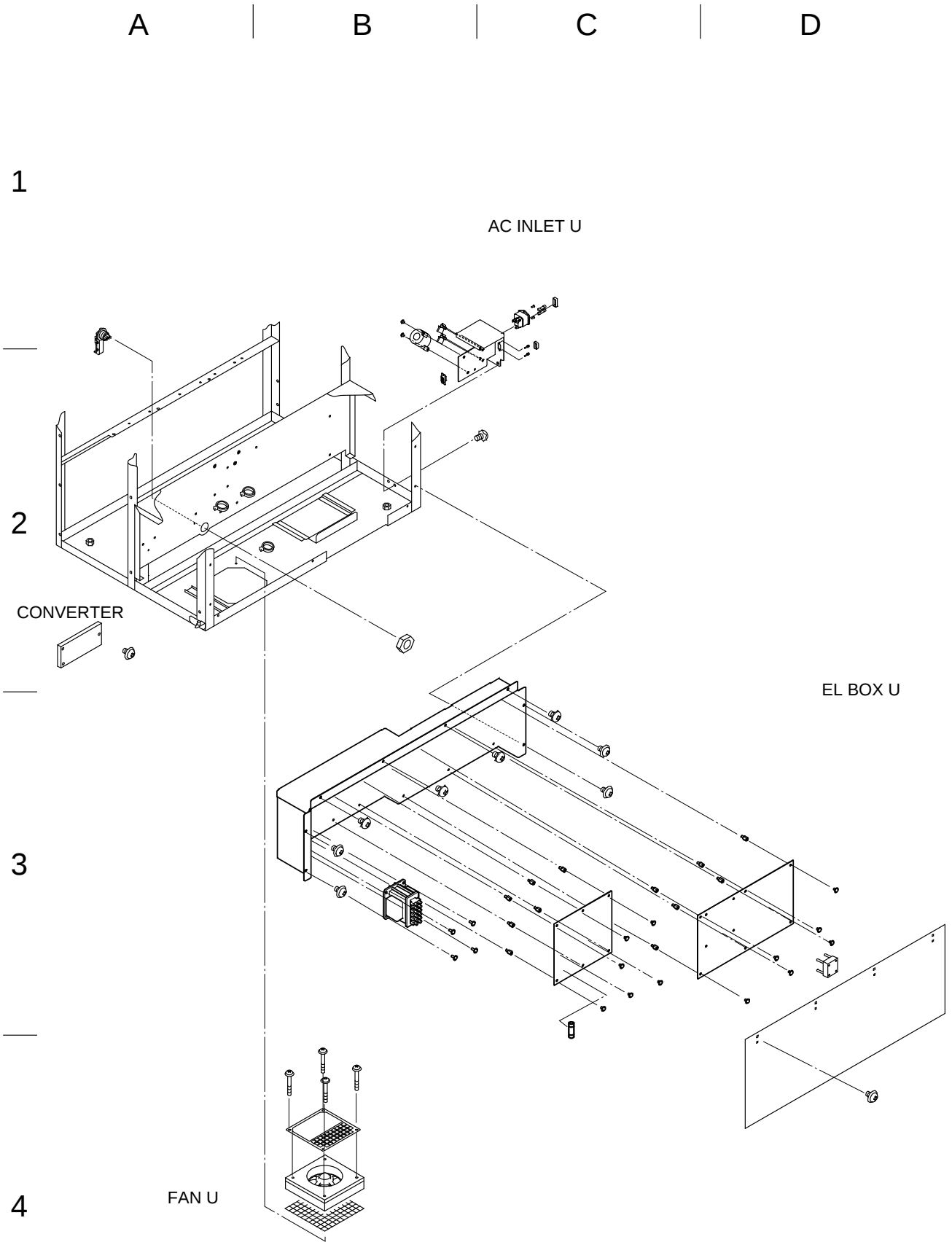




EXPLODED PARTS DIAGRAM

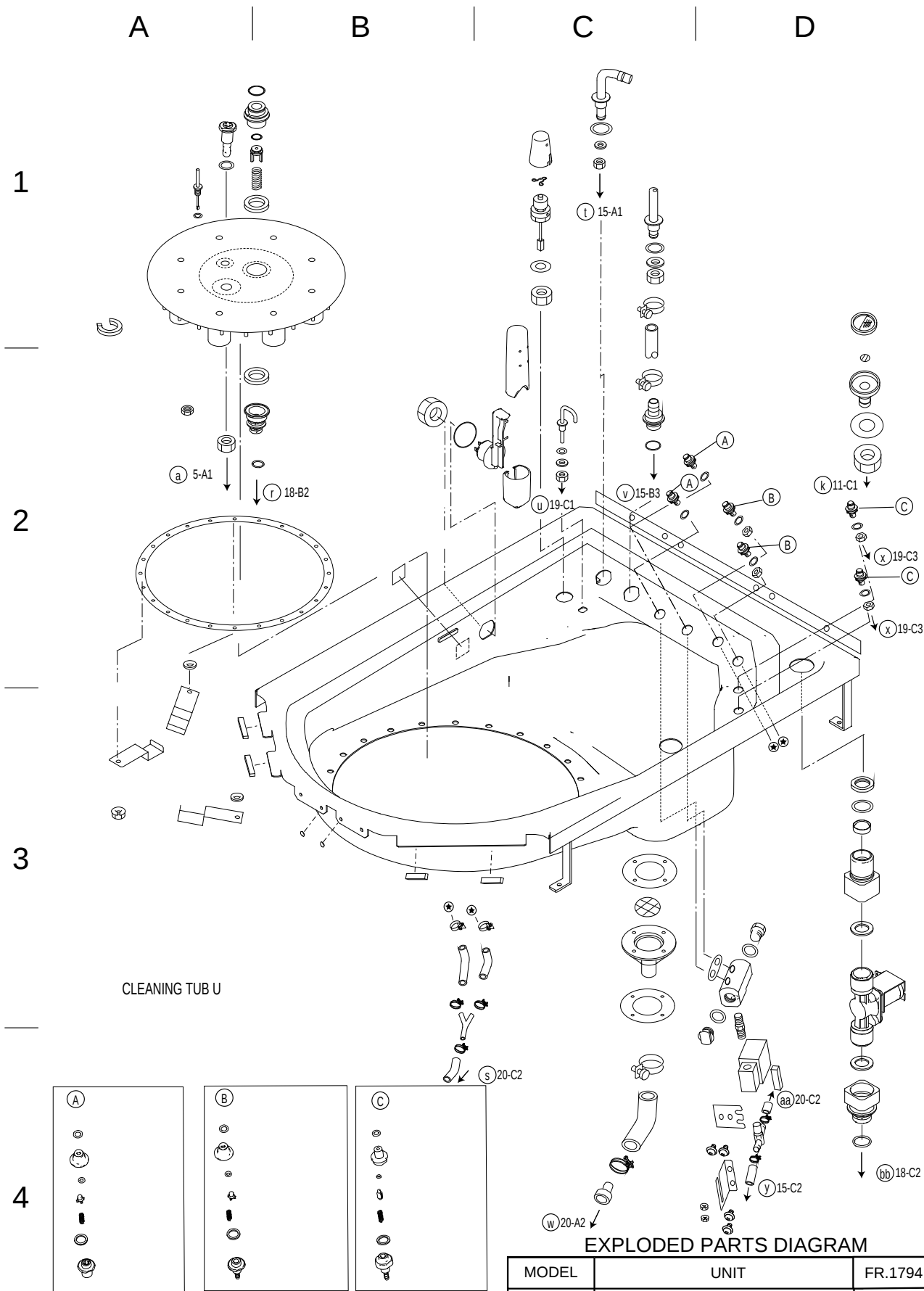
MODEL	UNIT	FR.1794
OER-Pro	PUMP	FIG.11/25
OLYMPUS MEDICAL SYSTEMS CORP.		





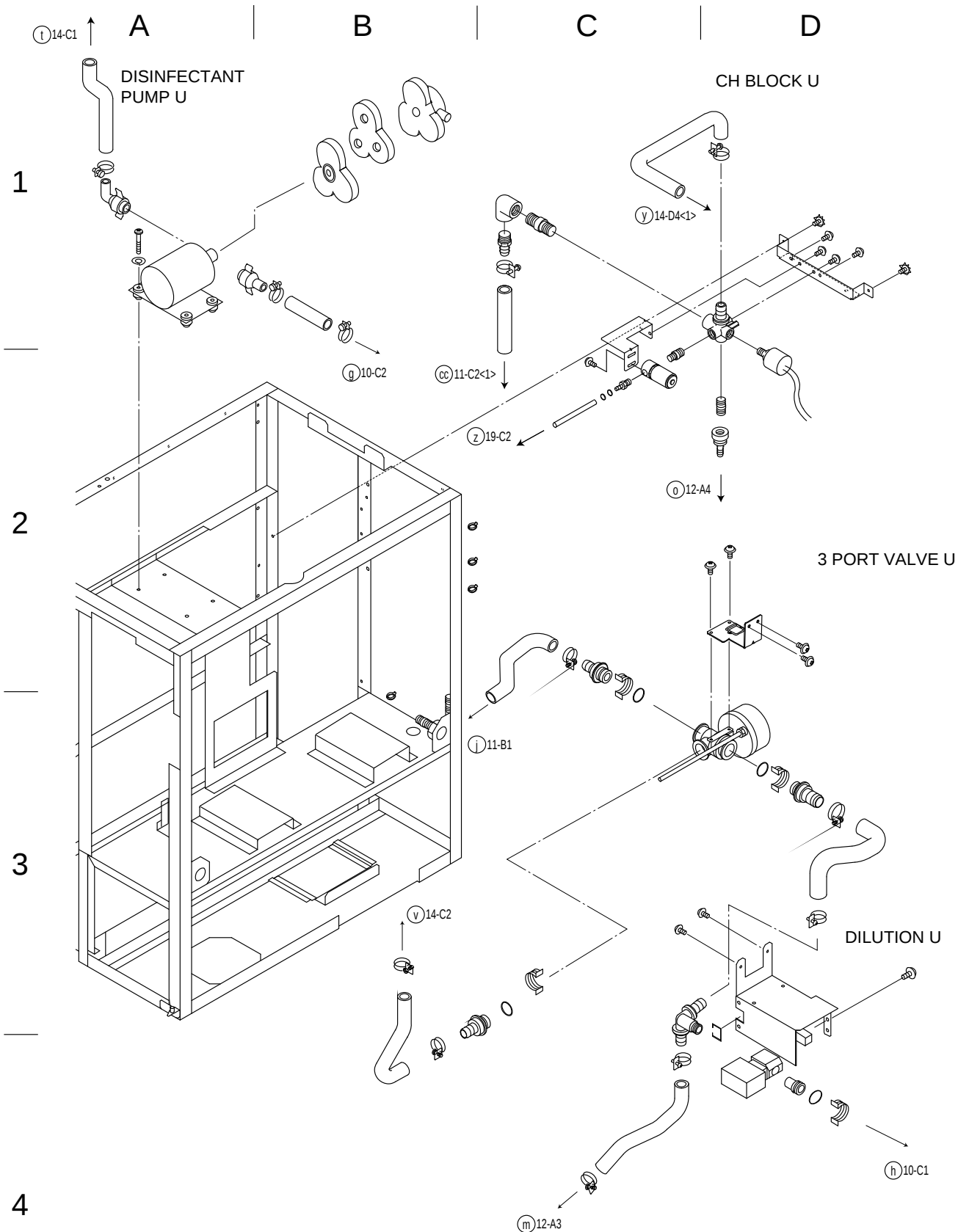
MODEL	UNIT	FR.1794
OER-Pro	CONTROL UNIT	FIG. 13/25
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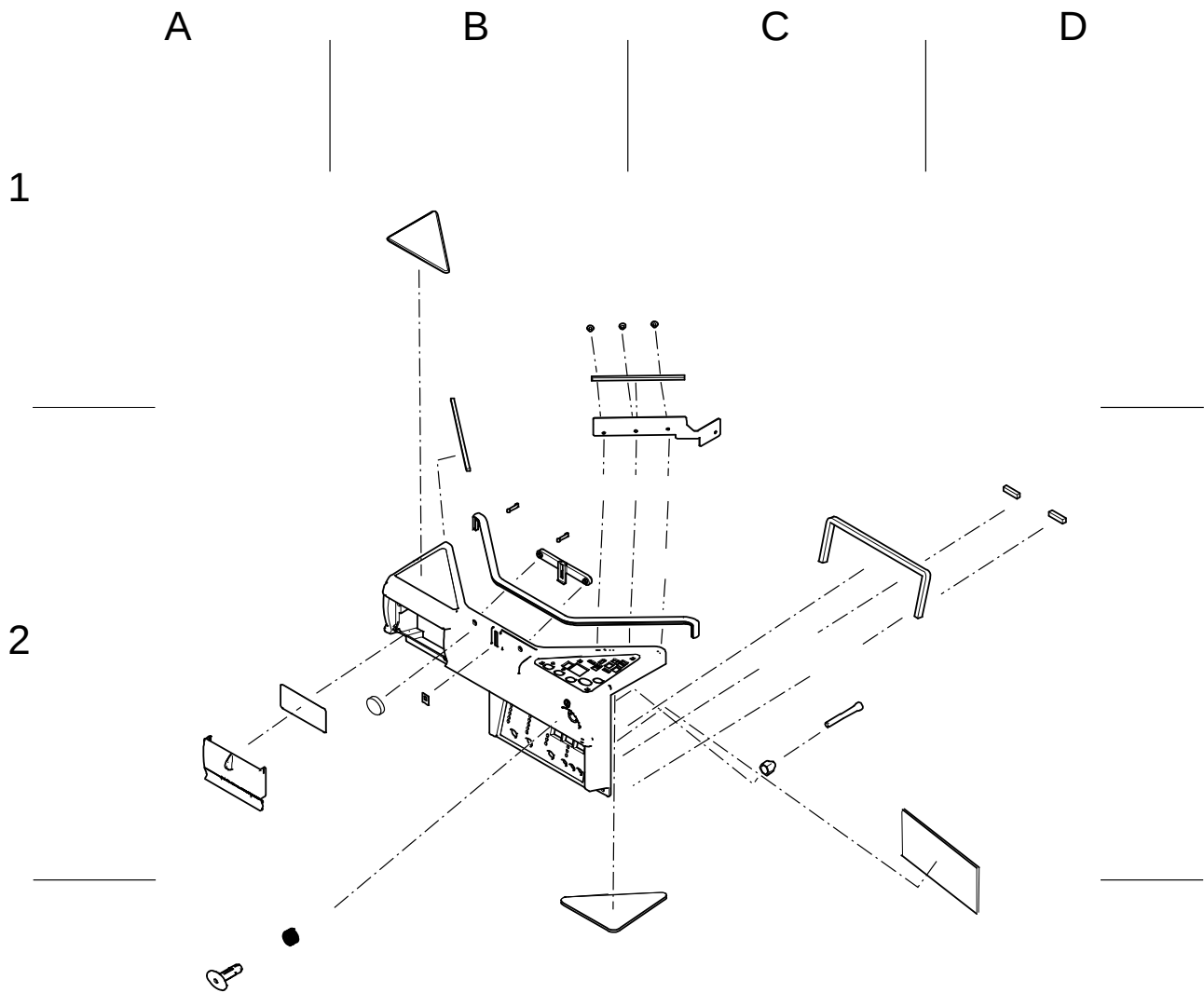


EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	PUMP & VALVE	FIG.15/25
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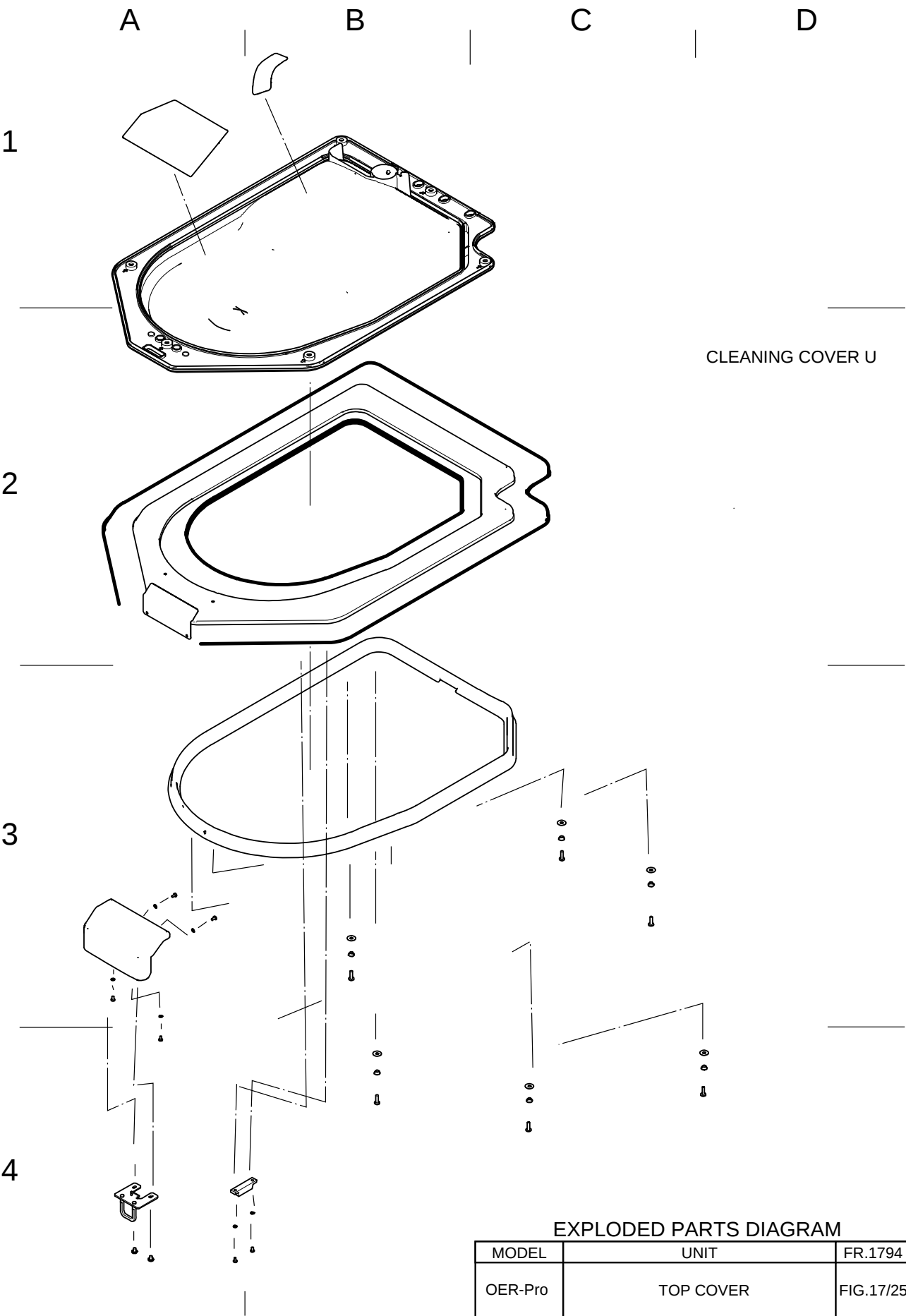


EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	FRONT PANEL	FIG.16/25
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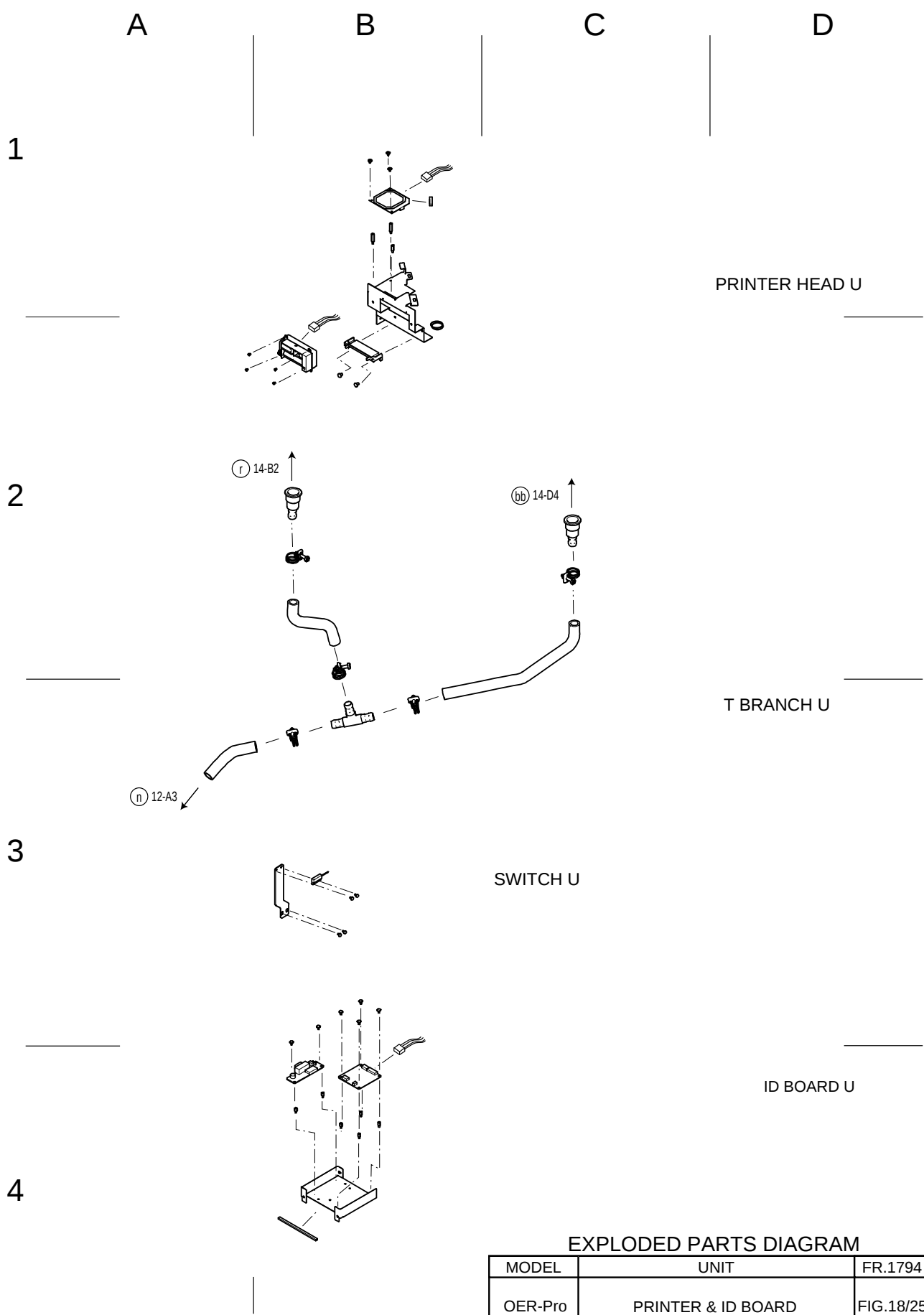


EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	TOP COVER	FIG.17/25
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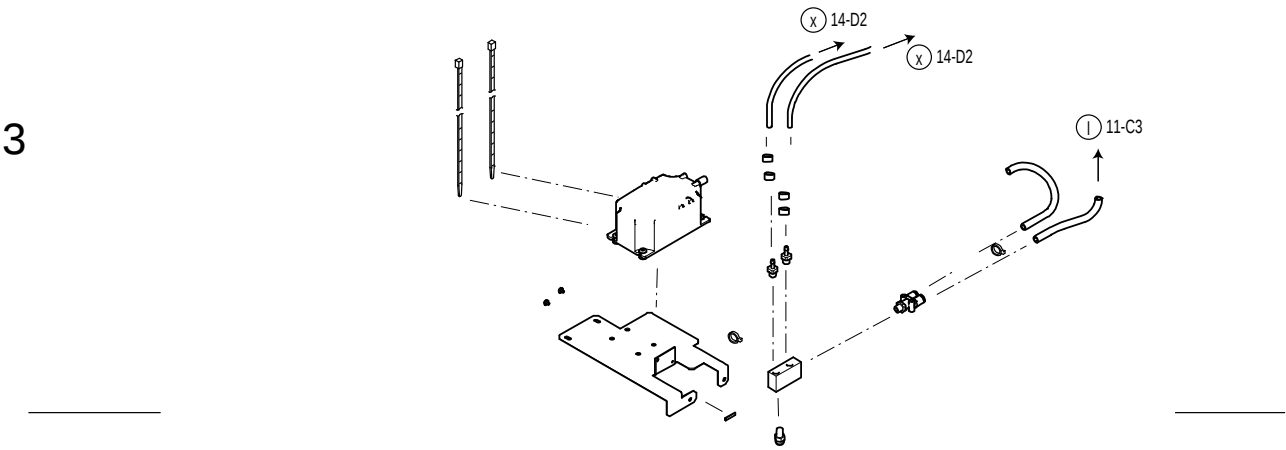
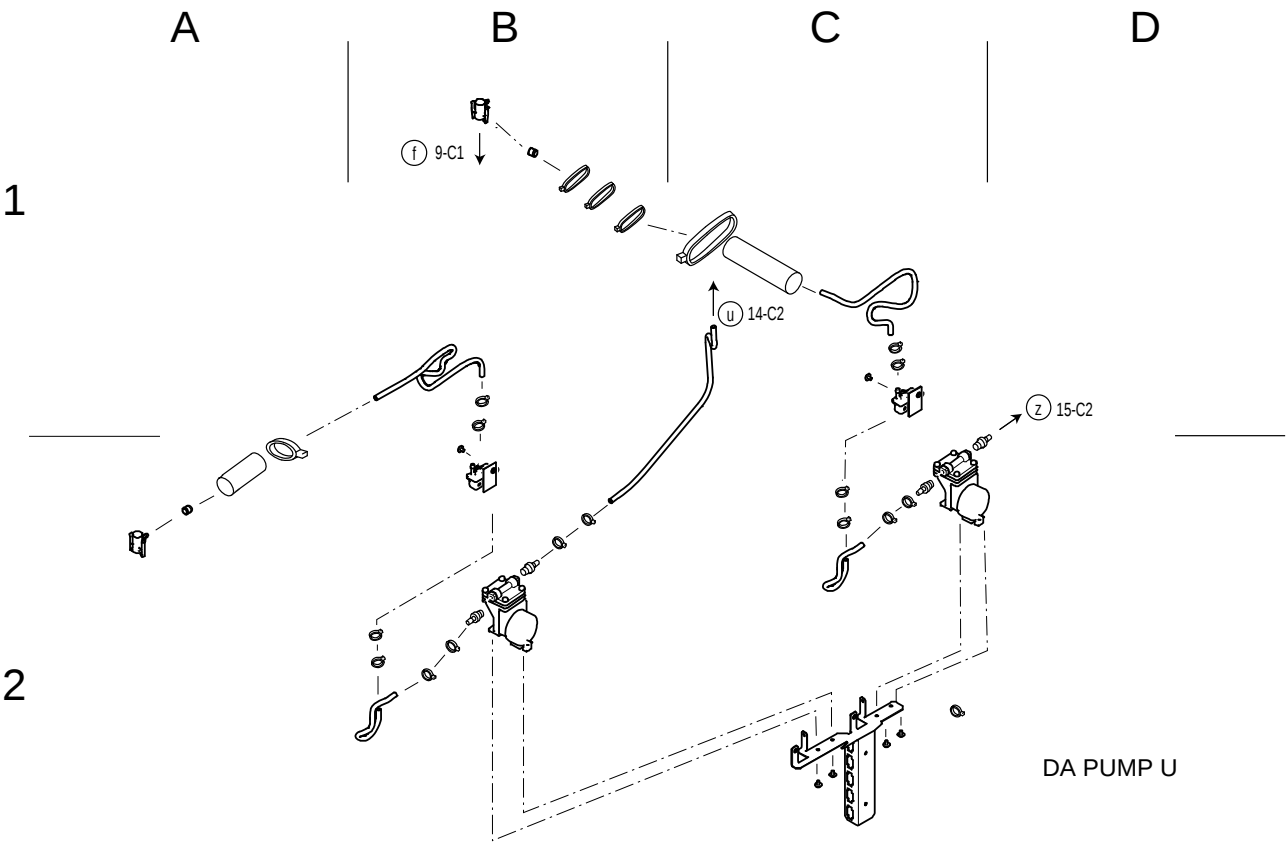


EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	PRINTER & ID BOARD	FIG.18/25
OLYMPUS MEDICAL SYSTEMS CORP.		

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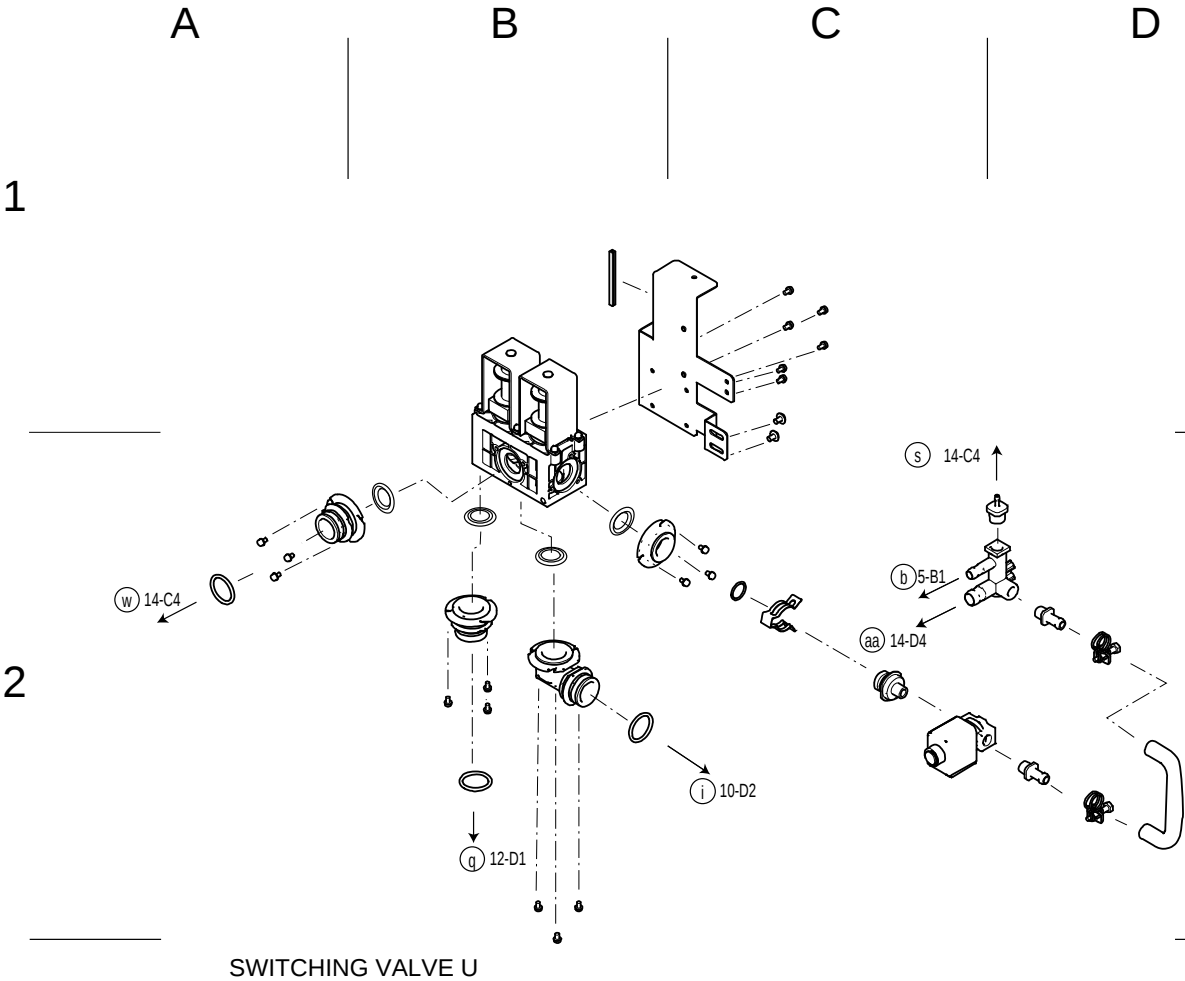
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EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	PUMP	FIG.19/25
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3

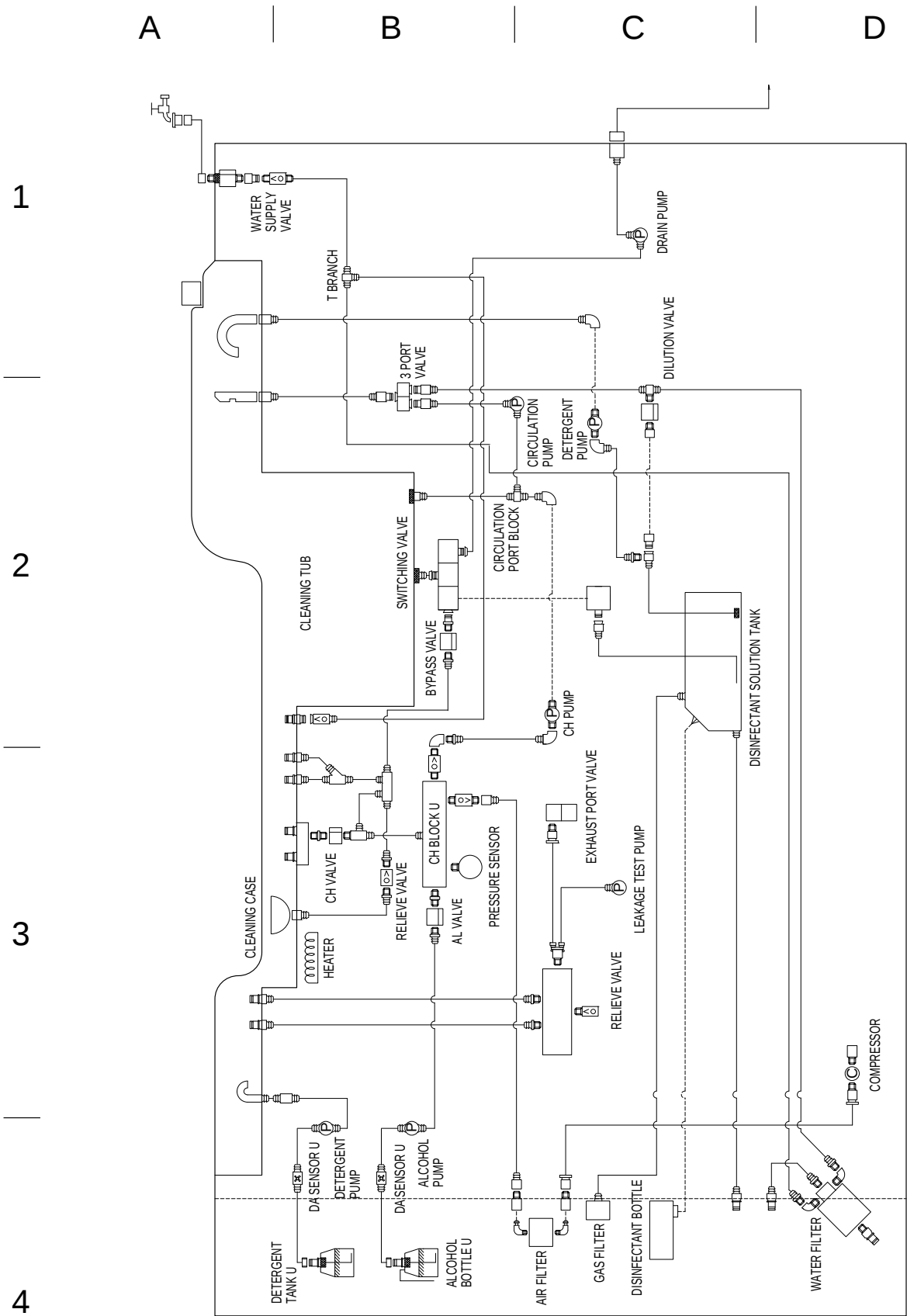
4

EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	SWITCHING VALVE	FIG.20/25
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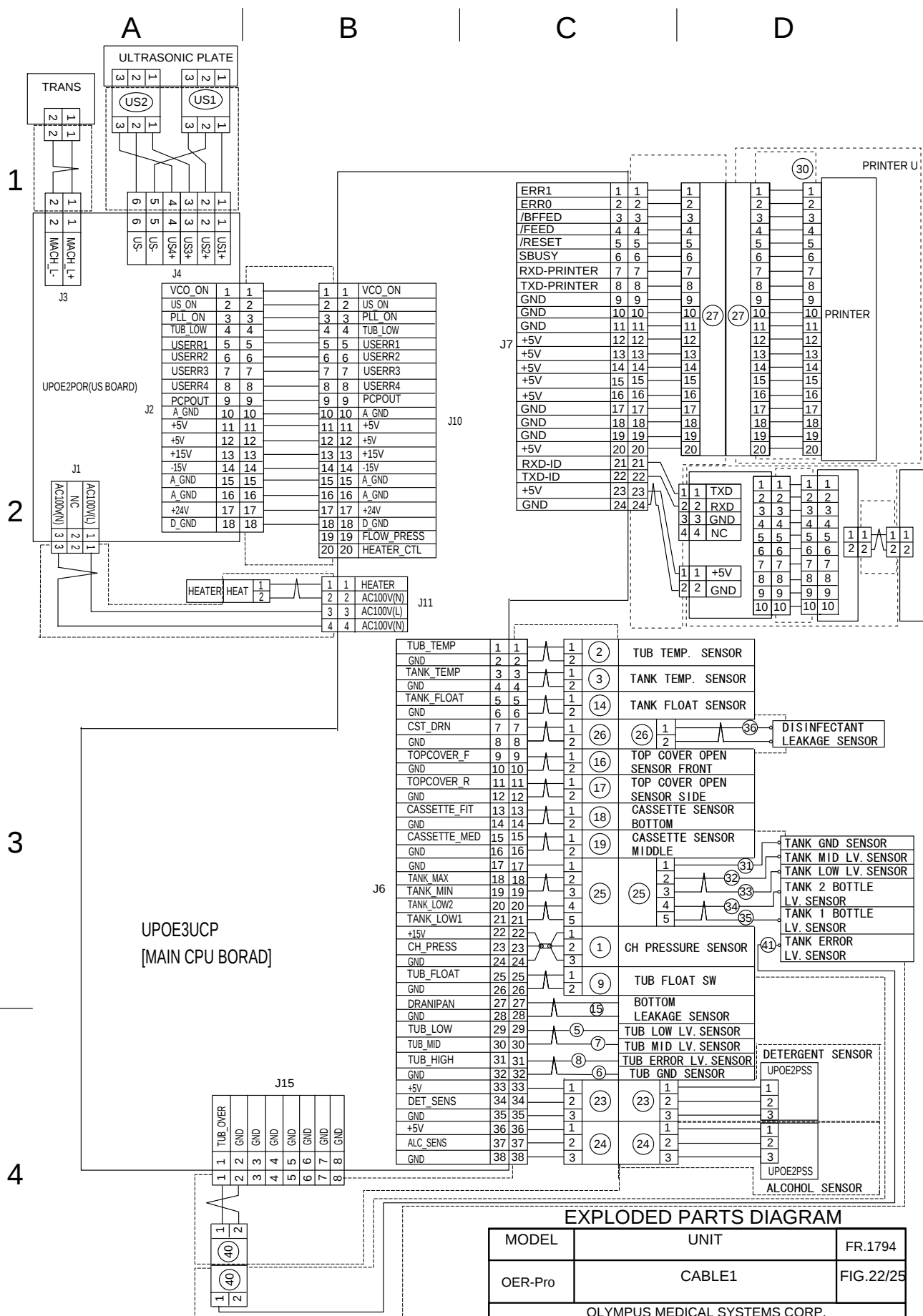
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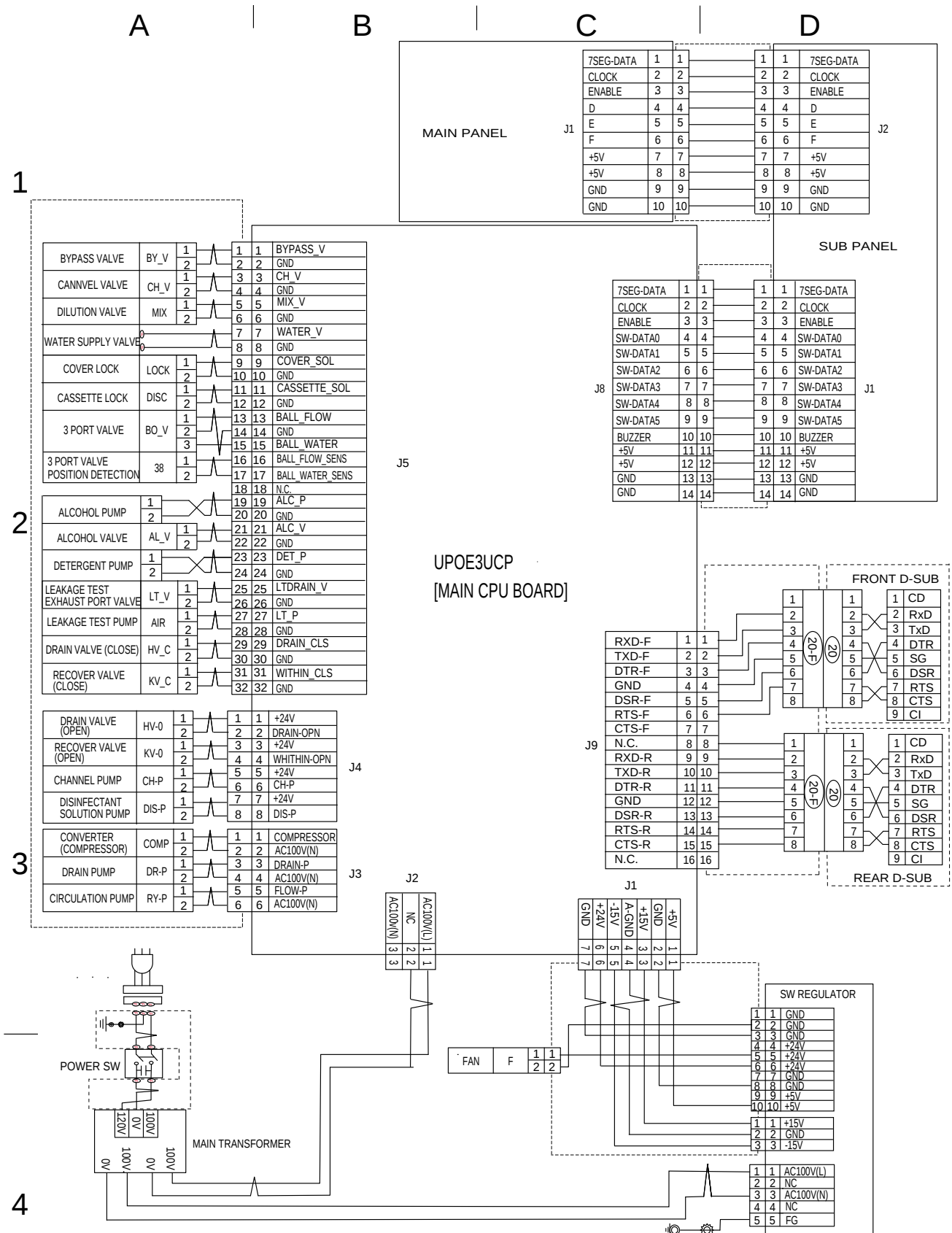
EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	TUBE	FIG. 21/25
OLYMPUS MEDICAL SYSTEMS CORP.		

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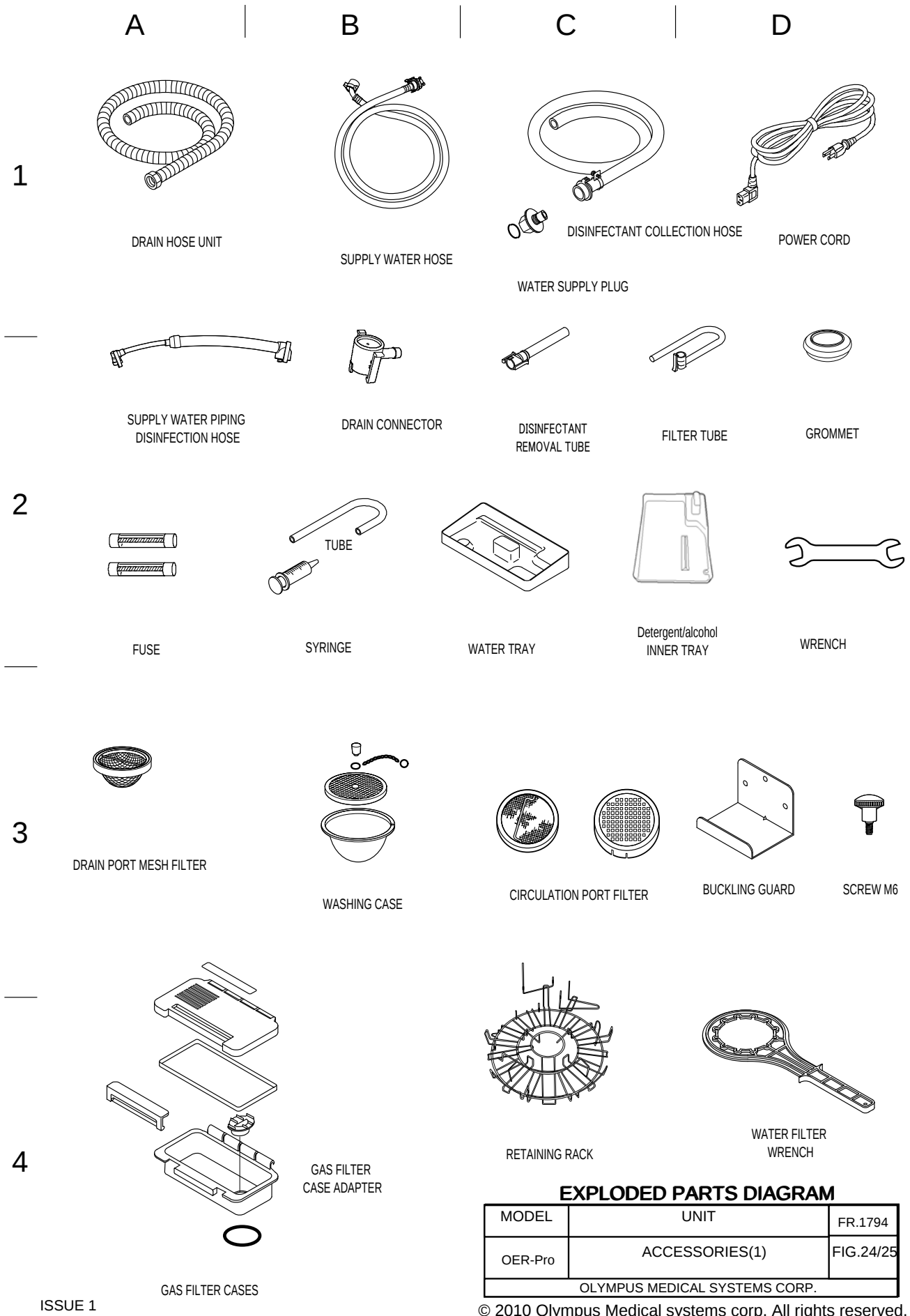
ISSUE 1

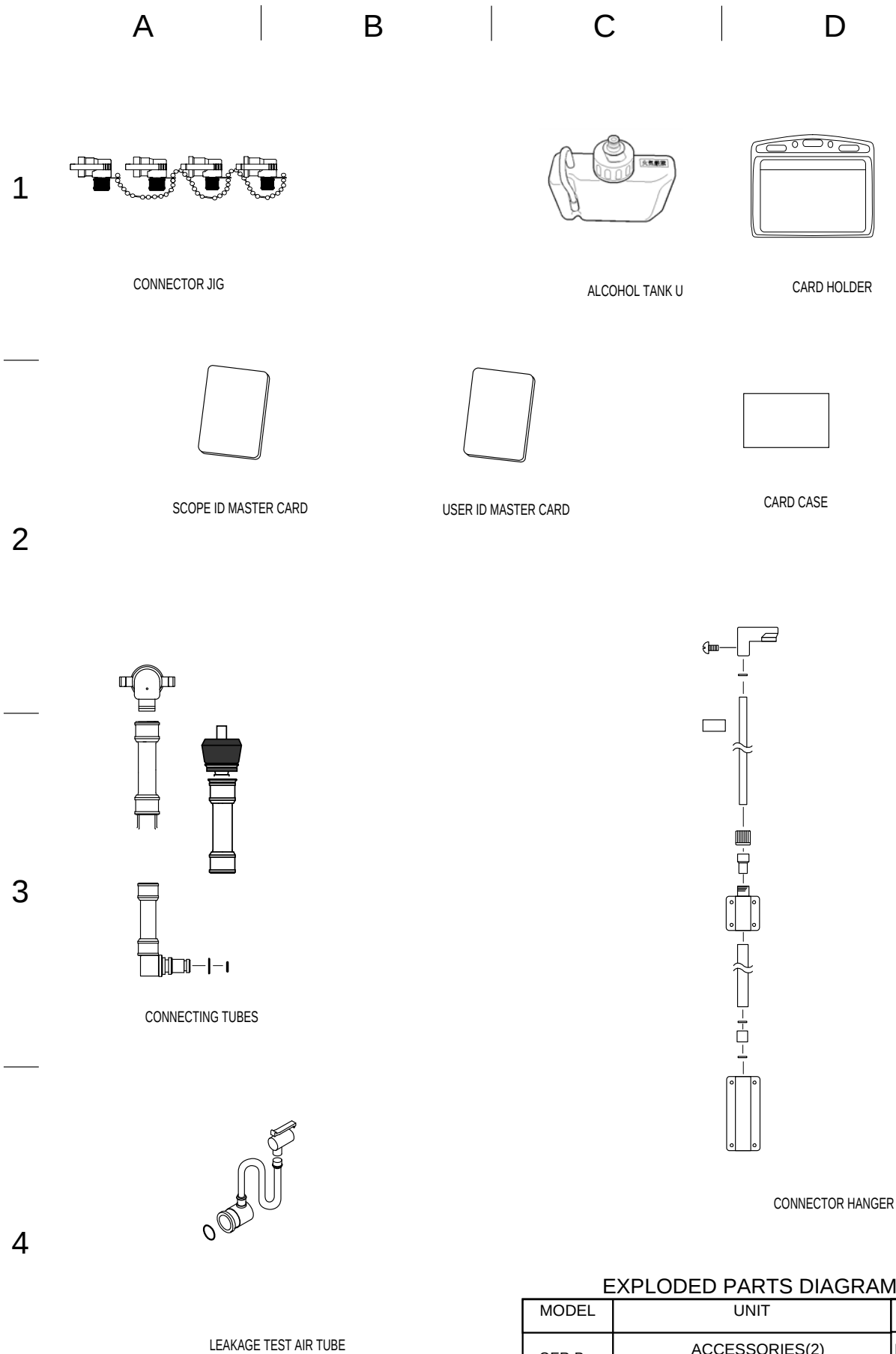


ISSUE 1

MODEL	UNIT	FR.1794
OER-Pro	CABLE2	FIG.23/25
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EXPLODED PARTS DIAGRAM

MODEL	UNIT	FR.1794
OER-Pro	ACCESSORIES(2)	FIG.25/25
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PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	FUSE ヒューズ	1	13-C4			
-	FUSE ヒューズ	4	13-C1,24-A2			
-	FUSE HOLDER ヒューズホルダ	1	13-C1			
-	POST SCREW ジヤックポスト	2	7-A4,13-C2			
-	POWER CONNECTOR デングコネクタ	1	13-C1			
-	INDUCTANCE キョウシンインダクタンス	1	13-B3			
-	TRANSFORMER トランス	1	12-D3			
-	PUMP ポンプ	1	11-B2			
-	PUMP ポンプ	1	12-C1			
-	PUMP ポンプ	2	19-B2,19-D2			
-	ELECTRIC VALVE デンジベソ	1	14-D3			
-	PUMP ポンプ	1	12-D2			
-	PUMP ポンプ	1	19-B3			
-	BINDER バインダ	1	12-D3			
-	CABLE HOLDER コールドメ	1	13-A1			
-	SHIELD ヒツクチューブ	2	19-A1,19-C1			
-	BINDER バインダ	28	5-C2,9-B1,14-A115-C2 19-A1,19-A2,19-B1 19-B2,19-C2,19-C3 19-D1			
-	CABLE HOLDER コールドメ	1	13-A1			
-	BINDER コールドメ	1	13-B2			
-	BINDER バインダ	2	19-A3,19-B3			
-	BINDER コールドメ	7	15-C2,18-C1,9-C3 9-C4			
-	SPACER ブッシュ	9	5-B2,6-A1,9-C3 10-B1			
-	BINDER コールドメ	2	5-C2,15-B2			
-	BUSH ブッシュ	1	9-D3			
-	BINDER バインダ	4	11-C2,19-C4,19-D2 19-D3			
-	CORE BASE コアベース	1	13-B1			
-	TUBE チューブ	1	15-B2			
-	CONVERTER コンバータ	1	13-A3			
-	POWER CORD デングコード	1	24-D1			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	CABLE UNIT RW	1	22-D2			
-	RFID CABLE RWケーブル	1	18-C3			
-	MAIN SWITCH オンボタンSW	1	5-D3			
-	SWITCH リートスイッチ	1	18-B3			
-	BATTERY 電池	1	13-C3			
-	PRINTER プリンタ	1	18-A1			
-	ANTENNA アンテナモジュール	1	18-B1			
-	RFID PCB RW	1	18-C4			
-	ID BOARD I/F インターフェース	1	18-A4			
-	JOINT ニップル1/4X1/4	1	14-D4			
-	HOSE JOINT 3 ホースツギテ3	1	15-B1			
-	DRAIN HOLE COVER ドレーンセン	1	5-A3			
-	SPACER スペーサー	2	12-B4			
-	SOCKET A ソケットA	1	12-A4			
-	PACKING パッキン	1	14-C3			
-	RELIEVE VALVE リリーフバルブ	1	5-A1			
-	JOINT 13 ホースツギテ13	2	5-A1			
-	DRAIN PORT MESH FILTER カナミフィルタ1	1	24-A3			
-	PACKING パッキン	2	14-D3			
-	GROUND CABLE アースセン	1	8-B1			
-	ABSORBER アブソーバ	1	8-B1			
-	RING バイトンリング	1	12-A3			
-	ELECTRODE SENSOR 電極センサ	1	13-A1			
-	ELECTRODE COVER 電極カバー	1	14-B2			
-	BASE A ベースA	1	14-A4			
-	MAIN BODY A 本体A	2	9-A4,12-B4			
-	VALVE A バルブA	2	9-A4,12-B4			
-	PACKING A パッキンA	5	9-A4,12-B4,14-A4 14-B4			
-	CONNECTOR SPRING A コネクタバネA	5	9-A4,12-B4,14-A4 14-B4			
-	PACKING パッキン30X40	4	10-A4,14-B1,14 B2			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	BASE B ベースB	1	14-B4			
-	PACKING 10X18 パッキン10X18	4	14-D2			
-	BASE D ベースD	1	12-B4			
-	BASE E ベースE	1	9-A4			
-	BASE F ベースF	1	10-B4			
-	MAIN BODY F 本体F	2	10-A4,14-B1			
-	VALVE F バルブF	2	10-A4,14-B1			
-	CONNECTOR SPRING F コネクタバネF	2	10-A4,14-B1			
-	MAIN BODY C 本体C	1	14-B4			
-	VALVE C バルブC	1	14-B4			
-	SWITCH スイッチボタン	1	16-A3			
-	SPRING ボタンバネ	1	16-A3			
-	AXIS ボタントメ	1	16-C2			
-	DETERGENT TANK 洗浄タンク	1	9-A2			
-	ALCOHOL BOTTLE アルコールボトル	1	9-C1			
-	FLOAT COVER フロートカバー	1	14-B1			
-	CIRCULATION PORT BLOCK スイッチブロック	1	14-D2			
-	CIRCULATION PORT FILTER スイッチフィルタ	2	14-D1,24-C3			
-	DRAIN BLOCK 排水スイッチブロック	1	14-C3			
-	CLEANING CASE ボタンカゴ	1	24-B3			
-	CHECK VALVE 1/2 チェックバルブ 1/2	1	15-C1			
-	CHECK VALVE 1/4 チェックバルブ 1/4	1	15-D2			
-	R-HOOK フック	1	5-C1			
-	R-RING リング	1	5-C1			
-	R-CAM カム	1	5-B2			
-	R-AXIS リジク	1	5-B1			
-	R-SPRING A バネA	1	5-C1			
-	R-SPRING B バネB	1	5-C2			
-	FOOT PEDAL フットペダル	1	5-D4			
-	PEDAL BRACKET ペダルBR	2	5-C4,5-D4			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	TWIN TYPE SPRING ネジ リハ ネ	1	5-C4			
-	PACKING 17X24 パ ッキン17X24	1	14-A1			
-	PACKING A パ ッキンA	1	14-A2			
-	SPACER タイヤスヘーサ	4	9-A4,9-B4,9-C2 9-D2			
-	CH-BLOCK CH7 ロック	1	15-D1			
-	CUSHION RUBBER クッションゴム	1	9-B3			
-	L-TYPE JOINT 1/2 エルボ 1/2	1	15-B1			
-	JOINT 6 ホースツギ テ6	1	12-A3			
-	FIXING PLATE トリツケイタ	1	15-D1			
-	DISINFECTANT TANK COVER センサフタ	1	10-B2			
-	DRAIN HOSE ドレンホース	2	10-B4,21-C3			
-	SUCTION PACKING キューインパ ッキン	1	10-D2			
-	PACKING FOR SENSOR BASE センサパ ッキン	1	10-B2			
-	JOINT ツギ テ	1	10-D2			
-	DRAWER LOCK ヒキダ シロック	1	9-C3			
-	H-BAND 12S ハバンド 12S	6	12-B2,14-B3,14-B4 14-C3			
-	H-BAND 16S ハバンド 16S	5	5-A1,5-A2,12-B4 20-D2			
-	H-BAND 23S ハバンド 23S	25	10-B4,10-C1,10-D2 11-D2,14-D1,14-D2 14-D4,15-A1,15-B1 15-B4,15-C4,15-D1 15-D3,18-A2,18-B2 18-B3,18,C2			
-	H-BAND 28S ハバンド 28S	5	11-A-1,11-B1,11-C1 15-C2			
-	H-BAND 38S ハバンド 38S	7	10-D2,12-C1,12-C2 12-D1,12-C4			
-	QUICK FASTENER クイックファスター	6	15-B3,15-C3,15-D3 15-D4,20-C2			
-	PACKING パ ッキン4	4	20-A1,20-A2,20-B2			
-	NUT シメツケリンク	1	14-D3			
-	REINFORCING PLATE ハット ホキョウイタ	1	12-A3			
-	DRAIN HOSE ドレンホース	2	12-B2,21-C4			
-	CIRCULATION PORT T BLOCK ブランク ロック	1	11-C1			
-	DISINFECTANT SOLUTION HOSE 4 リュウエキホース4	2	11-C1,21-B2			
-	BRACKET ブラケット	1	11-A2			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	DUST CAP ダストキャップ	2	7-A4,13-C2			
-	PUMP JOINT 15 Eタケノコ15	5	10-B2,11-C2,11-D2 15-A1,15-B1			
-	HINGE CAM ヒンジ カム	1	8-A2			
-	SA PLATE SAプレート	1	8-C2			
-	PACKING FOR REAR PANEL ハイメンパッキング	1	14-D2			
-	BRACKET ブラケット	1	11-D2			
-	WATER FILTER WRENCH フィルタシーク	1	24-D4			
-	WATER TRAY ミスト受けトレイ	1	24-C2			
-	SENSOR PLATE センサプレート	1	6-C2			
-	GUIDE D ガイドD	2	6-B3			
-	A PORT CONNECTOR S12M AポートコネクタS12M	1	12-B4			
-	AF-PORT CONNECTOR AFポートコネクタ	2	12-B4,15-D2			
-	AF-BASE AFステー	1	12-B4			
-	COMPRESSOR BASE コンプレッサベース	2	12-C3,12-D3			
-	DRAIN BLOCK 排水ブロック	1	12-D1			
-	DRAIN HOSE 2 排水ホース2	2	12-D2,21-C1			
-	HEAT INSULATION MAT D 断熱材D	1	5-C2			
-	HEAT INSULATION MAT E 断熱材E	2	5-C3,5-D2			
-	FRONT DOOR フロントドア	1	7-B4			
-	LATCH BASE ラッチリッパ	1	5-A3			
-	SPRING STOPPER バネ止め	1	8-B1			
-	AXIS HOLDER ジョイント	1	6-B1			
-	LOCK SPRING ロックスプリング	1	6-B1			
-	LEAKAGE TEST PUMP BASE 漏れ検出ポンプベース	1	19-B4			
-	A PORT CONNECTOR 6 Aポートコネクタ6	1	11-B2			
-	A PORT CONNECTOR L6 AポートコネクタL6	1	19-D3			
-	AXIS HOLDER ジョイント	4	5-D3,5-D4,7-C3 7-C4			
-	CUSHION RUBBER クッションゴム	1	5-C3			
-	PEDAL COVER ペダルカバー	1	5-C4			
-	BLOCK B ブロックB	1	6-C3			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	RAIL WHEEL 2 レールタイヤ2	7	6-A2,6-A3,6-B3 6-C3,6-C4,9-B4 9-C2,9-D2			
-	AXIS HOLDER 2 ジックホルダー2	2	6-A2			
-	LOCK PLATE ロックプレート	1	6-A2			
-	LOCK ARM ロックアーム	1	6-B1			
-	LOCK PIN ロックピン	1	6-C2			
-	PIN A ピンA	1	6-B1			
-	PIN B ピンB	1	6-B2			
-	BLOCK C ブロックC	1	6-A2			
-	BLOCK E ブロックE	1	6-A3			
-	SWITCH BOX 2 スイッチボックス2	1	5-D3			
-	FILTER MOUTHPIECE フィルターコウ	1	10-D3			
-	BOTTLE TRAY RAIL ヤケイレール	1	6-A3			
-	UPPER DOOR HINGE ドアヒンジ	1	5-A4			
-	LOWER DOOR HINGE ドアヒンジ	1	5-A4			
-	ACCESSORY HOLDER アクセサリホルダー	1	7-B3			
-	GAS FILTER CASE LOCK ロック	1	24-A4			
-	EDGE COVER エッジホルダー	3	9-C2,15-C4,14-D2			
-	GAS FILTER CASE COVER ガスフィルタースタッド A	1	24-A3			
-	GAS FILTER CASE ガスフィルタースタッド B	1	24-A4			
-	G-PACKING ガスパッキング	1	24-B4			
-	G-PIN ピン	1	7-B3			
-	QUICK LOCK MALE CONNECTOR クイックロック15	3	14-D2,15-C4,15-C4			
-	QUICK LOCK MALE CONNECTOR クイックロック19	2	11-A1,15-C2			
-	R-AXIS 2 Rジック2	1	5-B1			
-	R-AXIS 3 Rジック3	3	5-B1,5-D1			
-	SPRING HOOK R バネフックR	1	5-C1			
-	SPRING HOOK L バネフックL	1	5-B1			
-	R-SPRING C RバネC	1	5-D1			
-	COVER SLIDE カバースライド	1	16-B3			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	SCREW COVER ネジフタ	2	14-C4,14-D3			
-	PACKING パッキング22X36	2	14-C1,14-D1			
-	SUPPORTING PLATE ホジヨイタ	3	14-A3			
-	TUBE チューブ 4X7D	1	24-B2			
-	DILUTION BLOCK キシヤクブ ロック	1	15-C4			
-	STOPPER DAチューブトメ	2	19-A2,19-B1			
-	JOINT 1804 ツギテ1804	7	15-C2,19-C3,15-B2 15-D2			
-	TUBE SPRING チューブパネ	1	5-B2			
-	FAN GUARD ファンガード	1	13-B4			
-	WF-BRACKET WFブラケット	1	12-B2			
-	RELIEVE VALVE リリーフバルブ	1	19-C4			
-	WATERPROOFING SEAT B ホースシートB	1	5-B2			
-	WF-BRACKET L WFブラケットL	1	12-B4			
-	WF-BRACKET R WFブラケットR	1	12-B3			
-	AF-GUARD AFゴサシ	1	12-A4			
-	CONNECTOR HANGER カリオキブ ロック	1	25-D2			
-	INNER PIPE インナーパイプ	1	25-D2			
-	LOCK SCREW ロックネジ	1	25-D3			
-	PIPE END パイプエンド	1	25-D3			
-	PIN ピン	1	25-D3			
-	OUTER PIPE アウターパイプ	1	25-D3			
-	FIXING PLATE A ステー-A	1	25-D3			
-	FIXING PLATE B ステー-B	1	25-D4			
-	PIPE LOCK パイプロック	1	25-D3			
-	PP NUT 8 PPナット8	1	16-C3			
-	LR-SEAL LRシール	2	7-A3,17-A1			
-	PACKING 24 パッキング24	2	14-D3,14-D4			
-	PACKING 28X38 パッキング28X38	1	14-D3			
-	RELIEVE PLATE リリーフ板	1	5-A1			
-	BUTTON HOSE ボタンホース	2	5-A2,21-B3			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	ANTIVIBRATION SHEET セイシシート	1	7-C3			
-	NUT トメネジ	1	7-B3			
-	CONNECTOR PLATE A レンケツカナク A	1	5-C1			
-	CONNECTOR PLATE B レンケツカナク B	1	5-B1			
-	WIRE ワイヤローフ	1	5-C2			
-	R-AXIS 4 Rジク4	1	5-C2			
-	ADJUSTMENT BOLT チョウセイボルト	1	5-C2			
-	CAP キャップ	1	7-A4			
-	CAP RUBBER キャップゴム	1	7-A4			
-	AXIS SPACER ジクブツシユ	1	7-A4			
-	SPACER スペーサ	1	7-A4			
-	PEDAL SHAFT ペダルシャフト	1	5-D4			
-	CAP クチキャップ	1	9-A1			
-	MESH FILTER ゴミトリハン2	1	14-C3			
-	AXIS HOLDER 2 ジクウケ2	2	5-D3,5-D4			
-	CIRCULATION PORT FILTER 2 スイコミフィルタ2	1	24-C3			
-	PACKING パッキン	1	14-B2			
-	PACKING パッキン	1	14-D2			
-	CLEANING CASE RUBBER ホタンゴム	1	24-B3			
-	WF-HOUSING 2 WFハウジング 2	2	12-A3			
-	AXIS HOLDER 3 ジクウケ3	2	6-B3			
-	FIXING PLATE オサエタ	1	14-C3			
-	FAN GUARD 2 ファンガード 2	1	13-B4			
-	UPPER PACKING ウエパッキン	1	8-D4			
-	POLARITY SEAL キョクセイシール	1	14-B2			
-	R-RING 2 Rリング 2	1	5-C1			
-	DOOR STOPPER ドアストッパー	1	7-C4			
-	BLOCK B2 ブロックB2	1	6-A2			
-	SENSOR COVER B センサカバーB	1	14-B2			
-	QUICK LOCK MALE CONNECTOR 1/4 クイック1/4	1	20-C2			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	HEAT INSULATING MATERIAL F タ ^ン ネツサ ^イ F	1	5-C3			
-	ADJUSTMENT SUPPORT ア ^ジ ス ^タ ー	1	5-B4			
-	BOTTLE TRAY GUIDE RAIL ガ ^イ ト ^レ ール	1	6-B4			
-	SPACER フ ^ツ シュA	1	6-B2			
-	PLATE タ ^カ サ ^カ ネ	1	6-B4			
-	JOINT 1/4X12 ツ ^キ テ1/4X12	2	20-C2,20-D2			
-	CE LABEL CEシ ^{ール} MIN	1	25-C3			
-	BLOCK C ブ ^ロ ックC	1	6-A2			
-	SENSOR BASE 2 セン ^サ イ ^タ 2	1	6-D2			
-	CUSHION SPRING ク ^ッ ションパ ^ネ	2	8-A2,8-B2			
-	WRENCH 23X24ス ^パ ナ	1	24-D2			
-	AXIS HOLDER 4 シ ^ン クウ ^ケ 4	3	6-B2,6-B3,6-C4			
-	AL-VALVE BASE AL ^バ ンス ^テ ー	1	15-C1			
-	JOINT ニ ^ツ フ ^ル 1/4X1/8	1	15-C1			
-	BOTTLE TRAY GUIDE RAIL 2 ガ ^イ ト ^レ ール2	1	6-A3			
-	BOTTLE TRAY GUIDE F ガ ^イ ト ^フ	1	6-B3			
-	BOTTLE TRAY GUIDE F2 ガ ^イ ト ^フ 2	1	6-A2			
-	GUIDE G ガ ^イ ト ^グ	1	6-C4			
-	RUBBER MAT シ ^タ シ ^キ ゴ ^ム	1	12-C3			
-	SILENCER サイ ^{レン} サ	2	12-C2,25-B3			
-	SPACER A ス ^パ ーサA	2	14-C1,14-D1			
-	SPACER B ス ^パ ーサB	1	14-C2			
-	SCREW M6 ト ^メ ネ ^ジ M6	1	24-D3			
-	GROMMET ク ^ロ メ ^{ット}	2	7-3D,24-D2			
-	INDICATION SEAL イン ^ジ ケ ^ー タ ^シ ール	1	7-A3			
-	CAM L オ ^ー バ ^ー カ ^ム L	1	8-C2			
-	CAM R オ ^ー バ ^ー カ ^ム R	1	8-C2			
-	SPACER オ ^ー バ ^ー ス ^パ ーサ	2	8-C2,8-D2			
-	SPACER 2 オ ^ー バ ^ー ス ^パ ーサ2	2	8-C1,8-D2			
-	SLIDER オ ^ー バ ^ー ス ^ラ イ ^ト	2	8-D1,8-D2			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	CUSHION STOPPER パツプ スツパ	2	8-C1,8-C2			
-	PIN タツルマツン	1	14-B1			
-	SCREW CAP ネジ キャツプ	1	16-A2			
-	SPRING セイテンキハネ	1	6-A3			
-	LATCH 2 ラツチウケ2	1	5-A2			
-	LATCH PIN 2 ラツチピン2	1	7-B3			
-	DRAIN NUT ハイスイナツト	1	10-D2			
-	GAS FILTER CASE ADAPTER ガート	1	24-B4			
-	CAUTION PLATE 3E チュウイメイハン3E	1	9-C1			
-	O-RING T3.8X33.7OR	1	9-C1			
-	O-RING 2 オリツク 2	9	11-A1,14-B2,14-D2 14-D4,15-C3,15-D3 15-D4,20-C2			
-	FLOAT SWU フロートSWU	1	14-B1			
-	GAS VENT UNIT ガススヰコウU	1	7-B3			
-	DETERGENT TANK U センザイホトルU	2	9-A1,25-B1			
-	RS232C UNIT RS232CU	4	7-B4,13-B2,23-D2 23-D3			
-	DISINFECTANT REMOVAL TUBE ドレンホースU	1	24-C2			
-	FILTER TUBE フィルタホースU	1	24-C2			
-	GAS FILTER CASE ガスフィルタケース	1	24-A4			
-	CONNECTOR D UNIT コネクタDU	1	12-B4			
-	CONNECTOR E UNIT コネクタEU	1	9-B4			
-	LOCK SOLENOID ロツクソレノイドU	1	5-D1			
-	PRESSURE SENSOR UNIT アツリョクセンサU	1	15-D2			
-	DISINFECTANT LOCK UNIT ヤクエキロツクU	1	6-A1			
-	TEMPERATURE SENSOR 2 UNIT オントセンサ2U	1	10-B3			
-	BOTTLE TRAY SENSOR UNIT ヤクエキセンサU	1	6-C1			
-	CABLE UNIT ケーブルU	1	22-B1			
-	PORT VALVE ポートバルブU	1	11-B2			
-	CABLE UNIT マツチンケーブルU	1	22-A1			
-	DILUTION BLOCK UNIT キシヤクバルブU	1	15-D4			
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PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
	DISINFECTANT COLLECTION HOSE ガイシューホースU	1	24-C1			
-	ALCOHOL COVER UNIT アルコールカバーU	1	9-C1			
-	ALCOHOL TUBE CONNECTOR UNIT アルコールコネクタU	1	19-B1			
-	DETERGENT TUBE CONNECTOR UNIT センプーコネクタU	1	19-A2			
-	DETERGENT COVER UNIT センプーカバーU	1	9-C1			
-	US PLATE & HEATER UNIT USプレートヒーターU	1	14-A1			
-	WATER FILTER UNIT ミストフィルターU	1	12-A3			
-	FOOT SWITCH UNIT フットSWU	1	5-D3			
-	F-COVER SENSOR UNIT FカバーセンサーU	1	5-C1			
-	DRAIN HOSE UNIT 排水ホースU	2	21-C1,24-A1			
-	BOTTLE SENSOR UNIT ボトルセンサーU	1	6-D1			
-	AL-VALVE UNIT ALバルブU	1	15-C2			
-	FAN UNIT ファンユニットU	1	13-B4			
-	DC-PUMP UNIT DCポンプU	2	11-C2,15-A1			
-	DRAIN CONNECTOR 排水コネクタU	1	24-B2			
-	SWITCHING VALVE UNIT 切り替えバルブU	1	20-B2			
-	LOCK UNIT ロックユニットU	1	5-D2			
-	UPOE2PDR UPOE2PDR	1	13-C4			
-	BOTTLE TRAY UNIT ボトルトレイU	1	9-A2			
-	LEAKAGE TEST PUMP UNIT 漏れ検出ポンプ2PU	1	19-A4			
-	DISINFECTANT BOTTLE GUIDE UNIT 消毒液ガイドU	1	6-B1			
-	RUBBER PACKING UNIT ゴムパッキングP	1	17-C3			
-	HINGE SPRING UNIT ヒンジバネPU	1	8-B1			
-	FLOAT SW REPAIR UNIT フロートSWリペアU	1	10-C3			
-	CONNECTOR T UNIT コネクタTU	1	14-B4			
-	RETAINING RACK 保持ラックU	1	24-C4			
-	DC HARNESS UNIT DCハーネスPU	1	23-C4			
-	CONTROL HARNESS UNIT 制御ハーネスPU	1	23-A3			
-	US HARNESS UNIT USハーネスPU	1	22-B1			
-	SUPPLY WATER PIPING DISINFECTION HOSE 給水パイプ消毒ホースU	1	24-A2			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	US POWER CABLE US100PU	1	22-A2			
-	SP HARNESS UNIT SPハーネスPU	1	23-D2			
-	F/R SERIAL HARNESS UNIT F/RシリアルPU	1	23-D3			
-	P/ID HARNESS UNIT P/IDハーネスPU	1	22-C1			
-	CONNECTOR GU 2ツメコネクタGU	1	14-A4			
-	CONNECTOR YU 2ツメコネクタYU	1	14-B4			
-	FORMED HOSE 10 ﾌﾞﾚｰﾄﾞ ﾖｻﾞｲ10	2	12-B4,21-B4			
-	TUBE ﾅｲﾛﾝT6	5	11-B3,19-D3,21-C3			
-	EDGE GUARD ｴｯｼﾞ ｶﾞｰﾄﾞ	2	17-C2			
-	TUBE 7-STU	15	10-C4,15-C2,19-A1 19-A2,19-B2,19-C1 19-C2,19-C3,19-D3 21-A4,21-B3,21-B4			
-	O-RING T1.9X35.8OR	1	24-B4			
-	O-RING T1.9X7.8OR	4	9-A4,9-B1,9-C1 12-B4			
-	O-RING T1.5X2.5OR	1	14-B4			
-	CONNECTOR FU ｺﾈｸﾀFU	1	10-A4			
-	ELECTRIC VALVE AU ﾉｰﾅﾙ ﾖﾝｸﾞ ﾍﾞﾝAU	2	14-D4,20-C2			
-	LEAKAGE HARNESS UNIT ｻﾗﾊｰﾅｽPU	1	22-D3			
-	HINGE UNIT ﾋﾝｼﾞ ﾀﾞｲ	1	8-C1			
-	DISINFECTANT LEAKAGE SENSOR UNIT ﾐｽﾞ ﾕｹﾂ ﾆｹﾂU	1	10-A3			
-	PRINTER HEAD UNIT ﾌﾟﾘﾝﾀﾍｯﾄﾞ ﾀﾞｲ	1	18-C1			
-	ID BOARD UNIT IDｷﾊﾞｰﾄﾞU	1	18-D4			
-	BOTTLE CAP CUTTER UNIT ｶｾｯﾄｺﾀﾞU	1	10-A3			
-	THREE PORT VALVE 3ﾎﾞｰ ﾕｹﾞ ﾀﾞｲ	1	15-D2			
-	PR HARNESS UNIT PRハーネスU	2	18-A1,22-D1			
-	DA SENSOR UNIT DAｾﾝｻU	2	19-A2,19-D1			
-	CONNECTOR JIG ｺﾈｸﾀｰｼﾞｸﾞ	1	25-A1			
-	SHIELD CABLE UNIT ｼｰﾙﾄﾞ ｹｰﾌﾞﾙU	1	18-C1			
-	ELECTRIC VALVE KU ﾎﾞﾙﾌﾞ ﾖﾝｸﾞ ﾍﾞﾝKU	1	20-A1			
-	R CONNECTOR BU RｺﾈｸﾀBU	1	25-B4			
-	TOP COVER E UNIT ﾄｯﾌﾟ ｶﾊﾞｰEU	1	17-D2			

PARTS LIST

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	DISINFECTANT SOLUTION TANK E UNIT ヤクエキタンクEU	1	10-D4			
-	TANK FLUID LEVEL SENSOR EU スイセンサEU	1	10-A2			
-	TANK HARNESS E UNIT タンクハーネスEU	1	22-D3			
-	UPOE3UCP UPOE3UCP01	1	13-D3			
-	PANEL ASSY EU パネルASSYEU	1	16-A2			
-	DISINFECTANT BOTTLE TRAY UNIT ヤクエキトレーU	1	6-C4			
-	SENSOR HARNESS E UNIT センサハーネスEU	1	22-A4			
-	ALCOHOL TANK U アルコールタンクU	2	9-D1,25-C1			
-	ELECTRODE UNIT デーンキョクU	1	10-D3			
-	TOP COVER PLASTIC E UNIT カバーシムシEU	1	17-C1			
-	I/G HARNESS E UNIT I/GハーネスEU	1	13-B2			
-	I/S/T HARNESS E UNIT I/S/TハーネスEU	1	23-A4			
-	SAMPLING TUBE サンプリンクチューブ	1	25-A1			
-	PROPM-AU PROPM-AU	1	25-B3			
-	PROPM-BU PROPM-BU	1	25-B3			
-	PROPM-CU PROPM-CU	1	25-B4			
-	CAP CONNECTOR UNIT キャップコネクタU	1	25-A3			
-	E NAME PLATE Eメイハン	1	12-D4			
-	O-RING T2.4X13.8OR	2	10-A4,14-B1			
-	O-RING T2.4X23.0OR	2	10-A4,14-B1			
-	CUSHION SEAL イフトシーラー	7	7-B2,7-C1,7-C7 7-C3,7-D2,16-C2			
-	CUSHION 5X10 イフト5X10	2	5-C2,14-D4			
-	PACKING シリングパッキン	4	15-D4,16-A2,16-C1 18-C1			
-	PACKING パッキン3X5	6	6-C3,10-B4,11-D2 11-D3			
-	RUBBER PROTECTOR ガードゴム	1	12-A2			
-	TUBE ナイロンサグイ9	2	12-C2,21-C3			
-	TUBE 7-4SIT	8	21-A4,21-B3,21-B4			
-	TUBE ST3.0-7.0	1	25-A4			
-	TUBE 1.6SIT	1	9-B2			
-	FILTER フィルタ	1	14-D3			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	RUBBER RING ゴムリング	1	25-A3			
-	CHAIN 2 クサリ2	1	24-B3			
-	PACKING パッキン	5	10-B2,14-A1,14-C2 14-D2			
-	PACKING パッキン	1	10-C2			
-	PACKING パッキン	1	14-B1			
-	O-RING Oリング	1	25-B4			
-	CHAIN HOLDER クサリトメ	1	24-B3			
-	TUBE チューブ	1	10-C3			
-	O-RING I2.4X11.00R	1	25-D3			
-	O-RING T1.9X6.80R	1	25-A3			
-	ELECTRODE SENSOR 7 デニキョク7	1	10-C3			
-	PUMP HEAD ポンプヘッド	4	11-C1,11-D1,15-B1			
-	CASTER WITH STOPPER キャスター(ストッパ-アリ)	2	5-A4,5-B4			
-	LOCK FRAME L ロックフレームL	1	5-D1			
-	LOCK FRAME R ロックフレームR	1	5-B1			
-	CASTER WITHOUT STOPPER キャスター(ストッパ-ナシ)	1	5-C3			
-	UPPER REAR PANEL ハイメンウエーリス	1	8-C3			
-	GUIDE BOX P ガイドBOXP	1	6-B2			
-	TOP COVER FRAME カバーワケ	1	17-A2			
-	TOP COVER PLASTIC トップカバーP	1	17-A2			
-	TOP COVER SPACER カバーブッシュ	6	17-B3,17-C4,17-D3 17-D4			
-	MAGNET リートマグネット	1	17-B4			
-	TOP COVER HOOK P カバーフックP	1	17-A4			
-	PUSH PLATE COVER P 押しタカバーP	1	17-A3			
-	DISINFECTANT TANK タンクボンタイ	1	10-C4			
-	DISINFECTANT TANK HOSE 1 タンクホース1	1	10-D2			
-	DISINFECTANT TANK HOSE 2 タンクホース2	2	10-D2,21-C2			
-	BOTTLE CAP CUTTER PIPE カセットパイプ	2	10-B3			
-	BOTTLE CAP CUTTER BRACKET ウケイタ	1	10-A3			
-	RUBBER JUNCTION セツゾクコム	1	10-B3			

PARTS LIST

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	SUPPORT PLATE ハイメンイタ	1	18-C2			
-	SPACER 18 スペーサ18	1	18-B1			
-	SPACER 11 スペーサ11	1	18-C1			
-	CH PUMP HOSE CHPホース	1	15-B1			
-	RF TRAY RFスレイ	1	18-B4			
-	SPACER 5 スペーサ5	6	18-A4,18-B4,18-C4			
-	SIDE PANEL L ソクパネルL	1	7-D3			
-	SIDE PANEL R ソクパネルR	1	7-B1			
-	SWITCH BRACKET リフトスレイ	1	18-A3			
-	LOWER REAR PANEL ハイメンシタ	1	7-D1			
-	GAS HOSE ガスホース	2	7-A3,21-C3			
-	CHB HOSE CHBホース	4	14-D4,15-C1,21-B3			
-	DRAIN HOSE 1 ハイスイホース1	2	12-C1,21-C1			
-	DISINFECTANT HOSE 1 ヤクエキホース1	2	15-A1,21-C1			
-	CIRCULATION HOSE リュウエキホース	2	11-B1,15-C3			
-	CIRCULATION HOSE 2 スイコミホース	2	11-C1,21-B2			
-	DRAIN BRACKET ハイエキステー	1	12-D1			
-	THREE PORT VALVE BRACKET トリツケイタ	1	15-D2			
-	SUPPLY / CIRCULATION HOSE ハキタシホース	3	14-D1			
-	SUPPLY HOSE ミスターホース	2	15-D3,21-C1			
-	DISINFECTANT HOSE 2 ヤクエキホース2	3	10-C2,15-A1,21-C2			
-	DILUTION UNIT BRACKET キシヤクステー	1	15-D3			
-	DILUTION HOSE 1 キシヤクホース1	2	15-C4,21-C1			
-	ONE WAY VALVE ギヤクセン	1	10-C1			
-	SPACER スペーサ	2	13-B3,13-D3			
-	RELIEVE HOSE 2 リリーフホース2	2	5-B1,21-B3			
-	HEAT INSULATION MATERIAL タネツザイ	1	7-C3			
-	CLEANING TUB センジヨウソウ	1	14-A2			
-	SUPPLY / CIRCULATION NOZZLE ハキタシノズル	1	14-D1			
-	DISINFECTANT SOLUTION NOZZLE ショウトクノズル	1	14-C1			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	DETERGENT NOZZLE セソザノズル	1	14-C2			
-	K HOSE Kホース	1	21-B2			
-	PACKING パッキン	1	14-D3			
-	HOSE ホース	2	18-C2,21-B1			
-	HOOK フック	1	16-B2			
-	PRINTER COVER プリンター	1	16-A2			
-	COVER クッション	1	16-A1			
-	ELECTRODE 1 電極1	1	10-B3			
-	ELECTRODE 2 電極2	1	10-C3			
-	ELECTRODE 3 電極3	1	10-C3			
-	SUPPLY WATER BLOCK 給水ブロック	1	14-D3			
-	A PORT CONNECTOR L12 Aポート 12	1	12-C2			
-	CH HOSE CHホース	1	21-B2			
-	DISINFECTANT HOSE 3 タンクホース3	2	10-D2,21-C2			
-	BOTTLE TRAY P ボトルトレイP	1	9-B2			
-	BOTTLE TRAY COVER P ボトルトレイカバーP	1	9-B3			
-	DETERGENT / ALCOHOL INNER TRAY インナートレイ	2	9-D2,24-C2			
-	BOTTLE GUIDE TRAY ボトルガイドP	1	9-C4			
-	D BLOCK Dブロック	1	14-D3			
-	TRAY P トレイP	1	6-A4			
-	GUIDE EP ガイドEP	1	6-C4			
-	BOTTLE TRAY COVER 2P ボトルトレイカバー2P	1	6-A4			
-	BYPASS PORT バイパスポート	1	20-C2			
-	BYPASS HOSE バイパスホース	2	20-D2,21-B2			
-	COLLECTION BLOCK 収集ブロック	1	20-B2			
-	BRACKET ブラケット	1	20-C1			
-	EL BOX ボックス	1	13-A3			
-	HINGE BASE P ヒンジベースP	1	8-A2			
-	HINGE SHAFT P ヒンジシャフトP	1	8-C2			
-	HINGE PLATE P ヒンジプレートP	1	8-A2			

PARTS LIST

OER-Pro

PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	SPRING HOOK PLATE P ハ [°] ねかハ [°] ンP	1	8-C2			
-	HINGE SPRING P ヒンジ [°] ハ [°] ねP	4	8-A1,8-B1			
-	SPACER P ジ [°] ッシユP	1	8-A2			
-	SWITCHING VALVE HOSE キリカエホ-ス	2	14-C4,21-B2			
-	HOSE 2 ホ-ス2	2	18-A3,21-D2			
-	DISINFECTION LINE HOSE キンコロホ-ス	2	18-A2,21-B1			
-	WATERPROOF COVER ホ [°] ウスイシート	1	13-C4			
-	CHECK VALVE CONNECTOR チェックバ [°] ルフ [°]	2	18-B2,18-C2			
-	F PACKING P Fハ [°] ッキンP	1	16-C2			
-	SLIDE STOPPER P スライト [°] オサI P	1	16-B2			
-	SPRING STOPPER 2 ハ [°] ねサI2P	1	8-B1			
-	CONNECTOR BRACKET 3 トリツケイタ3	1	10-B4			
-	FRAME P フレームP	1	5-A3			
-	QUICK FASTENER クイックファスター	1	12-C1			
-	HINGE COVER P ヒンジ [°] カハ [°] -P	1	8-D3			
-	BRACKET A FOR VALVE AU ブロンステ-A	1	14-D4			
-	BRACKET B FOR VALVE AU ブロンステ-B	1	14-C4			
-	QUICK LOCK CONNECTOR 1 キュウスイクイック	1	14-D4			
-	QUICK LOCK CONNECTOR 3/8 クイック3/8	1	15-D4			
-	CH BLOCK A CHジ [°] ロックA	1	14-D4			
-	CH BLOCK B CHジ [°] ロックB	1	20-C2			
-	T BRANCH キンコロジ [°] ンキ	1	18-B3			
-	CONNECTOR BRACKET コネクタジ [°] ラケット	1	10-B1			
-	TUBE CONNECTOR G 2ツメコネクタG	1	25-B2			
-	TUBE CONNECTOR Y 2ツメコネクタY	1	25-B2			
-	CONNECTOR G 2ツメホンタイG	1	14-A4			
-	CONNECTOR Y 2ツメホンタイY	1	14-B4			
-	DA PUMP BRACKET P DAホ [°] ンジ [°] ステ-P	1	19-C2			
-	BUCKLING GUARD ザ [°] クツガ [°] -ート [°]	1	24-D3			
-	VALVE UNIT ハ [°] ルジ [°] ユニット	2	11-D1,15-A1			

PARTS LIST

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	ELECTRODE 4 デ'ンキョク4	1	10-C3			
-	BINDER D バ'ンド D	1	10-A3			
-	Y HOSE L Yホ-スL	2	14-B4,21-B2			
-	Y HOSE S Yホ-スS	2	14-B3,21-A3			
-	LOCK PLATE P Rダ'イP	1	5-D1			
-	HOOK SHAFT A ホ'ク ショ' ヒンA	1	5-D1			
-	BLOCK STOPPER ブ'ロックオ'サイ	1	12-D1			
-	HINGE UPPER COVER ホ'ルトオ'サイ	1	8-B1			
-	VALVE P バ'ルブP	2	14-A4,14-B4			
-	MALE Q PORT オ'スQホ-ート	2	20-A2			
-	FEMALE Q PORT メ'スQホ-ート	3	10-D2,12-C1,14-C4			
-	MESH FILTER ラ'ックガ'ート	1	14-D2			
-	BOTTLE GUIDE COVER P ビ'キダ' シカバ- P	1	9-D4			
-	DISINFECTANT LINE CONNECTOR キンコ'ロクイ'ック	1	14-B2			
-	CLEANING CASE LID ホ'タンフタ	1	24-B3			
-	EMC LABEL P EMCシ-ルP	1	7-D1			
-	COM 4 LABEL COM4シ-ル	1	7-D2			
-	FUSE LABEL P ヒュ-ズ' シ-ルP	1	7-D2			
-	SYRINGE 24シリ'ンジ	1	24-B2			
-	CLEANING CASE MOUNT ホ'タンコ'クP	1	14-A1			
-	DISINFECTANT TRAY LABEL ヤ'クエキマ'ト' シ-ル	2	6-A4			
-	ROLL GUIDE ロ-ルガ'イト	1	18-B2			
-	FRONT PLATE マ'イフ' レ-トP	1	7-A3			
-	VENTILATION CAP ツ'ウキ'キャ'ップ	1	9-B2			
-	RUBBER RING ゴ'ムリン'グ	1	9-C2			
-	HEAT INSULATING MATERIAL 2 タ'ンネ'ツザ' イ2	1	7-C3			
-	LEAKAGE TEST BLOCK 2P ロ'ウケン'ブ' ロ'ック2P	1	19-C3			
-	JOINT 3804 ツ'ギ' テ'3804	1	20-D1			
-	EMC DIVISION EMCカ'クハ'キ	1	9-D1			
-	EMI GASKET 1 EMIカ'ス'ケット1	1	7-C3			

PARTS LIST

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	EMI GASKET 2 EMIｶﾞｽｹｯﾄ2	5	7-C3,7-D2,7-D3			
-	EMI GASKET 3 EMIｶﾞｽｹｯﾄ3	1	7-C2			
-	EMI GASKET 4 EMIｶﾞｽｹｯﾄ4	6	14-A3,14-B3,14-C3 16-D2			
-	COM 5 LABEL COM5ｼｰﾙ	1	7-A4			
-	SPRING 2 ｾｲﾃﾞﾝｷﾊﾞﾅ2	1	9-D1			
-	USER ID MASTER CARD ｹﾞｰﾑID-MC	1	25-C2			
-	SCOPE ID MASTER CARD ｽｺｰﾌﾞID-MC	1	25-B2			
-	CARD CASE ｶｰﾄﾞｹｰｽ	1	25-D2			
-	M BRACKET P2 MﾌﾞﾗｹｯﾄP2	1	16-C2			
-	TRAY PACKING ﾄﾚｲﾊﾟｯｷﾝｸﾞ	1	6-A4			
-	Y BRANCH Yﾌﾞﾗﾝﾁ	1	14-B3			
-	EMI GASKET 5 EMIｶﾞｽｹｯﾄ5	2	5-A2,5-B2			
-	LEAKAGE TEST CONNECTOR BASE ﾚｶﾞｰｽ	1	14-B4			
-	RING BUFFER ﾘﾝｸﾞﾊﾞｯﾌｫｰ	1	25-D2			
-	CARD HOLDER ｶｰﾄﾞﾎﾙﾀﾞｰ	1	25-D1			
-	TOP COVER SHEET ﾄｯﾌﾟｶﾊﾞｰｼｰﾄ	8	14-A3,17-B3,17-B4 17-C4,17-D3,17-D4			
-	CH HOSE 3 ﾁｰｽﾞ3	2	11-D2,21-D2			
-	CASTER GUARD ｷｬｽﾀｰｶﾞｰﾄﾞ	3	5-A3,5-B4,5-C3			
-	WARNING LABEL E1 ﾁｭｰｲﾝｼｰﾙE1	1	7-A4			
-	CAUTION LABEL E3 ﾁｭｰｲﾝｼｰﾙE3	1	16-A2			
-	WARNING LABEL E4 ﾁｭｰｲﾝｼｰﾙE4	1	6-B3			
-	WARNING LABEL E5 ﾁｭｰｲﾝｼｰﾙE5	1	7-B4			
-	CAUTION LABEL E6 ﾁｭｰｲﾝｼｰﾙE6	1	17-A1			
-	CODE LABEL E1 ｺｰﾄﾞｼｰﾙE1	1	7-D4			
-	CODE LABEL E2 ｺｰﾄﾞｼｰﾙE2	1	7-D4			
-	SENSOR BASE 3 ｾﾝｻﾀﾞｲ3	1	10-B2			
-	Y HOSE M YﾎｰｽM	2	14-C3,21-A2			
-	RFID LABEL RFIDﾏｰｸ	1	7-C4			
-	C-UL LABEL C-ULｼｰﾙ	1	17-D1			
-	L JOINT Lｼﾞｮｲﾝﾄ	2	12-A3			

PARTS LIST

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	WARNING LABEL E7 チェウイシールE7	1	7-A3			
-	CAUTION PLATE E2 チェウイメイハンE2	1	12-A3			
-	CAUTION PLATE E5 チェウイメイハンE5	1	24-A3			
-	AC PLATE P ACイッP	1	13-C2			
-	LEVEL LABEL2 レベルメイハン2	1	7-A3			
-	TUB FLUID LEVEL SENSOR US テンキョカUS	1	14-B2			
-	SUPPLY WATER HOSE キョウスイホース	2	21-A1,24-B1			
-	SPRING NUT M5 スプリングナットM5	1	14-A3			
-	SPRING NUT M4 スプリングナットM4	1	11-C2			
-	H6N4SZ H6N4SZ	1	11-C2			
-	TEMPERATURE SENSOR UNIT オントセンサU	1	14-A1			
-	O-RING T1.9X5.8OR	1	14-B4			
-	O-RING T1.9X3.8OR	4	9-A4,12-B4,14-A4 14-B4			
-	O-RING T1.9X6.8OR	2	14-A4,14-B4			
-	O-RING T1.9X27.7OR	3	20-A2,20-B2,20-C2			
-	6B5X14UO 6B5X14UO	4	12-C2,12-D2			
-	6N10X1.5UO 6N10X1.5UO	5	14-C2,14-D2			
-	6N12X1.25UO 6N12X1.25UO	2	10-B2,14-A2			
-	6N12X1.5UO 6N12X1.5UO	1	9-C4			
-	6N16X2.0UO 6N16X2.0UO	1	14-A2			
-	6N18X1.5UO 6N18X1.5UO	2	13-B2,14-B1			
-	6N20X2.5UO 6N20X2.5UO	2	14-C1			
-	6N24X2.0UO 6N24X2.0UO	1	14-B2			
-	6N24X3.0UO 6N24X3.0UO	1	14-D2			
-	6N3UO 6N3UO	2	6-A2,6-C2			
-	6N5UO 6N5UO	5	5-A4,14-A3,14-C4			
-	AB4X6UO AB4X6UO	4	1-B4			
-	ABS6X10UO ABS6X10UO	7	1-A3,1-B4,5-A4 5-B4,12-B2			
-	ABSB4X6UO ABSB4X6UO	5	3-A2,4-D1,6-A1 6-C1,6-C2			

PARTS LIST

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	BNW2UO BNW2UO	1	5-C1			
-	BNW3UO BNW3UO	1	6-C2			
-	BNW4UO BNW4UO	2	10-C2			
-	BNW5UO BNW5UO	5	12-C2,12-D2,15-A1			
-	C6N5UO C6N5UO	3	5-A4,14-C4			
-	CBK2X4UO CBK2X4UO	2	7-A4,18-A2			
-	CBK3X6UO CBK3X6UO	6	17-A3,17-A4,17-B3 17-B4			
-	CBK4X10UO CBK4X10UO	9	3-B1,3-D2,3-D2 4-D1,5-A3,6-B3 7-A3,8-C3,12-D1			
-	CBK4X14UO CBK4X14UO	2	6-B3,8-D3			
-	CBK4X6UO CBK4X6UO	9	5-A3,6-A2,6-A3 6-B2,6-C4,8-A1 9-C2,18-B2			
-	CBK6X20UO CBK6X20UO	1	8-C2			
-	CCUK2.5X14UO CCUK2.5X14UO	1	6-C1			
-	CCUK3X5UO CCUK3X5UO	3	18-B1,19-B3			
-	CCUK3X6UO CCUK3X6UO	6	5-D1,6-A2,6-C2 18-A3,18-B3			
-	CCUK4X10UO CCUK4X10UO	5	4-B4,5-C4,8-B2 12-C2,13-B3			
-	CCUK4X18UO CCUK4X18UO	1	11-C2			
-	CCUK4X20UO CCUK4X20UO	2	4-A2,15-A1			
-	CCUK4X30UO CCUK4X30UO	4	3-B3,13-A4,13-B3 13-B4			
-	CCUK4X6UO CCUK4X6UO	58	1-C1,3-A1,3-A3 3-D2,4-A1,4-A2 4-A3,4-C4,4-D4 5-A2,5-B2,5-C1 5-C3,5-C4,6-B2 8-C2,10-C1,11-A2 11-B2,11-C2,12-D3 13-A3,13B-1,13-C3 13-C413-D3,13-D4,15-C2 15-C3,15-D1,15-D2 16-A2,16-B1,16-C1 16-C2			
-	CCUK4X8UO CCUK4X8UO	2	8-C1,8-D2			
-	CCUK5X6UO CCUK5X6UO	6	5-A1,14-C4,14-D4			
-	CCUK5X8UO CCUK5X8UO	3	4-C1,15-D3,20-C1			
-	CRB15UO CRB15UO	2	8-A2,8-C2			
-	CSK3X5UO CSK3X5UO	2	6-A2,6-B3			

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PARTS NO MATERIAL NO	PARTS NAME(E) PARTS NAME(J)	Q'ty	INDEX	REMARK	REF.	CHECK
-	CSK3X6UO CSK3X6UO	1	6-B3			
-	CSK3X8UO CSK3X8UO	2	13-C1			
-	CSK4X6UO CSK4X6UO	2	6-A2,6-B3			
-	CSK4X8UO CSK4X8UO	1	7-C4			
-	CTK4X10UO CTK4X10UO	5	7-C4,9-B4,9-C2 9-D2,12-C2			
-	CUK2X10UO CUK2X10UO	1	5-C1			
-	CUK5X25UO CUK5X25UO	1	8-C2			
-	CUKSB3X8UO CUKSB3X8UO	1	7-B3			
-	CUKSB4X14UO CUKSB4X14UO	6	17-B3,17-B4,17-C4 17-D3,17-D4			
-	CUKSK3X6UO CUKSK3X6UO	2	18-B3			
-	CUKSK4X10UO CUKSK4X10UO	6	20-A2,20-B2,20-B3 20-C1			
-	CUKSK4X30UO CUKSK4X30UO	1	7-A4			
-	ER2UO ER2UO	1	6-B1			
-	ER3UO ER3UO	4	5-B1,5-C1,5-D1			
-	ER4UO ER4UO	1	7-A3			
-	HCBK4X6UO HCBK4X6UO	42	1-A2,1-A3,1-C1 1-D2,1-D3,2-C4 3-A2,3-A3,3-A4 3-D34-A2,4-A4,4-D2 5-A4,5-D3,7-A3 7-B2,7-D1,7-D3 9-C3,9-C4,10-A3 12-A4,12-B3,13-B3 13-C2,13-C3,15-D1 17-A4			
-	HWB4UO HWB4UO	5	3-D1,4-A3,8-B2 12-C3,12-D3			
-	HWB5UO HWB5UO	2	14-A2,14-A3			
-	HWB6UO HWB6UO	5	1-B4,5-A4,5-B4			
-	PUK2X8UO PUK2X8UO	2	6-A3,6-C4			
-	SW3UO SW3UO	6	17-A3,17-B4			
-	SW4UO SW4UO	3	5-C4,12-D1			
-	SW5UO SW5UO	5	12-A3,12-C2,12-D2			
-	SW6UO SW6UO	1	12-B2			



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