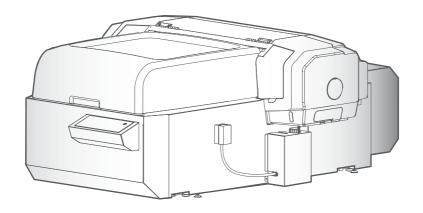


XPJ-661UF Operation Manual

Operations and Maintenance Methods



- · Unauthorized copying or duplication of the whole or part of the contents of this manual is prohibited.
- Every care has been taken in writing the contents of this manual, but please contact MUTOH or the dealer you purchased the product from if you find any unclear, erroneous or otherwise unsatisfactory content in the manual.
- Please be aware that MUTOH will not be liable in any way for failures or accidents that result from handling or operating the printer according to any procedures other than those set forth in this manual.
- Company names and product names that appear in this manual are registered trademarks of the respective companies.

For Users in Europe



The CE marking is a mandatory European marking for certain product groups to indicate conformity with the essential health and safety requirements set out in European Directives.

By affixing the CE marking, the manufacturer, his authorized representative, or the person placing the product on the market or putting it into service ensures that the item meets all the essential requirements of all applicable EU directives and that the applicable conformity assessment procedures have been applied.

For Users in the United States

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This system (including the housing and safety device) is a Class 1 laser product.

Laser specifications of this system (including the housing)

Wavelength: 655 nm, maximum output: 390mW or less, pulse duration: 3.0µs

Complies with IEC 60825-1 Edition 3.0 (2014-05-15).

Complies with FDA performance standards for laser products except for deviations pursuant to Laser notice No.56 dated May 8, 2019.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in radiation exposure.

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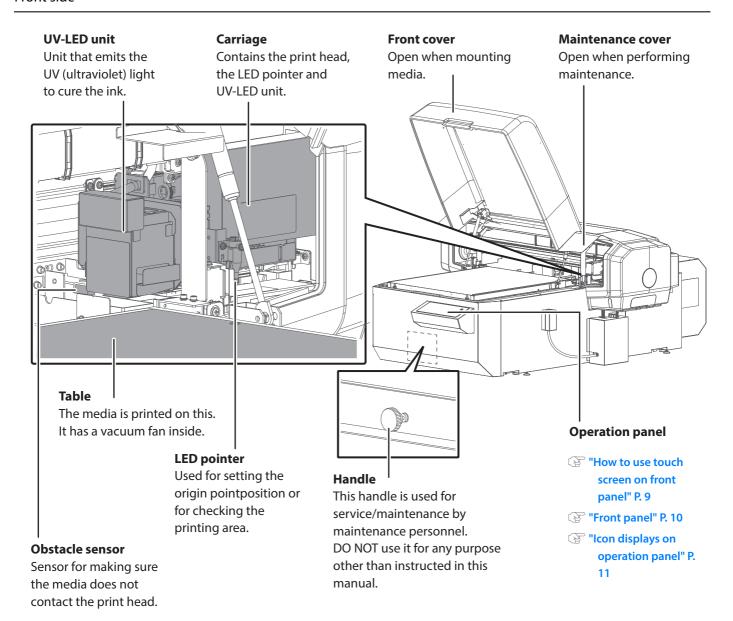
Chapter 1 Basic Operations

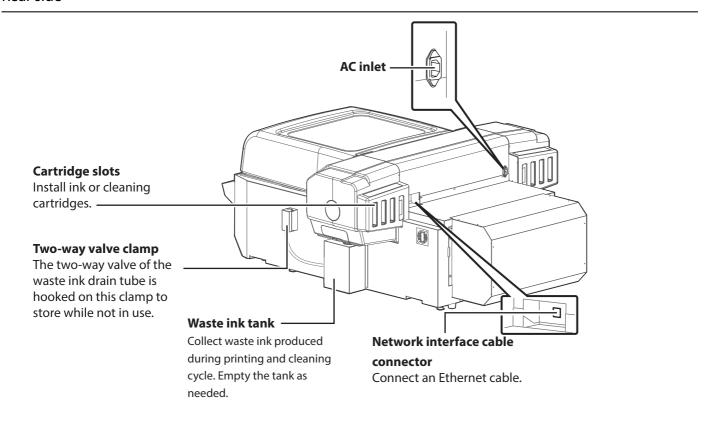
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Introduction

Main components of your printer

Front side

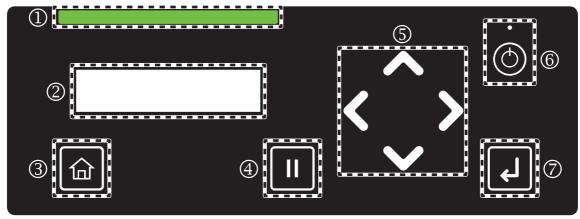




How to use touch screen on front panel

The printer has a touch-screen panel located on the front right of the printer. The active keys are lit up on the panel for guidance.

- Tap: Lightly touch the key with your finger, then immediately release.
- Long-touch: Keep touching the key.



Status Bar

Indicates the printer status by LED light.

- Working normally: Solid green or flashing green
- Error/Alert state: Solid red (error) or flashing red (alert)

Displays the printer status, setting menu, errors and so on.

Display

[Home] key:

Access to or exit the menu.

[Cancel] key:



Pause the print job. While pausing, tap the key again to resume printing.

Arrow keys:



When you have entered the setup menu, the arrow keys are used to select a menu or enter a value.

- key: Go to the previous item.
- Key: Return to the upper level menu without saving the change.
- key: Go to the sub menu.
- key: Go to the next item.

While the printer is in standby mode, it is used to load media, remove media, run a nozzle check, or perform head cleaning.

- key: Tap after loading media to put the printer into ready-to-print status.
- Key: Tap to run a nozzle check.
- key: Tap to perform cleaning.
- Key: Tap after printing to remove media from the table.

(4)

[Power] button:

- Long press to power on the printer.
- While the power is on, long press the button to power off the printer.



The 1 symbol means "standby". Even the Power LED turns off, the device still consumes some power unless the power cords are disconnected. This state is referred to as the power being "off" in this Manual. When the power cord is plugged in, the small LED light above the Power button turns on.

[Enter] key:

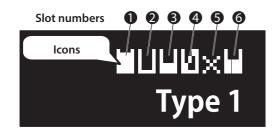


Use the Enter key to select a menu or confirm a value.

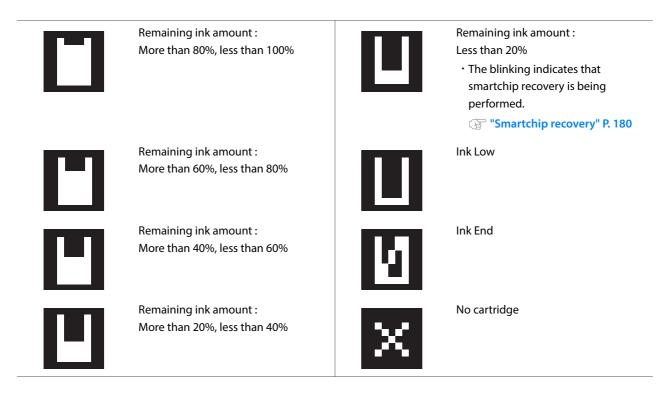
Icon displays on operation panel

Icons to indicate the status of the ink or cartridges are displayed in the following situations:

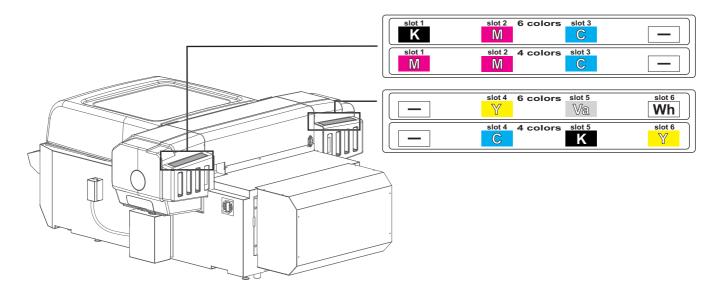
- · When no menu is displayed
- · When there is an ink or cartridge error



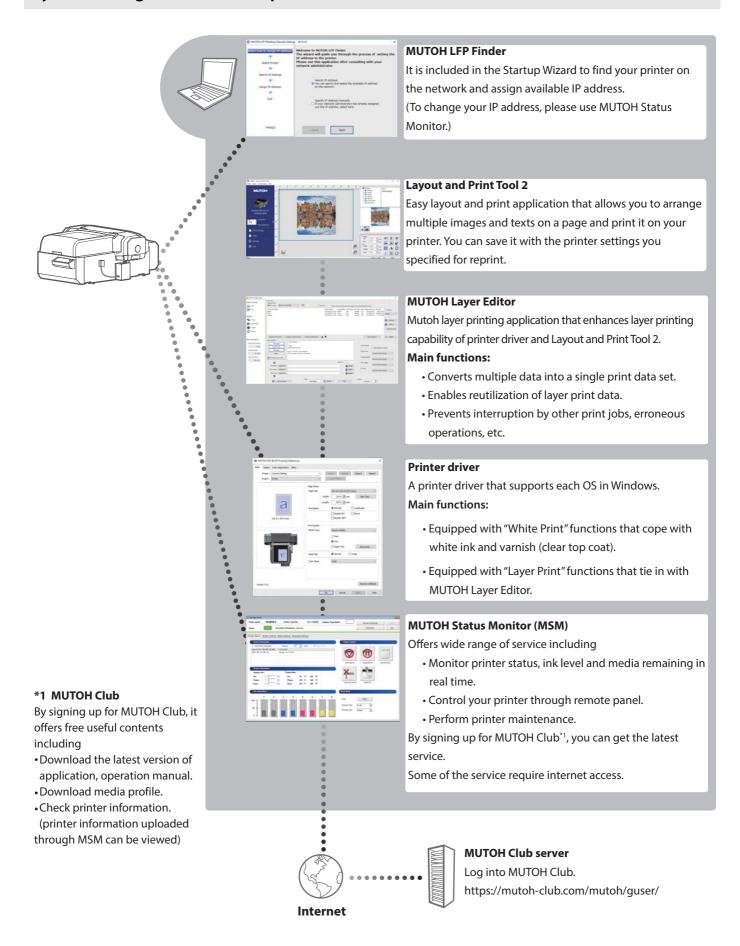
- Each indicator corresponds to the cartridge slots from Slot 1 through Slot 6. The leftmost indicator represents the ink level of the cartridge in Slot 1.
- In the display shown on the left, the slot 2 cartridge's ink is low, the slot 4 cartridge's ink has run out, and no cartridge has been inserted in slot 5.
- The following icons indicate the status of each slot:



The ink colors and slot locations for each color are shown below.



System configurations of this product



Appropriate Use of Layout and Print Tool 2 and MUTOH Layer Editor

The all-in-one installer contains two print application; Layout and Print Tool 2 and MUTOH Layer Editor. To perform layer printing on XPJ-661UF, please use Layout and Print Tool 2.

Each print application has following features.

| | Layout and Print Tool 2 | MUTOH Layer Editor |
|---|--|---|
| | | MUTOH Layer Editor |
| Functions | Enables to print more than one image layer by layer on the same media. Users can edit layer printing layout for up | Receives print data from the printer driver. Users can assign the received data to each layer to perform layer printing. |
| | to 15 layers and save them. | To create print data file, use Layout and Print Tool 2 or other graphic applications. |
| Intended use | Suitable for small print production or adding text to an image. | Saves print data with format converted for the printer to print soon after sending from |
| | Recommended to use MUTOH Layer Editor for large print production. | MUTOH Layer Editor and efficiently reprint the same data. |
| Image printing (PNG/TIFF) | \bigcirc | × |
| Multi layer printing (Print layer by layer on the same media) | | |
| Single layer printing (Print 2 or 3 layers in one pass) | X | 0 |
| Change printer settings on output data | X | (Change carriage speed, vacuum fan and more) |



For more details of layer printing and supported file format, see the Layout and Print Tool 2 Operation Manual and MUTOH Layer Editor Operation Manual.

Displaying the Printing Preferences screen of printer driver



- For Windows 11, you will need to use MSM Version 8.13 or later.
- The OS support period of MUTOH software follows the Microsoft support lifecycle policies.
- [1] Windows 11

Press the [Win] - [R] keys on your keyboard to open the Run command window. In the search field, type "control", then click [OK] or press the [Enter] key on your keyboard. Click [Control Panel], then [Devices and Printers].

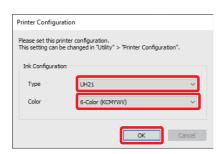
[2]



Right click the "MUTOH XPJ-661UF" icon and click [Printing preferences].

- The "Printer Configuration" dialog box opens only at the first time.
- The Printing Preferences screen of printer driver opens from the second time.

[3]





Printing Preferences screen of printer driver

Select the ink type and the ink configuration settings and click [OK].

 After clicking, the Printing Preferences screen of printer driver opens.



- If you use the Windows printer driver, make sure to select the ink type and the ink configuration settings of your printer.
- If you selected the wrong ink configuration, go to [Utility] > [Printer Configuration] and select the correct one.

Launching/Displaying/Exiting MUTOH Status Monitor (MSM)

Launching MSM



Windows 11

• Double click the MSM icon on the Desktop.



Launching from the Start Menu of Windows

From the [Start] menu, click [All Programs] (or [All Apps]) - [MUTOH] - [MUTOH Status Monitor].

Displaying MSM



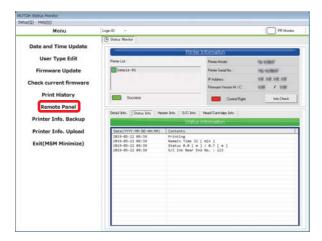
Double click the MSM icon in the task tray.

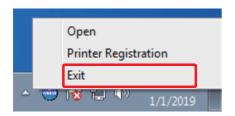
Displaying remote panel

The remote panel allows you to view the printer status or remotely operate your printer.

Click [Remote Panel].

• The remote panel opens.





Right click the MSM icon in the task tray, and click [Exit].



While using your printer, do not exit MSM. To close the MSM window, click [Settings] - [Close].

Launching MUTOH LFP Finder

From the [Printer Registration] menu on the MUTOH Status Monitor, click "3. Search printer Assign/Change IP address".



If ValueJet Finder has been already installed, uninstall the ValueJet Finder.

Launching Layout and Print Tool 2

Windows 11

From the [Start] menu, click [All Programs] (or [All Apps]) – [MUTOH] – [Layout and Print Tool 2].

Launching MUTOH Layer Editor

Windows 11

From the [Start] menu, click [All Programs] (or [All Apps]) – [MUTOH] – [MUTOH Layer Editor] in order.

Displaying Help

A Help menu is available in the printer driver and MUTOH LFP Finder.

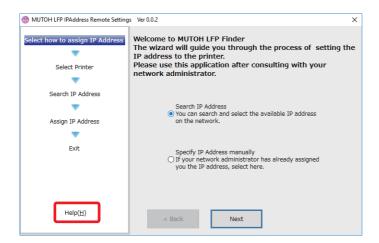
Printer driver

Open the Printing Preferences screen of printer driver, and click [Help].



MUTOH LFP Finder

Launch MUTOH LFP Finder, and click [Help].



Requirements for usable media

Media that meet the requirements below can be used with this printer.

Usable sizes

| _ | Maximum width | 483 mm |
|---|---------------------------|-------------------------------|
| | Maximum length | 594 mm |
| | Maximum thickness | 150 mm |
| | Surface height difference | approximately -0.5 mm maximum |
| | Weight | up to 6 kg (including jig) |
| _ | | |



The minimum media width and length that are settable in the User Type for the printer are 30 mm x 30 mm. To print onto media with dimensions smaller than these, you should take precautions to prevent the table from being dirtied with ink.



Contact your local MUTOH dealer about roll media recommended for your printer.

Cautions for handling media

To achieve expected print quality, follow the instructions below.

Failure to follow these instructions could result in damage to the printer.

- Use media with no wrinkle, fold or curl.
 If media does not sit flat on the table, secure it on the table using a thin tape to avoid any warps.
- If media has a chance to be deformed while printing, secure it on the table using a thin tape to avoid head strike.
- Do not use media that is sensitive to heat.

 The heat given off by the UV rays could deform such media, or affect its image quality, or cause it to contact with the head.
- If printing onto a solid object that is liable to roll (such as a golf ball or ballpoint pen), use a jig or similar to stop it from rolling.
- When loading a small and heavy object or a jig on the table, place it as close to the center of the table as possible.
- · Printing on non-flat surface media will generate ink mist, causing malfunction or damage to the printer.
- If you are printing on non-flat surface media and there is large distance between the print head and media, you may not be able to achieve predictable print quality.
 - To print on such media with more than 0.5 mm height difference, it is recommended to use the "Low Speed" printing mode. It allows you to print on media up to 2.0 mm height difference and helps to minimize the ink mist, ink bleeding or layer shift.

 "** > 7: Low Speed" P. 79
- Printing on a light reflective material may have a chance to cure the ink on the print head, causing malfunction or damage to the product. To print on such materials, it is recommended to mask the non-print area on the material.

Cautions for handling media

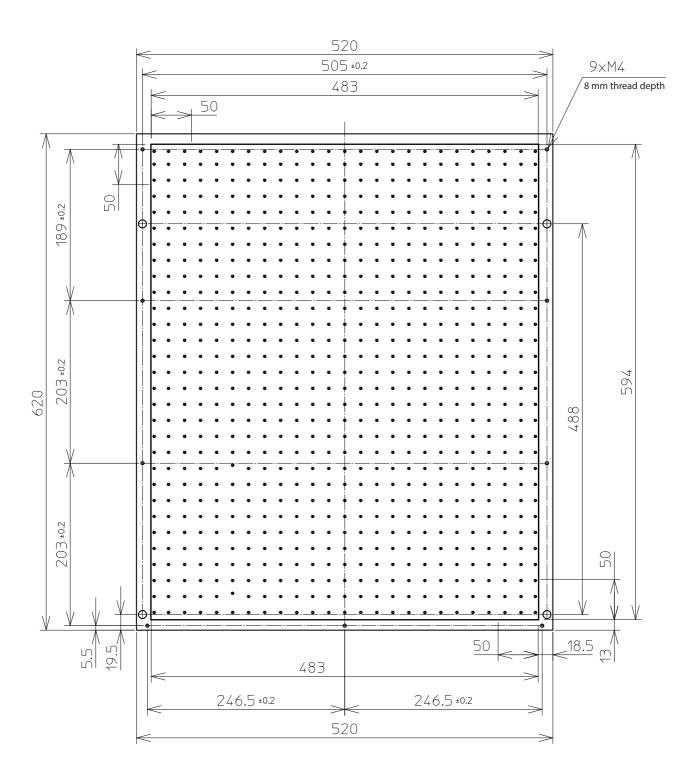
- When loading a new media, make sure to place it on an appropriate position and input correct media information. If wrong information is entered, the printer can print on an unintended position of the table. If UV ink stains on the table, it will be cured by UV lamp and will not be removed from the table.
- When using this product, do not place any object in the table height detection area. This will cause false detection and the printer will not be able to print correctly.
 - Also, the area in front of the guide groove on the front side of the table is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded in this area. This will cause head strike, leading to damage to the print head.

For details, see the following section:

Printing area" P. 32

Table Dimensions & Diagrams

The diagram below show the dimension of the table on this product.



Precautions when using this product

Do not turn the power off

Use the printer with its power turned permanently on. When you are not using the printer, always leave the power on and put the printer into the sleep mode. In the sleep mode, the printer will periodically circulate the ink inside the printer and carry out head cleaning automatically. If you do not put the printer into the sleep mode, the ink inside the printer could settle out and/or coagulate, causing poor image quality or printer failure.

Please handle ink carefully

- Before operation, make sure to read the Safety Data Sheet (SDS).
- Do not disassemble ink cartridge (or ink bag).

 Ink may come into contact with your eyes or skin, causing irritation or allergic reaction.
- · Wear gloves, goggles or protective eyewear, protective mask, protective clothing when handling ink.
- DO NOT drop or hit an ink cartridge (or ink bag).
 Ink may leak from the container.
- Be sure to use the ink before it expires.
 Using expired ink can cause damage to the printer. Replace with a non-expired one even it has ink remaining.
 The expired ink should be disposed of as industrial waste. The empty ink cartridge (or ink bag) should be put in a plastic bag and should be disposed of according to the local regulations.
- MUTOH strongly recommends to use genuine ink.
 This printer is designed to bring out the best performance when using with the MUTOH genuine ink.
 Non-MUTOH ink may cause print defects or damage to the printer.

Avoid direct contact with uncured ink

- The curing time for Mutoh UV ink varies by surface properties of media you use. Particularly a low ink density area on a print takes longer time to be cured (approximately one hour).

 When you check if your print is fully cured, be sure to wear protective gloves.
- When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.
- Especially during operations where ink might contact you (e.g. handling ink or waste fluid, cleaning of print head/cap/wiper), always wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.
- If glove becomes contaminated with ink, replace it with new.
- If ink gets on skin, immediately wash with soap and plenty of water for 15 minutes. Seek medical advice/attention if irritation or inflammation are present.
- If ink gets in eyes, flush eyes with plenty of water for 15 minutes and seek medical advice/attention immediately.
- If swallowed, rinse mouth immediately and do not induce vomiting. Seek medical advice/attention.

Agitate the ink

Before installing a new ink cartridge (or ink bag), invert it back and forth to agitate ink. Periodical ink agitation is also required when prompted on the operation panel.

Otherwise, the ink inside the ink cartridges (or ink bags) settles or coagulates and may cause poor print quality or a malfunction.

Please use this product at least once a week

If the printer is not used for a long time, the print head nozzles can get clogged causing damage to the printer.

Conduct periodic maintenance

This product requires daily maintenance.

- Perform the Nozzle check before and after printing.
 If nozzle clog is found, conduct a head cleaning.
- Make sure to perform daily maintenance after you finish printing for the day.
 Failure to perform daily maintenance may affect print quality or result in damage to the printer.

™ "Daily Maintenance" P. 130

- If you are not using the printer for an extended period*, put it into sleep mode and then perform followings. *"Extended period" means one to four weeks.
 - · Agitate the ink.
 - Check the ink level and replace the relevant ink cartridge if "Ink Low" is displayed.

If you may not be able to perform above, follow the instructions of "If not using the printer for a long time" P. 26 and power off the printer.

- Empty the waste ink tank when needed.
- Clean the interior of the printer once a month.

Some parts need to be replaced periodically

In this product, following parts need to be replaced after a long-term use.

- Parts required to be replaced by users: Absorption material for the flushing box, Cleaning wiper, UV-LED lamp filter, UV-LED lamp emitting window glass.
- Parts required to be replaced by service personnel: Various motors, Pumps, Print head, Head cap unit, UV-LED lamp

A CAUTION

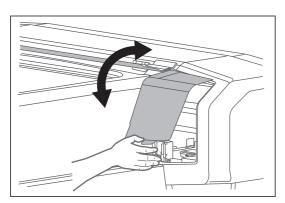


• Do not open or close the cover while you are off balance. You may pinch your finger or get injured.



- · Always fully open the maintenance cover. If you leave it half-open, the maintenance cover can suddenly close.
- When closing the maintenance cover, hold the tab on the maintenance cover to gently close it. Do not place your fingers on the edges of the printer's opening portion, or on any parts around those edges. Your fingers could get caught and be injured.

To access to the wiper and the head cap unit for daily maintenance, you can open and close the maintenance cover on this printer.



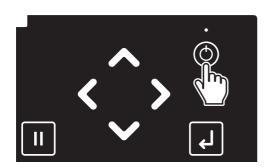
Hold the tab on the maintenance cover as shown on the left to gently open or close the cover.

Powering ON / OFF

Turning the power ON

[1] Close the front cover.

[2]



Long press the Power button.

- The keys on the operation panel light up.
- The printer will start mechanical initialization.



When the message "Welcome" appears and the LED lights on the panel turns on, release the button.



- During printer initialization, the printer performs table height calibration to optimize the gap between the print head and media.
- The table height calibration can be also performed from the operation panel "Maintenance 7: Calibration" menu.

"Calibrating table height" P. 55



When using this product, do not place any object in the table height detection area. This will cause false detection and the printer will not be able to print correctly.

Also, the area in front of the guide groove on the front side of the table is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded in this area. This will cause head strike, leading to damage to the print head.

For details, see the following section:

Printing area" P. 32

Turning the power OFF

If you need to power off your printer temporarily, follow these steps.



Use the printer with its power turned permanently on. When you are not using the printer, always leave the power on and put
the printer into the sleep mode while not in use. If you do not put the printer into the sleep mode, the ink inside the printer
could settle out and/or coagulate, causing poor image quality or printer failure.

"Sleep Mode" P. 30

- If you are not using the printer for an extended period of time (up to one month), follow these steps to power off the printer.
 - If not using the printer for a long time" P. 26
- [1] Check that the printer completes printing and no object including a jig is loaded on the table.
- [2] Prepare items required for daily maintenance.
 - Preparing for Daily Maintenance" P. 131

[3] Ш

Long press the Power button.



To skip a daily maintenance and power off the printer, tap [Cancel].

"Powering off the printer without daily maintenance" P. 29

• Powering off the printer without daily maintenance will cause ink accumulation around the print head, leading to damage to the printer. Normally, be sure to perform daily maintenance.



[4] **Daily Maintenance** Start **Enter**





Please Wait

The table moves to the front side of the printer.

[5] **Unload Media** then Tap Enter Remove the media and the jig on the table, and then tap [Enter].



Please Wait

• The table, carriage and cleaning wiper move to gain access to daily maintenance.

[6] **Daily Maintenance** End **Enter** The message on the left will appear.

- You can start daily maintenance.
 - Performing Daily Maintenance" P. 133

• After the daily maintenance is complete, tap [Enter].





The message on the left will appear.



The printer automatically performs the Short cleaning.



After the Short cleaning, this printer will start turning off.

If not using the printer for a long time

If your printer will be not in use for a long period of time (up to one month), follow these steps to power off the printer.

1. Performing Daily Maintenance

- [1] Check that the media and jig are removed from the printer.
- [2] Prepare items required for daily maintenance.

Preparing for Daily Maintenance P. 131



Tap [Home].

- [4]
 Menu3
 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- [5]
 Maintenance11
 Daily Maintenance
- Use to choose the menu shown left.
- Tap .
- Daily Maintenance
 Start —> Enter

Tap [Enter].



The table moves to the front side of the printer.

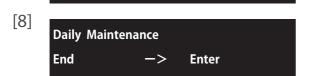


Unload Media
then Tap Enter

Remove the media and the jig on the table, and then tap [Enter].



• The table, carriage and cleaning wiper move to gain access to daily maintenance.



- You can start maintenance.
 - Performing Daily Maintenance" P. 133
- Once the maintenance is finished, close the front cover, then tap [Enter].

☞ "Finishing maintenance" P. 143

2. Discharging ink from the printer

[1] Ш

Tap [Home].

- [2] Menu3 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- [3] Maintenance5 **Ink Discharge**
- Use to choose the menu shown left.
- Tap .
- [4] Ink Discharge Start Enter

Tap [Enter].



[5] **Empty Waste Ink Tank** then Tap Enter

Drain the waste ink into the container, then tap [Enter].



"Drain waste ink into a container" P. 127 under "Emptying waste ink tank"

- [6] **Empty the Tank** Yes
- Use or to choose the message "Empty the Tank? Yes".
- Tap [Enter].

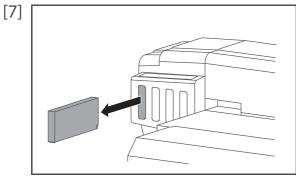




The message on the left will appear.



Remove the ink cartridges (or high-capacity ink pack adapters) from all the cartridge slots.





Reset the waste ink counter. [8]

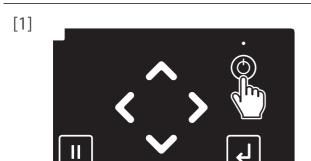
Resetting waste ink counter" P. 129

The message on the left will appear.

• Discharging the ink will start.

When the message on the left appears, transfer the waste ink into a container.

Train waste ink into a container" P. 127 under "Emptying waste ink" tank"



Long press the Power button.



The message on the left will appear.



Tap [Cancel].



[Important!

Make sure to perform daily maintenance before powering off the printer. Failure to do so will cause nozzle clogging.

[3] **Power Off**

The printer will start turning off.

Sleep Mode

When you are not using the printer, always leave the power on and put the printer into the sleep mode while not in use. If you do not put the printer into the sleep mode, the ink inside the printer could settle out and/or coagulate, causing poor image quality or printer failure.

Make sure to follow the instructions on the operation panel to perform daily maintenance.

The following operations are performed during sleep mode.

- Automatic Head cleaning by timer set in the "SetTimer" Menu.
- · Ink circulation
- · "Little Charge"



To leave the printer in sleep mode for seven days or more, perform followings once a week:

- Check the ink level and replace the relevant ink if "Ink Low" is displayed.
 - (Fig. 122) "Replacing ink" P. 122
- · Agitate the ink.
 - **Pagitating ink" P. 118**

Steps

- [1] Make sure that the printer's operating condition is as follows:
 - The Front cover and the maintenance cover are closed.
 - No object including a jig is loaded on the table.
 - The remaining ink level is sufficient.
 - The waste ink bottle has enough space.



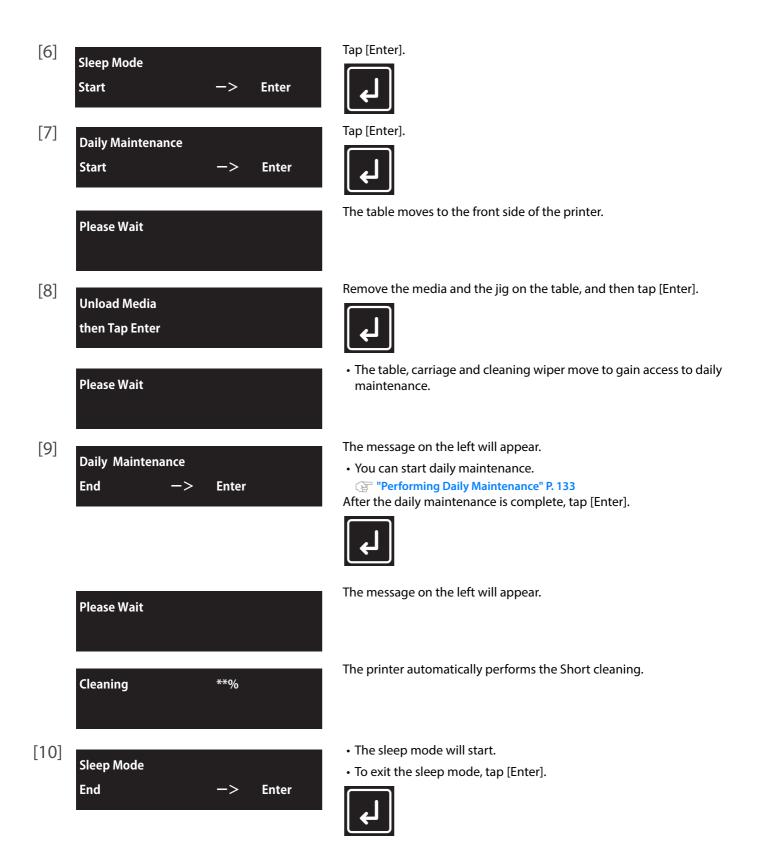
If you are going to use the sleep mode for a prolonged period of time, first empty the waste ink tank.

- **Temptying waste ink tank" P. 126**
- [2] Prepare items required for daily maintenance.
 - Preparing for Daily Maintenance" P. 131



Tap [Home].

- [4] Menu6 Sleep Mode
- Use to choose the menu shown left.
- Tap **>** .
- [5] Sleep Mode1 Start
- Тар



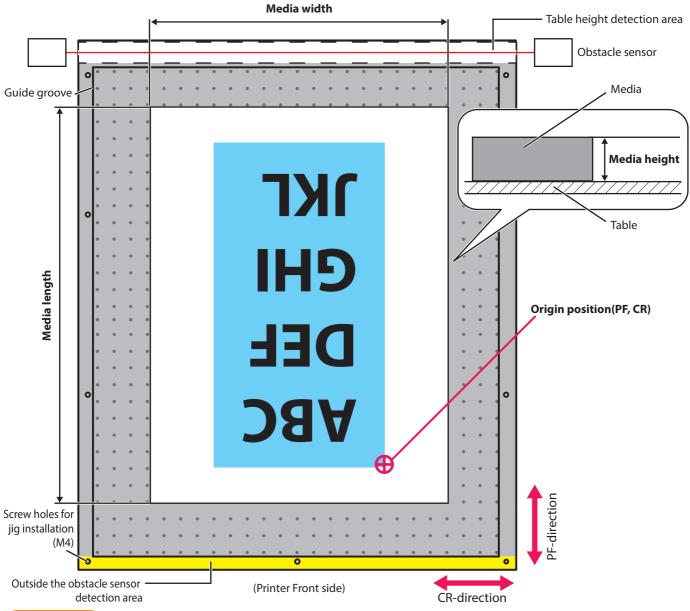


- While in sleep mode, the small LED light above the power button flashes every 5 seconds.
- To set the timer for automatic head cleaning during sleep mode, see "Sleep Mode2: Cleaning Timer" P. 109.
- Depending on the elapsed time from the previous automatic maintenance, the printer may automatically execute head cleaning and/or ink charging, etc., when it exits the sleep mode. Such operation does not depend on the sleep mode settings. It is an automatic maintenance function of the printer.

Printing

Printing area

- When loading new media, you need to enter the media size (width and length) and origin position (print start position) from the operation panel.
- The guide groove on the table shows the maximum printable area (483 mm x 594 mm).
- Use the screw hole (M4) to attach your own jig.
- Printing is always started from Origin position (print start point). See the figure below as example.
- See "Table Dimensions & Diagrams" P. 20 for detailed dimension.



Important!

When using this printer, DO NOT place any objects in the table height detection area. Otherwise, it will cause false detection of the obstacle sensor and the printer may not be able to print correctly.

Also, the area in front of the guide groove on the front side of the table is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded in this area. This will cause head strike, leading to damage to the print head.

Loading media

Important!

- When loading a new media, make sure to place it on an appropriate position and input correct media information. If wrong information is entered, the printer can print on an unintended position of the table. Once UV ink stains on the table, it will be cured by UV lamp and will not be removed from the table.
- · When using this product, do not place any object in the table height detection area. This will cause false detection and the printer will not be able to print correctly.

Also, the area in front of the guide groove on the front side of the table is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded in this area. This will cause head strike, leading to damage to the print head.

For details, see the following section:

Printing area" P. 32

1. Placing the media on the table

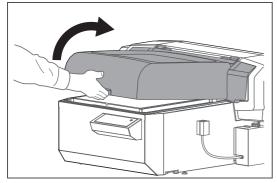
[1] Set media, then

Tap $[\land]$ key.

Check that the message on the left is displayed. If not displayed, tap .



[2]



Hold the handle on the front cover to gently open it.



The message on the left will appear.



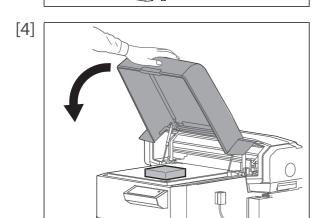
When using the optional vacuum table, you can change the vacuum power of the current job by tapping or while the message on the left appears on the panel. The vacuum power can be selected between 0 and 4 (0: turn the vacuum fan off).

The vacuum fan turns on by tapping \bigwedge or \bigvee .

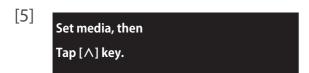
The change made will be saved in the user type currently selected.

[3]

Place the media on the table.



Hold the position shown on the left and gently close the cover.





[6] **:Detailed-Set:

On

Tap [Enter].



- This menu only appears when the User Type are selected for the first time.
- If you select "On", you will have to input the media height, obstacle detect, media size and origin position after tapping ach time you set a media on the table.
- If you select "Off" via , "Ready to Print" will be displayed after tapping each time you set a media on the table.

 In that case, the currently selected User Type values will be used for the media height, obstacle detect, media size and origin position.
- Even if "Off" is selected, you can enter media height, obstacle detect, media size and origin position from the "**: Media Setting1 Set Media" by tapping [Cancel] while the message "Print Ready" or "Set media, then Tap[\] key." appears on the panel.

2. Media Height Setting & Printer Response Setting for Obstacle Detection



Use or to configure media height setting.

- "Auto": Printer automatically detects height of media and lowers the table until the obstacle sensor detects no obstacle.
- "Manual": User manually input height of media.

Tap [Enter].





In "Auto" Setting



Use or to specify the offset value between the print head and media.

Tap [Enter].





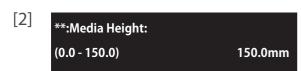


The default head gap from the surface of media is set to 1.2 mm.

When you want to increase the head gap, use this menu to specify value in range of $0.0\,$ mm to 1.5 mm.

• Example: If "PG Offset" is set to 0.5 mm, the head gap from the surface of media will be 1.7 mm (1.2 mm + 0.5 mm).

In "Manual" Setting



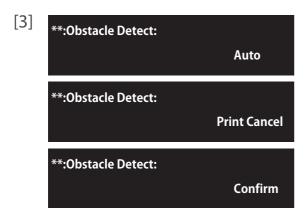
Use or to input the media height. Tap [Enter].







Any value from 0.0 mm to 150.0 mm can be set for the height.



Use or to configure the printer response setting for obstacle detection.

- "Auto": The printer pause the printing. It lowers the table until the sensor does not detect any obstacle, and then resumes the job.
- "Print Cancel": The printer cancels printing and prompts the obstacle error message.
- "Confirm": The printer pauses the printing and allows users to choose from two options; Print Continue or Print Cancel.

Press the [Enter] key.







- If the sensor still detects the obstacle after the table moves down to its lowest position, the printer cancels printing and prompts the obstacle error message.
- For details on the related sections of the Panel Setting menu, see the following.

"**>9: Obstacle Detect" P. 80

[4] Please Wait

The message on the left will appear.

• While the table is moving to the print start position, the obstacle sensor will detect the media.

If no obstacle is detected, move to the next step.

"Inputting the media width, length and the origin position" P. 36
If any obstacle is detected, an obstacle error message will appear on the operation panel.

• Tap \checkmark and then enter the height of media.

☞ "Loading media" P. 33

"Media Height Setting & Printer Response Setting for Obstacle Detection" P. 35

3. Inputting the media width, length and the origin position

**:Width:
(30 - 483) 483 mm

Use the or to input the media width. Tap [Enter].







• Any value from 30 mm to 483 mm can be set for the width.

[2] **:Length: (30 - 329)329 mm Use the or to input the media length. Tap [Enter].







Any value from 30 mm to 594 mm can be set for the length.

[3] **:Origin: PF: 0.0 CR: 0.0

- Use or to enter the CR (lateral) value.
- Tap [Enter].







any value between the following range can be entered:

PF value: 0.0 to 574.0 CR value: 0.0 to 463.0

Moving To Origin Position

- The table will move inward.
- The carriage will move to the set position, with its LED pointer lit steady.

[4] **:Origin: PF: 0.0

CR: 0.0

Check the position of the LED pointer.

- If it shows the correct position, tap [Enter].
- If it is not in the intended position, adjust the origin position as
 - Use or to move the table forward/backward.
 - Use or to move the LED pointer leftward/rightward.
 - Tap [Enter].





Please Wait

The message on the left will appear.

Print Ready Type 1 That completes setting of the media.

Nozzle check and cleaning

Before starting everyday operation, please perform nozzle check printing to check the print head condition. If nozzle clog is found, conduct cleaning.

This printer offers the following 2 kinds of nozzle checks:

- · Nozzle Check Prints the nozzle check patterns
 - For the Nozzle Check pattern printing" P. 38
- Nozzle Check B Prints the nozzle check patterns on the partially colored background.
 - For the Nozzle Check B pattern printing" P. 39



- "Nozzle Check B" will only appear in the menu if 6-color is set.
- When using white ink, colored media, transparent films or semi-transparent films (such as OHP film, tracing paper and more) are recommended to use for nozzle check.

1. Run a nozzle check print

For the Nozzle Check pattern printing

- [1] Load a roll media for Nozzle check.
 - Load an A4 or larger size media in landscape orientation on the table.
 - TLoading media" P. 33

[Important!

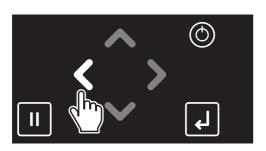
The minimum required media size for nozzle check printing is width 260 mm x length 35 mm. If you use a media that is smaller than this, the printing will overshoot it.

Once UV ink stains on the table, it will be cured by UV lamp and will not be removed from the table.

Print Ready
Type 1

Check that the message on the left is displayed.

[3]





[4]

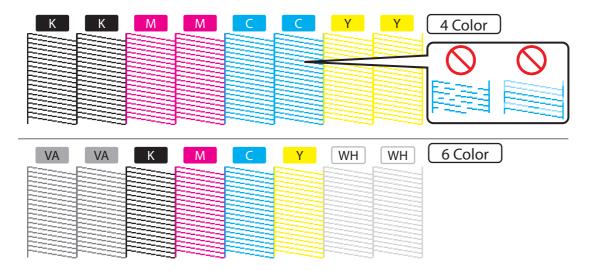


Tap [Enter].

• The printer will print the nozzle check pattern.



- [5] Look at the print.
 - If you find missing or thin lines on the print, go to "Perform cleaning" P. 40.
 - If all lines are clearly printed, go to "Starting printing" P. 41.
 - \bullet The figure below are examples of the Nozzle Check patterns.





The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

For the Nozzle Check B pattern printing

[1] Load a roll media for Nozzle check.

TLoading media" P. 33

[2] **Print Ready** Type 1 Check that the message on the left is displayed.

[3] П

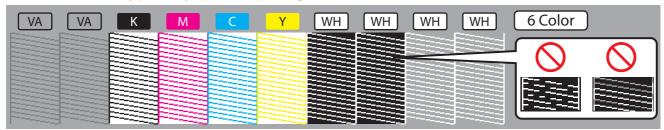
Tap [Home].

- [4] Menu2 **Test Print**
- Use to choose the menu shown left.
- Tap .
- [5] **Test Print2 Nozzle Check B**
- Use to choose the menu shown left.
- Tap [Enter].





- [6] Look at the print.
 - If you find missing or thin lines on the print, go to "Perform cleaning" P. 40.
 - If all lines are clearly printed, you can start printing.





- The figure above is an example of the Nozzle Check B pattern. In this example, non-colored background area is shown in gray.
- Printer information (Data and time printed, serial number, firmware version) is printed next to the pattern.

2. Perform cleaning

Print Ready
Type 1

Check that the message on the left is displayed.

Тар .

Clean Print Head?

Clean Print Head?

Normal

Clean Print Head?

Long

Use or to choose the cleaning mode. Tap [Enter].

• The printer will start cleaning.





- [4] Run a nozzle check print again.
 - "Run a nozzle check print" P. 38
 - If the nozzles do not recover after several normal cleaning attempts, try "Long" or "Little Charge" cleaning. For the details of cleaning, see "Head cleaning" P. 139.



If "Long" or "Little Charge" cleaning does not help to recover the nozzles, go to "Advanced Settings 10: Select Nozzle" P. 89 to select the nozzles that fire properly.

Starting printing

Printing from the Layout and Print Tool 2

You can lay out and print out the images using the bundled CD-ROM software, Layout and Print Tool 2.

This section explains the basic printing instructions only. For the details, see the operation manual for Layout and Print Tool 2. Layout and Print Tool 2 supports following graphic file formats:

- · PNG (.png)
- TIFF (.tif)



For the details of supported file format, see the Layout and Print Tool 2 Operation Manual.

[1] Start Layout and Print Tool 2.

Taunching Layout and Print Tool 2" P. 16

[2]



Select the printer driver.

· Click [Apply].

[3]



If the driver settings have not been completed, the dialog on the left will appear.

· Click [OK].

[4]



The dialog on the left will appear.

• Click [OK].

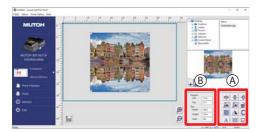
[5]



Select the image to be used in printing.

• Click the button to insert the image.

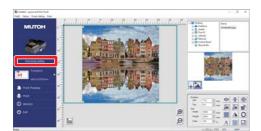
[6]



Align the image by using the following methods:

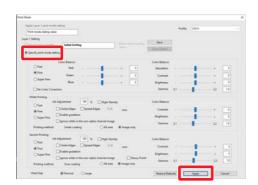
- Click the edit buttons (A on the left illustration).
- Enter values directly (B on the left illustration).

[7]



Click [Print Mode Setting].

[8]



- Select [Specify print mode setting].
- After specifying all the settings, click [Apply].

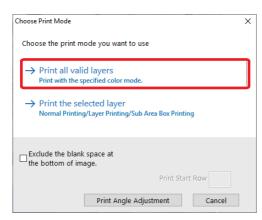
[9]



Click [Send to Layer Editor].

• The "Choose Print Mode" dialog will appear.

[10]



Select the Print Mode.

• Printing is executed.



For more details of layer printing, see the Layout and Print Tool 2 Operation Manual.

Printing from the Printer driver

In this section, a method to print from the printer driver is explained.

- [1] Open printing data from application software to execute printing.
- [2] Open the print setup screen of the XPJ-661UF printer driver from the application software.
- [3]



Conduct print setup.

• Set [Page Size], [Orientation] and [Print Quality].

[4]

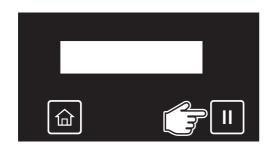


Click [OK].

[5] Printing is executed.

Pausing/Restarting printing

[1]



Tap [Cancel] while printing.

• The printer will pause printing.



- You cannot cancel the job by tapping [Cancel].
- To cancel the job, see the following section.

™ "Canceling printing" P. 44

[2]



Tap [Cancel] again to resume printing.

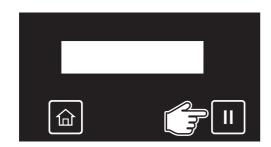




MUTOH cannot guarantee the print quality when you resume the printing.

Canceling printing

[1]



Tap [Cancel] while printing.

• The printer will pause printing.



To resume printing, tap [Cancel] again.

[2]



Tap [Enter] to cancel printing. (Once canceled, you cannot resume the job again.)

• The data sent to the printer will be deleted.





You can also cancel the job from the remote panel on MSM.

Menus you can access while printing

Tap [Home] while one of the three messages on the left appears on [1] Receiving the touch panel. **Printing** Converting [2] Use ightharpoonup or ightharpoonup to choose the menu, then tap ightharpoonup. Menu1 **PF Micro Adjust** Menu2 Backup **™ "Menu1: PF Micro Adjustment" P. 46**

Menu4

Reset Waste Ink

"Menu3: Job Status" P. 47

Menu1: PF Micro Adjustment

You can change the micro adjustment value to correct media feeding for the currently print job.

· See the following related sections of Panel Setting Menus







Use or to change the value.

• Tap [Enter] to confirm the change.



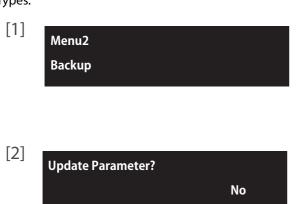




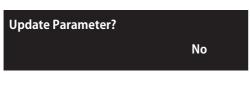
- The change made is applied to the current job only and is not saved in the
- To save the change in the user type currently selected, go to "Menu2: Backup"

Menu2: Backup

With this menu item, you can have a change that you made via "Menu1: PF Micro Adj." reflected in the currently selected User Types.













Parameter Updating

The change is saved in the selected user type.

You can check the current status of the print job being printed.

• See the following related sections of Panel Setting Menus:

"Printer Status 3: Job Status" P. 106

[1] Menu3
Job Status



Job Status
ToDoLength:

Job Status
Done:

Job Status
Remain:

Job Status
Remain:

O.0 m

Use or to choose the information you want to check.

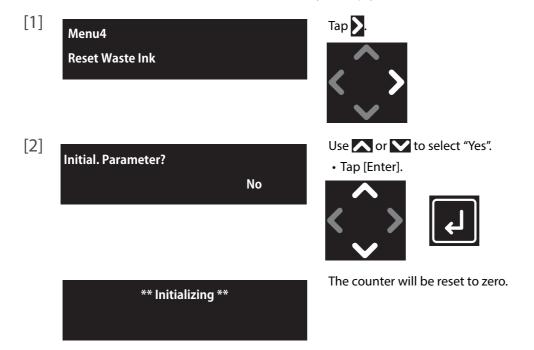


- ToDoLength: displays the length of the current job (in media feeding direction).
- Done: displays the length of the current job that has been already printed.
- Remain: displays the remaining length to finish printing.
- Remain time: displays remaining time to finish printing.



- Indicated value is approximate. The accuracy of the value is not guaranteed.
- If the print job data does not contain length information, "0" will be displayed in the Job Status menu.

Use this menu to reset the waste ink counter to zero, if you empty out the waste ink tank during printing.



Checking the printing area

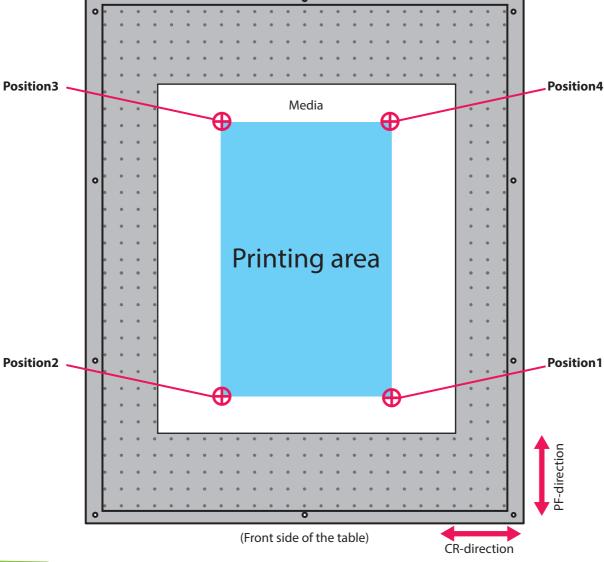
By specifying this setting before printing, LED pointer shows where the image will be printed on the media. This helps to avoid misprinting especially when printing on an object that you do not have more than one pieces.

With this function, you can check the following:

- Whether an image can be printed on the intended area on the media.
- Whether the print data can be fitted on the media.

Operation

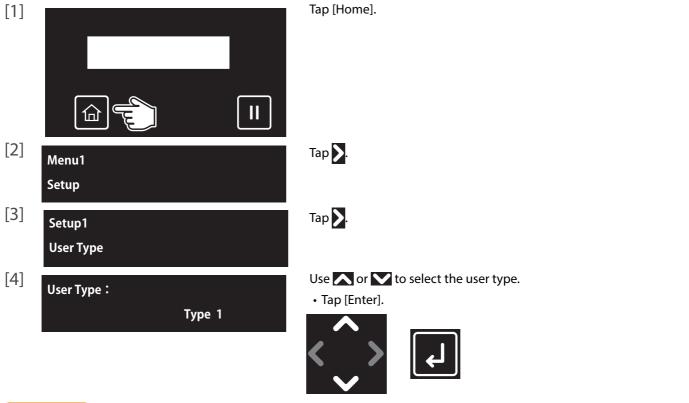
- Locate the four corners of the printing area by the LED pointer.
- The LED pointer flashes (every second) on the point.
- The LED pointer lights up when moving from point to point.
- If the print data is too big for the media, the LED pointer flashes fast (twice a second) on the point.
- Move the LED pointer from the "position1" to "position4" in order in the following illustration.





When the print data does not have the length information (PF direction length), the LED pointer does not move from Position3 and 4.

1. Setting "Show Edges" function

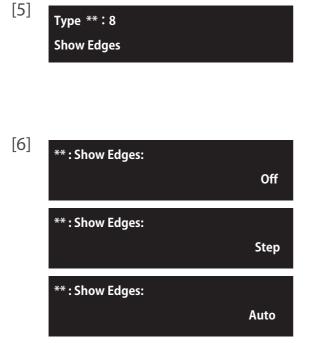


[Important!

If you have changed the user type to another type, all settings that can be changed by user type settings change to the settings of the selected user type.

- When the "media setting" for the user type settings have been changed, the settings for the "media height", "obstacle detect", "media size" and "origin position" are changed to the settings of the selected user type. Therefore, be careful with the print start position. Images might be printed at the position that was not intended or outside the media.
- You can change the settings for the "media setting" from the Panel Setting menu.

"**>6: MediaSetting" P. 77



- Use to choose the menu shown left.
- Tap 🔰 .





Use or key to select the setting.

- Off: LED pointer does not show the printing area. This is the default setting.
- Step: LED pointer shows where the image will be printed on the media and the printer will ask you at each point of corner if the position is OK.
- Auto: LED pointer shows where the image will be printed on the media without checking with the user.
- Tap [Enter].





This section explains about when the checking method is set to "Step".



When it is set to "Auto", the following steps 2 to 5 are skipped. After step 1, the LED pointer moves from the "position1" to "position4" in order

[1]



- When the media is loaded and the print data is sent to the printer, the left message is displayed.
- Tap [Enter].





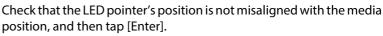
If you tap

the printer starts printing without showing printing area.

Please Wait

- The LED pointer moves to the bottom right corner of the print range (position1) while the LED is turned off.
- **Showing Print Area**
- After moving, the LED pointer flashes every second, for a total of 3

[2] **Position 1 OK?** Yes

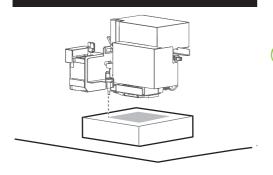






- The LED pointer remains on until [Enter] is tapped.
- To cancel the job, use or to choose "No", then tap [Enter].

Showing Print Area

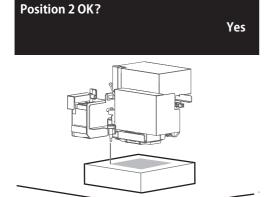


- The LED pointer moves to the bottom left corner of the print range (position2).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 3 times.



When the print data's width (CR direction length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.

[3]



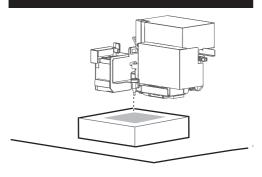
Check that the LED pointer's position is not misaligned with the media position, and then tap [Enter].





- The LED pointer remains on until [Enter] is tapped.
- To cancel the job, use or to choose "No", then tap [Enter].

Showing Print Area

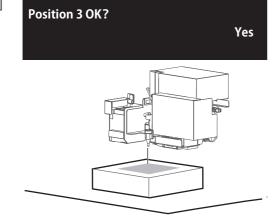


- The LED pointer moves to the top left corner of the print range (position3).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 3 times.



When the print data's width (CR direction length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.

[4]



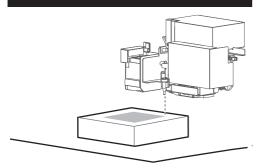
Check that the LED pointer's position is not misaligned with the media position, and then tap [Enter].





- The LED pointer remains on until [Enter] is tapped.
- When the print data's length (PF direction length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.
- To cancel the job, use or to choose "No", then tap [Enter].

Showing Print Area

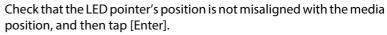


- The LED pointer moves to the top right corner of the print range (position4).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 3 times.



When the print data's length (PF direction length) is too big for the media, the LED pointer flashes twice a second, for a total of 6 times after moving.

[5] **Position 4 OK?** Yes

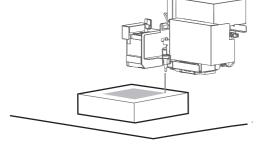






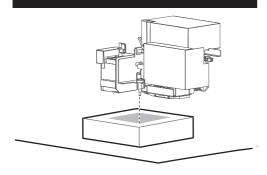


- The LED pointer remains on until [Enter] is tapped.
- To cancel the job, use or to choose "No", then tap [Enter].



- The LED pointer moves to the bottom right corner of the print range (position1).
- The LED pointer remains on while moving.
- After moving, the LED pointer flashes every second, for a total of 1

Showing Print Area



Please Wait

[6]

- **Start Printing?** No
- The carriage returns to the original position (capping station).
- Checking the print range is complete.

Use or to select "Yes".

• Tap [Enter].







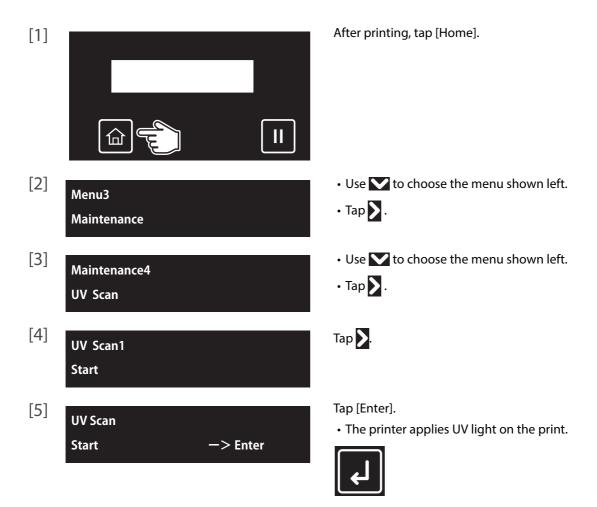
To cancel the job, use or to choose "No", then tap [Enter].

Applying additional UV light after printing

If the print does not cure completely, you can apply extra UV curing after printing.

This is useful for the following cases.

- · When printing on media that soaks ink, such as a cloth and so on.
- · When printing an image that uses a lot of ink.
- When the multi-layered ink on the media is thick.



- **⊘** Note
 - $\bullet \ \, \text{The range to apply the UV light depends on the user type's [MediaSetting] [Size] and [Origin] settings that are currently selected.}$
 - See the following when changing the number of reciprocating motions for every 1 inch in the media feeding direction while performing UV scanning.

 "UV Scan2: Number of Scan" P. 100
 - To apply additional UV-LED light automatically every time after printing, see the following.

TUV Scan3: Post Cure" P. 100

For details on the related sections of the Panel Setting menu, see the following.

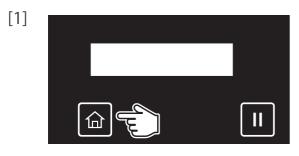
"Maintenance 4: UV Scan" P. 99

Calibrating table height

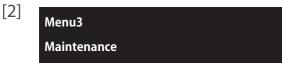
To optimize the gap between the print head and media, calibrate the table height position.

This menu helps to correct following symptoms on your print:

- · Ink bleeding
- · Faint print
- · Ink mottling



After printing, Tap [Home].



- Use to choose the menu shown left.
- Tap **>** .



- Use to choose the menu shown left.
- Tap .



Tap [Enter].



Please Wait

The message on the left will appear.

• The table moves to the front side of the printer.

[5] **Unload Media** then Tap Enter The message on the left will appear.

• Remove the media, and then tap [Enter].



Please Wait

The message on the left will appear.

• The printer starts table height calibration.

[6] Set media, then Tap [∧] key.

The calibration is now complete.



If the problem still persists after the calibration, go to following menus to perform printing adjustment and media feeding adjustment.

**>2: Adjust Print" P. 68

***>4: PF Adjust" P. 74



When using this product, do not place any object in the table height detection area. This will cause false detection and the printer will not be able to print correctly.

Also, the area in front of the guide groove on the front side of the table is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded in this area. This will cause head strike, leading to damage to the print head.

For details, see the following section:

Printing area" P. 32

For details on the related sections of the Panel Setting menu, see the following.

"Maintenance 7: Calibration" P. 102

Layer printing

This printer has the capability for layer printing.

- To perform layer printing using Layout and Print Tool 2 or MUTOH Layer Editor, see Layout and Print Tool 2 Operation Manual or MUTOH Layer Editor Operation Manual.
 - **™** "Displaying Help" P. 17
- See the following related sections of Panel Setting Menus (Chapter 2 below):
 - ™**>3: Adjust Layer Print" P. 70
 - "Advanced Settings 1: Multi Strike" P. 82
 - "Advanced Settings 8: Multi Layer" P. 87

Chapter 2 Advanced Operations

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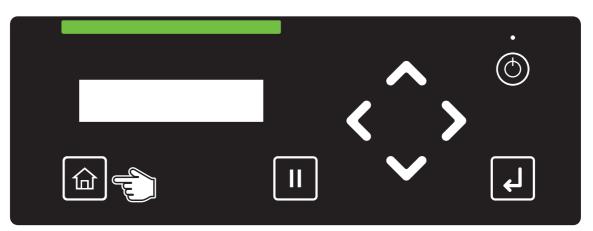
| Setting menu 4 | 11 | 13 |
|----------------------|----|----|
| Menu during printing | 11 | 13 |

Introduction

Using the panel setting menus, configure various kinds of settings for the printer.

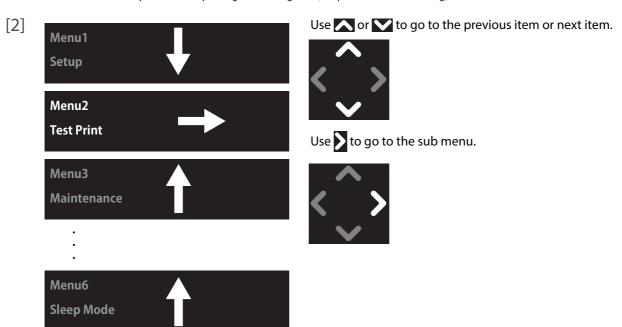
Operating the keys to use the menus

[1] To access to the setup menu, tap [Home].

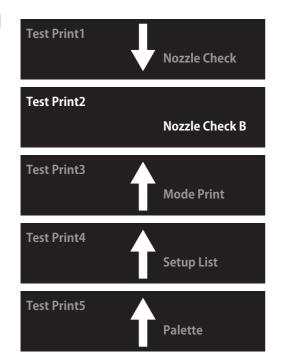




You cannot access to the setup menu while printing or receiving data (the power button is flashing).



[3]



Use or to choose the option from the sub menu or enter the value.



To confirm the value or execute the selected function, tap [Enter].



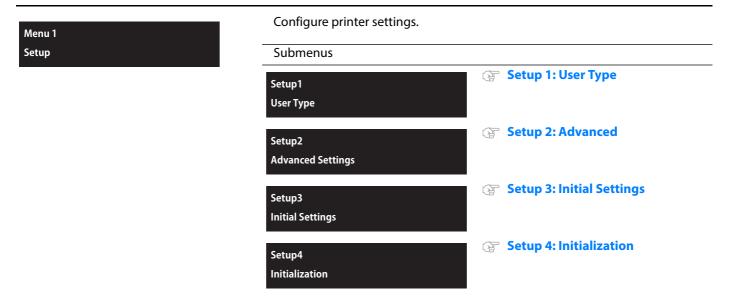
Use $\begin{cases} \begin{cases} \begin{cas$

(In the example on the left, the display will return to "Menu2: Test Print".)

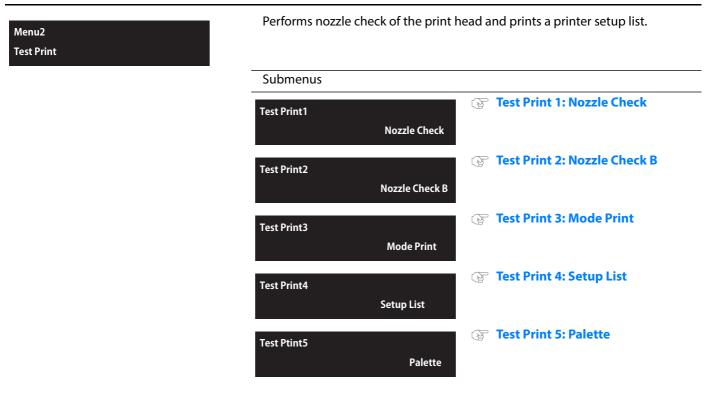


Panel setup menu

Menu 1: Setup



Menu 2: Test Print



"Nozzle Check B" will only appear in the menu if 6-color is set.

Menu3 Maintenance Performs maintenance for print head and ink.

| Submenus | |
|---------------------------------|---|
| Maintenance1 Cleaning | Maitenance 1: Cleaning |
| Maintenance2 Reset Waste Ink | ☞ Maintenance 2: Reset Waste Ink |
| Maintenance3 CR Maintenance | |
| Maintenance4 UV Scan | |
| Maintenance5 Ink Discharge | |
| Maintenance6 Plug Life | |
| Maintenance7 Calibration | |
| Maintenance8 Moving Printer | Maintenance 8: Moving Printer |
| Maintenance9 Table Maintenance | |
| Maintenance10 Soak Cleaning | |
| Maintenance11 Daily Maintenance | Maintenance 11: Daily Maintenance |

Menu 4: Printer Status

Menu4 Printer Status Provides printer status information.

Submenus

Printer Status1 Ink Printer Status 1: Ink

Printer Status2 Life Times **Printer Status 2: Lifetimes**

Printer Status 3: Job Status

Printer Status3
Job Status

Printer Status 4: Version

Printer Status4
Version

Printer Status 5: Serial No.

Printer Status5
Serial No.

Printer Status6 Total Print Area Printer Status 6: Total Print Area

iotai Fillit Alea

☞ Printer Status 7: Ink Expiration

Printer Status7
Ink expiration

(Only displays when using US61 ink)

Menu 5: Option

Menu5 Option Use this menu to attach the Rotary Unit (option).

For more details of this menu, see the Rotary Unit Operation Manual.

Rotary unit cannot be used when using US61 ink with 4-color configuration.

Submenus

Option1 Rotary Unit **Option 1: Rotary Unit**

Menu 6: Sleep Mode

Menu6 Sleep Mode Configures or activates sleep modes.

Submenus

Sleep Mode1 Start **☞ Sleep Mode1: Start**

Sleep Mode2

Cleaning Timer

☞ Sleep Mode2: Cleaning Timer

Menu1: Setup

Setup 1: User Type

The User Type is one of user-settings to set media types and printing conditions for printing.



You can have up to 10 groups of User Type, labeled "Type1" to "Type10". When you select a User Type group ("Type") and tap [Enter], that definition group will be set for the printer. Also, a submenu will be displayed.





When you have changed to another User Type, all the settings that are alterable via the User Type will be changed to the values in the currently selected User Type.

• When the "media setting" for the user type settings have been changed, the settings for the "media height", "obstacle detect", "media size" and "origin position" are changed to the settings of the selected user type. That means the print start position will also change. Make sure that the printer will start printing from the intended position. If not, the printer could print onto the wrong part(s) of the media or print outside it.

"Detailed-Set: On" (on/off for the set check display when a media is set on the table) only appears when the User Type is selected for the first time. Use or to select "On" or "Off", and tap [Enter].

- If you select "Detailed-Set: On", you will have to input the media height, obstacle detect, media size and origin position after tapping each time you set a media on the table.
- If you select "Detailed-Set: Off", "Ready to Print" will be displayed after tapping ach time you set a media on the table. The currently selected User Type values will be used for the media height, obstacle detect, media size and origin position.
- Even when "Detailed-Set" is set to Off, you can enter media height, obstacle detect, media size and origin position from the "**: Media Setting1 Set Media" by tapping [Cancel] while the message "Print Ready" or "Set media then tap $[\wedge]$ key." appears on the panel.

User Type: Type1 Configures the printer settings for selected User Type.

| Submenus | |
|-------------------------------|--------------------------|
| Type **: 1 Print Mode | **>1: Print Mode |
| Type **: 2 Adjust Print | **>2: Adjust Print |
| Type **: 3 Adj. Layer Prn. | **>3: Adjust Layer Print |
| Type **: 4 PF Adjust | **>4: PF Adjust |
| Type **: 5 Vacuum Fan | **>5: Vacuum Fan |
| Type **: 6 Media Setting | **>6: MediaSetting |
| Type **: 7 Low Speed | |
| Type **: 8 Show Edges | **>8: Show Edges |
| Type **: 9 Obstacle Detect | **>9: Obstacle Detect |
| Type **: 10 Copy User Type | **>10: User Copy |
| Type **: 11 Initialization | **>11: Initialization |

**>1: Print Mode



Selects the print mode.

- After setting the print mode, go on to setting of effect.
- The number of passes in the print mode varies between 4-color and 6-color ink configuration. See **Details of print mode** for more details.

Setting values High-speed printing * *: Mode: Fast 720 × 1080 12 pass Uni This is the default setting. * * : Mode : Fine $\textbf{720} \times \textbf{1440}$ 16 pass Uni High-quality printing * *: Mode: **Super Fine** 1440 × 1440 32 pass Uni

Details of print mode

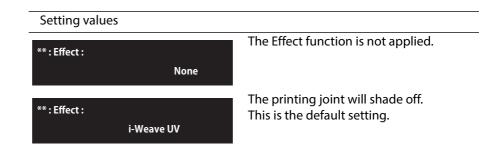
| Print Mode | Color set | Resolution | Pass | Direction | Initial values for effect |
|------------|-----------|--------------------|--------|----------------------|---------------------------|
| Fast | 6 Colors | 720 × 1080 | 12pass | Uni (unidirectional) | i-Weave UV |
| | 4 Colors | 720 × 1080 | браss | Uni (unidirectional) | i-Weave UV |
| | | | | | |
| Fine | 6 Colors | 720×1440 | 16pass | Uni (unidirectional) | i-Weave UV |
| | 4 Colors | 720 × 1440 | 8pass | Uni (unidirectional) | i-Weave UV |
| | | | | | |
| Super Fine | 6 Colors | 1440×1440 | 32pass | Uni (unidirectional) | i-Weave UV |
| | 4 Colors | 1440 × 1440 | 16pass | Uni (unidirectional) | i-Weave UV |

Effect



Selects the effect.

Set up this menu when you want to improve print quality by adjusting the set print mode.



Type ** : 2 Adjust Print Adjusts the printer to optimize the print quality for the media.

- Required media size: width 210 mm x length 100 mm.
- **"Confirm pattern" P. 90**
- **☞** "Rough adjustment pattern" P. 69
- Fine adjustment pattern" P. 69

When using US61 ink:

- the adjustment value input menu for pattern C is not displayed.
- the pattern C is not printed when the following menu is selected: Confirm Pattern/ Rough Pattern ALL/ Fine Pattern ALL

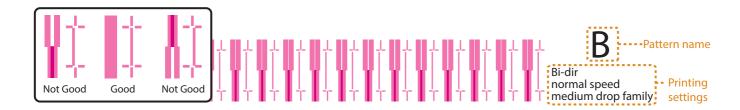
| Submenus | | |
|--------------------|-------------------|--|
| ** : Adjust Print1 | Confirm Pattern | Print a confirm pattern. |
| ** : Adjust Print2 | Rough Pattern ALL | Print rough adjustment patterns A to C and enter adjustment values. |
| ** : Adjust Print3 | Rough Pattern A | Print rough adjustment pattern A only and enter an adjustment value. |
| ** : Adjust Print4 | Rough Pattern B | Print rough adjustment pattern B only and enter an adjustment value. |
| ** : Adjust Print5 | Rough Pattern C | Print rough adjustment pattern C only and enter an adjustment value. |
| ** : Adjust Print6 | Fine Pattern ALL | Print fine adjustment patterns A to C and enter adjustment values. |
| ** : Adjust Print7 | Fine Pattern A | Print fine adjustment pattern A only and enter an adjustment value. |
| ** : Adjust Print8 | Fine Pattern B | Print fine adjustment pattern B only and enter an adjustment value. |
| ** : Adjust Print9 | Fine Pattern C | Print fine adjustment pattern C only and enter an adjustment value. |

Steps

- **1.** Print a confirm pattern and check it for printing errors.
- **2.** Print rough adjustment patterns and enter correction values.
 - Select "ALL", or one of "A" to "C".
- **3.** Print fine adjustment patterns and enter correction values.
 - Select "ALL", or one of "A" to "C".

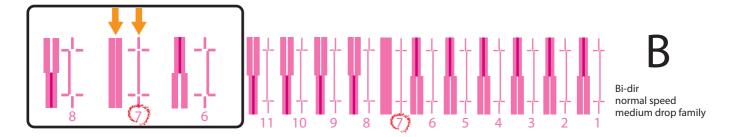
Confirm pattern

- Tap [Enter] to carry out printing.
- Check the pattern print. If there are misalignments, proceed to rough adjustment pattern printing.
- In the picture below, there are misalignments.



Rough adjustment pattern

- Tap [Enter] to carry out printing.
- · Look for and mark a number printed under a pattern that has least misalignment.
- "Pattern B: 6" or similar will appear in the display. Use or to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter "7", so that the display reads "Pattern B: 7".



Fine adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- "Pattern B: 4" or similar will appear in the display. Use or to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter "6", so that the display reads "Pattern B: 6".



Type ** : 3 Adj. Layer Prn. Use this option when you want to correct layer shifting.

- Required media size: width 210 mm x length 100 mm.
- "Adj. Layer Prn." menu only appears for printer with 6-color configuration.
- The menus "Adj. Layer Prn.1" through "Adj. Layer Prn.5" are used for white layer alignment to correct white layer shifting in single-layer or multi-layer printing.
 "Procedure for white layer alignment" P. 71
- If layer shifting still occurs in multi-layer printing after performing white layer alignment, perform layer alignment using the menus "Adj. Layer Prn.6" through "Adj. Layer Prn.12". This will correct misalignment between layers in multi-layer printing.

™ "Procedure for layer alignment" P. 72

When using US61 ink:

** : Adj. Layer Prn. 10

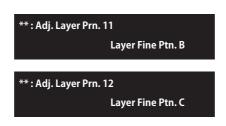
Layer Fine Ptn. ALL

- the adjustment value input menu for pattern C is not displayed.
- the pattern C is not printed when the following menu is selected:
 Wh Confirm Pattern/ White Pattern ALL/ Layer Confirm Ptn./ Layer Rough Ptn.
 ALL/ Layer Fine Ptn. ALL

Submenus Print a white confirm pattern. ** : Adj. Layer Prn. 1 Wh Confirm Pattern Print white adjustment patterns A to C ** : Adj. Layer Prn. 2 and enter adjustment values. **White Pattern ALL** Print white adjustment pattern A only and ** : Adj. Layer Prn. 3 enter an adjustment value. White Pattern A Print white adjustment pattern B only and ** : Adj. Layer Prn. 4 enter an adjustment value. White Pattern B Print white adjustment pattern C only and ** : Adj. Layer Prn. 5 enter an adjustment value. White Pattern C Print a layer confirm pattern. ** : Adj. Layer Prn. 6 Layer Confirm Ptn. Print rough layer adjustment patterns B to ** : Adj. Layer Prn. 7 C and enter adjustment values. Layer Rough Ptn. ALL Print rough layer adjustment pattern B ** : Adj. Layer Prn. 8 only and enter an adjustment value. Layer Rough Ptn. B Print rough layer adjustment pattern C **: Adj. Layer Prn. 9 only and enter an adjustment value. Layer Rough Ptn. C

Print fine layer adjustment patterns B to C

and enter adjustment values.



Print fine layer adjustment pattern B only and enter an adjustment value.

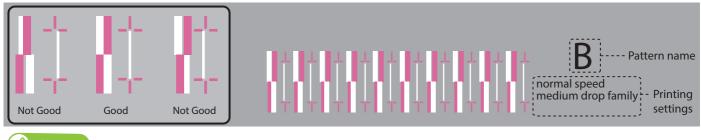
Print fine layer adjustment pattern C only and enter an adjustment value.

Procedure for white layer alignment

- **1.** Print a white confirm pattern and check it for printing errors.
- **2.** Print white adjustment patterns and enter correction values.
 - Select "ALL", or one of "A" to "C".

White confirm pattern

- Tap [Enter] to carry out printing.
- · Check the pattern print. If there are misalignments, proceed to white adjustment pattern printing.
- In the picture below, there are misalignments.

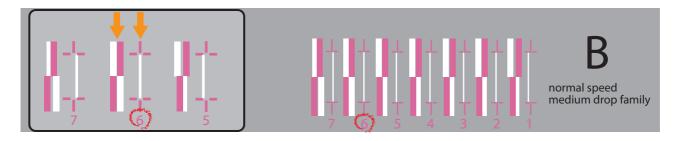




The figure above is an example of the white adjustment B pattern. In this example, non-colored background area is shown in gray.

White adjustment pattern

- · Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- "Pattern B: 4" or similar will appear in the display. Use or to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter "6", so that the display reads "Pattern B: 6".

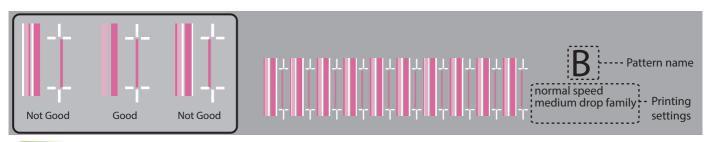


Procedure for layer alignment

- **1.** Print a layer confirm pattern and check it for printing errors.
- 2. Print rough layer adjustment patterns and enter correction values.
 - Select "ALL", or one of "B" to "C".
- **3.** Print fine adjustment patterns and enter correction values.
 - Select "ALL", or one of "B" to "C".

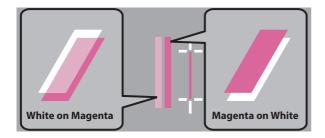
Layer confirm pattern

- Tap [Enter] to carry out printing.
- Check the pattern print. If there are misalignments, proceed to rough layer adjustment pattern printing.
- In the picture below, there are misalignments.



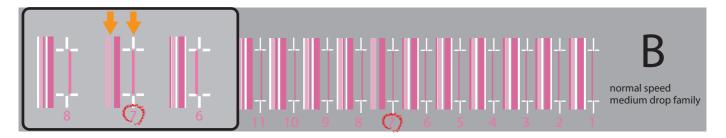


- The figure above is an example of the layer adjustment B pattern. In this example, non-colored background area is shown in gray.
- Two types of layer patterns are printed; "White on Magenta" prints a white layer over a magenta layer and "Magenta on White" prints a magenta layer over a white layer.



Rough layer adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- "Pattern B: 6" or similar will appear in the display. Use or to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter "7", so that the display reads "Pattern B: 7".



Fine layer adjustment pattern

- Tap [Enter] to carry out printing.
- Look for and mark a number printed under a pattern that has least misalignment.
- "Pattern B: 4" or similar will appear in the display. Use or to enter in the display the number that you marked, and tap [Enter].
- In the case of the picture below, enter "6", so that the display reads "Pattern B: 6".



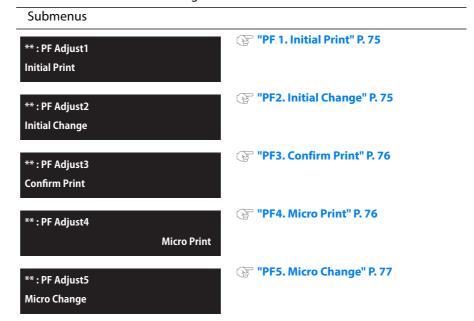


Performs media feed adjustment.

- Required media size: width 210 mm x length 110 mm.
- A ruler is required for this adjustment. Please prepare a commercially available

When the following defects are found in your prints, they may improve by conducting a paper feed correction.

- Images are overlapping.
- There are white lines in images.



Steps

- 1. Determine the feed length for the "PF1 Initial Print", print it, and measure the distance between the "+" marks with a ruler.
- **2.** Enter the distance measured as the "PF2 Initial Change".
- 3. Determine the feed length for the "PF3 Confirm Print", print it, and measure the distance between the "+" marks with a ruler.
 - •Check that there is no deviation from the feed length.
- **4.** Print a "PF4 Micro Print", and find the pattern with the least white streaks and image overlaps.
 - •The numeral below that pattern is the micro adjustment value.
- **5.** Enter the micro adjustment value according to the test pattern print in Step 4.

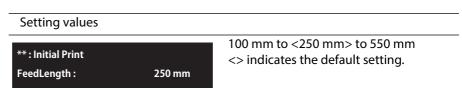
When you know the adjustment value (when changing the media or for similar operations)

1. Enter the adjustment value for "PF Adjust 5: Micro Change".

PF 1. Initial Print



Performs initial adjust print. Enter the "FeedLength", and tap [Enter]. Print a "+" mark at the beginning, feed the media according to the setting value, and print another "+" mark.



- With a ruler, measure the length between "+" in the pattern.
- In the example below, the measured place is shown in blue dotted lines and arrows (the blue parts are not actually printed).



| Important!

- The maximum setting value for the feed length will vary depending on the settings for "MediaSetting", "Size" and "Length" in the User Type. (The same applies to "Confirm Print".)
 - · Some media lengths cannot be used. For example, if a media has a length of 100 mm or below, "Media size error: Length" will appear on the panel and printing will not be carried out.

PF2. Initial Change

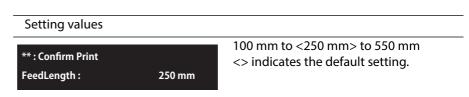


Use or to enter the adjustment value, and tap [Enter]. Setting values <Initial Print menu setting value> **: Initial Change ± 10.0 mm 260 mm / 250 mm Init.: <> indicates the default setting.

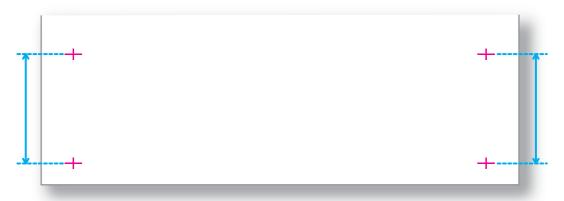
PF3. Confirm Print



Performs Confirm Print. Enter the "FeedLength", and tap [Enter]. Print a "+" mark at the beginning, feed the media according to the setting value, and print another "+" mark.



- With a ruler, measure the length between "+" in the pattern.
- If there is discrepancy between the value set for "FeedLength" and the value measured, carry the procedure out again from 1. "Initial Print". If there is no discrepancy, go to 4. "PF4. Micro Print".
- In the example below, the measured place is shown in blue dotted lines and arrows (the blue parts are not actually printed).



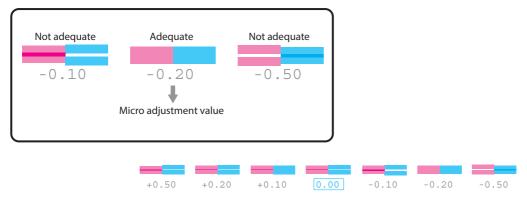
PF4. Micro Print



Performs Micro adjustment print.

Enter the appropriate micro adjustment value according to the test pattern print.

- Observe the pattern and verify the micro adjustment value. In the pattern, look for a place that has least white lines or overlapping in images. The number printed below the pattern is the micro adjustment value.
- Enter the Micro adjustment value according to the test pattern print.



The micro adjustment value saved becomes the pattern's standard value.

For example, if "-0.20" is saved as the micro adjustment value and a pattern is printed again, the number below the center pattern changes from "0.00" to "-0.20", and the left edge to "+0.30" and right edge to "-0.70".

PF5. Micro Change



Use or to enter the micro adjustment value, and tap [Enter].

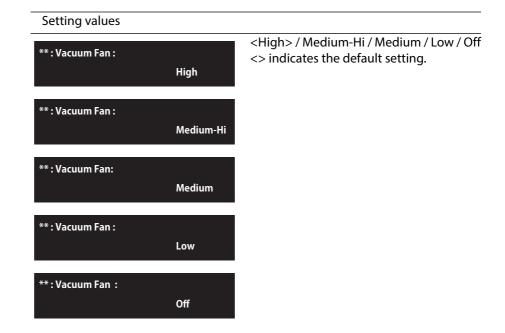


**>5: Vacuum Fan



Sets up vacuum fan operation. It has the role of fixing the media to the table.

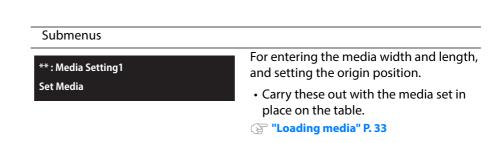
- If you are using a thin or delicate media and there is risk of it wrinkling due to the fan, set a lower value for the fan.
- If you are not using the optional vacuum table on the printer, this menu does not appear on the panel. The rest of the menus will be displayed with a different menu number.



**>6: MediaSetting



This is for setting the conditions for placing the media on the table.



** : Media Setting2 Size

** : Media Setting3 Height only.

"Inputting the media width, length and

For entering the media width and length

the origin position" P. 36, Step 1 and Step 2. Select Auto or Manual to determine the table height and specify the printer

response when detecting obstacle while

"Media Height Setting & Printer
Response Setting for Obstacle Detection" P.

Enter the origin of the job.

printing.

"Inputting the media width, length and the origin position" P. 36, Step 3 and Step 4.

** : Media Setting5 Detailed-Set

**: Media Setting4

Origin

Off / <On> <> indicates the default setting.

- If you select "Detailed-Set: On", you will have to input the media height, obstacle detect, media size and origin position after tapping acach time you set a media on the table. However, you can eliminate the need for such input by tapping the [Cancel]. If you do so, the values set in the User Type will be used.
- If you select "Detailed-Set: Off", "Ready to Print" will be displayed after tapping
 each time you set a media on the table.

The currently selected User Type values will be used for the media heght, obstacle detect, media size and origin position.

• Even when "Detailed-Set" is set to Off, you can enter media height, obstacle detect, media size and origin position from the "**: Media Setting1 Set Media" by tapping [Cancel] while the message "Print Ready" or "Set media then tap [^] key." appears on the panel.

** : Media Setting5 Obst. Check Mode Select the detection accuracy of the obstacle sensor when loading media into the printer.

If printing fails due to failure to detect media warp with "Normal" mode, try "High-Accuracy" mode.

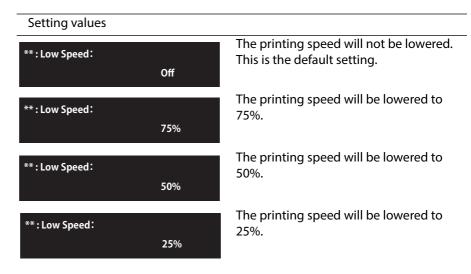
Normal / <High-Accuracy> <> indicates the default setting.

** > 7: Low Speed



Use this when you want a slower printing speed.

• It helps to enhance print quality when you print on an uneven surface media or curved object (e.g. golf ball, ballpoint pen, smart phone case).

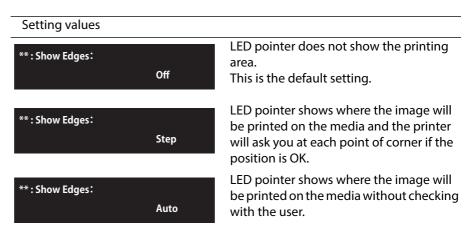


**>8: Show Edges



To check the printing area before printing, LED pointer shows where the image will be printed on the media.

™ "Checking the printing area" P. 49



Type** :9 Obstacle Detect Selects the printer operation when the obstacle sensor has detected an obstacle.

Submenus

* * : Obstacle Detect:
Auto

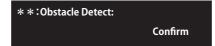
The printer pause the printing. It lowers the table until the sensor does not detect any obstacle, and then resumes the job. This is the default setting.



If the sensor still detects the obstacle after the table moves down to its lowest position, the printer cancels printing and prompts the obstacle error message.



The printer cancels printing and prompts the obstacle error message.
This is the default setting.



The printer pauses the printing and allows users to choose from two options; Print Continue or Print Cancel.



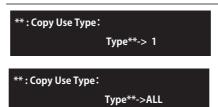
- "Obstacle Detected Print Continue"
 Hold the media flat on the table without any warp, fold or curl.
 Tap [Enter] to resume the job.
- "Obstacle Detected Print Cancel"
 Tap [Enter] to cancel the job and prompts the obstacle error message.

**>10: User Copy

Type** :10 Copy User Type This is for copying the currently selected User Type setting into another User Type.

• The items that will be copied are: "Print Mode", "Effect", "Adjust Print", "Adjust Layer Print" and "PF Adjust" adjustment values, "Vacuum Fan", "Media Setting", "Low Speed", "Show Edges" and "Obstacle Detect".

Setting values



Here you can select the User Type to copy the settings into. If you select ALL, the settings will be copied into all the User Type.

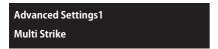
**>11: Initialization

Type**:11 Initialization Returns all settings of the currently selected User Type to factory default.

Setup 2: Advanced

Setup2 **Advanced Setting** Configures various advanced settings.

| Submenus | |
|------------------------------------|--|
| Advanced Settings1 Multi Strike | (Fig. 1) "Advanced Settings 1: Multi Strike" P. 82 |
| Advanced Settings2 Pass Wait | |
| Advanced Settings3 Head Travel | |
| Advanced Settings4 Header Dump | "Advanced Settings 4: Header Dump" P. 84 |
| Advanced Settings5 Spitting | |
| Advanced Settings6 Cleaning Type | "Advanced Settings 6: Cleaning Type" P.85 |
| Advanced Settings7 Auto Cleaning | "Advanced Settings 7: Auto Cleaning" P. 86 |
| Advanced Settings8 Multi Layer | (Fig. 1) "Advanced Settings 8: Multi Layer" P. 87 |
| Advanced Settings9 Ink Maintenance | |
| Advanced Settings10 Select Nozzle | |



Sets the number of times to print the same line.

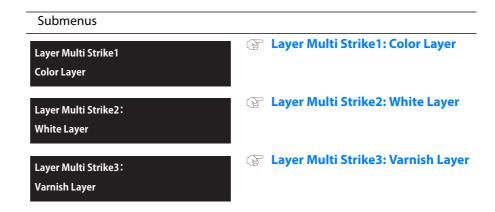
• The display will shift to setting of layer printing number of strikes only when "Strike Cnt" is set to 1 in 6-color configuration.

Setting values **Comparison of the image of

Layer Multi Strike



The display will shift to layer selection.



Layer Multi Strike1: Color Layer



Sets the number of times to print the same line in color (CMYK) layer.



Layer Multi Strike2: White Layer



Sets the number of times to print the same line in white layer.



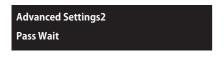
Layer Multi Strike3: Varnish Layer

Layer Multi Strike3: Varnish Layer

Sets the number of times to print the same line in varnish layer (clear topcoat).



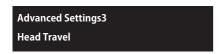
Advanced Settings 2: Pass Wait



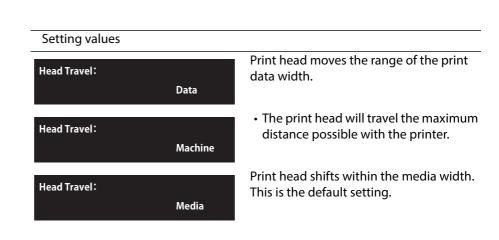
Sets the waiting time between passes in multi-strike setting and normal printing.



Advanced Settings 3: Head Travel

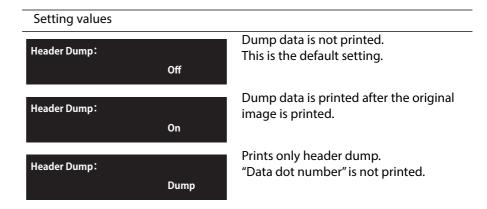


Sets up the range that print head moves while printing.



Advanced Settings4 Header Dump Sets whether to print the following information when printing. (Required media size: width 250 mm x length 50 mm.)

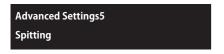
- Data header
- Data dot number (printed only when Header Dump setting is ON)
- Printer serial number
- Firmware version





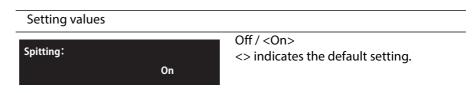
- The data will be useful when contacting technical support.
- Performing printing if the printer is connected to PC, the print settings of RIP soft you are using are printed on data header.

Advanced Settings 5: Spitting



Enables or disables the spitting function while printing.

• The display will shift to setting of the pass count only if "On" is set for "Spitting".





Spitting is a maintenance operation for preventing clogging of the print head's nozzles. It consumes ink.

Pass Count



Sets the frequency that the printer spits ink from the print head.

• The head will carry out spitting operation every time it completes the number of passes that you set here.



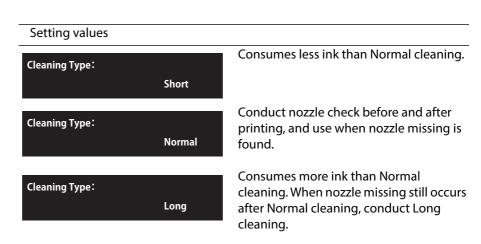


If the number of spitting returns is set high, there is a higher chance of nozzle clogging when printing for a long time. In such a case, print quality cannot be guaranteed.

Advanced Settings 6: Cleaning Type

Advanced Settings6 Cleaning Type

Configure the settings for the auto cleaning (standby mode, during printing, before print) and cleaning while in sleep mode.



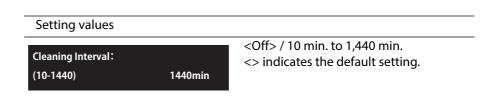
Advanced Settings7
Auto Cleaning

Set the auto cleaning to be performed while in standby mode, during printing, before print, and by total print time.

Submenus Auto Cleaning1 Standby Mode Auto Cleaning2 While Printing Auto Cleaning3 Before Print Auto Cleaning4 Accum. Print Time

Standby mode

Auto Cleaning1 Standby Mode Set the timer for auto cleaning to be performed while in standby mode.



While Printing

Auto Cleaning2 While Printing Set the timer for auto cleaning to be performed while printing.

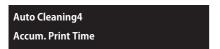


Before Print

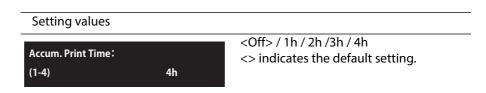
Auto Cleaning3 Before Print Enables or disables auto cleaning before printing.



Accum. Print Time



Set the timer for auto cleaning to be performed by total print time. The auto cleaning is performed before printing by timer.





The auto cleaning mode for "Accum. Print Time" is fixed to "Long" and is unable to be changed.

Advanced Settings 8: Multi Layer



Enables or disables to print more than one image data on the same media layer by layer.

Setting values <Off> / On Multi Layer: <> indicates the default setting. Off

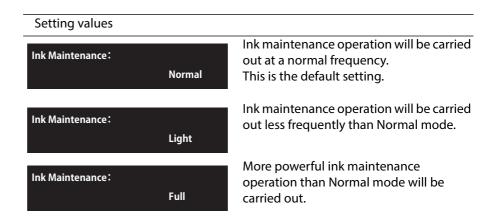


- If you select "Off", the printer will ask you to remove media after printing one data and load a new media to print next data.
- If you select "On", just sending the next data to the printer, you can print more than one data on the same area of the media.
 - For "Adjust Print", "Adj. Layer Prn.", "PF Adjust" and "Test Print", you have to load a media each time when performing a test / pattern printing.

Advanced Settings 9: Ink Maintenance

Advanced Settings9
Ink Maintenance

To ensure its performance, the printer runs automatic ink maintenance which spits out some ink when it is used after a certain period of time from the last use.





Ink (especially white ink) has tendency to settle or coagulate inside the print head or the ink tubes. To prevent this, the printer regularly discharges a small amount of ink even while in ready to print state to maintain its performance.

The maintenance mode available for each ink configuration setting are as follows:

· 4-color configuration

| Normal | Default setting. | |
|--------|---|--|
| | Perform more powerful ink maintenance so that color consistency | |
| Full | can be maintained more easily than Normal mode. | |
| | Use this mode when color inconsistencies appear on the print. | |
| | | |

· 6-color configuration

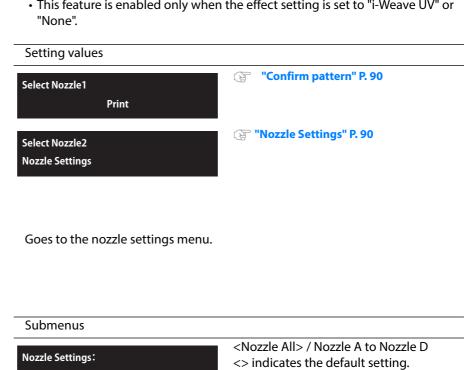
| Light | If you do not usually use white ink for regular printing, set to "Light" to minimize white ink consumption in standby status. • If you are using white ink, cleaning should be performed as |
|--------|--|
| Normal | needed to ensure color consistency. Default setting. |
| Full | Perform more powerful ink maintenance so that color consistency can be maintained more easily than Normal mode. Use this mode when color inconsistencies appear on the print. |

Advanced Settings10 Select Nozzle

Nozzle Settings

Select Nozzle2 **Nozzle Settings** If missing lines still persist after several attempts of cleaning, you can check the nozzle conditions by printing the select nozzle patterns and choose only good nozzles for printing.

- This feature is disabled for single-layer printing.
- This feature is enabled only when the effect setting is set to "i-Weave UV" or



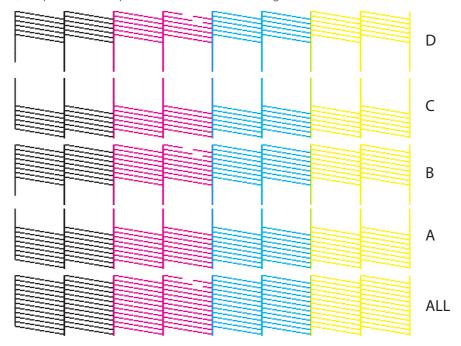
Nozzle ALL

Steps

- **1.** Print the select nozzle patterns and find the pattern that does not have missing lines.
- **2.** Go to "Nozzle Settings" and choose the pattern selected in the Step 1.
 - Select "ALL", or one of "A" to "D".

Confirm pattern

- Tap [Enter] to carry out printing.
- Look at the print and find the pattern that all the lines appear clean.
- In the example here, the pattern A and pattern C do not have missing lines.



Nozzle Settings

- Tap **>**.
- Use or to choose the pattern that does not have missing lines, then tap [Enter].
- If there is more than one patterns not suffering from missing lines, choose the one that has more nozzles available for printing. ALL has the most available nozzles for printing, followed by A and B, C and D (More ALL > A = B > C = D Less). For example, if the pattern A and pattern C do not suffer from blocked nozzles, you should choose A.

Setup 3: Initial Settings

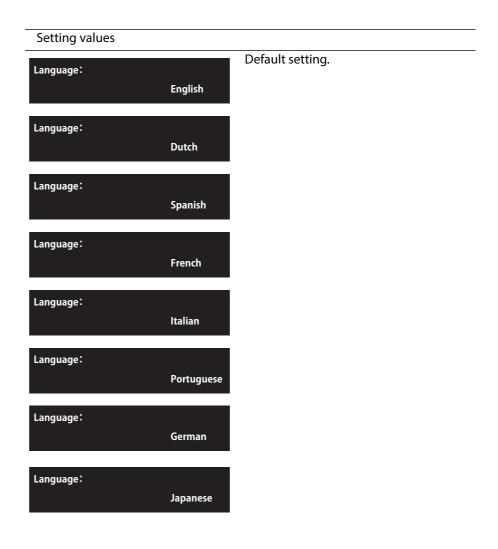
Setup3 **Initial Settings** Select a language, unit and IP Address displayed on the LCD.

| Submenus | |
|----------------------------------|---|
| Initial Settings1 Language | |
| Initial Settings2 Length | |
| Initial Settings3 Remain Ink | |
| Initial Settings4 IP Address | ☞ "Initial Settings 4: IP Address" P. 93 |
| Initial Settings5 Subnet Mask | |
| Initial Settings6 Gateway | |
| Initial Settings7 Alert Buzzer | |

Initial Settings 1: Language



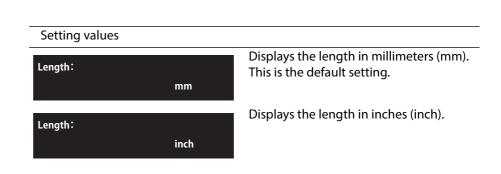
Selects a language to be displayed on the operation panel.



Initial Settings 2: Length



Selects a length unit to be displayed on the operation panel.



Initial Settings 3: Remain Ink

Initial Settings3 Remain Ink

Selects how the remaining ink amount will be displayed.

Setting values Remaining ink icons will not be displayed. Remain Ink: Slot numbers and remaining ink will be Off displayed in numerals. Remaining ink icons will be displayed. Remain Ink: This is the default setting. On

Initial Settings 4: IP Address

Initial Settings4 IP Address

Sets the IP address of the printer.

- Use to increase a setting value.
- Use to decrease a setting value.
- Tap [Enter] to confirm your input for a value. The cursor will move on to the next setting value.
- Confirm your input for each value.





0.0.0.0 to <192.168.1.253> to 255.255.255 <> indicates the default setting.

Initial Settings 5: Subnet Mask

Initial Settings5 Subnet Mask

Sets the subnet mask of the printer.

- Use to increase a setting value.
- Use to decrease a setting value.
- Tap [Enter] to confirm your input for a value. The cursor will move on to the next setting value.
- Confirm your input for each value.

Setting values



0.0.0.0 to <255.255.255.0> to 255.255.255 <> indicates the default setting. Initial Settings6 Gateway Sets the gateway.

- Use to increase a setting value.
- Use to decrease a setting value.
- Tap [Enter] to confirm your input for a value. The cursor will move on to the next setting value.

Confirm your input for each value.

Setting values



0.0.0.0 to <192.168.1.254> to 255.255.255.255 <> indicates the default setting.

Initial Settings 7: Alert Buzzer

Initial Settings7 Alert Buzzer Selects how to turn off the printer beep sound when an error occurs.

• For unattended printing, you can select "Off" setting to avoid continuous buzzer beep.

Setting values



After several beeps, the printer automatically turns off beep sound.

Press any key on Operation panel to turn off beep sound. This is the default setting.

Setup 4: Initialization

Setup4 Initialization Restore the settings of the printer to factory default.

Submenus

Initialization1 User Type ALL Initialize the User Type settings (Type1 to Type10) in all the submenus of the "Setup 1: User Type".

Initialization2 Advanced Settings Initialize the settings in all the submenus of the "Setup 2: Advanced".

Initialization3 Initial Settings

Initialize the settings in all the submenus of the "Setup 3: Initial Settings".

Initialization4 ALL Initialize the settings of all the menus.

Menu2: Test Print

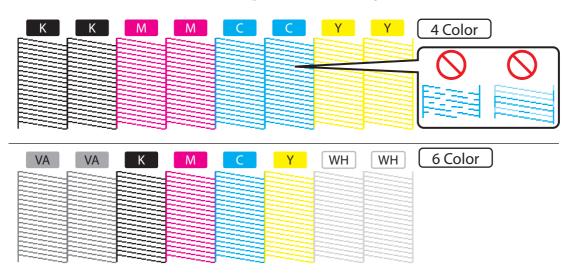
Test Print 1: Nozzle Check



It is used to check whether there are any clogged heads, or missing or blurred prints.

(Required media size: width 260 mm x length 35 mm.)

"Run a nozzle check print" P. 38





The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

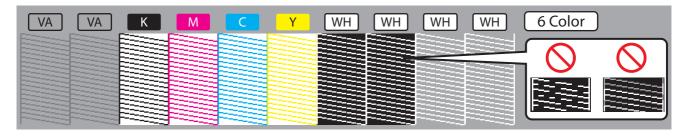
Test Print 2: Nozzle Check B

Test Print2 Nozzle Check B This is nozzle check for white ink.

The background for some of the nozzle check pattern is printed in color so that the nozzle condition is easy to see.

- Part of the background for the white nozzles is black.
- The background of the KCMY nozzles are white.
- For varnish (and part of white) nozzles, the background is not printed. (Required media size: width 260 mm x length 35 mm.)

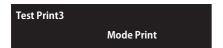
™ "Run a nozzle check print" P. 38





- "Nozzle Check B" will only appear in the menu if 6-color is set.
- The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

Test Print 3: Mode Print



Print following settings of the selected User Type configured from the operation panel.

Used to confirm the following printing conditions.

- Print quality
- Effect
- Fine adjustment value for feed correction.

(Required media size: width 220 mm x length 25 mm.)

2019/12/01 0:00 Fine (720x1440 16Pass Uni)-i-Weave UV/PF Adjust: 0.00%

Test Print 4: Setup List



Setup list printing is performed. Use this to check the current setting contents and the User Type. (Required media size: width 420 mm x length 297 mm)

Setup List



User Type List



Test Print 5: Palette



Palette print is executed for the color demonstration. (Required media size: width 210 mm x length 210 mm.)



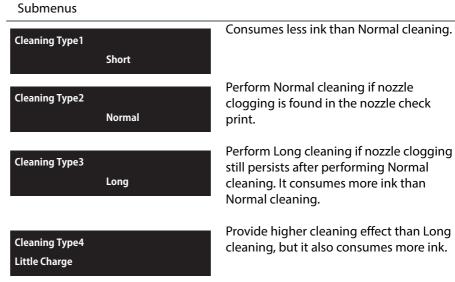
Menu3: Maintenance

Maitenance 1: Cleaning

Maintenance1 Cleaning Perform Head cleaning.

Cleaning Type5

Initial Charge



Provide higher cleaning effect than Little Charge, but it also consumes more ink.

 When "Empty Waste Ink Tank then Tap Enter" appears, empty out the waste ink and tap [Enter].

"Drain waste ink into a container" P.
127

Maintenance 2: Reset Waste Ink

Maintenance2 Reset Waste Ink This resets the waste ink counter to zero.

"Resetting waste ink counter" P. 129

Maintenance 3: CR Maintenance

Maintenance3
CR Maintenance

Use this for replacing absorption material for the flushing box and the cleaning wiper.

"Replacing absorption material for the flushing box" P. 149

@ "Replacing the cleaning wiper" P. 153

"Replacing the Emitting Window Glass on the UV-LED Lamp" P. 156

"Replacing UV-LED Lamp Filter" P. 159

Submenus



Tap [Enter] to replace the absorption material for the flushing box.

- The carriage moves to the center of the printer.
- The cleaning wiper moves upward.



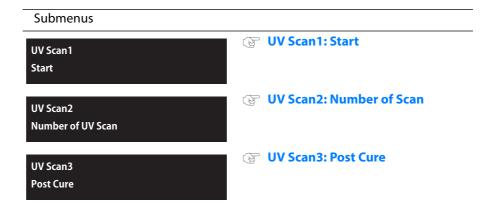
After the replacement is complete, tap [Enter].

 The printer moves the carriage and the cleaning wiper back to each original position.

Maintenance 4: UV Scan

Maintenance4 UV Scan Performs further UV curing.

Use this when you want to promote ink curing by applying additional UV light.





The range over which the UV scanning is executed will depend on the current settings for "Size" and "Origin" in the "MediaSetting" User Type.

UV Scan1 Start Performs further UV curing when needed.

When the media is not loaded, "No Media" is displayed, and the screen returns to the previous screen.

• If you press the [Cancel] key while applying UV light, a cancellation confirmation message will appear. Press the [Enter] key to stop irradiation.

UV Scan
Start —>Enter

Tap [Enter] to start.

UV Scan2: Number of Scan



Sets the number of times to apply UV light on the area.

 The settings here are reflected on "UV Scan1: Start" and "UV Scan3: Post Cure" only.

Setting



UV Scan3: Post Cure



When it is set to "On", the printer automatically performs post curing to apply additional UV light after printing.

Setting

Post Cure: <Off> / On < > indicates the default setting.

Maintenance 5: Ink Discharge

Maintenance5 Ink Discharge Discharges the ink in the printer. This operation is performed before moving the printer.

- Before transporting the printer? Transporting P. 163
- When turning off the power for up to one month? "If not using the printer for a long time" P. 26

Maintenance 6: Plug Life

Maintenance6
Plug Life

Check and initialize the lifetime counter of the adapter's plug in high capacity ink pack adapter.

Plug Life1
Confirm

Plug Life2
Initialization

Plug Life2
Initialization

Plug Life2
Initialization

Plug Life2
Initialization

Plug Life1: Plug Life Confirmation menu



Check each adapter's plug lifetime counter.

- The lifetime of adapter's plug is indicated by the asterisks (Maximum 5 asterisks: 100% left). As the plug deteriorates, the number of asterisks decreases one by one (20%).
- The adapter's plug should be changed when all of the asterisks have disappeared and "Change" is displayed.
 Replace the adapter's plug.
 - Replacing Adapter's plug for high capacity ink pack adapter
- After "Change" appears, "[X] Change Plug OK ->Enter" will be displayed when you are not in this menu.
 You can delete this message by tapping the [Enter] key.

Confirm Slot1: E*** F Displays the lifetime of adapter's plug in the cartridge slot 1. The service life in this case is at 60%. Displays the lifetime of adapter's plug in the cartridge slot 6. This means that the plug has already reached to the end of its life. Replace the

plug.

Plug Life2 Initialization Initialize each adapter's plug lifetime counter.

If you replace the adapter's plug without receiving the replacement message ([X] Change Plug OK ->Enter), use this menu to initialize the counter which you replaced.

Setting



Initialize the adapter's plug lifetime counter in the cartridge slot 1.

Initialization6 Slot6

Initialize the adapter's plug lifetime counter in the cartridge slot 6.



Do not initialize the plug life for the slot number that has not been replaced. This may cause ink leakage.

Maintenance 7: Calibration



Calibrate table height position information to optimize the gap between the print head and media.

☞ "Calibrating table height" P. 55

Maintenance 8: Moving Printer

Maintenance8 Moving Printer Before packing printer for moving or transporting, use this menu to automatically move the table to the position to secure the table with shipping brackets.

Changing Table Position for Packing" P. 164

Maintenance 9: Table Maintenance

Maintenance9
Table Maintenance

Use this menu to automatically move the table to the position to perform the table maintenance.

Table Maintenance P. 146

Maintenance 10: Soak Cleaning

Maintenance10 Soak Cleaning Soak the print head in the maintenance cleaning solution filled in the head cap to clean dirt on the surface of nozzle.

Soak Cleaning P. 140

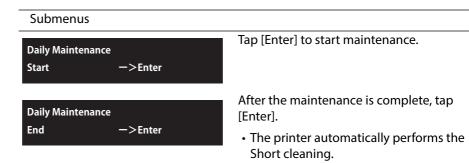
Maintenance 11: Daily Maintenance

Maintenance11
Daily Maintenance

Use this menu in following cases:

- If the nozzle missing still persists after performing head cleaning.
- If you perform printing all day without entering to sleep mode and you need to perform daily maintenance.

™ "Clean daily maintenance parts" P. 141





To perform daily maintenance after using the printer for the day, see "Daily Maintenance" P. 130.

Menu4: Printer Status

Printer Status 1: Ink

Printer Status1 Ink

Displays the various information about ink cartridge.

Submenus

:100/ 90/ 80/ 70 1234 56 :100/90

Displays the remaining amount of ink in Slot 1 to Slot 6 from 0% to 100%.

Smart/C :100% Max:24000ml

Display when using Smart / C.



If it is blinking at 10%, smartchip recovery is being performed on the corresponding slot.

☞ "Smartchip recovery" P. 180

Printer Status 2: Lifetimes

Printer Status2 life Times

Displays the operational life time of each part.

- The lifetime of each part is indicated by the asterisks (Maximum 5 asterisks: 100% left). As the part deteriorates, the number of asterisks decreases one by
- The part should be changed when all of the asterisks have disappeared, and "Change" is displayed. Contact your local MUTOH dealer to ask for replacing parts.
- After "Change" appears, "Life Times [Pump]" or a similar message will be displayed when you are not in this menu. You can delete this message by tapping the [Enter] key.

| Submenus | | |
|--------------|---------------------------------------|---|
| Life Times | | Displays the service life for the print head. |
| Head: | F*** F | |
| ileau. | - ' | |
| Life Times | | Displays the service life for the CR motor |
| CR Motor: | Change | |
| CR MOTOR: | Change | |
| Life Times | | Displays the service life for the PF motor. |
| PF Motor: | E*** F | |
| | | Displays the complete life for the DC meeter |
| Life Times | | Displays the service life for the PG motor. |
| PG Motor: | E*** F | |
| | | Displays the service life for the numb |
| Life Times | | Displays the service life for the pump. |
| Pump: | E*** F | |
| | | Displays the service life for the Circulation |
| Life Times | | pump. |
| C Pump: | E*** F | |
| | | Displays the service life for the UV lamp. |
| Life Times | | |
| UV Lamp: | E*** F | |
| | · · · · · · · · · · · · · · · · · · · | Displays the service life for the waste ink |
| Life Times | | tank. |
| WastlnkTank: | E*** F | |

Printer Status 3: Job Status

Printer Status3
Job Status

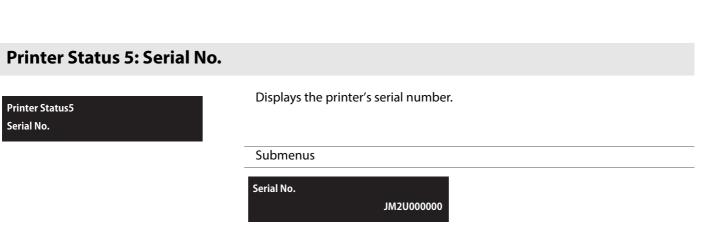
Displays various information of previous print.

Submenus Displays if the print is completed. Job Status • When the print is completed: Status: Completed [Completed] • When the print is canceled: [Canceled] Displays the total length of print data **Job Status** (media feeding direction). XXX.Xm ToDoLength: Displays the printed length. Job Status Done: XXX.Xm Displays the remaining length of print Job Status data. Remain: XXX.Xm



- The values displayed in this function are just standard values, not guarantee the accuracy.
- If the print data includes no length data, all information will be displayed as "0".
- This function is to check the information of print data with the print operation is completed. For the details on data while printing, please refer to the "Menus you can access while printing" of "Menu3: Job Status" P. 47

Printer Status 4: Version Displays the versions of the firmware. Submenus Version 1.00



Printer Status 6: Total Print Area

Printer Status6 Total Pritnt Area Displays the total printed area in the printer.

Submenus

Total Print Area

42949672m2

Printer Status 7: Ink Expiration

Printer Status7 Ink expiration

(Displays US61 ink only) Displays the use before date of inks in Slot 1 to Slot 6.

Submenus

2:2024/04/01

"----/--" is displayed if no expiration date is obtained.

"Ink expired" appears when expired.

3:2024/03/01 Expired 4:2024/04/01

5:2024/04/16 6:2024/04/01

Menu5: Option

Option 1: Rotary Unit

Option1 Rotary Unit Use this menu to attach the Rotary Unit (option). For more details of this menu, see the Rotary Unit Operation Manual.

Rotary unit cannot be used when using US61 ink with 4-color configuration.



If the printer starts switching to Rotary Mode due to wrong key operation, you can cancel it by tapping while the following message is displayed on the operation panel.

- "Unload Media then Tap Enter"
- "Install Rotary Unit then Tap Enter"

Menu6: Sleep Mode

Sleep Mode1: Start

Sleep Mode1 Start Activate Sleep Mode.

Make sure to follow the instructions on the operation panel to perform daily maintenance.

Sleep Mode P. 30 **Sleep Mode** ■ P. 30

Sleep Mode2: Cleaning Timer

Sleep Mode2 Cleaning Timer Sets the timer to perform head cleaning in the sleep mode.

Setting values

Cleaning Timer: (1-24) 24h <0ff>/1 h/2 h/3 h/4 h/5 h/6 h/9 h/ 12 h/18 h/24 h

<> indicates the default setting. If you set an interval, the display will shift to "SleepMode 1: Start".

Important!

In following cases, the printer does not perform head cleaning by the timer in sleep mode.

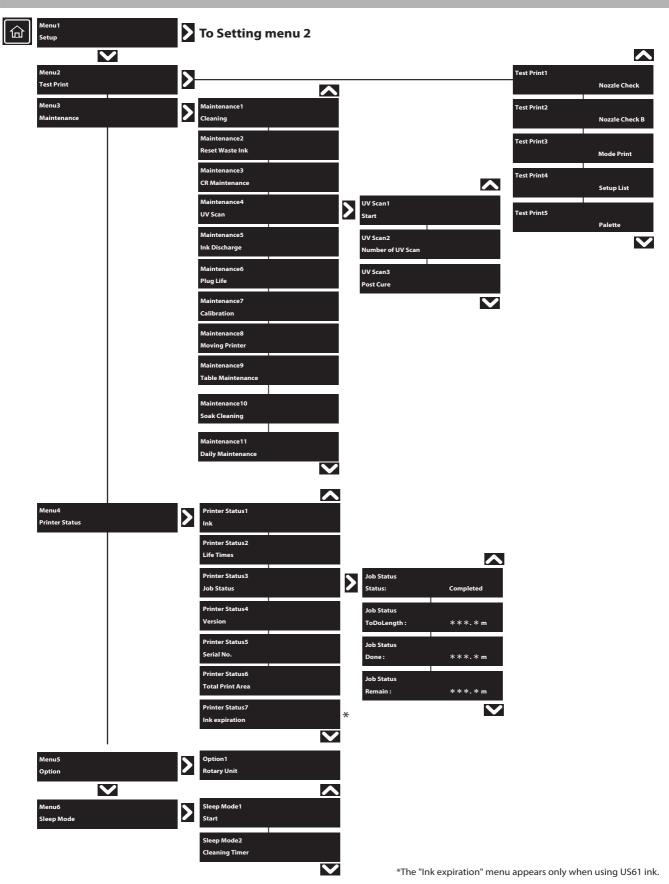
- Front cover is open.
- Maintenance cover is open.
- The waste fluid tank is full.
- Ink is low (or no ink).
- The ink cartridge (or high-capacity ink pack adapter) has been removed.
- Non-genuine ink is loaded in the printer, etc.

If one of the above conditions occurs during Head cleaning, cleaning is stopped.

When the printer returns to a normal state, Head cleaning is restarted.

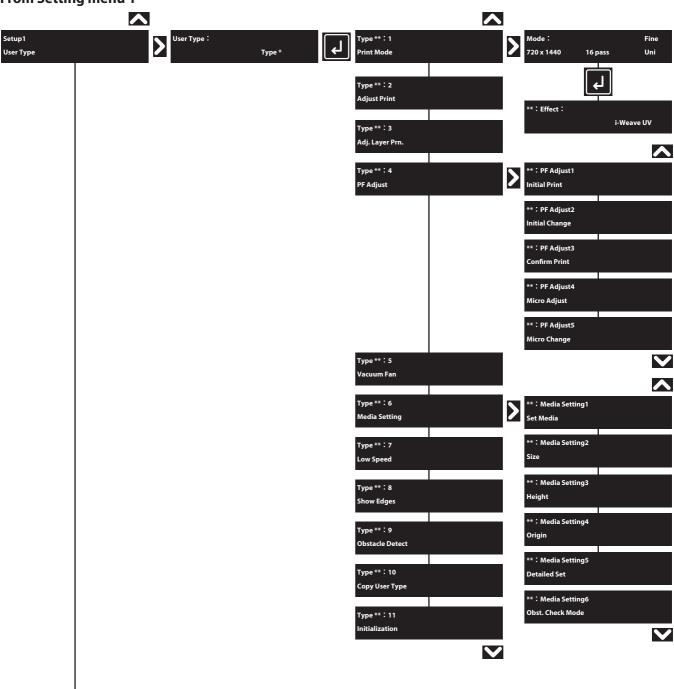
Menu chart

Setting menu 1



Setting menu 2

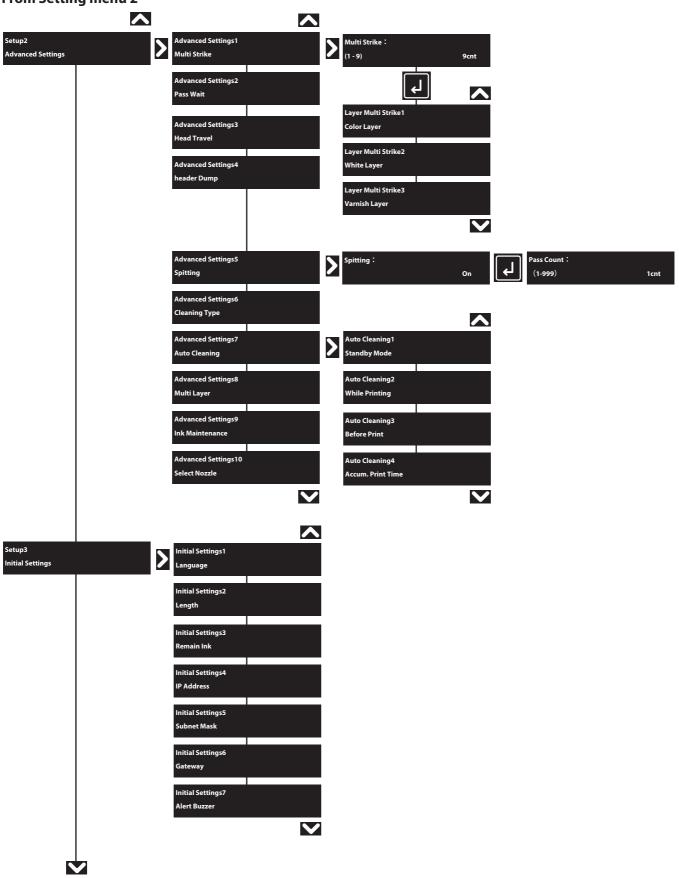
From Setting menu 1



To Setting menu 3

Setting menu 3

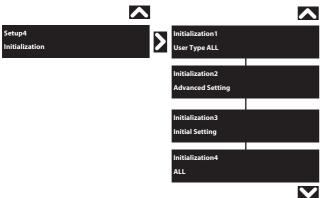
From Setting menu 2



To Setting menu 4

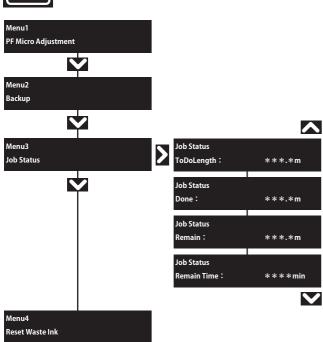
Setting menu 4

From Setting menu 3



Menu during printing





Chapter 3 Maintenance

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| Agitating ink | 118 |
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| How to perform initial ink charging after ink discharge | |

Maintenance

To maintain the performance of this product, please conduct maintenance by yourself. The types of maintenance are shown next.

| Before and after daily operation | "Wearing the protective equipment" P. 117 |
|----------------------------------|--|
| | "Agitating ink" P. 118 |
| | "Nozzle check and cleaning" P. 38 |
| After daily operations | "Daily Maintenance" P. 130 |
| Based on your usage condition | "Head cleaning" P. 139 |
| | "Replacing ink" P. 122 |
| | "Replacing Adapter's plug for high capacity ink pack adapter" P. 125 |
| | "Emptying waste ink tank" P. 126 |
| | "Clean daily maintenance parts" P. 141 |
| | "Replacing absorption material for the flushing box" P. 149 |
| | "Replacing the Emitting Window Glass on the UV- LED Lamp" P. 156 |
| | "Replacing UV-LED Lamp Filter" P. 159 |
| Monthly | "Inside cleaning" P. 144 |
| Every six months | "Replacing the cleaning wiper" P. 153 |



In following cases, please contact your local MUTOH dealer to request service personnel.

- The same system error repeatedly occurs.
- The message to notify the life of motor, pump, or UV lamp is displayed.

™ "Messages and Error Messages" P. 176

Wearing the protective equipment





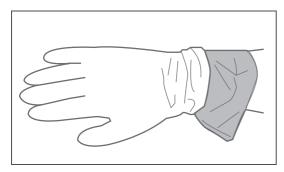


Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solventresistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Especially when performing any of the following operations, be sure to wear the supplied gloves (or solvent resistant gloves) and goggles.

- · "Agitating ink" P. 118
- "Replacing ink" P. 122
- "Replacing Adapter's plug for high capacity ink pack adapter" P. 125
- "Emptying waste ink tank" P. 126
- "Daily Maintenance" P. 130
- "Clean daily maintenance parts" P. 141
- "Replacing absorption material for the flushing box" P. 149
- "Replacing the cleaning wiper" P. 153
- "Replacing the Emitting Window Glass on the UV-LED Lamp" P. 156
- "Replacing UV-LED Lamp Filter" P. 159

How to wear the supplied gloves



Wear the rubber gloves over the polyethylene gloves.





Do not touch uncured UV ink with bare hands.



- If glove becomes contaminated with ink, replace it with new.
- If protective clothing becomes contaminated with ink, immediately remove and wash for re-use.
- If ink gets on skin, immediately wash with soap and plenty of water for 15 minutes. Seek medical advice/ attention if irritation or inflammation are present.
- If ink gets in eyes, flush eyes with plenty of water for 15 minutes and seek medical advice/attention immediately.
- If swallowed, rinse mouth immediately and do not induce to vomiting. Seek medical advice/attention.

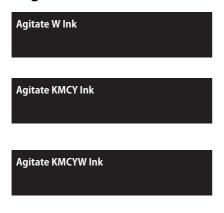
Agitating ink

Agitating ink

To prevent ink settling and coagulation, you must agitate the ink in the following timing:

- · Before installing new ink
- · When any of the messages below appears

6-color configuration:



Agitate the White (Wh) ink.

• Displays every 12 hours.

Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks.

- Displays every 72 hours when using UH21 and US61 ink.
- Displays every 48 hours when using US11 ink.

Agitate the Black (K), Magenta (M), Cyan (C), Yellow (Y), and White (Wh) inks.

4-color configuration:

Agitate ALL Ink

Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks.

- Displays every 72 hours when using UH21 and US61 ink.
- Displays every 48 hours when using US11 ink.



- Agitate the ink periodically.
 Otherwise, the ink in the ink cartridges (or ink bags) settles or coagulates and may cause poor print quality or a malfunction.
- The agitate ink message for CMYK inks may sometimes appear at the same timing as the one for white ink.
- You should agitate the ink when the message appears. Otherwise, for 12 hours after the message appears, you will repeatedly have to wait a certain time before you can print. When 12 hours have passed, the printer will not print any data. In either case, you can restore the printer to normal condition by agitating the ink.



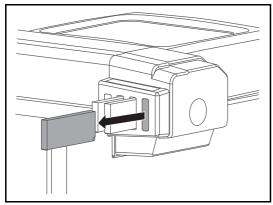




Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

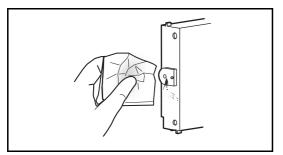
Procedure for ink cartridge



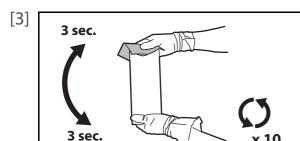


- Check the power is ON.
- Wear the supplied gloves and remove ink cartridges from Ink cartridge slots.





Using the paper towel provided with the printer to wipe off the ink attached to the printer plug of lnk cartridge.



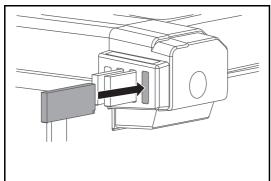
- Place the lint-free cloth over the ink plug of the cartridge, turn the plug up and maintain vertical position for three seconds.
- Rotate cartridge upside down (plug facing down) and hold for three seconds.
- Repeat it 10 times.



Note

· You do not have to agitate varnish ink before use.





Re-insert the ink cartridges into Ink cartridge slots.

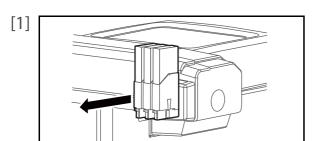
- Make sure to match the color of the ink cartridge with the color of the label above the cartridge slot.
- The arrow mark should face up.
- Insert the cartridge all the way to the end.

| Important!

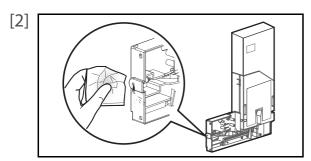
Make sure you insert the ink cartridges into the original slots. Even when you have the same color ink cartridges, do not switch and insert them into different slots.



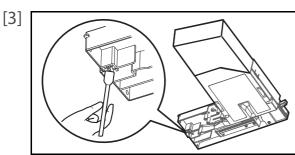
For proper instructions of high capacity ink pack adapter, see the high capacity Ink Pack Adapter Operation Manual.



- Check that the power is ON.
- Wear the supplied gloves and remove high-capacity ink pack adapters from the cartridge slots.

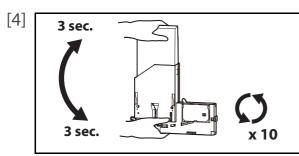


Using the paper towel provided with the printer to wipe off the ink attached to the insertion point for high capacity ink pack adapters.



Tilt high capacity ink pack adapters, use cleaning stick provided with the printer, and absorb the ink collected around the tube connectors.

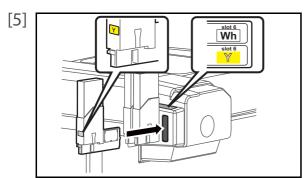
- Tilt high capacity ink pack adapter so that the caution label is facing down.
- Tilt high capacity ink pack adapter so that the insertion point is lowered a little.



- To prevent the ink bag and the high capacity ink pack adapter from separating, hold one hand against the top of the ink bag. Rotate the plug of the ink bag vertically and hold for 3 seconds.
- Then, invert the ink bag with the adapter and hold for 3 seconds.
- Repeat that 10 times.



• You do not have to agitate varnish ink before use.



Re-insert the high capacity ink pack adapters into lnk cartridge slots.

- Make sure to match the color of the ink bag with the color of the label above the cartridge slot.
- Insert all the way to the end.

| Important!

Make sure you insert the high capacity ink pack adapters into the original slots. Even when you have the same color ink packs, do not switch and insert them into different slots.

Checking ink level and replacing ink

Checking ink level

[1]



Check the remaining ink icons.

• To do a more detailed check, tap [Home].



You can alternatively check the remaining ink amount via the MSM's remote panel.

TLaunching MSM" P. 15

- Menu4
 Printer Status
- Use to choose the menu shown left.
- Tap **>** .
- Printer Status 1
 Ink

Tap .

1234: 100/90/80/70 56: 100/90 Displays the remaining ink in Slots 1 to 6, as percentages of the full levels.



If it is blinking at 10%, smartchip recovery is being performed on the corresponding

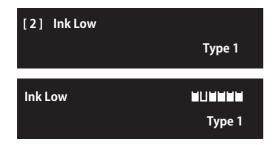
⊗ "Smartchip recovery" P. 180

When ink needs to be replaced soon

When the ink gets low, the status LED flashes red with buzzer beeps.

Steps

[1]



Tap [Enter].

- The buzzer stops.
- The printer status and ink level warning message appear alternately every 2 seconds.

The ink slot indicator where the cartridge needs to be replaced flashes every 0.5 seconds.

• In the figure to the left, the slot 2 ink is nearing replacement.

[2] Prepare an ink to replace.



Sleep mode continues after stopping the buzzer.

Replacing ink

When your printer is running out of ink, the status LED turns on red with beeps and printing is paused.

The printer can resume printing by replacing with a new ink.

[Important!

- Do not replace ink when the power of this product is OFF.
 Ink level cannot be detected correctly.
- In case you do not have a replacement at hand, leave the empty ink cartridge inserted in the printer. Leaving the printer with the
 ink removed may cause the print head to clog.
- If ink is moved from cold to warm place, leave it at least three hours.

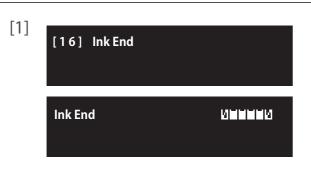




Keep ink cartridges (or ink bags) away from fire or high temperature objects.

It may cause fire.

Procedure for ink cartridge



Tap [Enter].

- The buzzer stops.
- In the icons shown on the left, the Slot 1 and Slot 6 cartridges need replacing.



Sleep mode continues after stopping the buzzer.

3 sec. x 10

Make sure you agitate the ink cartridge after you unpack it.

- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that 10 times.



• When replacing varnish ink, you do not have to agitate it.

[3] slot 6 Wh slot 6 Y

Remove the empty ink cartridge and insert the new one.

- Make sure to match the color of the ink cartridge with the color of the label above the cartridge slot.
- The arrow mark should face up.
- Insert the cartridge all the way to the end.

Important!

Make sure you insert the ink cartridges into the original slots. Even when you have the same color ink cartridges, do not switch and insert them into different slots.

1. Removing the high capacity ink pack adapter

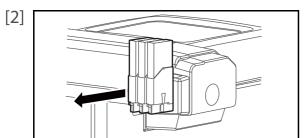
[1] [16] Ink End Ink End 077770

Tap [Enter].

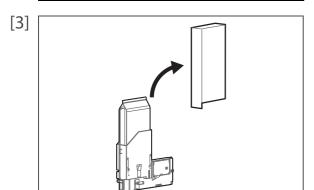
- The buzzer stops.
- In the icons shown on the left, the Slot 1 and Slot 6 ink bags need replacing.



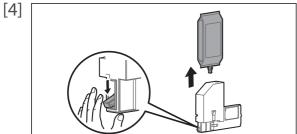
Sleep mode continues after stopping the buzzer.



Remove high capacity ink pack adapters from the ink cartridge slots.



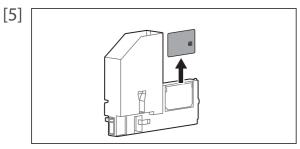
Detach the light-shielding cover from the ink bag.



Lower the lock lever on the high capacity ink pack adapter and detach the empty ink bag.

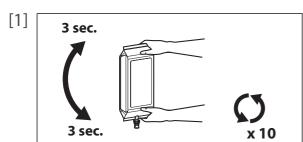


Place the used ink bag in a plastic bag or the like and dispose of it in accordance with local ordinances and municipal instructions.



Remove the smartchip card from the high capacity ink pack adapter.

2. Attaching ink bag

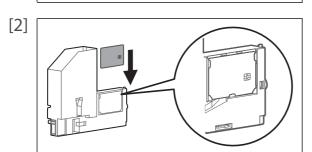


Prepare the new ink bag, and agitate it as instructed below.

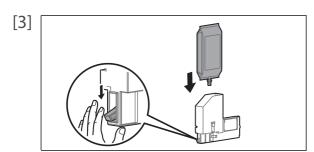
- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that ten times.



When replacing varnish ink, you do not have to agitate it.

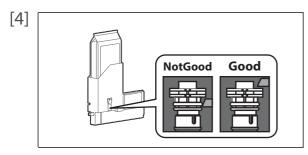


Slide the smartchip card into the tabs of the adapter.

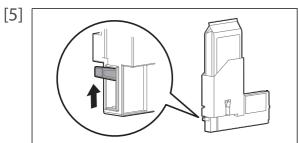


While lowering the lock lever of the high capacity ink pack adapter, insert an ink bag.

• Make sure to fully insert the ink bag into the high capacity ink pack adapter.



Confirm ink bag is fully seated by checking the lock mechanism is at the top of the ink delivery neck through the observation window, see proper placement in illustration left.



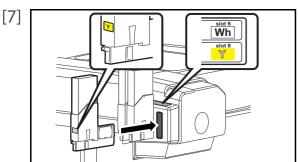
Make sure that the lock lever of the high capacity ink pack adapter is back to its original position.

[6]

Place the light-shielding cover over the ink bag.



Insert the light-shielding cover inside the high capacity ink pack adapter to only cover the ink bag.



Re-insert the high capacity ink pack adapters into Ink cartridge slots.

- Make sure to match the ink color with the color of the label above the cartridge slot.
- Insert all the way to the end.



Make sure you insert the high capacity ink pack adapters into the original slots. Even when you have the same color ink packs, do not switch and insert them into different slots.

Replacing Adapter's plug for high capacity ink pack adapter

When the plug life ends, the status LED turns on red and a message is displayed. Follow the procedure below to replace the plug.

[1] Change Plug
OK —> Enter

Tap [Enter].

[2] [1] Change Plug

The message on the left will appear.

- [3] Follow the procedure described in the operation manual for high capacity ink pack adapter.

 "3.3 Replacing Adapter's plug"
- [4] [1] Plug Changed ? No

When inserting the replaced adapter, the message on the left will appear.

• Tap **✓** .

[5]
[1] Plug Changed ?
Yes

Tap [Enter].

• The adapter's plug lifetime counter will be reset.



- If the adapter's plug is not replaced, do not choose "Yes".
- Ink leakage may occur by continuing to use such adapter's plug.

Emptying waste ink tank

Emptying waste ink tank

When a certain amount of waste fluid has been collected in the waste ink tank, the status LED turns on red and beeps. Drain all waste ink in the waste ink tank into a container. After emptying the waste ink tank, reset the waste ink counter.

Display messages

NeatFullWasteInkTank

The waste ink tank is about to become full. Mutoh recommends that you empty the waste ink tank before it is completely full.

• Printing or other operation will continue while you do this.

Empty Waste Ink Tank then Tap Enter

This message appears regularly. Empty the waste ink tank.

• Once emptied, tap [Enter] to go back to the previous display.

Full WastelnkTank

The waste ink tank has become full. Empty the waste ink tank immediately.

• Printing or other operation will stop. It will resume when you have carried out "Reset Waste Ink".



WARNING



- · Keep out of direct sunlight and store the waste ink container in a cool, dark place.
- Keep away waste fluid from fire and high temperatures.
- Do not mix waste ink with any other chemical substances, not even in small amounts. When mixed with other chemicals (e.g. oxidants), heating may occur.



- Use a HDPE container with light blocking properties to store waste liquid.
- · When storing for a long time, slightly loosen the cap on the container to allow air. Do not tightly close it.



A CAUTION





Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.



Empty the waste ink tank before moving the printer.

1. Drain waste ink into a container

Prepare a container to collect waste ink. [1]

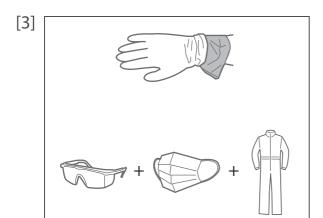
| Important!

The capacity of waste ink tank is 2,000 ml. Make sure to prepare a container that has enough capacity when discharging waste ink.

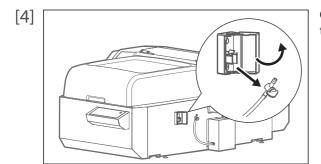


If no or small amount of waste fluid is collected in the waste ink tank, you may not be able to drain fluid out of the tank.

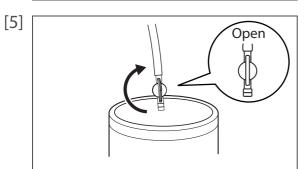
[2] Cover the floor just under the waste ink tank using a paper that you do not use.



- Wear the rubber gloves over the polyethylene gloves.
- Wear personal protective equipment such as goggles, protective mask or clothing.



Open the cover of the drain tube valve clamp, then unhook the drain tube valve to take it out from the clamp.



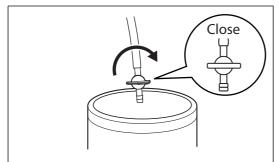
Put the tip of the drain tube valve in the empty container and open the drain tube valve to drain waste ink from the waste ink tank.

| Important!

Waste ink may splash while draining from the waste ink tank.

Make sure to put the tip of the drain tube valve in the empty container to drain waste ink.

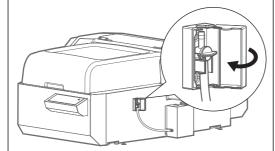
[6]



Once you finish emptying the waste ink tank, close the drain tube

[7] Use a dry cloth to clean the tip of drain tube valve.

[8]



Hook the drain tube valve on the drain tube valve clamp, then close the cover.

Dispose of the waste fluid as an industrial waste product. [9]



! WARNING



- You are obligated to properly dispose of waste fluid from the printer in compliance with Wastes Disposal and Public Cleansing Act and local ordinances. Delegate disposal to an industrial waste disposal contractor.
- Waste fluid from this product is harmful to aquatic organisms. Avoid the waste fluid from out flowing to sewage or natural water systems.

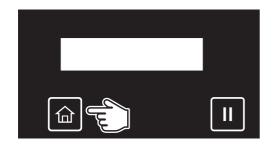
A CAUTION



Before resetting the counter, make sure the waste ink tank is completely empty.

If not, it can lead waste ink leaks inside or from the printer.

[1]



Tap [Home].

[2] Menu3 Maintenance

- Use to choose the menu shown left.
- Tap .
- [3] Maintenance2 **Reset Waste Ink**
- Use to choose the menu shown left.
- Tap **>** .

[4]



The message on the left will appear.

- **Initial. Parameter?** Yes
- Use to choose the menu shown left.
- Tap [Enter].

[5]



The waste ink counter is being reset.

• The waste ink tank has been emptied.



- "Reset Waste Ink" can alternatively be carried out via "Maintenance" in the printer driver's "Utility" section.
- It can also be carried out via the MSM's remote panel.
- To carry out [Reset Waste Ink] during printing, see "Menu4: Reset Waste Ink" P. 48 under "Menus you can access while printing".

Daily Maintenance

Flow of Daily Maintenance

This printer requires daily maintenance.

Follow the steps below to perform daily maintenance after you finish your printing for the day.

• "Perform Daily Maint." is prompted on the operation panel after certain period of time from the previous daily maintenance.

Make sure to perform daily maintenance when prompted.



If you perform printing all day without entering to sleep mode, make sure to perform daily maintenance once a day. Failure to perform daily maintenance may affect print quality or result in damage to the printer.

To perform daily maintenance, go to "Maintenance 10: Daily Maintenance" on the operation panel.

"Maintenance 11: Daily Maintenance" P. 103

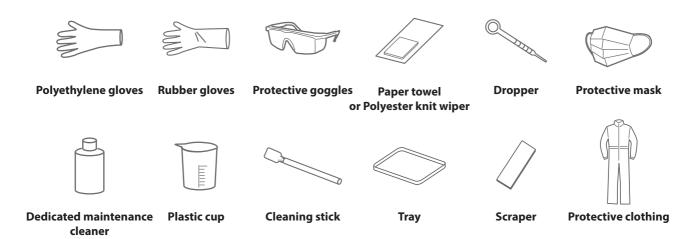
Clean daily maintenance parts" P. 141

| Prepare required items for Daily Maintenance |
|---|
| |
| Leave the printer in Sleep Mode |
| |
| Clean the UV Lamp |
| |
| Moisten the surface of print head nozzles |
| |
| Clean the print head circumference |
| |
| Clean the cleaning wiper and the circumference of the cap |
| |
| The printer automatically performs the Short cleaning |
| |
| Daily Maintenance completed! |

Preparing for Daily Maintenance

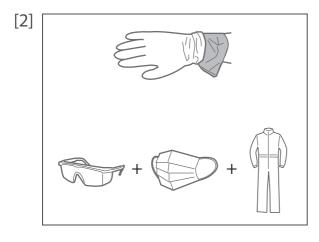
Required Items

[1] Prepare the following items to perform daily maintenance.



Important!

- Use a paper towel supplied with the printer or optional polyester knit wiper. DO NOT use a tissue. Lints or flakes on tissue may cause damage to the print head.
- DO NOT use non-dedicated maintenance cleaner.
- If you want to purchase the optional maintenance cleaner, contact your local Mutoh dealer or nearest Mutoh sales office.



- Wear the rubber gloves over the polyethylene gloves.
- Wear personal protective equipment such as goggles, protective mask or clothing.

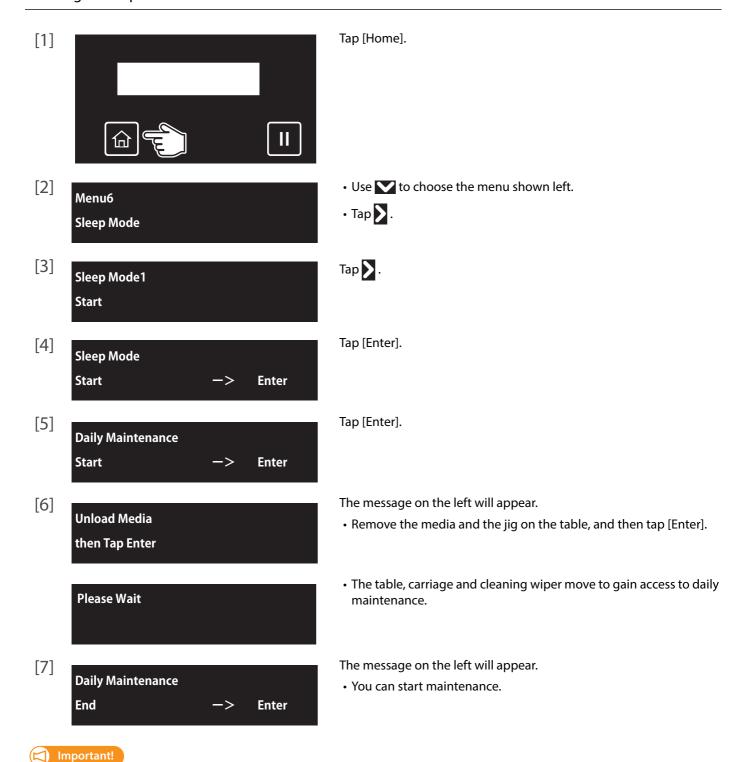






Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Entering to sleep mode



Make sure to complete this maintenance within 5 minutes while the printer is in Daily maintenance state.

Performing Daily Maintenance

1. Cleaning of UV Lamp

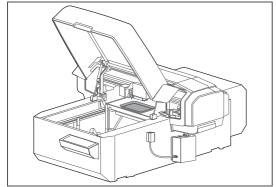
A CAUTION



After printing, the UV-LED lamp may get hot. Leave it for 30 minutes to cool down and then start maintenance.



[1]

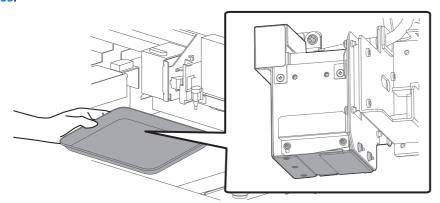


Open the front cover gently, and then place the tray on the table.

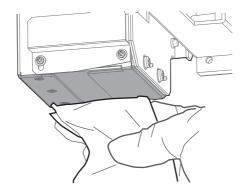


Do not place any object inside the printer.

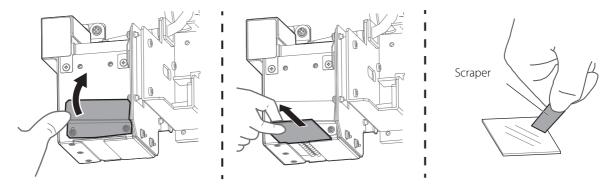
Look in the stainless tray to check for ink or dust on the UV-LED lamp. [2] If no ink or dust is found on the UV lamp, skip this step and move on to "Moistening the surface of print head nozzles" P. 135.



Use a paper towel to clean dust or ink off the underside of the UV-LED lamp. [3]



- [4] If the ink cannot be removed completely, remove the emitting window glass from the lamp and use the supplied scraper to clean it off.
 - Slide up the left side of the exhaust fan cover. The right side screw serves as a fulcrum.
 - Slide the glass on the bottom of the lamp towards the front to remove it.
 - Press the scraper on the ink deposits with a slight angle and scrape it off.
 - Use the paper towel to clean the ink scraped from the glass.
 - Put the glass back on the lamp.
 - Firmly slide it into the end and then put the exhaust fan cover back in place.



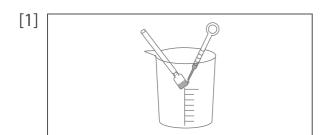


- Make sure to use the scraper supplied with the printer.
- Do not press the edge of the scraper too hard. This will cause damage to the glass.
- Make sure that a new glass is attached to the lamp and the exhaust fan cover is put back in place. Using your printer without them will cause damage to the lamp.
- [5] Next moisten the surface of print head nozzles.

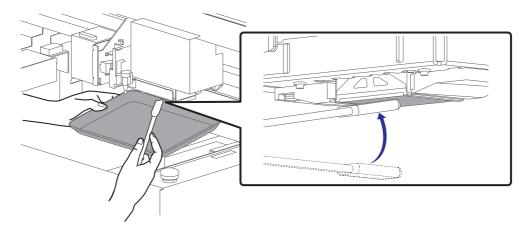
| Important!

During cleaning, please note the followings:

- · Always follow this steps to perform daily maintenance.
- · When moistening the surface of nozzles, do not use the cleaning stick already used to clean the print head circumference, cleaning wiper or cap circumference. Doing so may result in damage to the print head.
- Always use a new cleaning stick and dampen it with dedicated maintenance cleaner. DO NOT use non-dedicated maintenance cleaner. It may cause nozzle clogging.
- Do not touch the tip of a cleaning stick with fingers. If sebum is adhered, it can cause damage to the print head.
- Do not reuse a cleaning stick. Dusts can adhere causing damage to the print head.



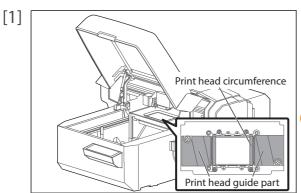
- Put a cleaning stick in the plastic cup.
- Use the dropper to dampen the swab of cleaning stick with dedicated maintenance cleaner. (Amount used: 0.5 ml)
- Look in the stainless tray to check the bottom of the carriage. [2] Using the cleaning stick dampened with the maintenance cleaner, moisten the surface of the print head nozzles.
 - Lightly touch with the cleaning stick to moisten the nozzle surface.
 - Repeat it a couple of times to moisten the entire nozzle surface.



Important!

- DO NOT rub into the nozzle surface. It can cause damage to the print head.
- If the entire nozzle surface has been moistened, you can stop it.
- [3] Next clean the print head circumference.

3. Cleaning of print head circumference



Look in the tray to check the bottom of the carriage. Check if dusts and ink deposit are adhered.

- Print head circumference (silver metal part)
- Print head guide part (black plastic part)



If maintenance cleaner is splashed onto the printer, use a paper towel to wipe it off.

[2] Use the cleaning stick to remove the ink and dust on the circumference of the bottom of the carriage.



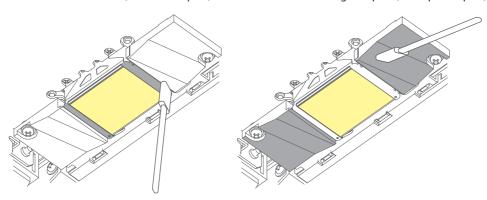
Cleaning required



DO NOT touch the surface of a print head (the yellow portions in the illustration below)

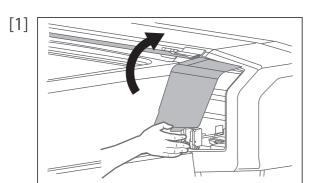
Print head circumference (silver metal part)

Print head guide part (black plastic part)



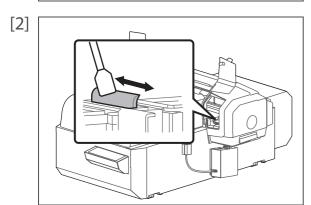
- [3] Remove the tray from the table, and then close the front cover gently.
- [4] Next clean the cleaning wiper and the cap circumference.

4. Cleaning of cleaning wiper and the circumference of the cap



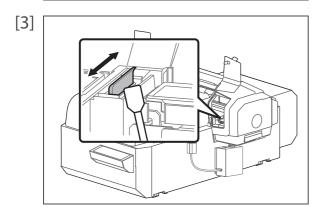
Hold the tab on the maintenance cover as shown on the left to gently open the cover.

• Fully open the maintenance cover.

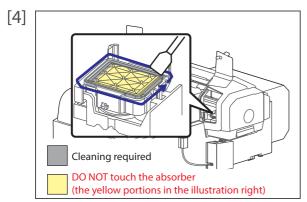


Wipe the cleaning wiper with a cleaning stick.

• Wipe the left side surface of cleaning wiper going back and forth.



Wipe the right side surface of cleaning wiper going back and forth.



Use the cleaning stick to remove the ink and dust on the circumference of the cap.

- [5] Close the maintenance cover gently.
- [6] Next finish the daily maintenance.

5. Finishing daily maintenance

Daily Maintenance

End —> Enter

- [2] The printer automatically performs the Short cleaning.
- [3] When the Short cleaning is complete, the printer automatically enters to sleep mode.
- Dispose of the used cleaning stick.
 - Use a paper towel to wipe the maintenance cleaner off the dropper.
 - Dispose of the maintenance cleaner in the plastic cup and dry the cup well using the paper towel.
 - Use a paper towel to clean the tray.

Important!

- Do not reuse a cleaning stick.
 Dusts can adhere causing damage to the print head.
- Check that the lid of the maintenance cleaner is shut properly and store it.
- [5] Now the daily maintenance is complete.



Used cleaning stick should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

Printer Maintenance

Head cleaning

When nozzle clogging is found in nozzle check, conduct head cleaning. Head cleaning consumes ink.

There are several cleaning modes in this product. Please select an appropriate mode based on your usage condition.

| Short cleaning | Consumes less ink than Normal cleaning. |
|-----------------|--|
| Normal cleaning | Perform Normal cleaning if nozzle clogging is found on the nozzle check print. |
| Long cleaning | Perform Long cleaning if nozzle clogging still persists after performing Normal cleaning. It consumes more ink than Normal cleaning. |
| Little Charge | Provide higher cleaning effect than Long cleaning, but it also consumes more ink. *This mode cannot be selected via the . Select it from the Cleaning submenu in the Panel Setting Menus. "Maitenance 1: Cleaning" P. 98 |
| Initial Charge | Provide higher cleaning effect than Little Charge, but it also consumes more ink. *This mode cannot be selected via the . Select it from the Cleaning submenu in the Panel Setting Menus. "Maitenance 1: Cleaning" P. 98 |



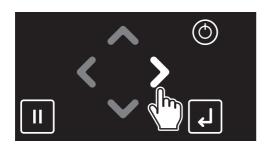
Comply strictly with the following when you performing "Little Charge" or "Initial Charge". If charging is interrupted, ink will be lost when charging is resumed.

- Do not open the Front cover or the Maintenance cover.
- Do not use ink cartridges (or ink bags) that have little ink remaining.

Print Ready
Type 1

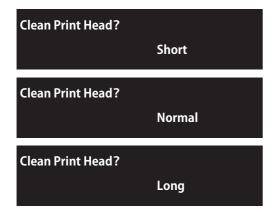
Check that the message on the left is displayed.

[2]



Tap .

[3]



Use or to choose the cleaning mode. Tap [Enter].

• The printer will start cleaning.

- [4] Run a nozzle check print.
 - If the problem persists, repeat normal cleaning until all nozzles are clear.
 - **☞** "Steps for head cleaning" P. 140



- When nozzle clogging remains even after repeating "Normal cleaning" several times, conduct "Long cleaning".
- When nozzle clogging remains even after repeating "Long cleaning" several times, conduct "Clean daily maintenance parts" P. 141.
- If it does not help to recover the nozzle, carry out "LittleCharge" via the "Maitenance 1: Cleaning" P. 98 in the Panel Setting Menus.

Soak Cleaning

Cleaning period:

When nozzle missing is found in nozzle check, conduct head cleaning. Head cleaning consumes ink.

- · Weekly (recommended)
- Nozzle clogging or nozzle deflection persists after cleaning attempt.

For procedures, download the soak cleaning procedure sheet from MUTOH Club (https://mutoh-club.com/mutoh/guser/).

Clean daily maintenance parts

In following cases, clean the daily maintenance parts.

- If faint print or dot missing still persists even after head cleaning has been performed.
- If you perform printing all day without entering to sleep mode and you need to perform daily maintenance.

Preparation:

See "Preparing for Daily Maintenance" P. 131 to prepare items required for the maintenance.

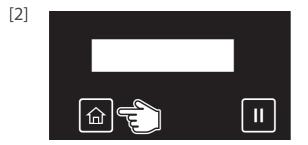


If you want to continuously use the printer after this maintenance, follow the steps below.

If you will not use the printer after this maintenance, enter to sleep mode and then perform maintenance.

☞ "Daily Maintenance" P. 130

- 1. Putting the printer into the Daily maintenance mode
- [1] Check that the media and jig are removed from the printer.



Tap [Home].



- Use to choose the menu shown left.
- Tap **>** .
- [4]
 Maintenance11
 Daily Maintenance
- Use to choose the menu shown left.
- Tap .



Tap [Enter].



The message on the left will appear.

- Remove the media and the jig on the table, and then tap [Enter].
- The table, carriage and cleaning wiper move to gain access to maintenance.

Daily Maintenance
End —> Enter

The message on the left will appear.

· You can start maintenance.

2. Cleaning daily maintenance parts

The maintenance procedure and parts to be cleaned are the same as "Daily Maintenance" P. 130. Follow the steps described in "Performing Daily Maintenance" P. 133 to clean each part.

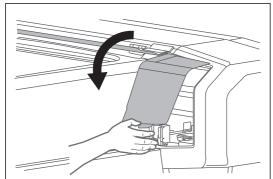
- @ "Cleaning of UV Lamp" P. 133
- Fig. "Moistening the surface of print head nozzles" P. 135
- @ "Cleaning of print head circumference" P. 136
- 🕼 "Cleaning of cleaning wiper and the circumference of the cap" P. 137



Make sure to complete this maintenance within 5 minutes while the printer is in Daily maintenance state.

3. Finishing maintenance

[1]



Hold the tab on the maintenance cover as shown on the left to gently open the cover.

A CAUTION



When closing the maintenance cover, hold the tab on the maintenance cover to gently close it.

Do not place your fingers on the edges of the printer's opening portion, or on any parts around those edges. Your fingers could get caught and be injured.

[2]



Tap [Enter].

- [3] The printer automatically performs the Short cleaning.
- Dispose of the used cleaning stick.
 - Use a paper towel to wipe the maintenance cleaner off the dropper.
 - Dispose of the maintenance cleaner in the plastic cup and dry the cup well using the paper towel.
 - Use a paper towel to clean the tray.

| Important!

- Do not reuse a cleaning stick.
 Dusts can adhere causing damage to the print head.
- Check that the lid of the maintenance cleaner is shut properly and store it.
- [5] Now the maintenance is complete.

Inside cleaning

Cleaning period:

Monthly



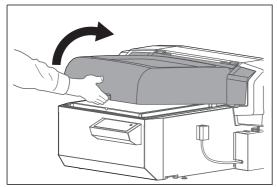
A CAUTION



• When cleaning table, do not apply too much pressure on the table. It can affect print quality.

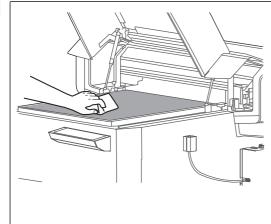
1. Cleaning on the table





Hold the handle on the front cover to gently open it.

[2]



Clean away dirt from the table using a cloth soaked in water and thoroughly wrung out.

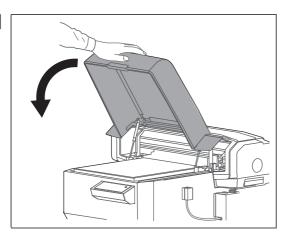
Important!

- Do not blow off dusts inside the product with a gas duster. Dust can attach to moving parts, causing abnormal sound or malfunctions.
- Do not rub the hardened ink on the table with the included scraper. The table may be damaged.



If ink on the table cannot be removed, use your personal resin squeegee or scraper to remove it. Be sure not to damage the table.

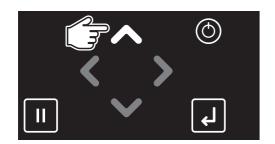
[3]



Close the front cover slowly, holding it by the place shown in the picture.

2. Cleaning on the table rail

[1]

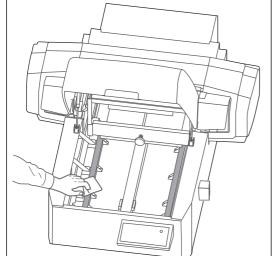


Check that the cover is closed and then tap .

• The table moves to the rear side of the printer.

[2] Hold the handle on the front cover to gently open it.

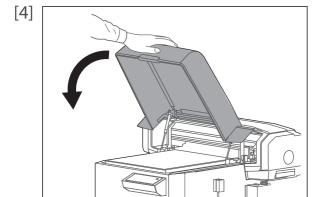




If found any dirt or dust on the table rail, use a soft cloth, dampened with water and then wrung water out of the cloth, to remove it from the rail.

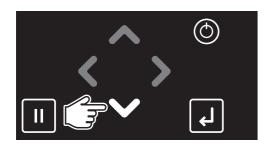
Important!

- If any dirt or dust remains on the table rail, it may reduce print quality.
- Do not blow off dusts inside the printer with a gas duster.
 Dust can attach to moving parts, causing abnormal sound or malfunctions.



Close the front cover slowly, holding it by the place shown in the picture.





Check that the cover is closed and then tap .

- The table moves to the front side of the printer.
- That ends the procedure.

Preparation:

- Paper Towel (Lint-free cloth) or Polyester knit wiper (optional)
- · Lubricating grease
- · Cleaning stick



During cleaning, please note the followings.

- DO NOT apply lubricating grease on area other than specified.
- Always use the paper towel (lint-free cloth) supplied with the printer or optional polyester knit wiper.
 DO NOT use tissue paper.
- When using this product, do not place any object in the table height detection area. This will cause false detection and the printer will not be able to print correctly.

Also, the area in front of the guide groove on the front side of the table is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded in this area. This will cause head strike, leading to damage to the print head.

For details, see the following section:

Printing area" P. 32

Before greasing

[1] If any media or jig is loaded on the table, open the front cover and remove it.

Check that the front cover is closed, and tap [Home].

- [3]
 Menu3
 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- [4]
 Maintenance9
 Table Maintenance
- Use to choose the menu shown left.
- Tap **>** .



Tap [Enter].

Please Wait

• The table moves to the front side of the printer.

Unload Media
then Tap Enter

The message on the left will appear.

 \bullet Remove the media and the jig on the table, and then tap [Enter].



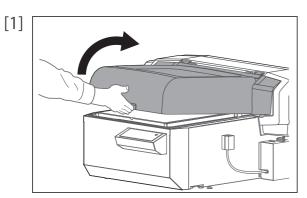
• The table moves to the position to perform the screw shaft maintenance.

Table Maintenance
End —> Enter

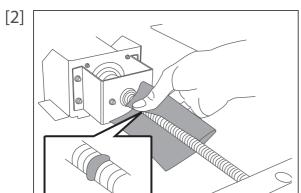
The message on the left will appear.

• You can start table maintenance.

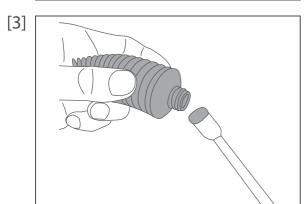
Steps for greasing



Hold the handle on the front cover to gently open it.

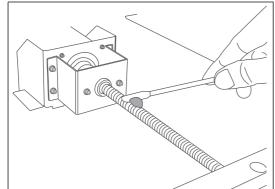


Use the paper towel supplied with the printer to lightly wipe off grease built up on the screw shaft as shown in figure left.



Apply approximately 5 mm of lubricating grease on the cleaning stick.

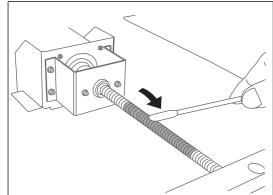
[4]



Apply the grease on the screw shaft.

• Apply it on the area where the grease was built up in Step 2.

[5]

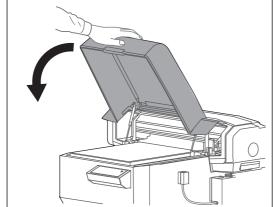


Apply it evenly on the screw shaft.

• Using the cleaning stick, apply it towards the front to evenly grease on the screw shaft.

After greasing

[1]



Close the front cover slowly, holding it by the place shown in the picture.

[2]



Tap [Enter].

- The table moves up and down to smooth out the grease on the
- The table moves to the original position.

[3]

Set media, then
Tap [∧] key.

The message on the left will appear.

• That ends the procedure.

Replacing consumable parts

Replacing absorption material for the flushing box

The flushing box is a part that keeps receiving ink discharged from the print head. Please replace the absorption material for the flushing box periodically. If used without replacing, it can cause damage to the print head.

Replacing period:

• When ink clumps have accumulated on the flushing-box sponges beyond the flushing-box frame. (since it differs depending on usage frequency, please check periodically)







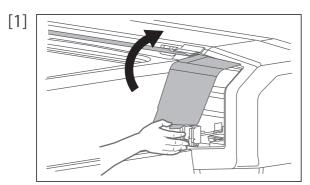
Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.



Do not open or close the cover while you are off balance.

You may pinch your finger or get injured.

1. Checking steps



Hold the tab on the maintenance cover as shown on the left to gently open the cover.

• Fully open the maintenance cover.

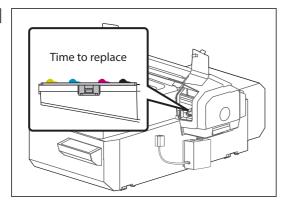
A CAUTION



Always fully open the maintenance cover.

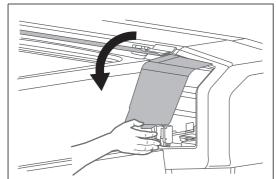
If you leave it half-open, the maintenance cover can suddenly close.

[2]



- Check the absorption material for the flushing box.
- If the ink deposit is visible on the flushing box, replace the absorption material.

[3]



Hold the tab on the maintenance cover as shown on the left to gently close the cover.

A CAUTION



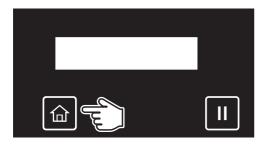
When closing the maintenance cover, hold the tab on the maintenance cover to gently close it.

Do not place your fingers on the edges of the printer's opening portion, or on any parts around those edges. Your fingers could get caught and be injured.

2. Replacing steps

Check that the media and jig are removed from the printer. [1]

[2]



Tap [Home].

- [3] Menu3 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- [4] Maintenance3 **CR Maintenance**
- Use to choose the menu shown left.
- Tap .

[5]

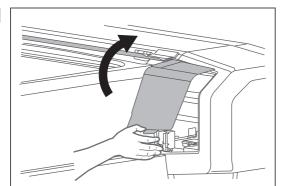


Tap [Enter].

- The carriage will move to the center of the printer.
- The cleaning wiper will move upward.

The message on the left will appear.

[6]



Hold the handle on the maintenance cover to gently open it.

• Fully open the maintenance cover.

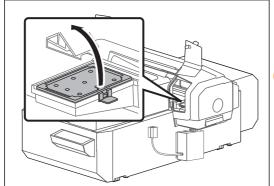
A CAUTION



Always fully open the maintenance cover.

If you leave it half-open, the maintenance cover can suddenly close.

[7]



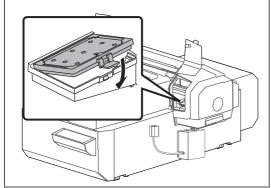
Remove the absorption material for the flushing box.

• Pull the tab up of the absorption material for the flushing box, and release the hook.



When removing the absorption material for the flushing box, be cautious of ink drops.

[8]

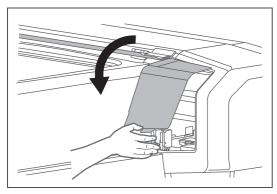


Attach new absorption material for the flushing box.



Used absorption material for the flushing box should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

[9]



Hold the position shown on the left and gently close the cover.

A CAUTION



When closing the maintenance cover, hold the tab on the maintenance cover to gently close it.

Do not place your fingers on the edges of the printer's opening portion, or on any parts around those edges. Your fingers could get caught and be injured.

[10] **CR Maintenance** End -> Enter **CR Maintenance** Start -> **Enter**

Tap [Enter].

- The message on the left will appear.
- That ends the procedure.

Replacing the cleaning wiper

The cleaning wiper is an essential part to make printing consistent. Please replace it periodically.

Replacing period:

· Approx. every six months







Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.



Do not open or close the cover while you are off balance.

You may pinch your finger or get injured.

Replacing steps

Check that the media and jig are removed from the printer. [1]

[2] Ш Tap [Home].

- [3] Menu3 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- [4] Maintenance3 **CR Maintenance**
- Use to choose the menu shown left.
- Tap **>** .

[5]

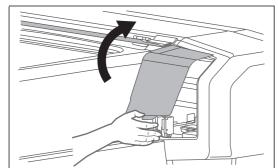


Tap [Enter].

- The carriage will move to the center of the printer.
- The cleaning wiper will move upward.

CR Maintenance End Enter The message on the left will appear.

[6]



Hold the tab on the maintenance cover as shown on the left to gently open the cover.

• Fully open the maintenance cover.

A CAUTION

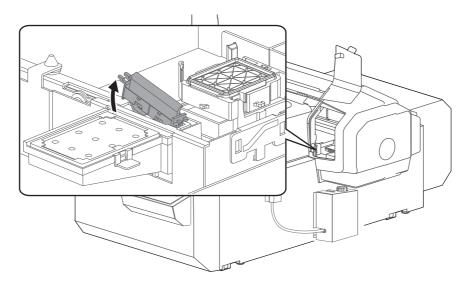


Always fully open the maintenance cover.

If you leave it half-open, the maintenance cover can suddenly close.

[7] Remove the cleaning wiper.

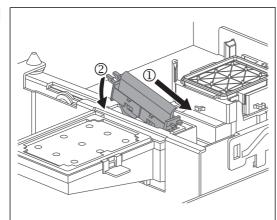
• Lift the cleaning wiper hook and release the hook. Then, remove the cleaning wiper.



[Important!

When removing the cleaning wiper, be cautious of ink drops.

[8]



Follow the steps below to install new cleaning wiper.

- Slide the front side of the new cleaning wiper into its slot.
- Press the wiper hook down until it clicks into place.

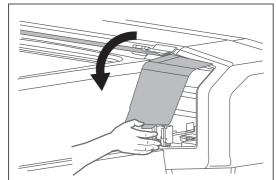
Important!

Do NOT touch the cleaning wiper rubber with your bare hand. If finger oil gets on the rubber, it will damage the print head.



Used cleaning wiper should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

[9]



Hold the tab on the maintenance cover as shown on the left to gently close the cover.

A CAUTION



When closing the maintenance cover, hold the tab on the maintenance cover to gently close it.

Do not place your fingers on the edges of the printer's opening portion, or on any parts around those edges. Your fingers could get caught and be injured.

[10]



Tap [Enter].

- The message on the left will appear.
- That ends the procedure.

Replacing the Emitting Window Glass on the UV-LED Lamp

The emitting window glass protects the UV-LED lamp from ink mist. Using the printer with dirty glass will cause damage to the lamp or insufficient ink curing. Replace the glass as needed.

Replacing period:

- · When the glass has cracks or chips.
- When the ink cannot be removed from the glass.







Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

CAUTION



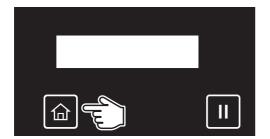
After printing, the UV-LED lamp may get hot. Leave it for 30 minutes to cool down and then start maintenance.



Replacing steps

Check that the media and jig are removed from the printer. [1]

[2]



Tap [Home].

[3] Menu3 Maintenance

- Use to choose the menu shown left.
- Tap .

[4] Maintenance3 **CR Maintenance**

- Use to choose the menu shown left.
- Tap **>** .

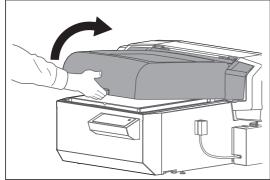
[5] **CR Maintenance** Start **Enter**

CR Maintenance End Enter Tap [Enter].

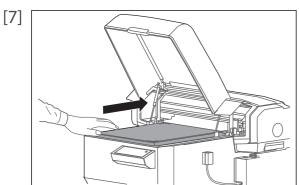
- The carriage will move to the center of the printer.
- The cleaning wiper will move upward.

The message on the left will appear.

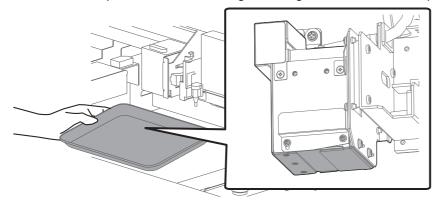
Hold the handle on the front cover to gently open it. [6]



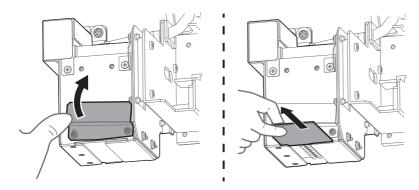
Push the table all the way.



- Look in the stainless tray to check the bottom of the carriage. [8]
 - Check for cracks, chips, or ink on the emitting window glass of the UV-LED lamp.



- [9] Replace the glass.
 - Slide up the left side of the exhaust fan cover. The right side screw serves as a fulcrum.
 - Slide the glass on the bottom of the lamp towards the front to remove it.
 - Install a new glass on the UV-LED lamp.
 - Firmly slide it into the end and then put the exhaust fan cover back in place.



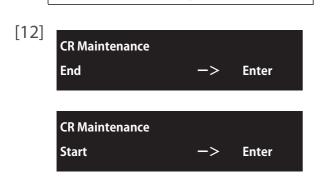
| Important!

Make sure that a new glass is attached to the lamp and the exhaust fan cover is put back in place. Using your printer without them will cause damage to the lamp.

[10] Move the table to the front by hand.

[11]

Hold the position shown on the left and gently close the cover.



Tap [Enter].

- The message on the left will appear.
- That ends the procedure.

Replacing UV-LED Lamp Filter

The UV-LED lamp filter protects the lamp from ink mist. Using the printer with dirty filter will cause damage to the UL-LED lamp.

Replacing period:

Once a month or when the filter gets dirty by dust or ink.
 (since it differs depending on usage frequency, please check periodically)



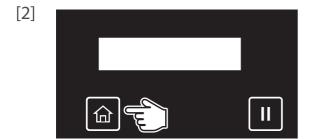




Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction. When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

Replacing steps

[1] Check that the media and jig are removed from the printer.



Tap [Home].

- [3]
 Menu3
 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- [4]
 Maintenance3
 CR Maintenance
- Use to choose the menu shown left.
- Tap **>** .

CR Maintenance
Start —> Enter

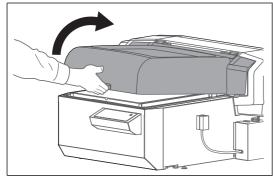
CR Maintenance

Tap [Enter].

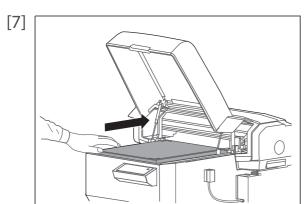
- The carriage will move to the left side of the printer.
- The cleaning wiper will move upward.

The message on the left will appear.

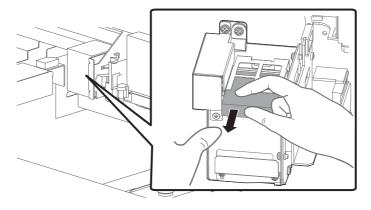
[6] Hold the handle on the front cover to gently open it.



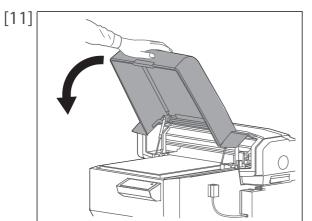
Push the table all the way



 $[8] \qquad \hbox{While supporting the UV-LED lamp with one hand, remove the filter from the lamp.}$



- [9] Replace with the new filter.
 - Firmly insert it into the filter slot.
- [10] Move the table to the front by hand.



Hold the position shown on the left and gently close the cover.

[12]



Tap [Enter].

- The message on the left will appear.
- That ends the procedure.

Moving and Transporting

Please refer to this section when moving or transporting this printer.







- This procedure requires four or more people.
- Keep this printer level when moving it.
- Skin or eye contact with UV curable ink may cause skin inflammation or allergic reaction.

When using this product, wear personal protective equipment (supplied gloves or solvent-resistant gloves, goggles or protective eyewear, protective mask, protective clothing) to avoid skin contact with ink.

| Important!

- When moving this product, always empty the waste ink tank even moving short distance.
- Do not tilt, or place this product upside down.
 Otherwise the ink may leak or the handling mentioned above may cause abnormality.

Moving the printer

When moving this printer, it is necessary to empty the waste ink tank. Moving without emptying the tank can cause ink leakage.

After moving, reinstall the printer.

- 1. Preparation before moving
- [1] Empty the waste ink tank.

"Emptying waste ink tank" P. 126

[2] Reset the waste ink counter.

"Resetting waste ink counter" P. 129

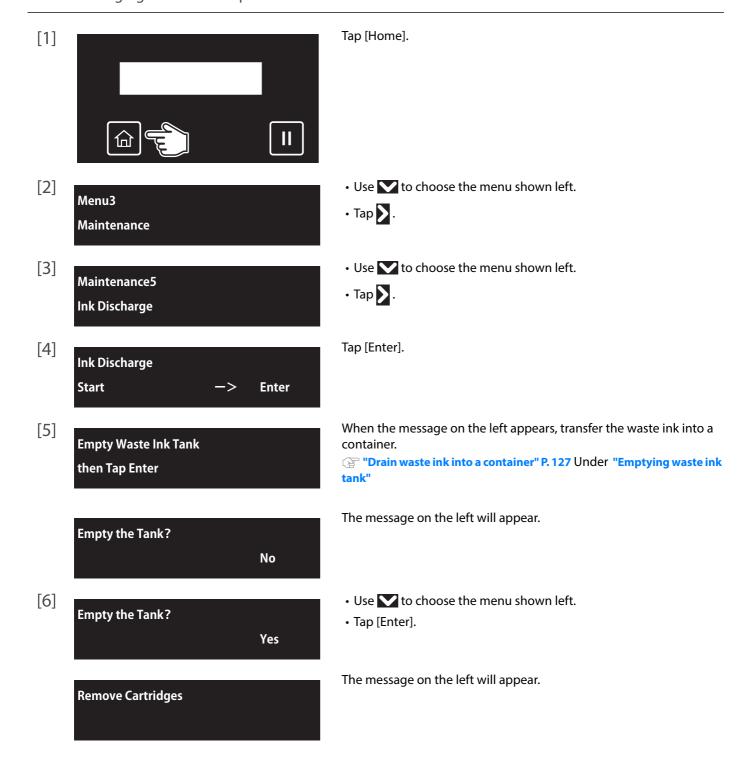
- [3] Turn the printer OFF, then remove all the cables from the printer.
- [4] Move the printer.
- 2. Installation after moving
- [1] Select a suitable place for installation.
 - (Startup Guide"
- [2] Plug cables into the printer.
- [3] Move the printer to the installation area and level the printer.
 - "Startup Guide"
- [4] Perform Nozzle check, and then check that there is no clogging in print head.
 - **™** "Nozzle check and cleaning" P. 38

Transporting

When transporting this product, it is necessary to empty the waste ink tank and fixate the print head and the table with packaging material. Transporting without these steps can cause ink leakage.

To use the printer again, reinstall the printer and perform initial charging.

1. Discharging the ink in the printer and waste ink



[7]

Remove the ink cartridges (or high-capacity ink pack adapters) from all the cartridge slots.



The message on the left will appear.

• Discharging the ink will start.



• When the message on the left appears, transfer the waste ink into a container

"Drain waste ink into a container" P. 127 Under "Emptying waste ink tank"

[9] Reset the waste ink counter.

Resetting waste ink counter" P. 129

2. Changing Table Position for Packing

Tap [Home].

- [2]
 Menu3
 Maintenance
- Use to choose the menu shown left.
- Tap **>** .
- Maintenance8
 Moving Printer
- Use to choose the menu shown left.
- Tap **>** .



The message on the left will appear.

[4] Execute? Yes

- Use to choose the menu shown left.
- Tap [Enter].
- Please Wait

• The table moves to the front side of the printer.

Unload Media
then Tap Enter

The message on the left will appear.

- Remove the media and the jig on the table, and then tap [Enter].
- The table moves to the position to secure with shipping brackets.

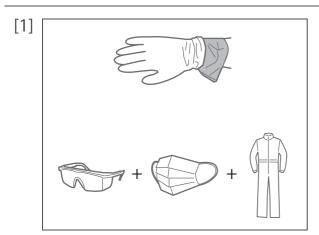
 Please Wait

[6] Power Off Printer

The message on the left will appear.

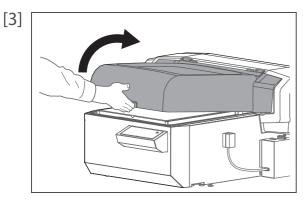
• Press the power button to turn OFF the printer.

3. Repacking



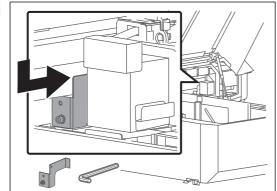
- Wear the rubber gloves over the polyethylene gloves.
- Wear personal protective equipment such as goggles, protective mask or clothing.

[2] Remove all cables from the printer.



Hold the handle on the front cover to gently open it.

[4]



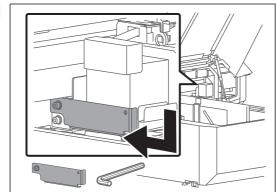
Attach the head fixing plate with screws.

- Slide the head fixing plate rightward to attach it.
- Use the hexagon wrench supplied with the printer.



Attach the head fixing plate carefully, so that it does not scratch any of the surrounding parts. If they are scratched, the print quality could drop.

[5]



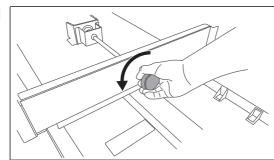
Attach the UV-LED lamp fixing plate with screws.

- Slide the UV lamp fixing plate in from the front side of the printer until it reaches to the head fixing plate.
- Use the hexagon wrench supplied with the printer.



Attach the UV-LED lamp fixing plate carefully, so that it does not scratch any of the surrounding parts. If they are scratched, the print quality could drop.

[6]



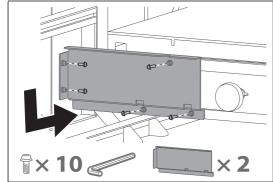
Turn the handle half rotation anticlockwise.

• It lowers the table.



DO NOT turn the handle too much. It can cause damage to the printer.

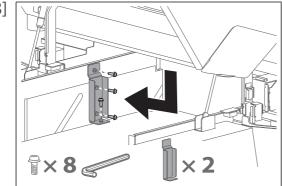
[7]



Attach two table fixing plate with screws.

• Use the hexagon wrench supplied with the printer.

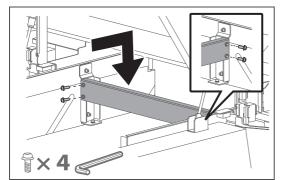
[8]



Attach two table fixing plate with screws.

• Use the hexagon wrench supplied with the printer.

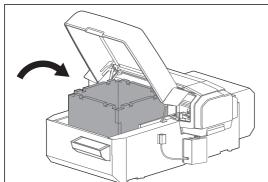
[9]



Attach the support brace between table fixing plates with screws.

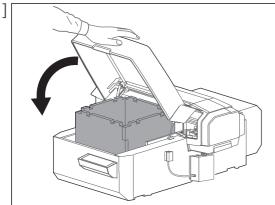
• Use the hexagon wrench supplied with the printer.





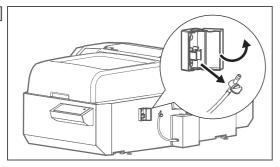
Put the protective material on the table.





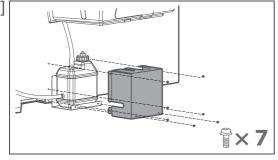
Hold the position shown on the left and gently close the cover.





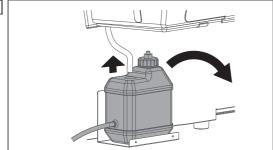
Open the cover of the drain tube valve clamp, then unhook the drain tube valve to take it out from the clamp.





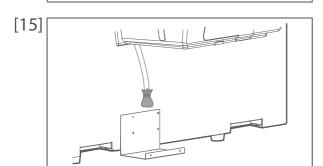
Remove seven screws (M3x6) on the waste ink tank cover to remove the cover from the printer.

[14]



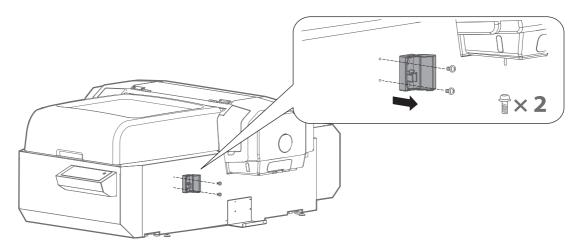
Remove the waste ink tank.

- Remove the drain tube from the tank.
- Remove the waste ink tank from the tank holder.

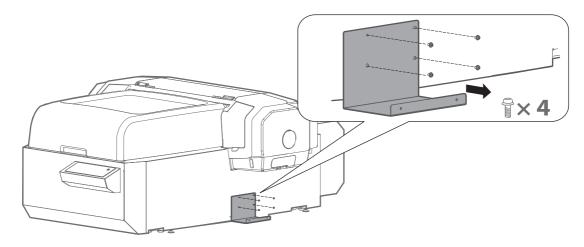


To prevent waste fluid from dripping, cover the tip of the tube with a plastic bag and secure with tape.

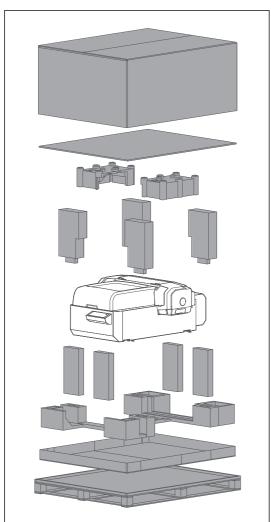
Remove two screws (M3x6) on the two-way valve clamp to remove the clamp from the printer.



 $[17] \quad \hbox{Remove four screws (M3x6) on the waste ink tank holder to remove the holder from the printer.}$



[18]



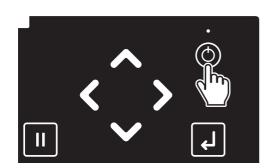
Attach protection materials, and place the product inside the package box.

4. Reinstalling

- [1] Referring to "Startup Guide", unpack the product and assemble.
 - Conduct up to "Leveling Printer".
- [2] Carry out initial ink charging after ink discharge.
 - **"How to perform initial ink charging after ink discharge" P. 170**

How to perform initial ink charging after ink discharge

[1]



Long press the Power button.

- The keys on the operation panel light up.
- The printer will start mechanical initialization.

Ink Charge
Start —> Enter

Tap [Enter] when the message on the left appears.

Empty Waste Ink Tank
then Tap Enter

When the message on the left appears, empty the waste ink tank.

"Drain waste ink into a container" P. 127 under "Emptying waste ink tank"

[4] Empty the Tank?

The message on the left will appear.

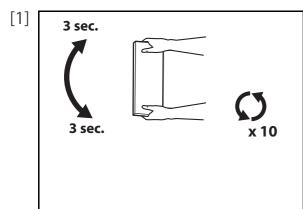
- [5] Empty the Tank? Yes
- Use to choose the menu shown left.
- Tap [Enter].



(When you use your printer for the first time or after you replace the waste ink tank) If no or small amount of waste fluid is collected in the waste ink tank, you may not be able to drain fluid out of the tank.

Insert InkCartridges

The message on the left will appear.



Make sure you agitate the ink cartridge after you unpack it.

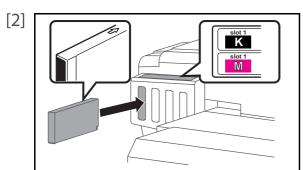
- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that 10 times.



Make sure to use a new ink cartridge. An ink cartridge with insufficient ink will end up during initial ink charging and consume more ink due to ink recharging.



• You do not have to agitate varnish ink before use.



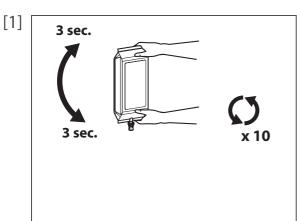
Insert ink cartridge to this product.

- Match the label of this product to the color of ink cartridge.
- The arrow on the cartridge should face up.
- Insert each cartridge to firmly seat it into each slot.



Load the same ink color configuration as before.

Procedure for high-capacity ink pack adapter



Make sure you agitate the ink bag after you prepare it.

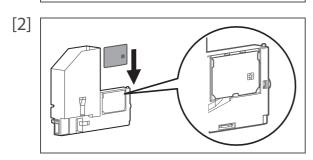
- Turn the ink plug upward and wait for three seconds.
- Next, turn the ink plug downward and wait for three seconds.
- Repeat that ten times.

Important!

Make sure to use a new ink bag. An ink bag with insufficient ink will end up during initial ink charging and consume more ink due to ink recharging.

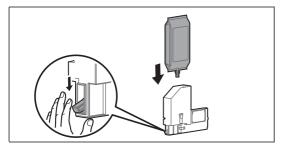


When replacing varnish ink, you do not have to agitate it.



Slide the smartchip card into the tabs of the adapter.

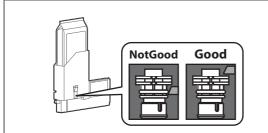
[3]



While lowering the lock lever of the high capacity ink pack adapter, insert an ink bag.

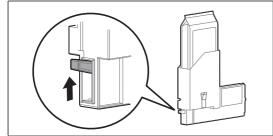
• Make sure to fully insert the ink bag into the high capacity ink pack adapter.





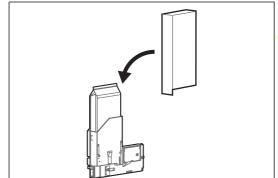
Confirm ink bag is fully seated by checking the lock mechanism is at the top of the ink delivery neck through the observation window, see proper placement in illustration left.





Make sure that the lock lever of the high capacity ink pack adapter is back to its original position.



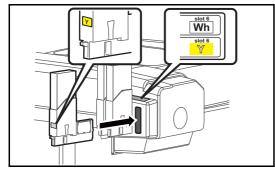


Place the light-shielding cover over the ink bag.



Insert the light-shielding cover inside the high capacity ink pack adapter to only cover the ink bag.





Insert the high capacity ink pack adapters into lnk cartridge slots.

- Make sure to match the ink color with the color of the label above the cartridge slot.
- Insert all the way to the end.



Load the same ink color configuration as before.

Ink charging procedure after loading ink cartridges

[1]



The message on the left will appear.

• This printer starts ink charging.

A CAUTION



DO NOT attempt the following actions during ink charging:

- Power off the printer.
- Disconnect the power cord.
- Open the front cover and maintenance cover.

[2]

Set media, then Tap [∧] key.

When ink charging is complete, the message on the left will appear.

Chapter 4 Appendix

| Messages and Error Messages | 176 |
|--|-----|
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Messages and Error Messages

This section describes messages displayed during normal printer operation or when errors occur, and solutions to the messages.

Status messages

This section describes messages displayed during printer normal operation.

When the product is operating correctly, each operation status is displayed on the front panel as below.

| Display | Description | |
|--|---|--|
| Activation required | Activation has not been executed. Consult the relevant section of the Startup Guide, and carry out activation. | |
| | | |
| Ready to Print | Standby (Media is loaded). | |
| Set media, then tap [ʌ] Key | Standby (Media is not loaded). | |
| Receiving | Receiving data. | |
| Converting | Analyzing data. | |
| Printing | Under printing. | |
| Remain : XXX.Xm | Displays the length of the data that has not been printed in meters for the data currently being printed. | |
| Remain Time : XXX.Xmin | Displays the time remaining to print in minutes for the data currently being printed. | |
| Pausing Print Cancel Print -> Enter | Printing is paused. • Tap [Cancel] to resume printing. • Tap [Enter] to cancel printing. (Once canceled, you cannot resume the job again.) | |
| Power Off | Turning OFF the printer. Please wait for a while. | |
| S/C Reading | Reading the smartchip card. | |
| Ink Circulation | Ink is circulating inside the printer. | |
| *** Remote Mode *** End -> Enter | The remote panel mode is running, via MSM or similar. In the remote panel mode, operations via the operation panel are not possible. To terminate the remote panel mode, tap [Enter] key. | |
| Ink Charge Start -> Enter | Ink charging starts. Tap [Enter]. | |
| Insert Cleaning Cart. | Washing print head. Install the cleaning cartridges. | |
| Busy-Washing **% | Initial charging, ejecting filler fluid. Washing the print head by cleaning fluid. Please wait a while. | |
| Remove Cartridges | Washing print head or discharging ink. Remove the ink cartridges (or high-capacity ink pack adapters). | |

| Display | Description |
|--|---|
| Insert Ink Cartridges | Charging ink. Insert ink cartridges (or high-capacity ink pack adapters). |
| Ink Refill **% | Charging ink. Please wait a while. |
| Discharging | Discharging ink. Please wait a while. |
| Empty Waste Ink Tank then tap Enter | Transfer the waste ink from the waste ink tank into a container, and tap [Enter]. "Emptying waste ink tank" P. 126 |
| Perform Daily Maint. | Make sure to perform daily maintenance when prompted. "Clean daily maintenance parts" P. 141 |

Error message display and possible solutions

This section describes error messages and possible solutions.

Error messages are displayed when certain failures occur during printer operation.

If an error that can be displayed occurs, the printer may display the following error messages on the operation panel and stop operation.

| Display | Description |
|----------------------|---|
| Cover Open | The front cover is open. |
| Maint. Cover Open | The maintenance cover is open. |
| [*****] Ink End | Ink has run out. (Stops operation) Replace with a new ink. |
| | ™ Replacing ink" P. 122 |
| [*****] NoCartridge | Ink cartridge (or high-capacity ink pack adapter) is not inserted. (Stops operation) |
| | Insert an ink cartridge (or high-capacity ink pack adapter). |
| [******] Discharged | Ink is not filled. Perform initial ink charging. |
| | (Fig. 170 How to perform initial ink charging after ink discharge P. 170 |
| Full WastelnkTank | The waste ink tank has become full. |
| | (Operation will stop when this happens.) Immediately transfer the waste ink into a container. |
| | ☞ "Emptying waste ink tank" P. 126 |
| NearFullWasteInkTank | The waste ink tank is about to become full. |
| | (Operation will continue in this condition.) Transfer the waste ink into a container. |
| | "Emptying waste ink tank" P. 126 |
| [*] Ink Low | Slot * ink is low. |
| | Get a replacement ink ready. |

| Display | Description |
|-------------------------------------|--|
| [******] S/C ReadErr | Failed to read the smartchip card. Insert the ink cartridge (or high-capacity ink pack adapter) again. If the problem persists, insert a new ink cartridge (for high-capacity ink pack adapter, insert a new smartchip card and a new ink bag into the adapter). |
| [*****] S/C Col.Err | Wrong ink color. Insert a correct ink color cartridge (or ink bag). |
| [*] S/C Ink Err | The ink installed cannot be used for this printer. Contact your local MUTOH dealer. |
| [*] S/C CodeErr | Inserted ink cartridge (or smartchip card in case of high-capacity ink pack adapter) is not a proper one. Contact your local MUTOH dealer. |
| [*] Broken Chip | Smartchip card has been broken. Insert a new ink cartridge (or a new smartchip card and a new ink bag for high-capacity ink pack adapter). |
| [*****] Check Ink | Ink cartridges (or high-capacity ink pack adapters) were not recognized correctly. Insert ink cartridges (or high-capacity ink pack adapters) correctly again. Contact your local MUTOH dealer. |
| [*]Reseat Ink | Because the smartchip card is poor in contact, the reinsertion of the ink cartridge (or the high-capacity ink pack adapter) is necessary. Reseat all the ink cartridges (or the high-capacity ink pack adapters). |
| Daily Maint. Error | An obstacle has been detected. Press [Enter] key on the operation panel. Remove any object including a jig from the table and then perform daily maintenance. |
| Obstacle detected Press [v] Key. | An obstacle has been detected. Tap , and reset the media in place. "Loading media" P. 33 |
| Table Height Error Tap [v] key. | The printer cannot lower the table any further as specified by RIP software, and will cancel the printing. |
| Obstacle Detected Print Cancel | An obstacle has been detected. Tap [Enter] to cancel the job. |
| Obstacle Detected Print Continue | An obstacle has been detected. Tap [Enter] to resume the job. |
| Activation Failed Reboot Printer | Activation has failed. Restart the printer and activate the printer again. |
| Life Times [Pump] | The operational life of the pump motor has almost expired. (Continues operation) Contact your local MUTOH dealer. |
| Life Times [CR Motor] | The operation life CR motor has almost expired. (Continues operation) Contact your local MUTOH dealer. |
| Life Times [PF Motor] | The operational life of the PF motor has almost expired. (Continues operation) Contact your local MUTOH dealer. |
| Life Times [C Pump] | The operational life of Circulation pump motor is almost expired. (Continues operation) Contact your local MUTOH dealer. |

| Display | Description |
|----------------------------------|---|
| Life Times [UV Lamp] | The operational life of UV LED has almost expired. (The operation continues.) Contact your local MUTOH dealer. |
| Agitate W Ink | Agitate the White (Wh) ink. |
| Agitate KMCY Ink | Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks. |
| Agitate KMCYW Ink | Agitate the Black (K), Magenta (M), Cyan (C), Yellow (Y), and White (Wh) inks. |
| Agitate ALL Ink | Agitate all inks. Agitate the Black (K), Magenta (M), Cyan (C), and Yellow (Y) inks. |
| Ink Not Expired? OK -> Enter | Check the "Use Before" date on the cartridge (or ink bag) label. |
| [*****] Ink Expired | Displays when the ink cartridge (ink bag) is expired. Replace with non-expired ink. |
| Print data Error Tap [∨] key. | (US61 ink only) Unable to print the job. The print mode specified in the RIP software or other tool is not supported. The job will be canceled. |



- \bullet The color inside [*******] in the error display represents the ink color with a problem.
- If no ink and no cartridge occur at the same time, no cartridge message has priority to be displayed.

Smartchip recovery

When the following message is prompted on the operation panel, a smartchip error such as broken chip may have occurred in the ink cartridge.

Check that the correct color is inserted in the cartridge slot and perform smartchip recovery.

This will allow you to continue to print.

To perform smartchip recovery, do one of the followings according to the message appeared.

| Display | Description |
|---------------------------------|---|
| [****] S/C Recog. Err. | An ink cartridge (or high-capacity ink pack adapter) that needs smartchip recovery may have been installed. Remove the ink cartridge (for high-capacity ink pack adapter, remove the high-capacity ink pack adapter and the smartchip card) and reload it. If the printer is still unable to read it, install a new ink cartridge (for high-capacity ink pack adapter, install a new ink bag and a new smartchip card). • If a message "[***] Check Color OK ->Enter" appears after the ink cartridge (or high-capacity ink pack adapter) is reloaded, follow the message "[***] Check Color OK ->Enter" to operate. |
| [***] Check Color OK ->Enter | An ink cartridge (or high-capacity ink pack adapter) that needs smartchip recovery may have been installed. Check that the ink color of the ink cartridge (or ink bag) inserted is correct. In case of wrong color insertion, load a correct ink color cartridge (or bag). If color is correct, tap [Enter] key. The printer will perform smart chip recovery and will continue to print. |



• During smartchip recovery execution, the cartridge slot being recovered blinks in the ink level indicator and printer status menu.

"Icon displays on operation panel" P. 11, "Printer Status 1: Ink" P. 104

Error requiring restart

An error requiring restart is displayed if a fatal operational failure such as the following occurs.

- · When an obstacle that prevents printing occurs.
- When a problem occurs with the electrical circuit (PCB, motor, sensor, etc.) of the printer.
- When a failure in the printer control program occurs.

If an error requiring restart occurs, the printer stops operating after performing the following operations.

- 1. The drive power automatically shuts down.
- 2. All LED lights on the operation panel blink and the printer beeps continuously.
- 3. The error message is displayed on the operation panel.

Pressing any key on the operation panel stops the beeping.

For an error requiring restart, operation will return to normal after removing the cause of the error and restarting the printer. If the same error message is repeatedly displayed, contact the your local MUTOH dealer.

Be sure to tell us the code no. of the error message when you contact us.

| Display | Description | |
|-----------------------|--|--|
| Emergency Mode: E *** | A problem that does not have a remedy has occurred. 1. Check if the replaced parts are installed correctly. | |
| | 2. Turn the power button off. Wait a short while, then turn the power | |
| | button on, to restart the printer. | |
| Emergency Mode: AC | The power was shut down instantaneously while the printer is operating. 1. Turn the power button off. Wait a short while, then turn the power | |
| | button on, to restart the printer. | |
| Emergency Mode: CPU | CPU error occurred. 1. Turn the power button off. Wait a short while, then turn the power button on, to restart the printer. | |



[&]quot;*** " in the error message is the code no. that indicates what type of error occurred.

Troubleshooting

This section describes undisplayed malfunctions and failures of the printer, possible causes and countermeasures.



- The current status and error information of your printer can be checked from the Printer Status tab > Status Information on MSM. If your printer is not operating correctly, check this Status Information first.
- Make sure to use the latest version of MSM.
 To check the latest available version, go to Help > Version > Check for updates on MSM.
 If old version is installed in your computer, download the latest version from MUTOH Club.

MUTOH Status Monitor Operation Manual

Installation and initial setup troubleshooting

| Symptom | Possible cause and remedy | |
|---|--|--|
| Cannot perform the initial ink charging. | Is the front cover, or the maintenance cover open? | |
| | Close the front cover, or the maintenance cover. | |
| | Are ink cartridges (or high-capacity ink pack adapters) inserted all the way | |
| | into the printer? | |
| | Make sure they are all inserted properly. | |
| Ink does not come out after ink charging. | Is the ink cartridge (or ink bag) too cold? | |
| | Leave it at room temperature for at least three hours, and perform cleaning several times. | |
| | (3) "Head cleaning" P. 139 | |
| | Is the power turned OFF during ink charging? | |
| | Turn the power ON again and continue ink charging. | |
| Nozzle missing occurs after initial ink charging. | Did you perform head cleaning? | |
| | Perform cleaning, then, check the print result. | |
| | (Fig. 1) "Head cleaning" P. 139, "Maitenance 1: Cleaning" P. 98 | |
| | • If there is no improvement in the print result even after performing cleaning, | |
| | leave the printer unused for an hour or more. Then perform cleaning or "Little | |
| | Charge" again and check the print result. | |
| | If the problem still persists, contact your local Mutoh dealer. | |
| MSM or RIP cannot access to the printer. | Is Ethernet cable connected correctly? | |
| | Securely connect the Ethernet cable to the Ethernet Port. | |
| | Are the network settings configured correctly? | |
| | Configure the network settings correctly. | |
| | Do the printer's network settings match the computer's settings? | |
| | • Match this product's network settings with the computer side environment. | |
| | "Initial Settings 4: IP Address" P. 93, "Initial Settings 5: Subnet Mask" | |
| | P. 93, "Initial Settings 6: Gateway" P. 94 | |

Boot-up troubleshooting

| Symptom | |
|---------|--|
| J,p | |

Possible cause and remedy

Does not work at all after power activation /after

loading the media.

Is the power cable connected to the plug?

· Connect the power cable.

Does the AC power supply provide the specified voltage?

· Connect the cable to another outlet.

Is the front cover, or the maintenance cover open?

• Close the front cover, or the maintenance cover.

Is there any error message displayed on MSM?

• Go to the Printer Status tab in MSM and check that if any error message is displayed in the Status Information.

Do you use the printer within recommended environmental conditions?

• Make sure to use the printer within the specification range.

"Ensuring a suitable place for installation" of the "Startup Guide"

Media-related troubleshooting

Symptom

Possible cause and remedy

The printer does not detect the media.

Is there any media or jig present on the table height detection area?

• DO NOT place any objects in this area. Otherwise, it will cause false detection of the obstacle sensor and the printer may not be able to print correctly.

Do you use transparency or low opacity media?

• The sensor may not detect those media. Make sure that the sensor correctly detects the media being used.

Do you use textured media or uneven media?

• The sensor detects the highest position on the media as media surface. The printer may not be able to print properly.

"Cautions for handling media" P. 18

Do you use the media with uneven or curved bottom surface?

• The laser light will not be blocked by the rear edge of media so that the printer may not be able to optimize the table height.

Symptom

Possible cause and remedy

Print head strikes media while printing.

Is the media loaded correctly?

· Load the media correctly.

Requirements for usable media" P. 18, "Loading media" P. 33

Is any wrinkles present on the media?

• Smooth out the media to sit flat on the table.

Is warp, fold or curl present on your media?

- Follow the instructions in "Cautions for handling media" P. 18
- If media does not sit flat on the table, secure it on the table using a thin tape to avoid any warps.

If you are using the optional vacuum table, is the vacuum fan power appropriate for the media being loaded?

• If media warps, change the vacuum fan setting higher to reduce the chance of warp.

™ "Loading media" P. 33, ">5: Vacuum Fan" P. 77**

• If it does not help, cover the vacuum holes around the media with papers to increase suction power.

Is there any curls on the media while printing?

 While printing, media may curl by UV lamp or ink curing. Use heat-resistant media or use a jig to prevent curls.

"Cautions for handling media" P. 18

Table-related troubleshooting

Symptom

Possible cause and remedy

Noise occurs while the table moves up and down./ Table does not move and noise is present.

Do you perform table maintenance as instructed?

• Apply lubricating grease on the table screw shaft.



Perform this maintenance once a month.

Did you place a small and heavy media or jig on either end of the table?

• If you are using those items, place it as close to the center of the table as possible.

"Requirements for usable media" P. 18

Is total weight of media and jig within 6kg?

The maximum weight on the table is 6 kg.
 Remove items on the table and reboot the printer.

"Requirements for usable media" P. 18

• If the problem still persists, please contact your local Mutoh dealer.

| Possible cause and remedy | |
|--|--|
| Depending on the size or position of the media placed on the table, an abnormal noise may occur. | |
| • If you hear an abnormal noise, cover all the holes around the media with paper or thin materials. | |
| Important! | |
| To cover the holes, avoid objects thicker than the media to be printed. The printer may not be able to print properly. | |
| When covering the holes, DO NOT place any objects in the table height detection area. Otherwise, it will cause false detection of the obstacle sensor and the printer may not be able to print correctly. | |
| Printing area" P. 32 | |
| Is there any media or jig placed in the area in front of the guide groove on the front side of the table? | |
| This area is outside the sensing area of the obstacle detection sensor. Do not place any object thicker than the media being loaded. This will cause head strike leading to damage to the print head. "Printing area" P. 32 | |
| | |

Printing-related troubleshooting Symptom

| Possible | e cause and | l remedv |
|----------|-------------|----------|

The printer does not print.

Is Ethernet cable connected correctly?

• Securely connect the Ethernet cable to the Ethernet Port.

Is there any error message displayed on MSM?

• Go to the Printer Status tab in MSM and check that if any error message is displayed in the Status Information.

Smears constantly appear on the print and noise occurs.

Is an obstacle or dirt present on the table rail?

- Check on the table rail and clean it.
- If noise still persists, please contact your local Mutoh dealer.

The printing position is incorrect (some parts of the media cannot be printed on).

Is the media loaded on the correct position?

• Go to the Show Edges menu to check the printing area by LED pointer.

☞ "Checking the printing area" P. 49

Did the printer start printing from the correct position?

• Go to the Show Edges menu to check the print start position by LED pointer.





To check the printing area before printing, go to "**>8: Show Edges" P. 79 and select "Step" or "Auto".

Symptom

Possible cause and remedy

Printer doesn't expectedlyprint

(ink mottle, ink bleed orfaint print appears)

Is the media loaded correctly?

· Load the media correctly.

™ "Loading media" P. 33

Are ink cartridges (or ink bags) within the validity period?

• Use a non-expired ink cartridge (or ink bag).

Did you agitate ink in the cartridge?

• When "Agitate XX Ink" message appears on the operation panel, agitate ink in the cartridge.

(Agitating ink P. 118)

Are Nozzles in good condition?

- Perform Nozzle check. Then if nozzle missing is found, conduct head cleaning.
 - **™** "Nozzle check and cleaning" P. 38
- · Perform Daily Maintenance.
 - **™** "Clean daily maintenance parts" P. 141
- The problem still persists, perform "LittleCharge".
 - **"Maitenance 1: Cleaning" P. 98**

Is the Ink Maintenance option set to Normal or Light?

· Select the Full mode.

"Advanced Settings 9: Ink Maintenance" P. 88

Did you perform Print quality adjustment?

• Perform Print quality adjustment.

"**>2: Adjust Print" P. 68

Did you perform layer alignment?

• Perform layer alignment.

Did you perform Media feed adjustment?

• Perform Media feed adjustment.

"**>4: PF Adjust" P. 74

Is the vacuum fan power appropriate for the media being loaded?

• Try lowering the vacuum fan setting. It might improve print quality.

***>5: Vacuum Fan" P. 77



When you lower the vacuum fan setting, make sure that your media does not warp.

Symptom

Possible cause and remedy

Printed color is not accurate.

Did you set the settings for print job, media and printer correctly as intended?

• Set these settings correctly.

Did you agitate ink in the cartridge?

• When "Agitate XX Ink" message appears on the operation panel, agitate ink in the cartridge.

"Agitating ink" P. 118

Are Nozzles in good condition?

• Perform Nozzle check. Then if nozzle missing is found, conduct head cleaning.

"Nozzle check and cleaning" P. 38

· Perform Daily Maintenance.

☞ "Clean daily maintenance parts" P. 141

• the problem still persists, perform "LittleCharge".

™ "Maitenance 1: Cleaning" P. 98

Is the Ink Maintenance option set to Normal or Light?

• Select the Full mode.

™ "Advanced Settings 9: Ink Maintenance" P. 88

Nozzle missing remains afterhead cleaning.

Is there any ink stains or deposits on the cleaning wiper or circumference of the print head?

• Perform head cleaning or "Little Charge" again and check the nozzle check print.

"Nozzle check and cleaning" P. 38

• Perform Daily Maintenance and check the nozzle check print.

© "Clean daily maintenance parts" P. 141, "Nozzle check and cleaning" P. 38

• The problem still persists, contact your local Mutoh dealer.



Do not use media that are liable to reflect the UV light. The reflective UV light can cure the ink on the print head.

Specifications of this product

List of specifications

| Model Name | | XPJ-661UF |
|---------------------------|-------------------|--|
| Print method | | On demand piezo method |
| Drive method | | Firmware servo/DC motor drive |
| Media feed method | | Setting on (removing from) the table from the front, with the front cover open |
| Media hold down method | | Vacuum Table |
| Ink curing device | | UV-LED Lamp |
| Conditions of usable | Maximum width | 483 mm |
| media —— | Maximum length | 594 mm |
| | Maximum thickness | 150 mm |
| | Weight | up to 6 kg (including jig) |
| Maximum print width | | 483 mm |
| Maximum print length | | 594 mm |
| Head height adjustment | | Automatic table height control by the obstacle sensor (manual adjustment is also available) |
| CPU | | 64bit RISC CPU |
| Memory | | 256MB |
| Interface | | Ethernet (10/100BASE-TX) |
| Ink | Color | 4 colors (Black, Cyan, Magenta, Yellow) 6 colors (Black, Cyan, Magenta, Yellow, White, Varnish) |
| | Туре | 220 ml ink cartridge, 800 ml ink bag (UH21, US11: white ink bag is 500ml) |
| Waste Ink Tank | | Fixed to the body type, capacity 2,000 ml, waste ink discharge by users |

| Environmental conditions ———————————————————————————————————— | Operation environment Recommended Printing Environment Change rate | Temperature 20 to 32 °C, humidity 40 to 60%, no condensation. Temperature 22 to 30 °C, humidity 40 to 60%, no condensation. |
|---|--|--|
| | Environment | · |
| | Change rate | |
| | 3 | Temperature: No more than 2 °C per 1 hour Humidity: No more than 5% per 1 hour |
| | Environment for storage | Storage without ink charging: up to 6 months Temperature -20 to +60 ℃, humidity 20 to 80% |
| | | Storage with ink charging: up to 30 days *1*2 Temperature 5to +30 °C, humidity 20 to 80% *1 Perform the "Daily Maintenance" P. 130 in the operation manual. *2 Always leave the printer in sleep mode and check the remaining ink level once a week. Agitate the ink once a week as instructed. |
| | Ink Storage Environment | • UH21 ink Black/Cyan/Magenta/Yellow/Varnish (220 ml or 800 ml) White (220 ml or 500 ml) Temperature -10 to 50 ° C (The storage period between 40 ° C and 50 ° C should be up to one month) Humidity: 5 to 85%, No condensation |
| | | US11 ink Black/Cyan/Magenta/Yellow/Varnish (220 ml or 800 ml) White (220 ml or 500 ml) Temperature 5 to 35° C Humidity: No condensation |
| | | US61 ink Black/Cyan/Magenta/Yellow/Varnish /White (220 ml or 800 ml) Temperature: 5° C to 30° C (Store in a cool, dark room) |
| | | Cleaning cartridge 220ml Cleaning cartridge (common to UH21, US11, US61 inks) Temperature: -20° C to 40° C (Storage at 40° C must be within one month. Keep away from heat or flammable materials and store in a well-ventilated, cool, dark place) |
| Power supply | Voltage | AC 100 V to 240 V ±10% |
| specifications | Frequency | 50/ 60Hz ±1Hz |
| | Capacity | No less than 3.5 A |
| Power consumption | Power off | AC 100 V to 120 V, 2.1 W or below AC 200 V to 240 V, 3.2 W or below |
| _ | Sleep mode | 20 W or below |
| _ | Standby mode | 40 W or below |
| | Operation | 300 W or below |
| Current consumption | 100 V to 120 V | 3.5 A or below |
| | 200 V to 240 V | 1.8 A or below |

| External dimensions | Height | 604 mm (with stand: 1,254 mm) |
|---------------------|----------------|-------------------------------|
| | Width | 1,188 mm |
| | Depth | 1,627 mm |
| Weight | Main body | 130 kg |
| | Stand (option) | 21 kg |

Options / Supply list

For more information about the options and the supply items, contact your local MUTOH dealer.

Revision History

| Date | Version | Manual code | Supported Firmware |
|----------|---------|----------------|--------------------|
| 2019. 12 | 00 | XPJ661UFE-A-00 | V.1.00 |
| 2021. 2 | 01 | XPJ661UFE-A-01 | V.1.01 |
| 2021.5 | 02 | XPJ661UFE-A-02 | V.1.01 |
| 2022. 1 | 03 | XPJ661UFE-A-03 | V.1.04 |
| 2022. 2 | 04 | XPJ661UFE-A-04 | V.1.05 |
| 2022. 6 | 05 | XPJ661UFE-A-05 | V.1.06 |
| 2024. 11 | 06 | XPJ661UFE-A-06 | V.1.07 |
| 2025. 11 | 07 | XPJ661UFE-A-07 | V.1.09 or later |

MUTOH