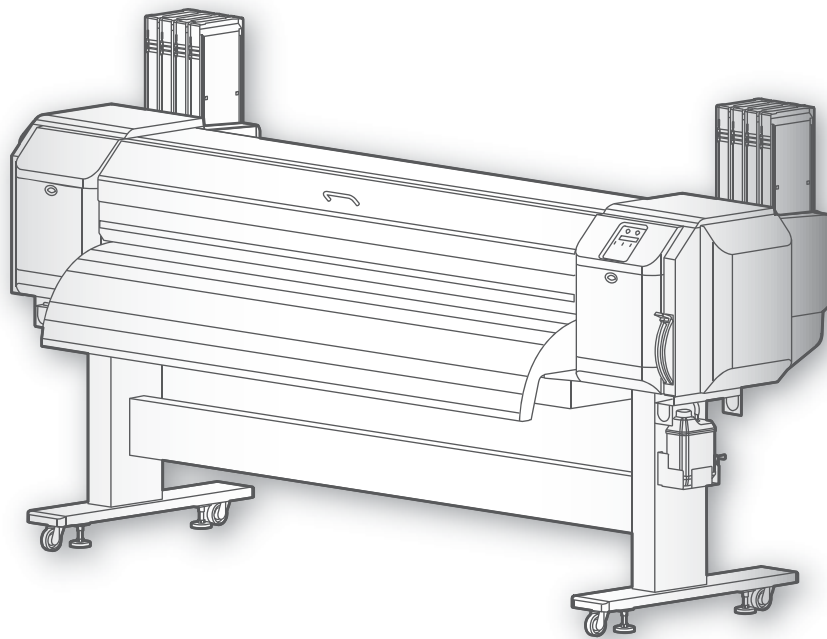


# VJ-1948WX

## 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.

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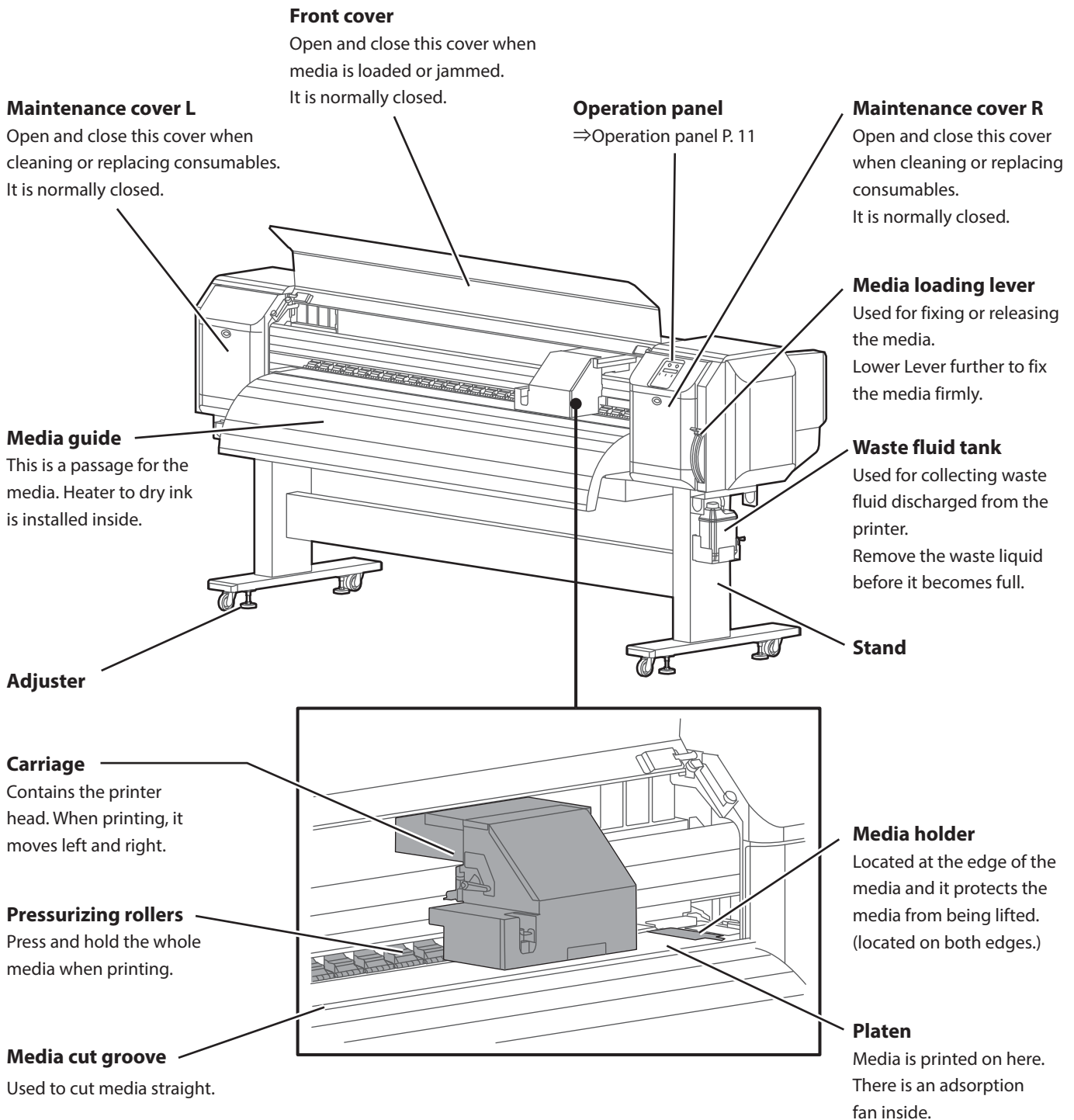




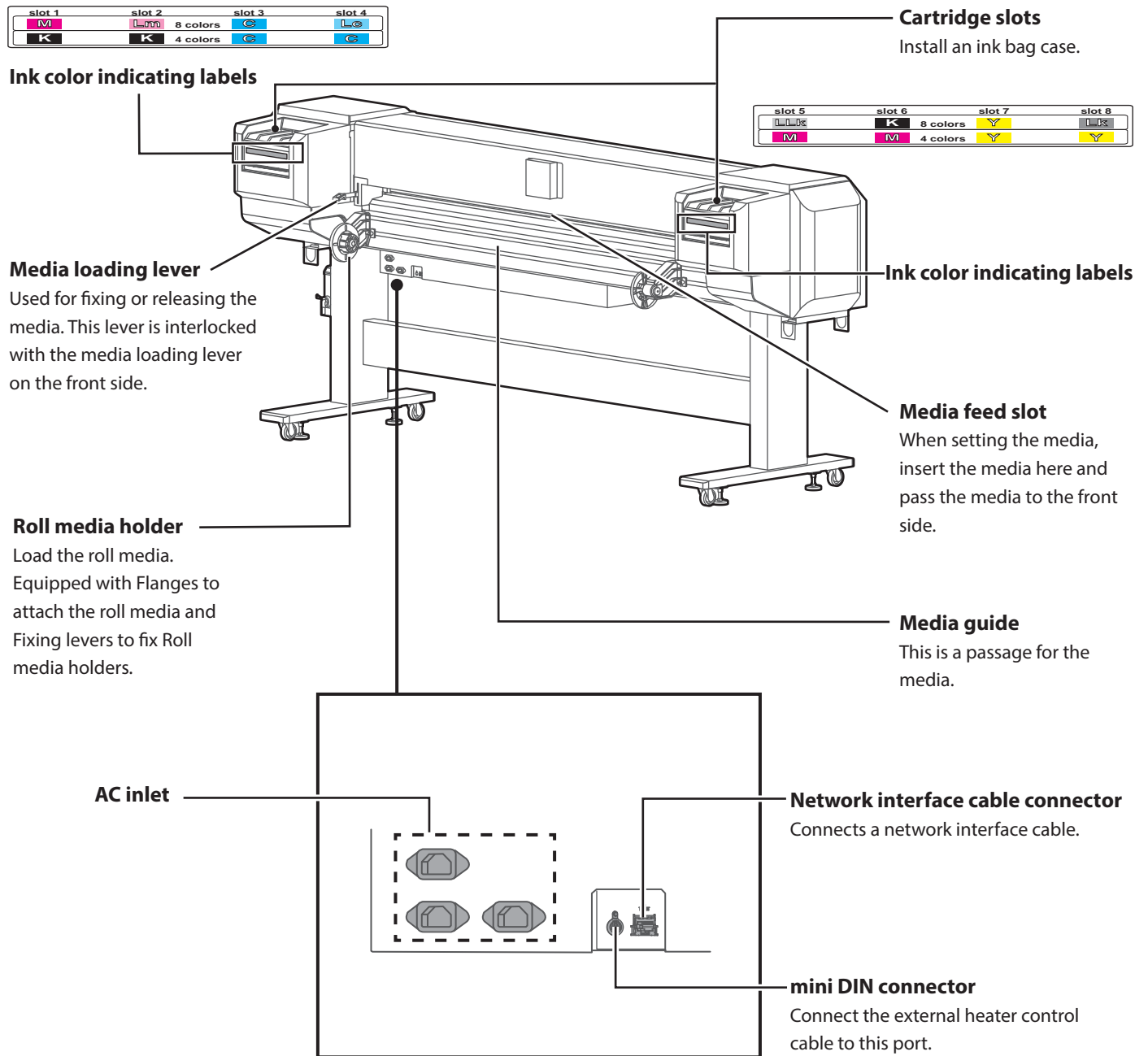
# Introduction

## Name of each part

### Printer's main body (Front side)



# Printer's main body (Rear side)




# Operation panel

## Power button

- Pressing this turns the power on. Lights steady in blue when the power is on.
- Pressing this once more turns the power off. Is unlit when the power is off.
- Flashes while data is being received, in the sleep mode, and at other times.

### [Reference]

The  symbol means "standby". Even when the power button is not turned on, the printer consumes a tiny amount of power so long as the power cable is connected. This state is referred to as the power being "off" in this Manual.

## [Head Height] indicator

- High setting: High indicator is ON.
- Middle setting: High and Low indicators are ON.
- Low setting: Low indicator is ON

## [Take up] indicator

Lights steady green when the Output mode is set to "Take-up".

## [Auto Cut] indicator

Lights steady green when the Output mode is set to "Auto Cut".

## [Menu] key

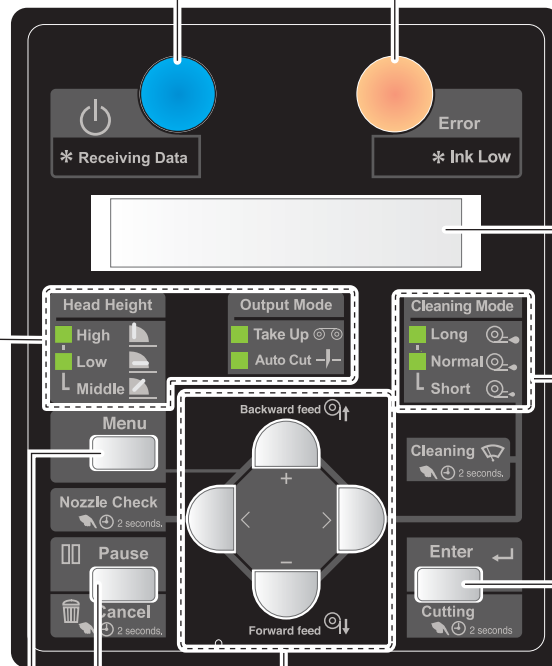
Used for accessing and exiting the menu.

## [Pause] / [Cancel] key

- Press this key to pause printing.
- Holding this key pressed down for two seconds or longer will cancel the print job and delete the data received.

When setting the menu:

- Cancels a change of a setting value.



## Error indicator

- Lights up in orange when an error has occurred or a cover is open.
- Flashes when the ink is low.

## Display

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

## [Cleaning Mode] indicators

Light steady green to indicate the head cleaning mode.

## [Enter] key

When you have set a media in place, pressing and holding this down for two seconds or longer will run a media cut.

When setting the menu:

- Press this to go to the menu item you select.
- Press this to confirm a set value.

## [+] key / [Backward feed] key

Media is fed in the backward direction.

When setting the menu:

- Press this to move to another menu item
- Press this to change a set value.

## [-] key / [Forward feed] key

Media is fed in the forward direction.

When setting the menu:

- Press this to move to another menu item
- Press this to change a set value.

## [<] key / [Nozzle Check] key

Pressing and holding this down for two seconds or longer will run a nozzle check.

When setting the menu:

- Press this to change a set value.

## [>] key / [Cleaning Mode] key

• For changing the cleaning mode.

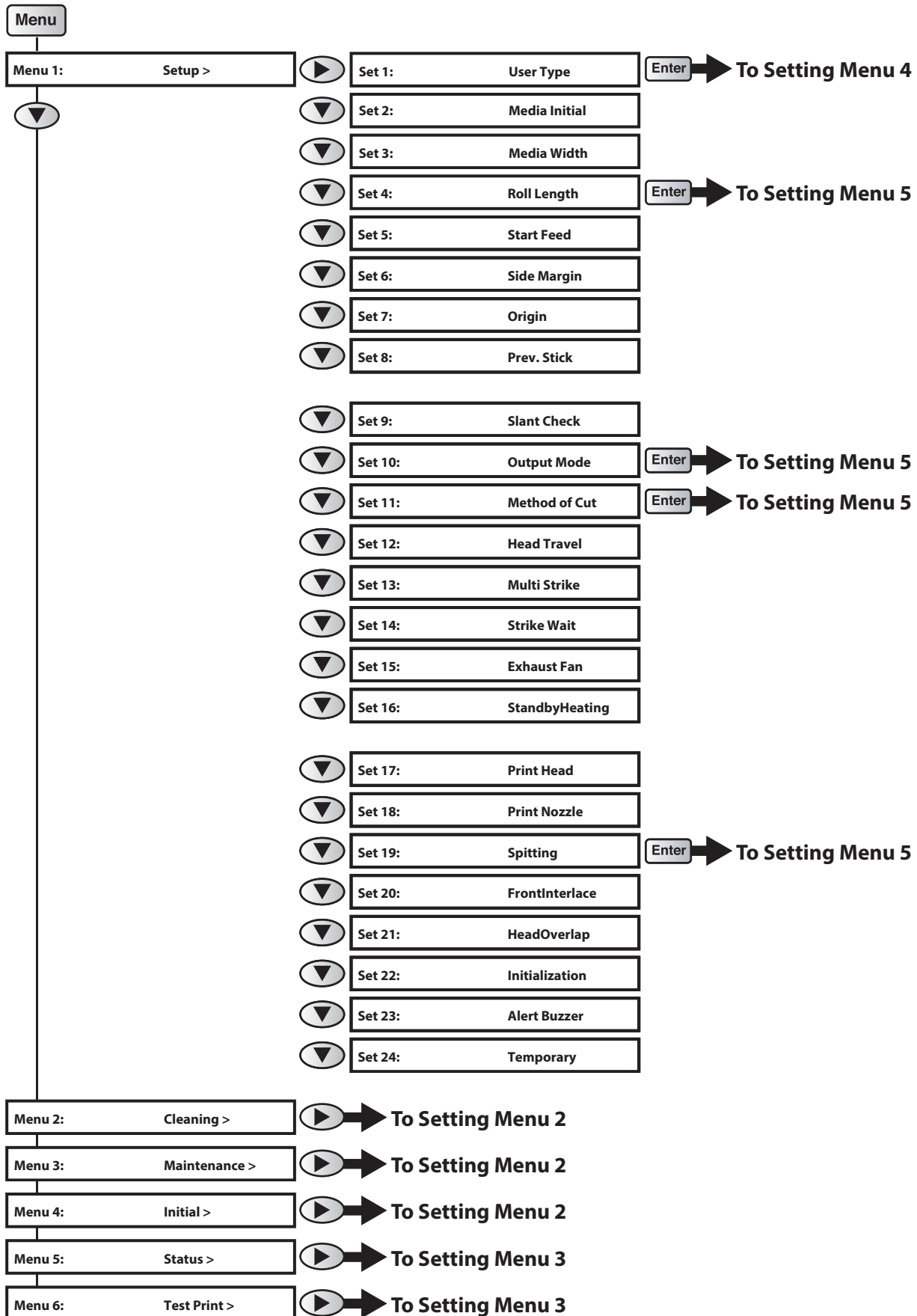
• Pressing and holding this down for two seconds or longer will execute head cleaning.

When setting the menu:

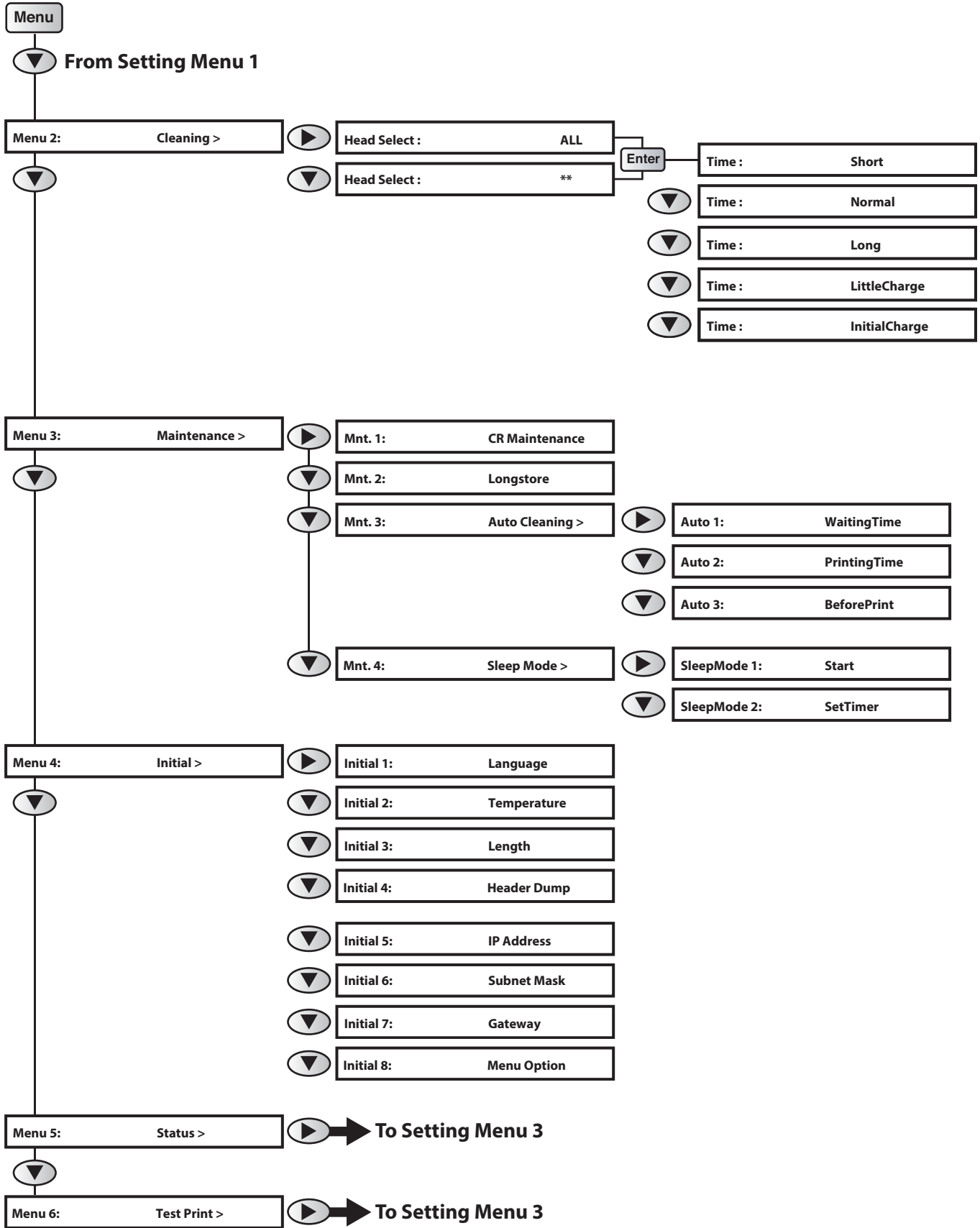
- Press this to move to a lower level of menu items.
- Press this to change a set value.

# Menu chart

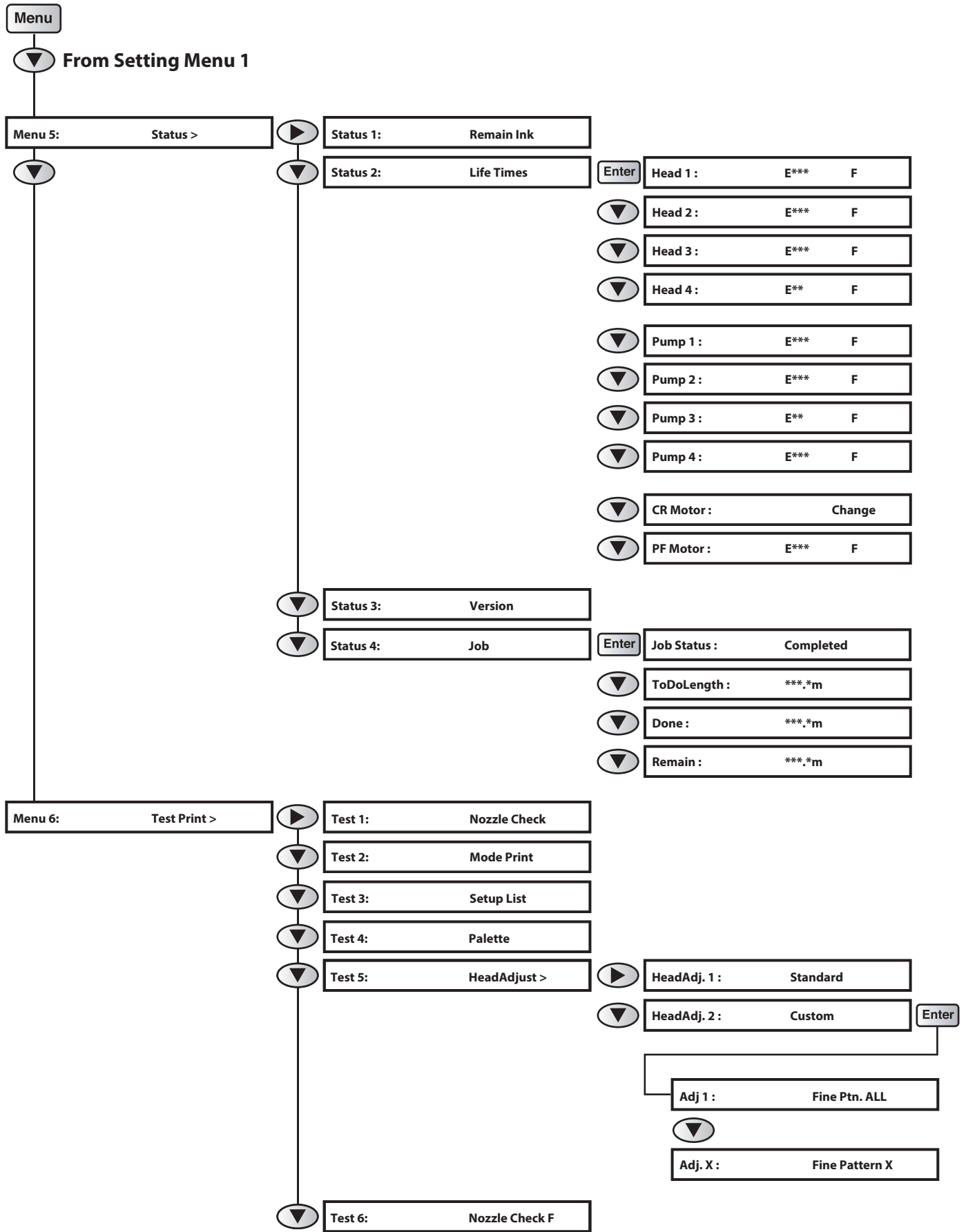
## Setting menu 1



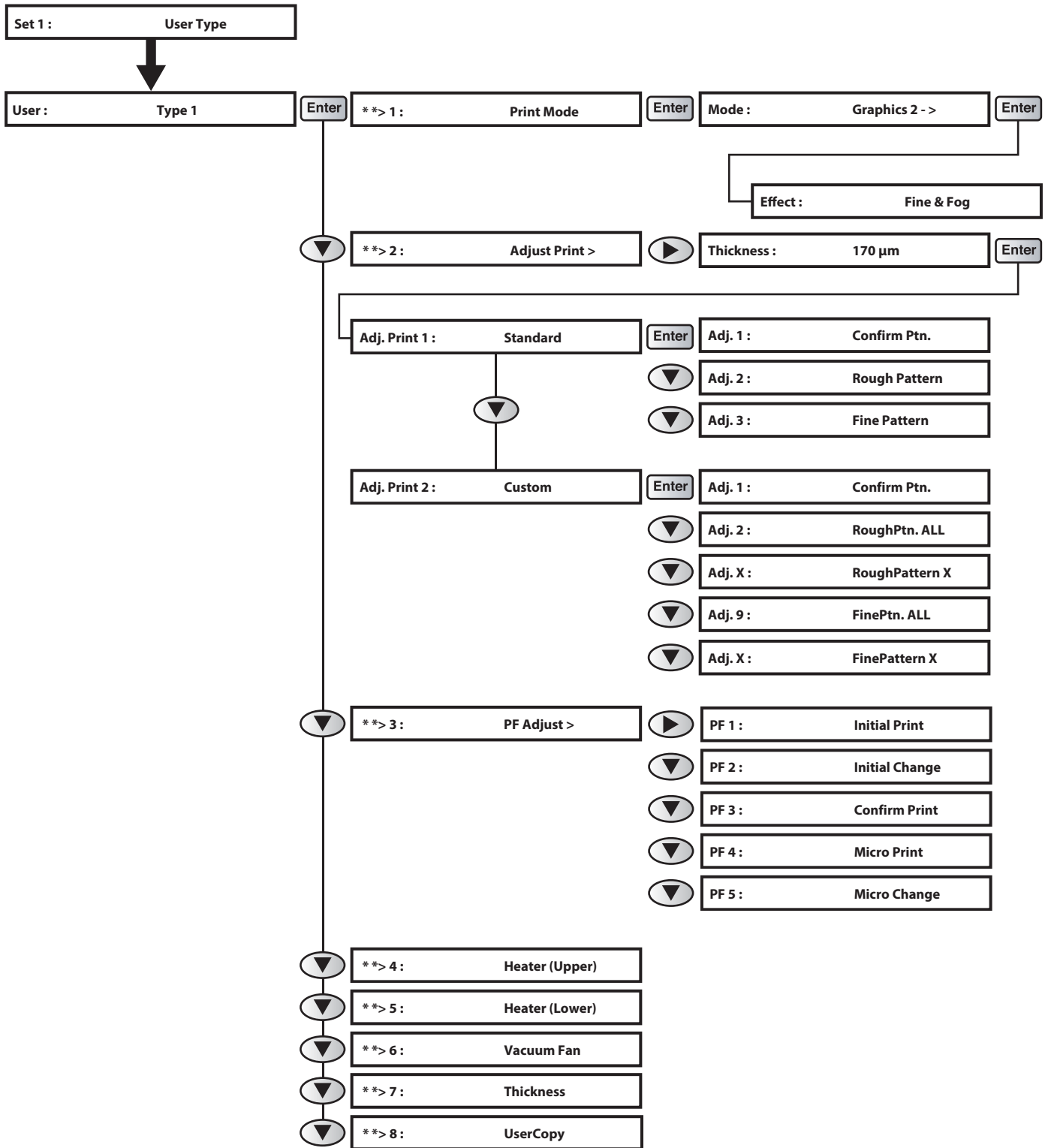
# Setting menu 2



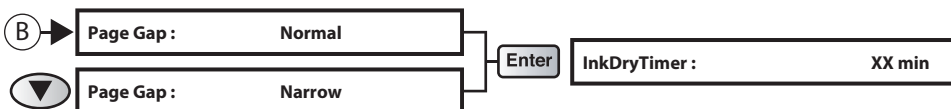
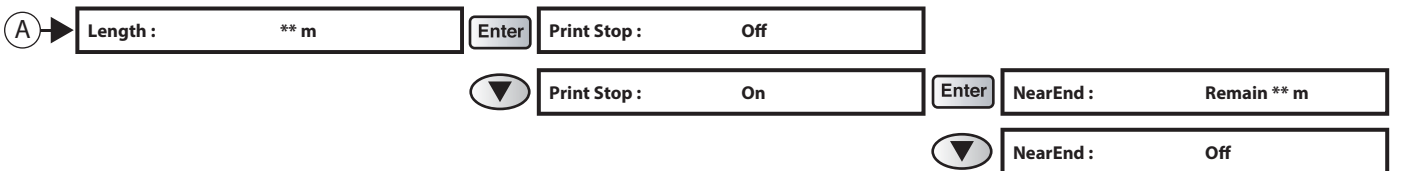
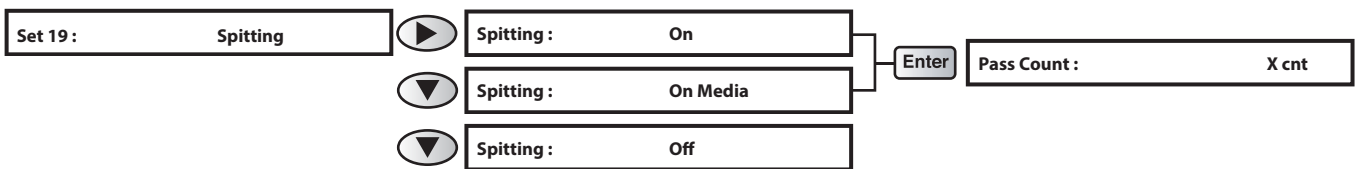
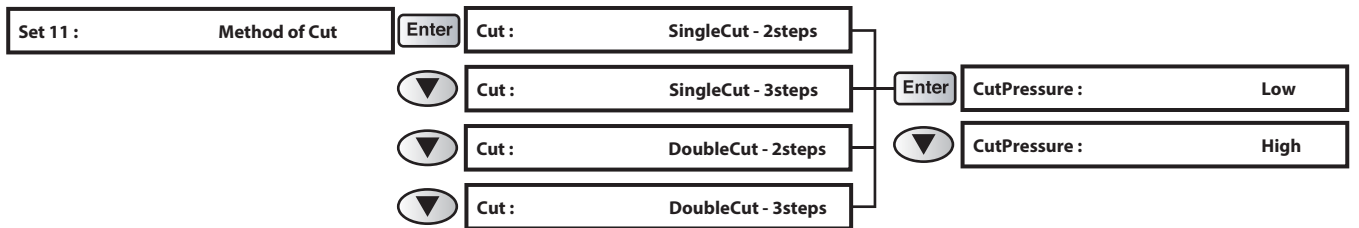
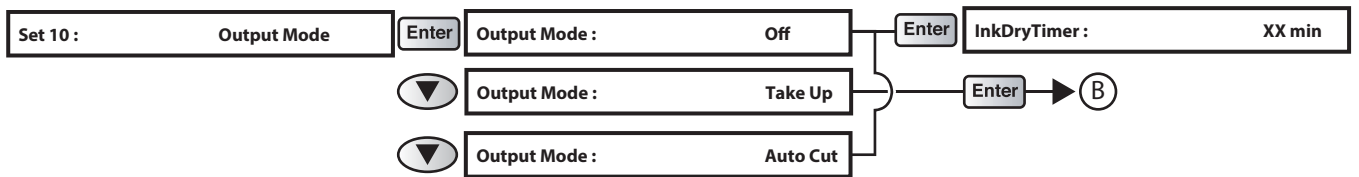
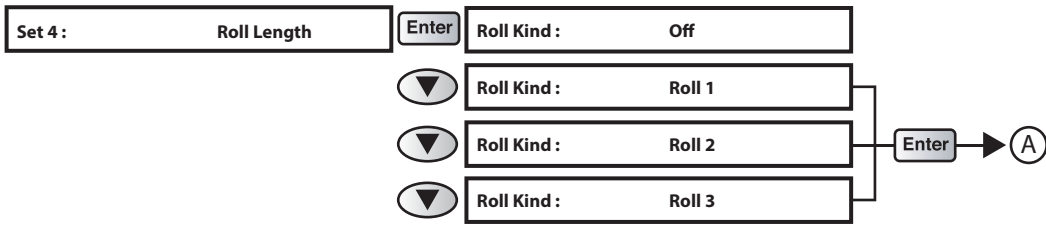
# Setting menu 3



# Setting menu 4



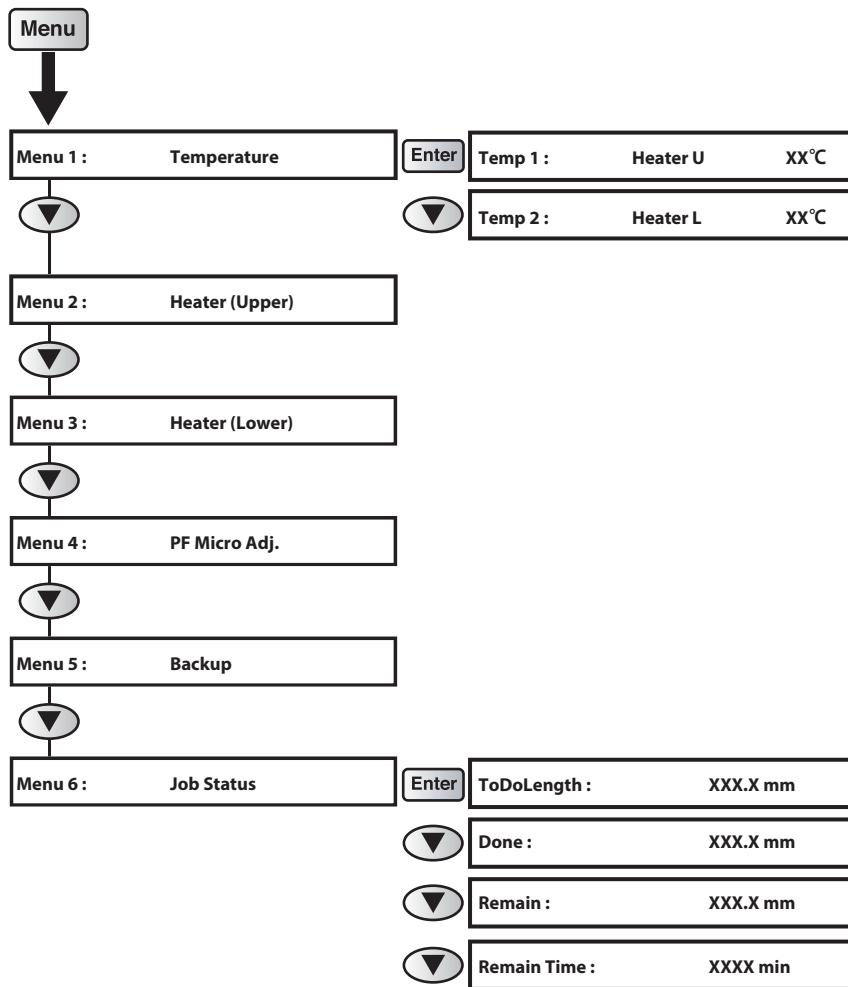
# Setting menu 5



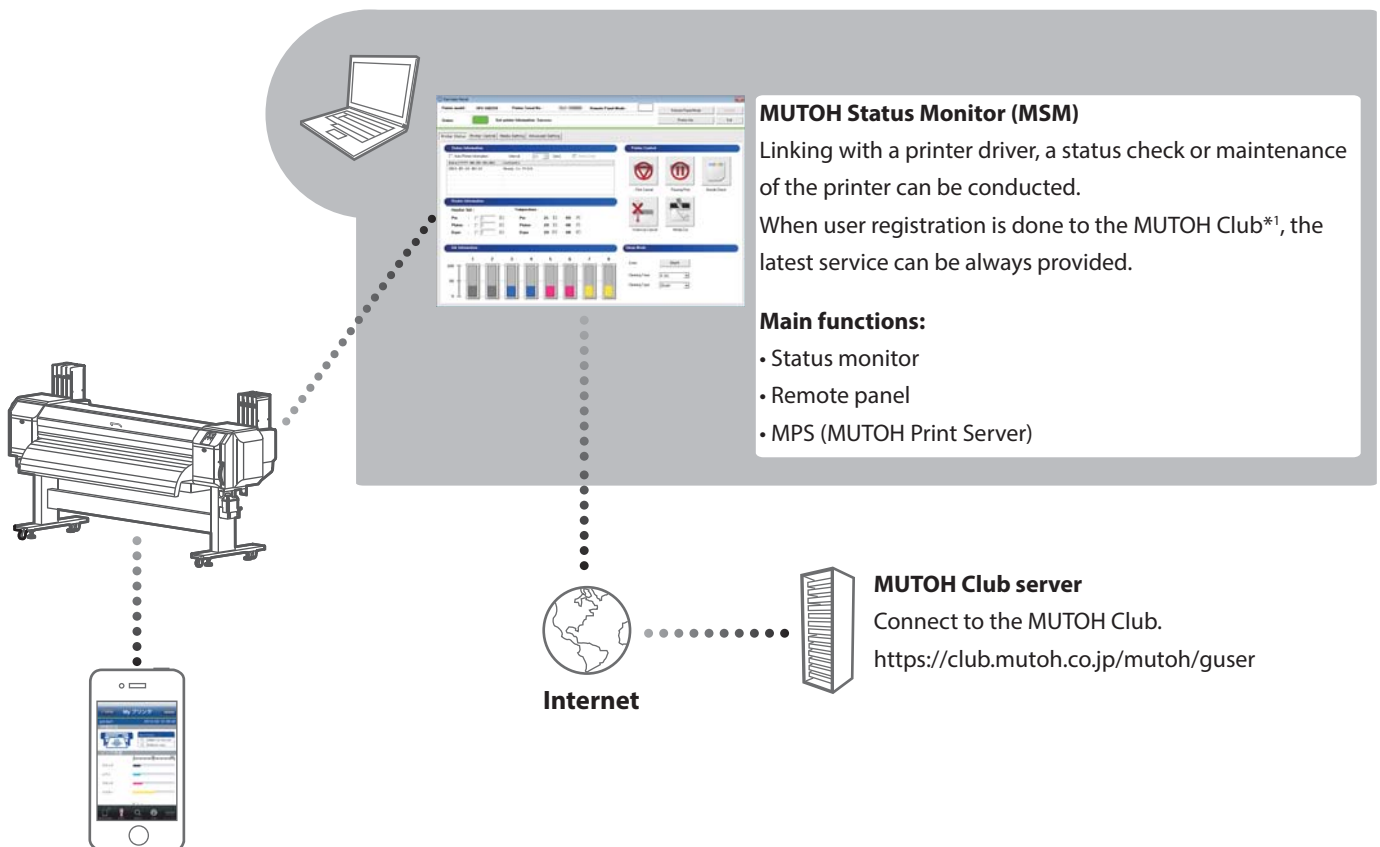


## Menu during printing

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## System configurations of this product



### MUTOH Status Monitor (MSM)

Linking with a printer driver, a status check or maintenance of the printer can be conducted.

When user registration is done to the MUTOH Club\*<sup>1</sup>, the latest service can be always provided.

#### Main functions:

- Status monitor
- Remote panel
- MPS (MUTOH Print Server)

### MUTOH Club server

Connect to the MUTOH Club.

<https://club.mutoh.co.jp/mutoh/guser>

### VSM Mobile

Status check and remote control of printer can be done from personal digital assistance like your iPhone and Android.

#### Main functions:

- Status monitor
- Remote panel

### \*<sup>1</sup> MUTOH Club

This Web service provides free useful contents to users.

Have user registration done to use various services.

#### Main functions:

- Downloading the latest application and manual
- Downloading media profiles
- Printer status check (When using the printer information supplying service of MSM)

#### <Print Support Software>

To get the best out of this product, use the MUTOH Print Server (MPS) function available from MUTOH Status Monitor (MSM).

You can download the latest version of MSM from the MUTOH Club Server.

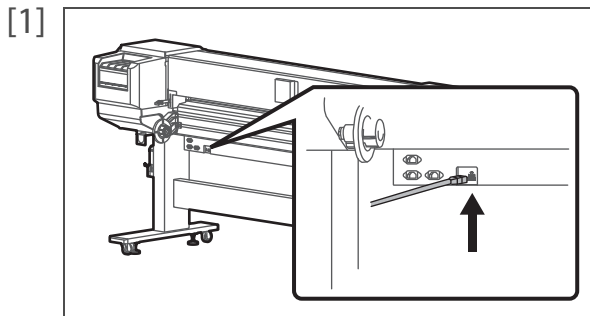
(To use MPS, specify the output port of RIP software to MPS.)

## Connecting to a Computer

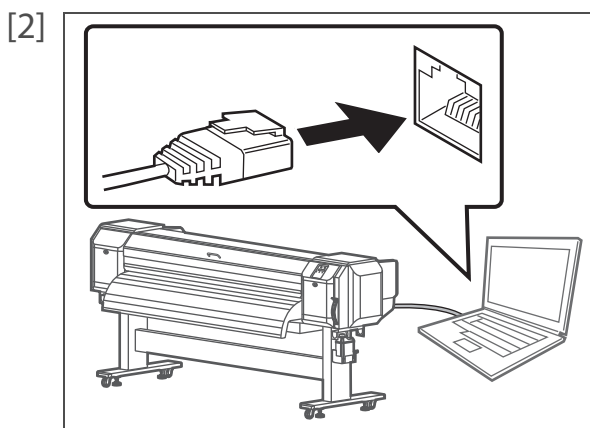
### Important!

Make sure your computer meets the following requirements.

- OS: Windows 10 (64bit), Windows 8/8.1 (64bit), Windows 7 (64bit)
- CPU: Intel (R) Core (TM) i5 / i7
- Memory: No less than 8G byte
- Network: Use a network port that supports Gigabit Ethernet, and an Ethernet cable that supports Category 6 Gigabit Ethernet or later.



Connect the Gigabit Ethernet cable to the product.



Connect the Gigabit Ethernet cable to the computer.

[3] Use the printer operation panel to set the IP address, subnet mask and gateway.

 ["Initial 5: IP Address" P. 83](#), ["Initial 6: Subnet Mask" P. 84](#), ["Initial 7: Gateway" P. 84](#)

### Note

- The above illustration is the example of peer-to-peer connection between this product and computer. Connection method differs depending on the usage environment.
- If you use the product with a LAN, connect the cable so that the computer and printer are on the same subnet.

## Launching/Displaying/Finishing MUTOH Status Monitor (MSM)

### Launching MSM

---



#### **Windows 8 / Windows 8.1**

- In the [Start] screen, click [Desktop].
- Double click the MSM icon on the Desktop.

#### **Windows 10 / Windows 7**

Double click the MSM icon on the Desktop.



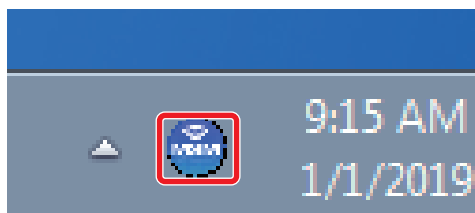
#### Note

Launching from the Start Menu of Windows

- Windows 8 / Windows 8.1  
Right click somewhere the [Start] screen tiles are not displayed to display the application bar, and click [All Apps].
- Windows 10 / Windows 7  
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.

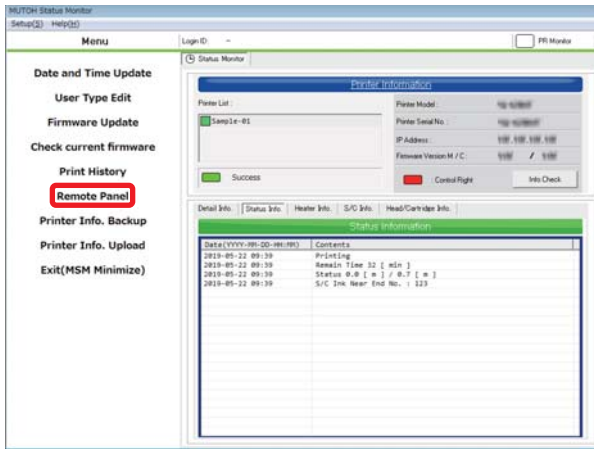
## Displaying remote panel

---

The remote panel is used to view this product's status or operate.

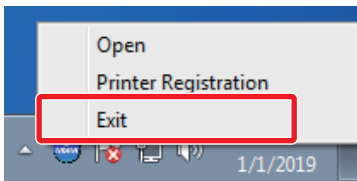
Click [Remote Panel].

- The remote panel opens.



## Finishing MSM

---



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

### Note

When using normally, do not finish MSM. When closing the MSM window, click [Settings] - [Close].

### Windows 8.1

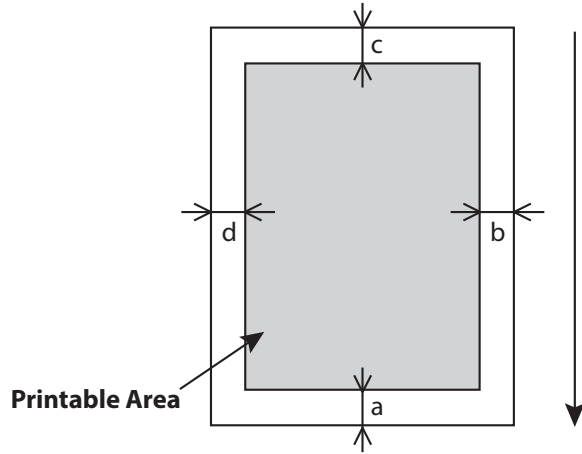
Click the Down Arrow in the [Start] screen.

Click [MUTOH Status Monitor].

## Printing area

Printing is always started from Origin position (print start point).

See the figure below as example.



a=5 mm \*<sup>1</sup>  
b=5 mm to 25 mm  
c=5 mm  
d=5 mm to 25 mm

\*<sup>1</sup> The value of "a" will be 15 mm in the following cases:

- Immediately after media initialization
- When feeding the media by using the [Backward] key

The value of "a" will be 40 mm in the following cases:

- When Media Initial menu is set to "Top&Width"
- After cutting the media

## Requirements for usable media

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

### Usable sizes

---

---

Outer diameter	150 mm or less
Media tube diameter	2 inches or 3 inches
Weight	30 kg or less
Maximum width	1,910 mm
Minimum width	900 mm
Maximum thickness	2.8 mm (When the head height is set to "High")

---

#### Important!

**The default setting for the head height is "Low".**

**When the head height is set to "Low", the maximum available media thickness is 0.3 mm.**

## Cautions in using this product

### Please use this product periodically

---

It is recommended to use this product once a week.

When left unused for a long time, the print head nozzles can get clogged causing damage.

### Please handle ink bag carefully

---

- Before operation, make sure to read the Material Safety Data Sheet (SDS).
- Do not disassemble Ink bag.  
If disassembled, there is a possibility that ink might come into contact with your eyes or skin.
- When handling the ink bag, be careful not to let the ink get in your eyes or on your skin.  
If the ink gets in your eye or on your skin, immediately wash it off with water.  
If not, it could cause bloodshot eyes or light inflammation. Should any anomalies occur, immediately seek medical attention.
- DO NOT drop or hit an ink bag.  
Ink may leak from the bag.

### Conduct periodic maintenance

---

This product requires daily maintenance.

- Perform the Nozzle check before and after printing.  
If nozzle missing is found, conduct a head cleaning.
- Clean the cleaning wiper and the print head circumference once a week.
- When this product is not used for a long time (a week or more), conduct a head cleaning once a week.
- Clean its inside once a month.
- Drain waste fluid in the waste fluid tank periodically before it becomes full.

### Some parts need to be replaced periodically

---

In this product, there are some parts required to be replaced after a long-term use.

- Parts required to be replaced by users: Absorption material for the flushing box, Cutter
- Parts required to be replaced by service personnel: Various motors, Pumps, Print heads



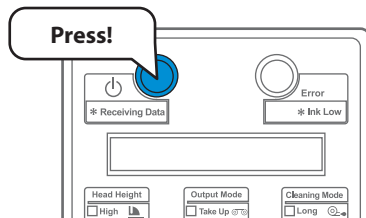
# Powering ON / OFF

## Turning the power ON

---

[1] Close the front cover.

[2]



Press the power button to turn the power ON.

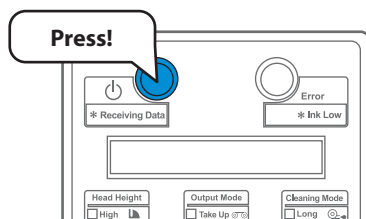
- The blue light becomes ON.
- This product starts its initialization operations.

## Turning the power OFF

---

[1] Make sure printing is done.

[2]



Press the power button to turn the power OFF.

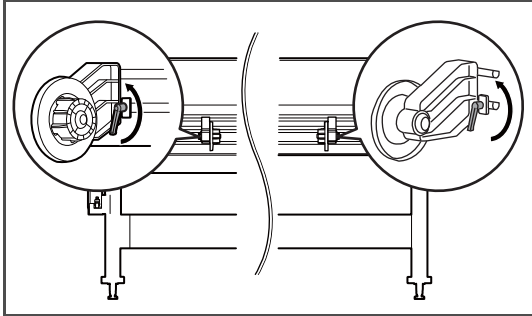
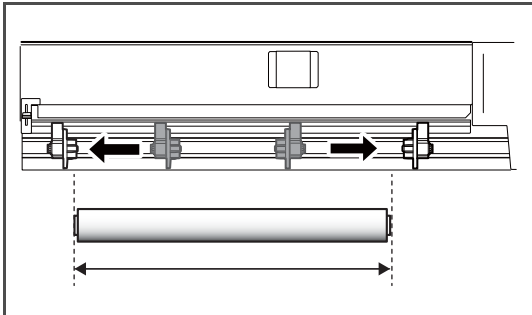
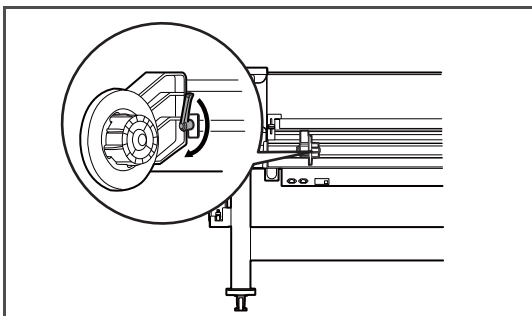
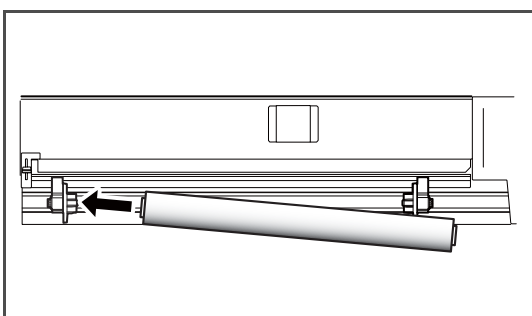
- This product starts its powering off operations.
- The blue light becomes OFF.

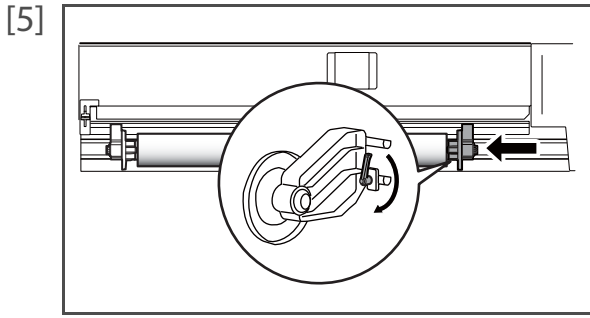
# Loading the media

## Loading Roll Media onto the Roll media holder

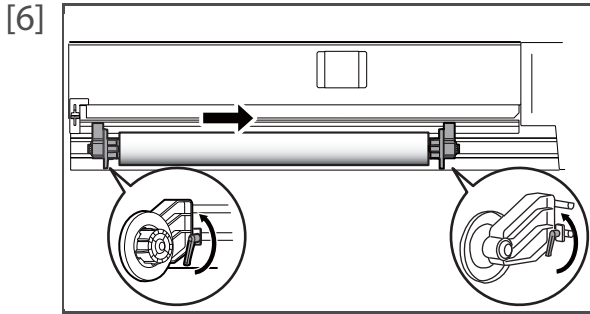


Depending on the type of the media, we recommend that two or more persons set the media.

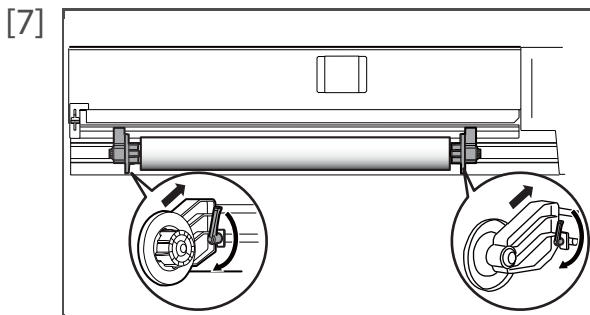
- [1]  Loosen Fixing levers on the Roll media holders (both left and right) on the back of the printer.
- [2]  Set the distance between Roll media holders wider than the actual width of the roll media to be set.
- [3]  Tighten Fixing lever of Roll media holder (left) and fix the Roll media holder (left).
- [4]  Set the roll media to Roll media holder (left).



[5] Attach Roll media holder (right) to the roll media and tighten Fixing lever.



[6] Loosen the Fixing levers of the right and left Roll media holders, move the roll media to the center.



[7] Press Roll media holder toward the printer and fix the Fixing levers.

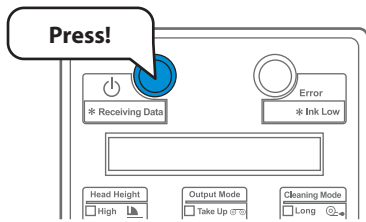
 **Note**

When tightening Fixing lever, press Roll media holder toward the printer.

If you do not press Roll media holder, Fixing lever may not be completely locked because of the weight of the roll media.

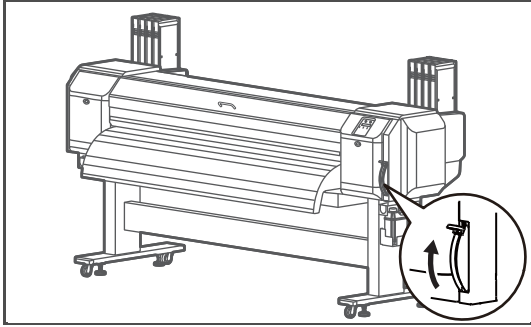
## Loading Roll Media into the printer

[1]



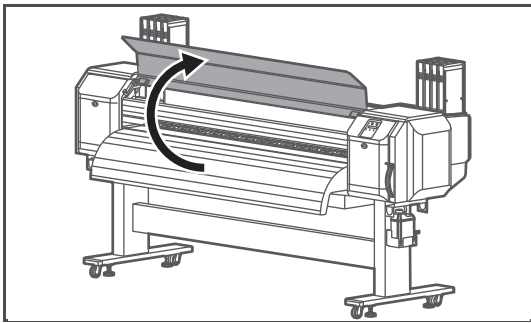
Turn the printer ON.

[2]



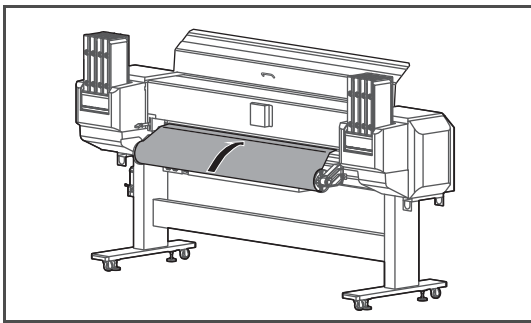
Raise the media loading lever.

[3]



Open the front cover.

[4]



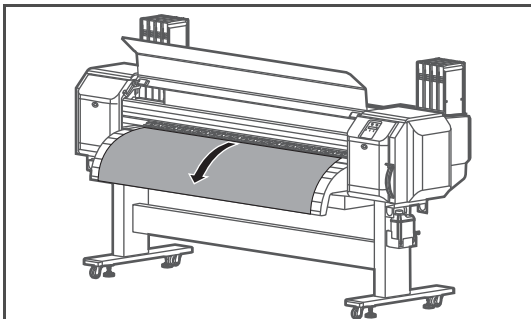
Load the roll media to Media feed slot.



Note

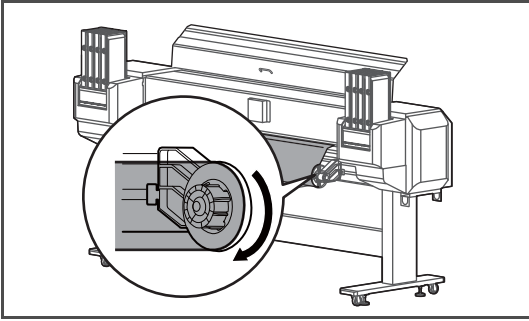
If the end of the roll media is not wound tightly, wind it tightly again, and then load it.

[5]



Pull the roll media out about 1 m from the front Media feed slot.

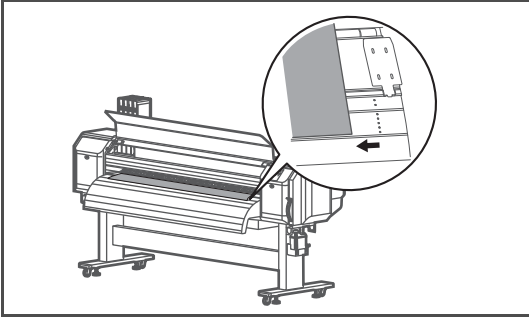
[6]



Rewind the roll media a little by rolling Flange on Roll media holder while holding the edge of the media, and eliminate any slack or slant.

 Note

If you set the roll media free while rewinding, the roll media may fall out from Media feed slot and fall toward the back of the printer.



Confirm that the right edge of the roll media does not go beyond the loading mark. If it does, it may affect print quality.

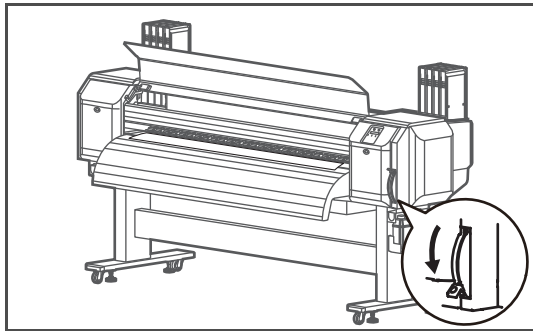
## After loading the media...

[1]

Lever Up

"Lever Up" is displayed on the Operation panel.

[2]

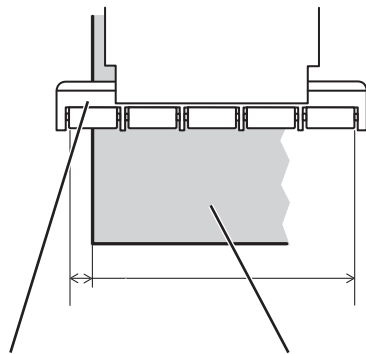


Lower the media loading lever.

[3]

Make sure that the edges of the media is appropriately pressed by Pressurizing rollers.

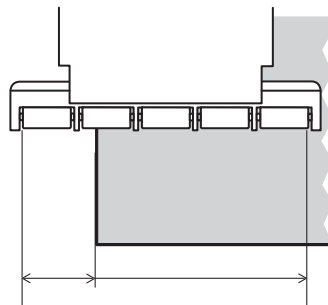
### Good



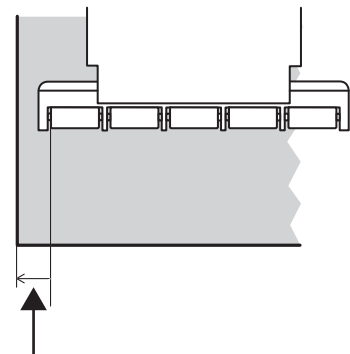
Pressurizing roller

Roll media

### Good



### Not Good

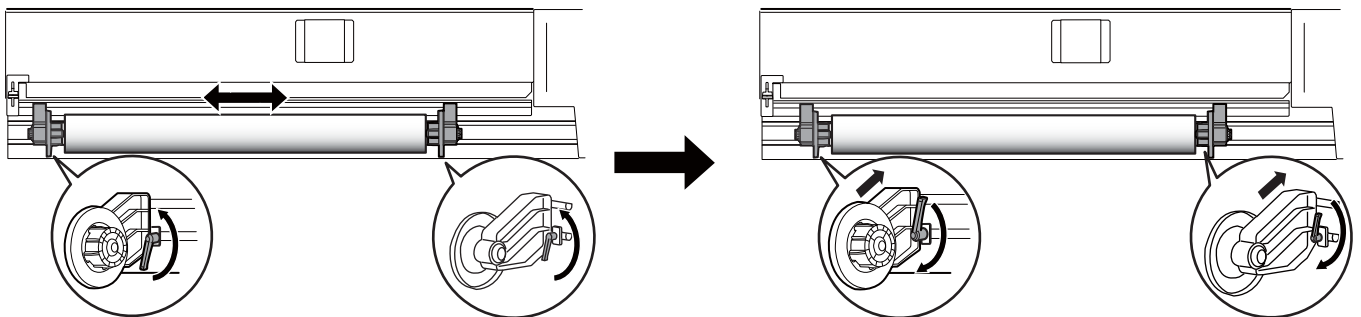


The edge of the roll media is protruding from the pressurizing roller.

[4]

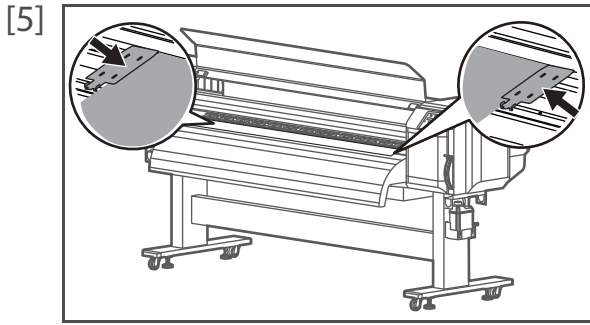
When the media is not appropriately pressed by Pressurizing rollers, follow the procedure to adjust the position of the roll media.

- Raise the media loading lever.
- Loosen Fixing levers of the right and left Roll media holders, and move the roll media to left or right.
- Press Roll media holder toward the printer and fix the Fixing levers.

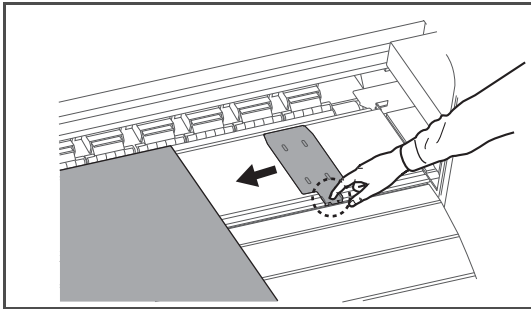


### Note

- If the media is not appropriately pressed by Pressurizing rollers, the media may be misaligned or creased during printing.
- When tightening Fixing lever, press Roll media holder toward the printer.  
If you do not press Roll media holder, Fixing lever may not be completely locked because of the weight of the roll media.



Set the media holder at both edges of the media.

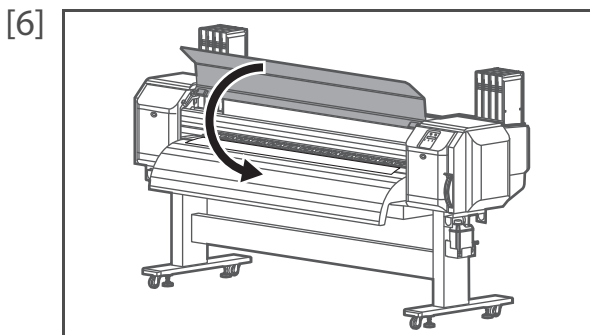


Keep the part circled with a dotted line in the figure to the left pressed to set the media holder.

- If the edges of the media are loose, press them down when setting the media holder.

Important!

**With the default settings, the printing operation starts 5 mm from the edge of the media. To hold down the media, make sure that the part overlapping the media is less than 5 mm in length.**

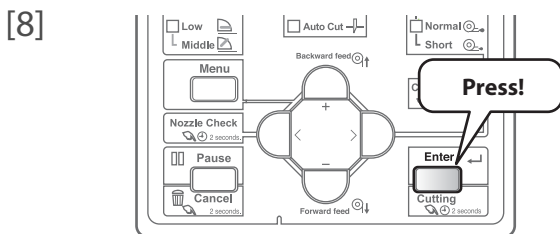


Close the front cover.



"User: Type \*\* OK?" is displayed on the Operation panel.

- Press the [+] key or [-] key on Operation panel to select the User Type Setting.



Press the [Enter] key to execute media initialization.

- That ends the media loading procedure.

# Nozzle check and cleaning

Before starting everyday operation, please check the nozzle. If nozzle missing is found, conduct cleaning.

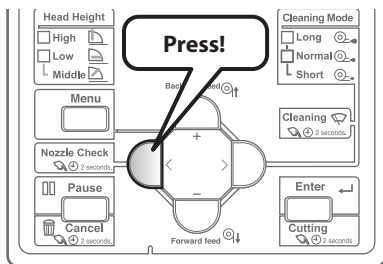
## Nozzle check

### Nozzle check steps

- [1] Load the media for Nozzle check.

 ["Loading the media" P. 26](#)

- [2]

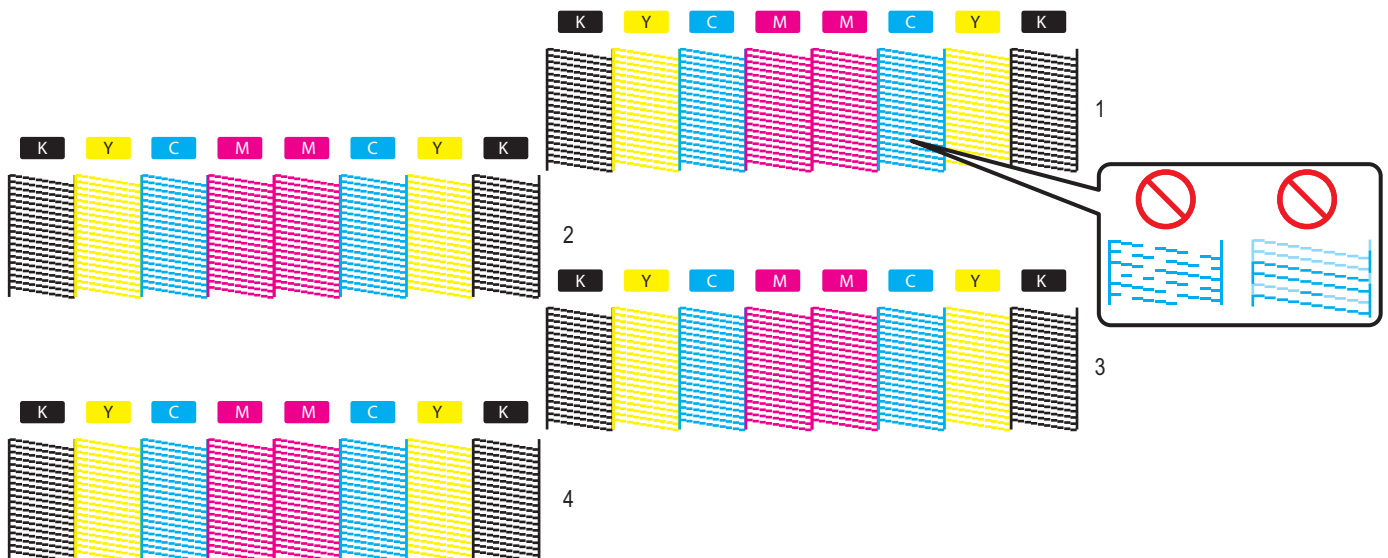


Press the [Nozzle Check] key for more than two seconds.

- Nozzle check printing will start.

- [3] Check the print result.

- If there is nozzle missing, go to ["Cleaning steps" P. 33](#).
- If all lines are clearly printed, you can start printing.



### Note

- The above pattern is the example when the printer is set to 4-color setting, "Set 17: Print Head" to "ALL" and "Set 18: Print Nozzle" to "ALL". A nozzle check pattern varies depending on the settings in the Head Select and the Print Nozzle menus.

 ["Set 17: Print Head" P. 74](#), ["Set 18: Print Nozzle" P. 75](#)

- The number to the right of each pattern indicates the print head used for printing that pattern.
- If nozzle missing is occurred in specific print head, go to Print Head menu and select the print head that you want to perform cleaning. In this way, you can reduce ink waste.

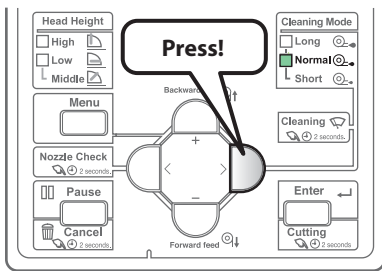
 ["Select the Print Head" P. 78](#)

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

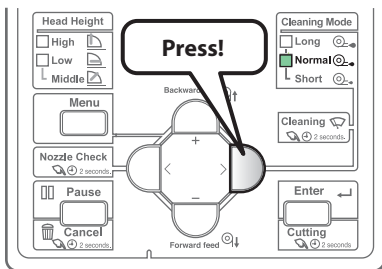


## Cleaning steps

- [1] Press the [Cleaning] key, so that the “Normal” indicator (one of the “Cleaning Mode” indicators) lights steady.
- The cleaning mode will be set to “Normal”.



- [2] Press the [Cleaning] key for more than two seconds.
- Cleaning will start.



- [3] Conduct a nozzle check, again.

 ["Nozzle check steps" P. 32](#)

- If there is still nozzle missing, repeat normal cleaning.  
See "[Head cleaning](#)" P. 101 regarding “Short”, “Long”, “Little Charge” and “Initial Charge” cleaning.
- If nozzle missing is occurred in specific print head, go to Print Head menu and select the print head that you want to perform cleaning. In this way, you can reduce ink waste.

 ["Select the Print Head" P. 78](#)

# Setting the Printing Precision

Before starting to print for the first time, adjust the printing precision.

## Head adjustment

You can print out the adjustment pattern in this menu to check the misalignment of the print head, and then adjust it.

Adjustment methods for this printer are as follows.



<b>Head Adj. 1 :</b>	<b>Standard</b>
----------------------	-----------------

Adjusts only the print mode used by the current user definition.  
When you have adjusted the print mode using Standard, make the resolution, pass count, and print direction of the print mode on the RIP side equal to those of the userdefined print mode.

<b>Head Adj. 2 :</b>	<b>Custom</b>
----------------------	---------------

Allows you to adjust also a print mode other than the print mode used by the current user definition.  
This method optimizes print quality even if the print mode on the RIP side is different from the user-defined mode.

### Note

- Print quality may improve by head adjustment in the following situations:
  - Print quality is poor when using the uni-direction print mode  ["Details of print mode" P. 56](#)
  - Print quality does not improve even after performing print quality adjustment
- After you have performed head adjustment, make sure you perform print quality adjustment.
  - There may be misalignment caused by head adjustment.  ["Print quality adjustment" P. 36](#)
- When changing the print mode after performing standard head adjustment, make sure you adjust print head.
- Since all print modes are adjusted at once after performing Custom head adjustment, head adjustment is not required even after changing the print mode.
- When specifying a print mode for RIP software, etc, that is different from the mode set in the user type setting, perform Custom head adjustment and check all patterns (A to F), and then adjust any patterns that are misaligned beforehand.

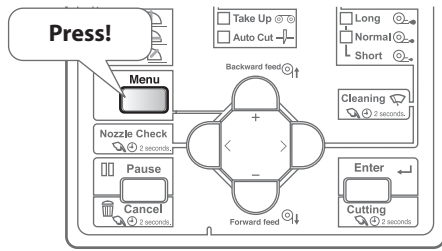
## Head adjustment steps

---

- [1] Turn the printer ON and load the media.

 ["Loading the media" P. 26](#)

- [2]



Press the [Menu] key.

- [3]

**Menu 6 :** **Test Print >**

Press the [-] key several times, to bring up the display on the left.

- Press the [>] key.

- [4]

**Test 5 :** **HeadAdjust >**

Press the [-] key several times, to bring up the display on the left.

- Press the [>] key.

- [5]

**Head Adj. 1 :** **Standard**

Select the adjustment method with the [+]/[-] key.

- Press the [Enter] key.

**Head Adj. 2 :** **Custom**

- [6] Starts printing.

- The confirmation pattern will be printed.

- [7] Follow the steps below and adjust the head.

 ["Steps" P. 91](#)

## Print quality adjustment

It is used for optimizing the quality of image prints.

Adjustment methods for this printer are as follows.

<b>Adj. Print 1:</b>	<b>Standard</b>
----------------------	-----------------

Adjusts only the print mode used by the current user definition.

When you have adjusted the print mode using Standard, make the resolution, pass count, and print direction of the print mode on the RIP side equal to those of the userdefined print mode.

<b>Adj. Print 2:</b>	<b>Custom</b>
----------------------	---------------

Allows you to adjust also a print mode other than the print mode used by the current user definition.

This method optimizes print quality even if the print mode on the RIP side is different from the user-defined mode.




### Note

- When newly setting or changing the user type setting after adjusting Standard adjust print, make sure to adjust print.
- When changing the print mode after performing standard head adjustment, make sure you adjust print head.
- Since all print modes are adjusted at once after performing Custom adjust print, adjust print is not required even after changing the print mode. When specifying a print mode for RIP software, etc, that is different from the mode set in the usertype setting, perform Custom head adjustment and check all patterns (A to F), and then adjust any patterns that are misaligned beforehand.

- Print quality may improve by head adjustment in the following situations:

For adjustment procedure, see  ["Head adjustment" P. 34](#)

Print quality is poor when using the uni-direction print mode.  ["Details of print mode" P. 56](#)

Print quality does not improve even after performing print quality adjustment

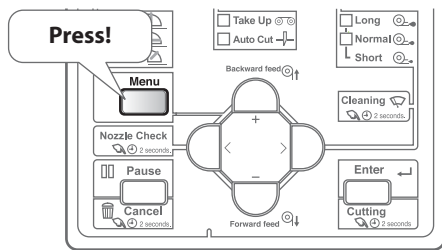
- After you have performed head adjustment, make sure you perform print quality adjustment.  
There may be misalignment caused by head adjustment.

## Print quality adjustment steps

- [1] Turn the printer ON and load the media.

 ["Loading the media" P. 26](#)

- [2]



Press the [Menu] key.

- [3]



Press the [>] key.

- [4]



Press the [Enter] key.

- [5]



Use the [+] / [-] key to select a user type.

- Press the [Enter] key.

- [6]



Press the [-] key several times, to bring up the display on the left.

- Press the [>] key.

- [7]



Enter the media thickness.

- Press the [Enter] key.

- [8]




Select the adjustment method with the [+] / [-] key.

- Press the [Enter] key.



### Note

- In Standard print quality adjustment and Custom print quality adjustment, the names in the available patterns are different. For details, refer to the page below.

 ["Adj. Print 1: Standard" P. 57](#)

 ["Adj. Print 2: Custom" P. 58](#)

- For a pre-adjustment check, select "Confirm Ptn."

Check the printing results in "Confirm Ptn.,"

- To adjust large misalignment, select "Rough Pattern".
- To adjust small misalignment, select "Fine Pattern".

- [9] Follow the steps below and adjust the print quality.

 ["Steps" P. 59](#)

## Media feed adjustment

This adjustment is necessary when:

- you use this product for the first time.
- you change the type of the media.

In other cases, proceed to **"Nozzle check" P. 32**.

For this adjustment, you need a ruler. Use a commercially available ruler.



### Note

If you encounter any of the following problems with the printing results, you may be able to solve them by adjusting the media feed.

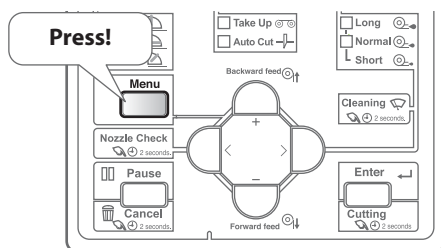
- Printed images overlap.
- White lines are printed over images.

## Media feed adjustment steps

[1] Load the media.

**"Loading the media" P. 26**

[2]



Press the [Menu] key.

[3]



Press the [>] key.

[4]



Press the [Enter] key.

[5]



Use the [+] / [-] keys to select a user type.

- Press the [Enter] key.

[6]



Press the [-] key several times, to bring up the display on the left.

- Press the [>] key.

[7]

<b>PF 1 :</b>	<b>Initial Print</b>
<b>PF 2 :</b>	<b>Initial Change</b>
<b>PF 3 :</b>	<b>Confirm Print</b>
<b>PF 4 :</b>	<b>Micro Print</b>
<b>PF 5 :</b>	<b>Micro Change</b>

Use the [+] / [-] key to select a menu.

- Press the [Enter] key.

[8]

Follow the steps below and adjust the print quality.

 ["Steps" P. 62](#)

## Changing the Head Height

If media is lifted or when printing that use a large amount of ink is conducted, the media rubs against the print head and becomes dirty. In such a case, it may improve by setting the print head height high.

When the print head height is changed, always perform print quality adjustment.

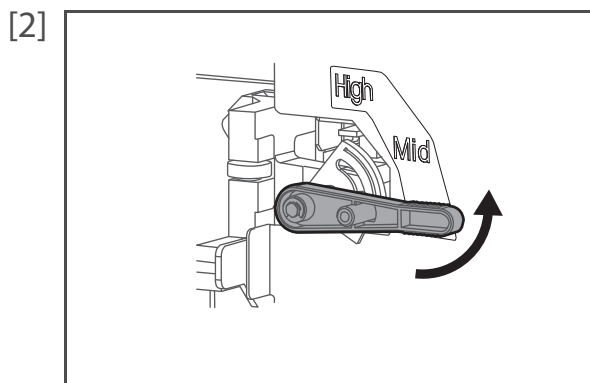
### Procedure



**Do not open Front cover and change the head height during printing.**

**If the head height is changed, the adjustment will be changed and high print quality will not be guaranteed.**

[1] Open the front cover.



Change the head height by moving Head height adjustment lever (orange).

- When the Head height is set to "Low":  
Low lamp on Operation panel lights up in green.
- When the Head height is set to "Mid":  
High lamp and Low lamp on Operation panel light up in green.
- When the Head height is set to "High":  
High lamp on Operation panel lights up in green.

[3] Close the front cover.

[4] Perform print quality adjustment.

["Print quality adjustment" P. 36](#)



## Releasing Pressurizing rollers individually

When printing on thin media or media without stiffness, the media rubs against the print head and becomes dirty. In such a case, it may improve when releasing the pressurizing rollers holding both sides of media.

When releasing the pressurizing rollers individually, always perform media feed adjustment.

### Note

- Thin media or media without stiffness is likely to be wrinkled during printing. Wrinkles can contact the bottom side of the print head causing the media to become dirty. When both edges of the pressurizing rollers of media are released, it can prevent wrinkles.
- When printing on thin media or media without stiffness, wrinkles can be prevented by turning down the vacuum fan.

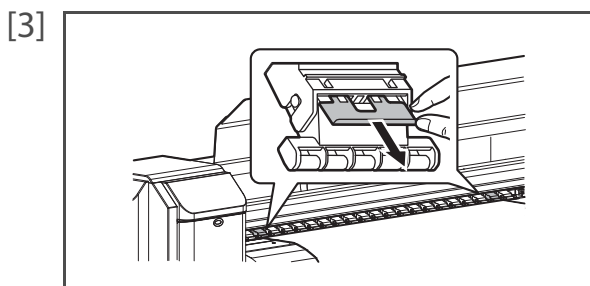
 ["6: Vacuum Fan" P. 66](#)

### Procedure

---

[1] Open the front cover.

[2] Raise the media loading lever.



Release the pressurizing rollers on both edges of media.

- To release the pressurizing rollers, pull the lever of pressurizing roller cancel function until it clicks in place.

[4] Lower the media loading lever.

[5] Close the front cover.

[6] Perform media feed adjustment.

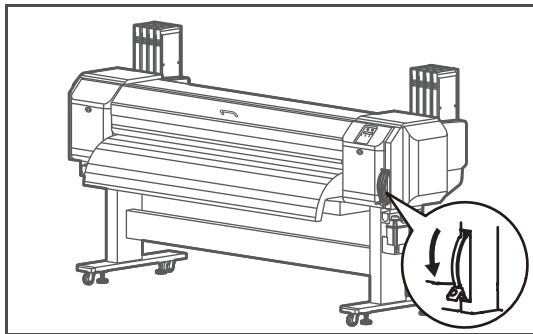
 ["Media feed adjustment" P. 38](#)

# Operating from Operation panel

## Feeding media

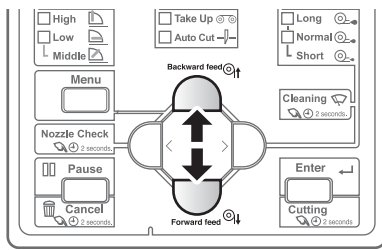
### Steps

[1]



Check that Media loading lever is lowered.

[2]



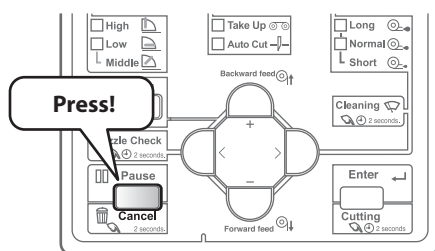
Press the [Forward] key or the [Backward] key on Operation panel.

- [Forward] key: The media is fed forward.
- [Backward] key: The media is fed backward.

[3]

Release the [Forward] key or the [Backward] key on Operation panel after feeding the media to the desired position.

## Pausing/Restarting printing



To halt printing, press the [Cancel] key.

- The printing pauses.
- To resume printing, press the [Enter] key.

### Note

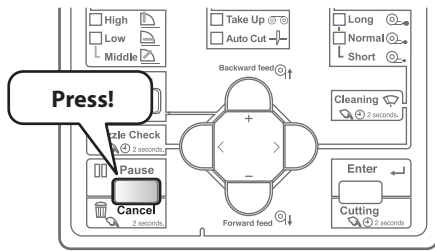
- In this operation, printing data sent to the product are not deleted.
- Please see the followings when canceling printing and deleting data.

["Canceling printing" P. 43](#)

### Important!

**Mutoh cannot guarantee the print quality when you resume the print.**

## Canceling printing



Press and hold the operation key on the operation panel for two seconds or more during printing.

- The printing is canceled (it cannot be restarted).
- The printing data sent to the product are deleted.



### Note

You can alternatively do this via the printer driver or the MSM's remote panel.

## Starting printing during warming up

### Steps

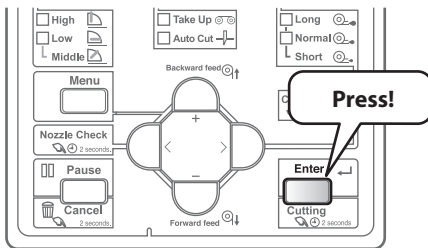
- [1] **Warming Up**  
Confirm that the printer is warming up.
  - "Warming Up" is displayed on Operation panel.
- [2] **Skip -> Enter**  
Print data will be sent.
  - "Warming Up" and "Skip ->Enter" is displayed on Operation panel.

### CAUTION



**While "Warming Up" is displayed, do not touch Media guide.**  
You could burn yourself.

[3]



Press the [Enter] key on the operation panel.

- The printer starts printing.

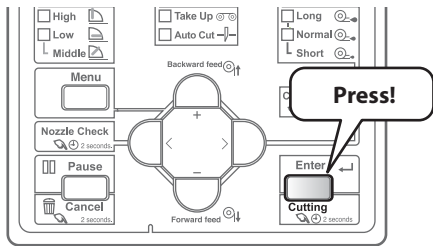
### Important!

**If you start printing during warming up, print quality will not be guaranteed.**

### Note

Even when you start printing during warming up, warming up continues until the temperature reaches the set temperature.

## Cutting media



Press the [Cutting] key on Operation panel for more than two seconds.

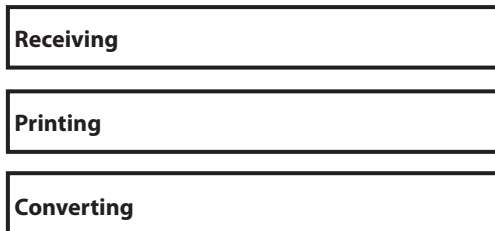
- The printer feeds the roll media to the length of the margin and cuts the media.

### Note

- When loading the new roll media, cut the front edge of the media if it is not straight.
- When the media detection is set to "Off", the media cannot be cut automatically.
  - ☞ ["Set 2: Media Initial" P. 67](#)
- If the Output mode menu is set to "Auto Cut", the printer cuts the media automatically after printing.
  - ☞ ["Set 10: Output Mode" P. 71](#)
- The cutter is a consumable component. Replace it periodically.
  - ☞ ["Replacing Cutter" P. 113](#)

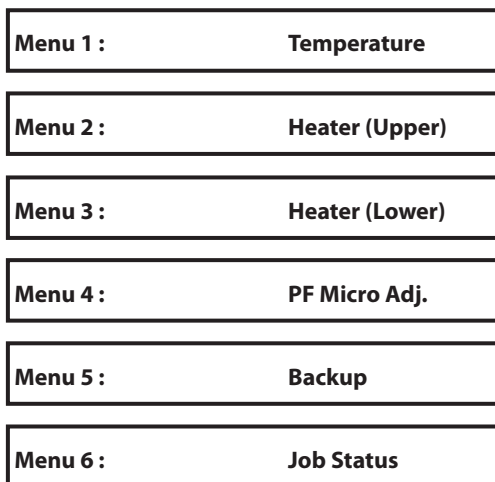
## Menus you can access while printing

[1]



Press the [Menu] key while any of the messages on the left is displayed.

[2]



Press the [+] / [-] key to select a menu.

- ☞ ["Menu 1: Temperature" P. 45](#)
- ☞ ["Menu 2: Heater \(Upper\)" P. 46](#)
- ☞ ["Menu 3: Heater \(Lower\)" P. 46](#)
- ☞ ["Menu 4: PF Micro Adjustment" P. 47](#)
- ☞ ["Menu 5: Backup" P. 47](#)
- ☞ ["Menu 6: Job Status" P. 48](#)

## Menu 1: Temperature

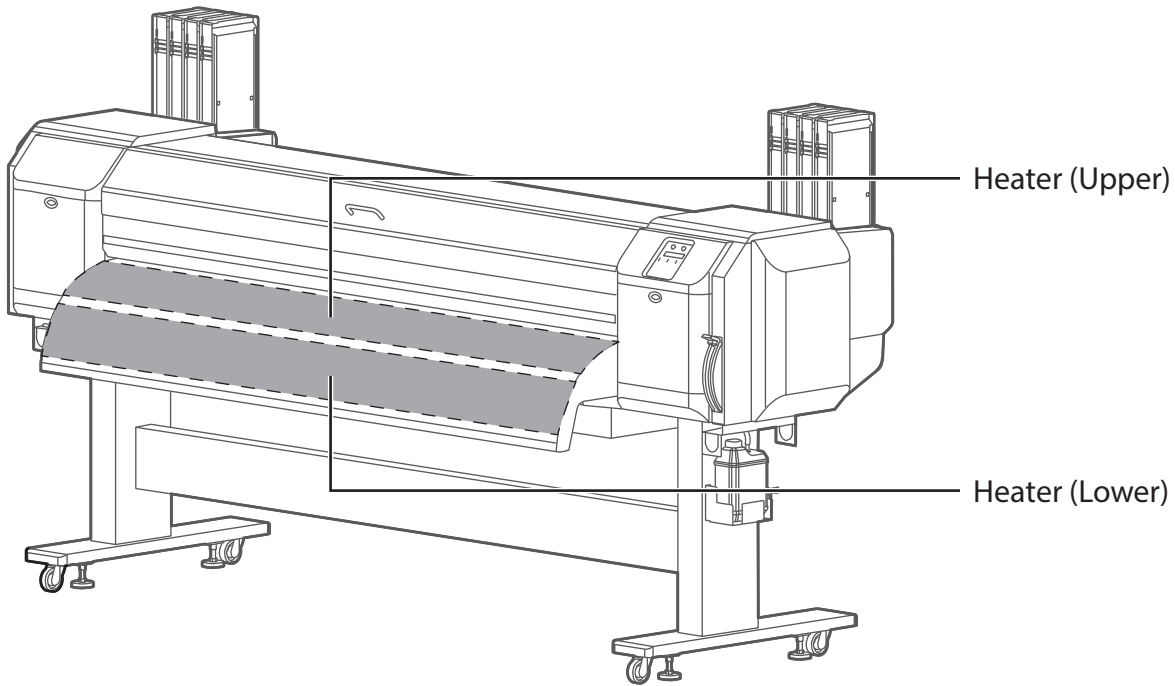
---

With this menu item, You can check the temperature of the heater during printing.

- See the following related sections of Panel Setting Menus:

☞ **"\*\*>4: Heater (Upper)" P. 65**, **"\*\*>5: Heater (Lower)" P. 65**

- The locations of the heater (Upper) and heater (Lower) are shown in the following figure.



[1] 

<b>Menu 1 :</b>	<b>Temperature</b>
-----------------	--------------------

 Press the [Enter] key.

[2] 

<b>Temp 1 :</b>	<b>Heater U</b>	<b>XX°C</b>
-----------------	-----------------	-------------

<b>Temp 2 :</b>	<b>Heater L</b>	<b>XX°C</b>
-----------------	-----------------	-------------

 Use the [+] / [-] key to select a menu item.

 **Note**

The values displayed by this function are approximate. They are not guaranteed to be rigorously accurate.

## Menu 2: Heater (Upper)

---

With this menu item, you can alter the setting value for the Heater (Upper). The alteration will be valid for the current printing only.

- See the following related sections of Panel Setting Menus:

 ["\\*\\*\\*>4: Heater \(Upper\)" P. 65](#)

[1]

<b>Menu 2 :</b>	<b>Heater (Upper)</b>
-----------------	-----------------------

Press the [Enter] key.

[2]

<b>Heater (Upper) :</b>	<b>XX°C</b>
-------------------------	-------------

- Use the [+] / [-] key to change the setting value.
- Press the [Enter] key to set the changed value.



### Note

- The changed value set with this menu item will become invalid when the printing ends.
- To have the change reflected in the currently selected User Type, save it using "Menu 5: Backup".

## Menu 3: Heater (Lower)

---

With this menu item, you can alter the setting value for the Heater (Lower). The alteration will be valid for the current printing only.

- See the following related sections of Panel Setting Menus:

 ["\\*\\*\\*>5: Heater \(Lower\)" P. 65](#)

[1]

<b>Menu 3 :</b>	<b>Heater (Lower)</b>
-----------------	-----------------------

Press the [Enter] key.

[2]

<b>Heater (Lower) :</b>	<b>XX°C</b>
-------------------------	-------------

- Use the [+] / [-] key to change the setting value.
- Press the [Enter] key to set the changed value.



### Note

- The changed value set with this menu item will become invalid when the printing ends.
- To have the change reflected in the currently selected User Type, save it using "Menu 5: Backup".

## Menu 4: PF Micro Adjustment

---

With this menu item, you can alter the micro-adjustment value for the feed correction. The alteration will be valid for the current printing only.

- See the following related sections of Panel Setting Menus:

 ["\\*\\*\\*>3: PF Adjust" P. 61](#)

[1] 

<b>Menu 4 :</b>	<b>PF Micro Adj.</b>
-----------------	----------------------

 Press the [Enter] key.

[2] 

<b>Micro :</b>	<b>5.00 %</b>
----------------	---------------

- Use the [+] / [-] key to change the setting value.
- Press the [Enter] key to set the changed value.



- The changed value set with this menu item will become invalid when the printing ends.
- To have the change reflected in the currently selected User Type, save it using "Menu 5: Backup".

## Menu 5: Backup

---

With this menu item, you can have a change that you made via "Menu2: Heater (Upper)", "Menu3: Heater (Lower)", "Menu4: PF Micro Adj." reflected in the currently selected User Types.

[1] 

<b>Menu 5 :</b>	<b>Backup</b>
-----------------	---------------

 Press the [Enter] key.

[2] 

<b>Update Parameter?</b>
--------------------------

 Press the [Enter] key.

<b>* Parameter Updating *</b>
-------------------------------

 The setting value will be saved.

## Menu 6: Job Status

---

This menu item displays data on the job being printed.

- See the following related sections of Panel Setting Menus:

 ["Status 4: Job" P. 87](#)

[1]

<b>Menu 6 :</b>	<b>Job Status</b>
-----------------	-------------------

Press the [Enter] key.

[2]

<b>ToDoLength :</b>	<b>XXX.Xm</b>
---------------------	---------------

<b>Done :</b>	<b>XXX.Xm</b>
---------------	---------------

<b>Remain :</b>	<b>XXX.Xm</b>
-----------------	---------------

<b>Remain Time :</b>	<b>Xmin</b>
----------------------	-------------

Use the [+] / [-] key to select a menu item.

- ToDoLength: display this to check the total length (media feed direction) of the job being printed.
- Done: display this to check how much of the current job has been printed.
- Remain: display this to check how much of the current job remains to be printed.
- Remain time: displays the time remaining to complete the print job.



### Note

- The values displayed by this function are approximate. They are not guaranteed to be rigorously accurate.
- If the print job data contains no length information, "0" will be displayed for all these items.



# Chapter 2 Advanced Operations

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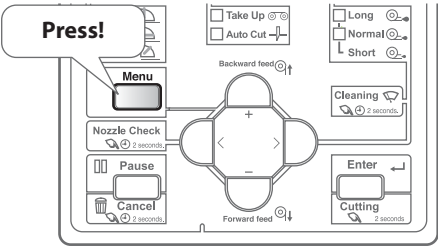

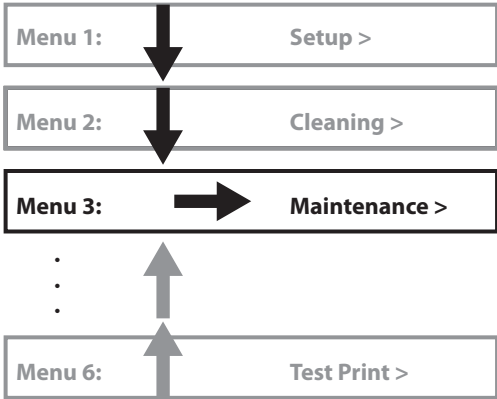
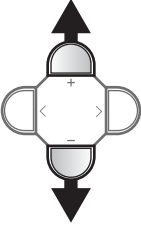
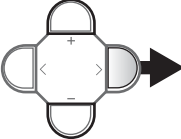
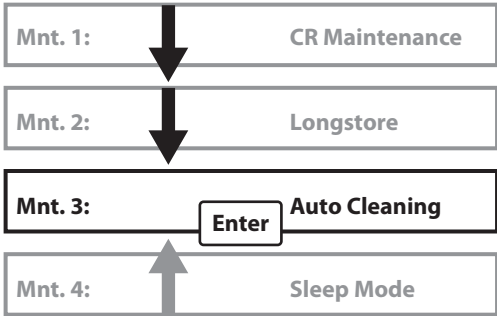
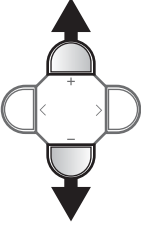


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# Introduction

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

## Operating the keys to use the menus












- [1]  To access the panel setting menus, press the [Menu] key.
-  **Note**  
You cannot access the panel setting menus while printing or receiving data (the power button is flashing).
- [2]  Use the [+] / [-] key to scroll through the menus.
-  Press the [>] key to access the menu you are on.
- 
- [3]  Use the [+] / [-] key to select submenus, enter numeric values and so forth.
-  Press the [Enter] key to set/execute.
-  Use the [Cancel] key to return to the menu/submenu.  
(In the case shown on the left, pressing [Cancel] key will return to "Menu3: Maintenance>".)
- 

## Menu 1: Setup

Menu 1:            Setup >

Various settings of the printer are configured.

### Submenus

Set 1:            User Type	 <a href="#">Set 1: User Type</a>
Set 2:            Media Initial	 <a href="#">Set 2: Media Initial</a>
Set 3:            Media Width	 <a href="#">Set 3: Media Width</a>
Set 4:            Roll Length	 <a href="#">Set 4: Roll Length</a>
Set 5:            Start Feed	 <a href="#">Set 5: Start Feed</a>
Set 6:            Side Margin	 <a href="#">Set 6: Side Margin</a>
Set 7:            Origin	 <a href="#">Set 7: Origin</a>
Set 8:            Prev. Stick	 <a href="#">Set 8: Prev. Stick menu</a>
Set 9:            Slant Check	 <a href="#">Set 9: Slant Check</a>
Set 10:           Output Mode	 <a href="#">Set 10: Output Mode</a>
Set 11:           Method of Cut	 <a href="#">Set 11: Method of Cut</a>
Set 12:           Head Travel	 <a href="#">Set 12: Head Travel</a>
Set 13:           Multi Strike	 <a href="#">Set 13: Multi Strike</a>
Set 14:           Strike Wait	 <a href="#">Set 14: Strike Wait</a>
Set 15:           Exhaust Fan	 <a href="#">Set 15: Exhaust Fan</a>
Set 16:           Standby Heating	 <a href="#">Set 16: Standby Heating</a>
Set 17:           Print Head	 <a href="#">Set 17: Print Head</a>
Set 18:           Print Nozzle	 <a href="#">Set 18: Print Nozzle</a>
Set 19:           Spitting	 <a href="#">Set 19: Spitting</a>
Set 20:           FrontInterlace	 <a href="#">Set 20: FrontInterlace</a>
Set 21:           HeadOverlap	 <a href="#">Set 21: HeadOverlap</a>
Set 22:           Initialization	 <a href="#">Set 22: Initialization</a>
Set 23:           Alert Buzzer	 <a href="#">Set 23: Alert Buzzer</a>

Set 24: Temporary

 [Set 24: Temporary](#)

## Menu 2: Cleaning

Menu 2: Cleaning >

Cleans the print head and performs the initial ink charging.

### Submenus

Time : Short

 [Menu 2: Cleaning](#)

Time : Normal

Time : Long

Time : Little Charge

Time : Initial Charge

## Menu 3: Maintenance

Menu 3: Maintenance

Configures the periodical printer maintenance, sleep mode, and other settings.

### Submenus

Mnt. 1: CR Maintenance

 [Maintenance 1: CR Maintenance](#)

Mnt. 2: Longstore

 [Maintenance 2: Longstore](#)

Mnt. 3: Auto Cleaning

 [Maintenance 3: Auto Cleaning](#)

Mnt. 4: Sleep Mode

 [Maintenance 4: Sleep Mode](#)

## Menu 4: Initial

Menu 4: Initial >

Sets the interface language and units, to set up the network, or to configure the menu display settings.

### Submenus

Initial 1: Language

 [Initial 1: Language](#)

Initial 2: Temperature

 [Initial 2: Temperature](#)

Initial 3: Length

 [Initial 3: Length](#)

Initial 4: Header Dump

 [Initial 4: Header Dump](#)

Initial 5: IP Address

 [Initial 5: IP Address](#)

Initial 6: Subnet Mask

 [Initial 6: Subnet Mask](#)

Initial 7: Gateway

 [Initial 7: Gateway](#)

Initial 8: Menu Option

 [Initial 8: Menu Option](#)

## Menu 5: Status

---


Menu 5: Status >

Displays the printer's information.

### Submenus

---

Status 1: Remain Ink

 [Status 1: Remain Ink](#)

Status 2: Life Times

 [Status 2: Life Times](#)

Status 3: Version

 [Status 3: Version](#)

Status 4: Job

 [Status 4: Job](#)

## Menu 6: Test Print

---

Menu 6: Test Print >

Performs nozzle check of the print head and setup list.

### Submenus

---

Test 1: Nozzle Check

 [Test 1: Nozzle Check](#)

Test 2: Mode Print

 [Test 2: Mode Print](#)

Test 3: Setup List

 [Test 3: Setup List](#)

Test 4: Palette

 [Test 4: Palette](#)

Test 5: HeadAdjust >

 [Test 5: Head Adjust](#)

Test 6: Nozzle Check F

 [Test 6: Nozzle Check F](#)

# Menu 1: Setup

## Set 1: User Type

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

Set 1:	User Type
--------	-----------

You can have up to 15 groups of User Type, labeled "Type1" to "Type15". When you select a User Type group ("Type") and press the [Enter] key, that definition group will be set for the printer. Also, a submenu will be displayed.

### Setting values

User :	Type 1
--------	--------

Select a "Type" number, from "Type1" to "Type15".



**When you change to another User Type, all the settings that can be set via the User Type will be changed.**

- The settings that can be set via the User Type include "Print Mode", "Effect" the adjustment value for "Adjust Print", "PF Adjust", the setting value for "Heater (Upper /Lower)", "Vacuum Fan" and "Thickness".

**When using the printer for the first time or when changing the media, configure the items for the User Type.**

User :	Type 1
--------	--------

### Making media settings.

#### Submenus

**> 1:	Print Mode		**>1: Print Mode
**> 2:	Adjust Print >		**>2: Adjust Print>
**> 3:	PF Adjust >		**>3: PF Adjust
**> 4:	Heater (Upper) >		**>4: Heater (Upper)
**> 5:	Heater (Lower) >		**>5: Heater (Lower)
**> 6:	Vacuum Fan		**>6: Vacuum Fan
**> 7:	Thickness		**>7: Thickness
**> 8:	UserCopy		**>8: User Copy

## \*\*>1: Print Mode

**\*\*> 1: Print Mode**

Making settings for print mode.

- Pressing the [>] key while a mode is displayed will bring up detailed information on that mode (resolution, number of passes, print direction), which will be displayed for as long as the key is held down.
- After setting the print mode, go on to setting of effect.

### Setting values

<b>Mode :</b> Quality X ->	Sets up to perform high quality printing. There are four patterns: Quality 1 to Quality 4.
<b>Mode :</b> Graphics X ->	Sets up to perform standard printing. There are two patterns: Graphics 1 and Graphics 2. Graphics 2 is the initial setting.
<b>Mode :</b> Banner X ->	Sets up to perform high-speed printing. There are four patterns: Banner 1 to Banner 4.

## Details of print mode

Print Mode	Resolution	Pass (4-color setting)	Pass (8-color setting)	Direction	Initial values for effect
Quality 1	1440 × 1440	16 pass	32 pass	Uni (unidirectional)	Fine&Fog
Quality 2	1440 × 1440	16 pass	32 pass	Bi (bidirectional)	Fine&Fog
Quality 3	720 × 1440	8 pass	16 pass	Uni (unidirectional)	Fine&Fog
Quality 4	720 × 1440	8 pass	16 pass	Bi (bidirectional)	Fine&Fog
Graphics 1	720 × 1080	6 pass	12 pass	Uni (unidirectional)	Fine&Fog
Graphics 2	720 × 1080	6 pass	12 pass	Bi (bidirectional)	Fine&Fog
Banner 1	720 × 720	4 pass	8 pass	Uni (unidirectional)	Fine&Fog
Banner 2	720 × 720	4 pass	8 pass	Bi (bidirectional)	Fine&Fog
Banner 3	360 × 720	2 pass	4 pass	Uni (unidirectional)	None
Banner 4	360 × 720	2 pass	4 pass	Bi (bidirectional)	None



## Effect

Mode : Graphics 2 - >

Sets up the Effect menu.

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

---

### Setting values

---

Effect : None

The Effect function is not used.

Effect : Wave

The printing joint will be the wave form.

Effect : Fine & Fuzz

The printing joint will shade off as the wave form.

Effect : Fine & Fog

The printing joint will shade off.  
This is the initially set value.

## \*\*>2: Adjust Print>

\*\*> 2: Adjust Print >

Sets up when adjusting the printer for the optimum quality of image print.

Before adjusting this setting, enter the thickness of the media.

 ["Confirm pattern" P. 60](#)

 ["Rough adjustment pattern" P. 60](#)

 ["Fine adjustment pattern" P. 61](#)

---

### Submenus

---

Adj. Print 1: Standard

Adjusts only the print mode in the user type setting which is currently set.

Adj. Print 2: Custom

Adjusts the print modes other than the mode in the user type setting which is currently set.

## Adj. Print 1: Standard

Adj. Print 1: Standard

Adjusts only the print mode in the user type setting which is currently set.

 ["Confirm pattern" P. 60](#)

 ["Rough adjustment pattern" P. 60](#)

 ["Fine adjustment pattern" P. 61](#)

---

### Submenus

---

Adj. 1: Confirm Ptn.

Print the test pattern for the adjustment.  
Check before adjusting.

Adj. 2: Rough Pattern

Perform this to adjust large misalignment.  
Print Adjust pattern and enter the set value.

Adj. 3: Fine Pattern

Perform this to adjust small misalignment.  
Print Adjust pattern and enter the set value.

## Adj. Print 2: Custom

Adj. Print 2:	Custom
---------------	--------

Perform adjustment for all patterns (A to F).

 ["Confirm pattern" P. 60](#)

 ["Rough adjustment pattern" P. 60](#)

 ["Fine adjustment pattern" P. 61](#)

---

### Submenus

Adj. 1:	Confirm Ptn.
---------	--------------

The test patterns of A to F will be printed for Adjust print. Check before adjusting.

Adj. 2:	Rough Ptn. ALL
---------	----------------

For printing all rough adjustment patterns from A to F.

Adj. 3:	Rough Pattern A
---------	-----------------

For printing an adjust pattern selected from A to F.

·  
·  
·

Adj. 8:	Rough Pattern F
---------	-----------------

Adj. 9:	Fine Ptn. ALL
---------	---------------

For printing all fine adjustment patterns from A to F.

Adj. 10:	Fine Pattern A
----------	----------------

For printing an adjust pattern selected from A to F.

·  
·  
·

Adj. 15:	Fine Pattern F
----------	----------------

## Adjustment patterns for each print mode

Print mode	Print mode specifications	Adjustment pattern
Quality 1	1440 x 1440, 16 pass / 32 pass, Uni	C
Quality 2	1440 x 1440, 16 pass / 32 pass, Bi	
Quality 3	720 x 1440, 8 pass / 16 pass, Uni	B
Quality 4	720 x 1440, 8 pass / 16 pass, Bi	
Graphics 1	720 x 1080, 6 pass / 12 pass, Uni	
Graphics 2	720 x 1080, 6 pass / 12 pass, Bi	
Banner 1	720 x 720, 4 pass / 8 pass, Uni	A
Banner 2	720 x 720, 4 pass / 8 pass, Bi	
Banner 3	360 x 720, 2 pass / 4 pass, Uni	
Banner 4	360 x 720, 2 pass / 4 pass, Bi	


## Steps

1. Print a confirm pattern and check it for printing errors.
2. Print "Rough adjustment pattern" and look for a place that is properly adjusted in the printing results of print head 1.
  - If you selected "Adj. Print 2: Custom", select "ALL" or "A" to "F".
  - The number printed under the pattern without alignment errors is the adjustment value.
3. Enter the adjustment values.
4. Follow the same procedure to adjust print head 2 to print head 4.
5. Print "Fine adjustment pattern" and look for a place that is properly adjusted in the printing results of print head 1.
  - If you selected "Adj. Print 2: Custom", select "ALL" or "A" to "F".
  - The number printed under the pattern without alignment errors is the adjustment value.
6. Enter the adjustment values.
7. Follow the same procedure to adjust print head 2 to print head 4.



### Note

- Warm up the heater before printing the Confirm and Adjustment patterns.  
"Warming Up" and "Skip ->Enter" is displayed on Operation panel.
- You can start printing while the printer is warming up.

 ["Starting printing during warming up" P. 43](#)

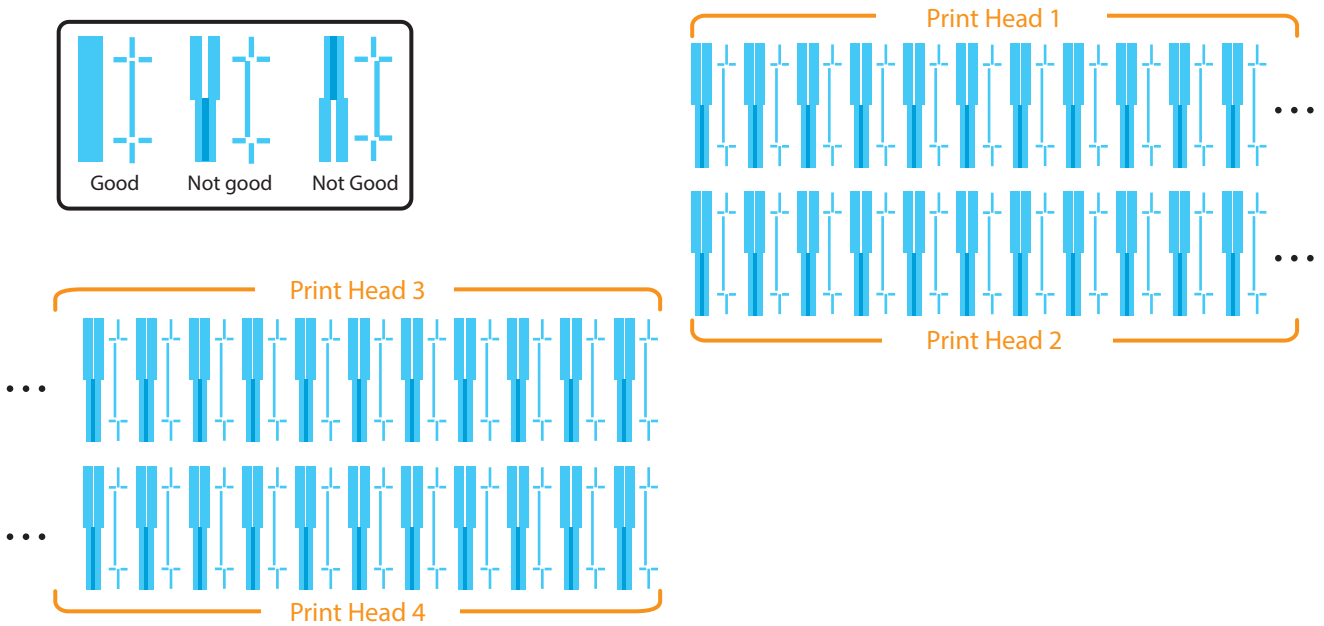
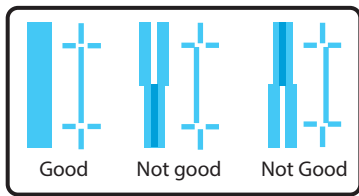
### CAUTION



**While "Warming Up" is displayed, do not touch Media guide.**  
You could burn yourself.

## Confirm pattern

- Press the [Enter] key to carry out printing.
- Check the printing results. If there are shifting problems, proceed to rough adjustment pattern printing.
- In the picture below, there are misalignments.

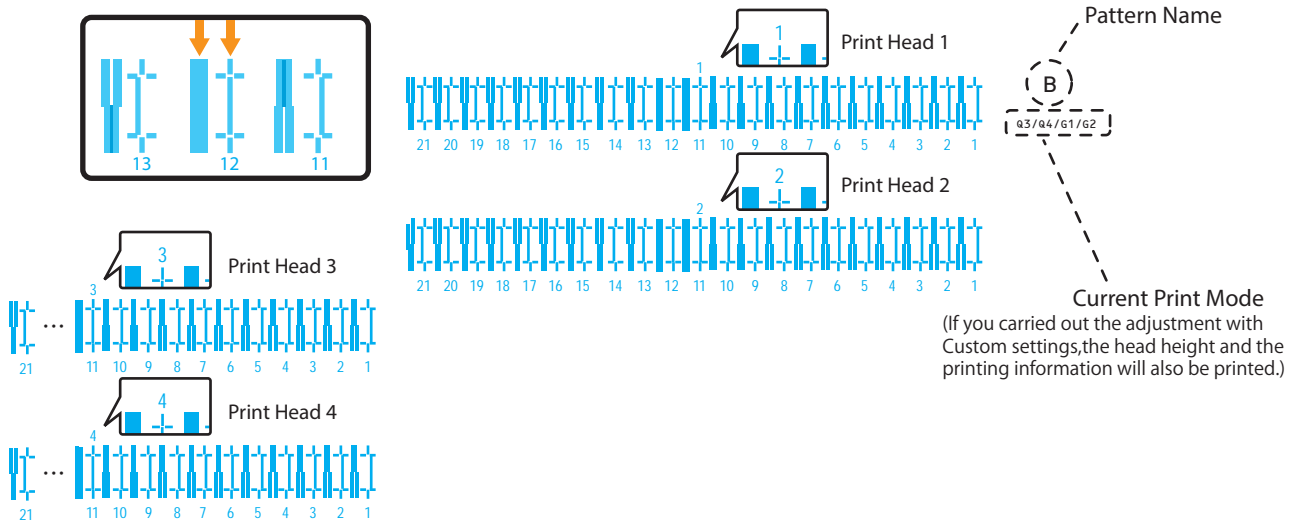


### Note

Because this printer has 4 Print heads, 4 rows of confirmation pattern will be printed.

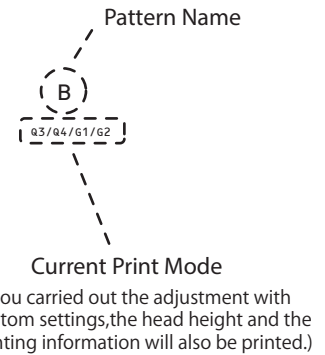
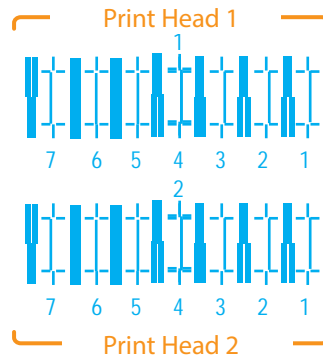
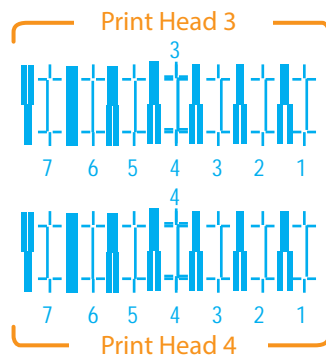
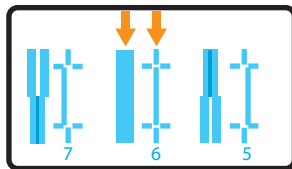
## Rough adjustment pattern

- Press the [Enter] key to carry out printing.
- For Head 1, check the print results and select the number that looks most aligned between 1 and 21.
- Pattern names such as "Pattern B1: 11" are shown on the display. Use the [+] / [-] key to enter the number of the best-adjusted pattern, and press the [Enter] key.
- In the case of the picture below, enter "12", so that the display reads "Pattern B1: 12". Follow the same procedure to adjust print head 2 to print head 4.



## Fine adjustment pattern

- Press the [Enter] key to carry out printing. For the Fine adjustment pattern, the same patterns will be printed repeatedly on both sides and center of the media.
- For Head 1, check the print results on both sides and center of the media and select the number that looks most aligned between 1 and 7.
- Pattern names such as "Pattern B1: 4" are shown on the display. Use the [+] / [-] key to enter the number of the best-adjusted pattern, and press the [Enter] key.
- In the case of the picture below, enter "6", so that the display reads "Pattern B1: 6". Follow the same procedure to adjust print head 2 to print head 4.



## \*\*>3: PF Adjust

\*\*>3: PF Adjust >

Sets up various settings on the Media feed correction.

When the following defects are found in printing results, they may improve by conducting a media feed correction.

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

### Submenus

PF1 : Initial Print

["PF1: Initial Print" P. 63](#)

PF2 : Initial Change

["PF2: Initial Change" P. 63](#)

PF3 : Confirm Print

["PF3: Confirm Print" P. 64](#)

PF4 : Micro Print

["PF4: Micro Print" P. 64](#)

PF5 : Micro Change

["PF5: Micro Change" P. 65](#)

## Steps

- 1.** Select "PF1: Initial Print".
  - "Feed Length: 250 mm" is displayed on Operation panel.
- 2.** After the initial adjustment printing, cut the media.
  - Measure the distance between the " + " in the initial adjustment print using a ruler.
- 3.** Refer to Chapter 1 "[Media feed adjustment steps](#)" P. 38 and select "PF2: Initial Change" on the operation panel.
- 4.** Press the [+] key or [-] key on Operation panel and enter the measured value in Step 2.
  - Press the [Enter] key to save the initial adjustment value.
- 5.** Press the [+] key or [-] key on Operation panel to select "PF3: Confirm Print".
  - "Feed Length: 250 mm" is displayed on Operation panel.
- 6.** After the confirmation adjustment printing, cut the media.
  - Measure the distance between the " + " in the confirmation adjustment print using a ruler. Then, confirm that the distance matches the feeding length when printing.
  - If the distance does not match the feeding length, follow the procedure from Step 1 to Step 5 and readjust.
  - If the distance matches the feeding length, proceed to Step 7.
- 7.** Refer to Chapter 1 "[Media feed adjustment steps](#)" P. 38 and select "PF4: Micro Print" on the operation panel.
  - Check the pattern and micro adjustment value.
  - In the pattern, look for a place that has least white lines or overlapping in images. The number printed below the adequate pattern is the micro adjustment value.
- 8.** Enter the micro adjustment value according to the printing result in Step 7.

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

- 1.** Enter the adjustment value for "PF5: Micro Change".
- 2.** Select whether you wish to print a confirm pattern and complete the setup.

## PF1: Initial Print

PF1 : Initial Print

Performs Initial Print.  
Enter the "Feed Length" and press the [Enter] key.

---

### Setting values

---

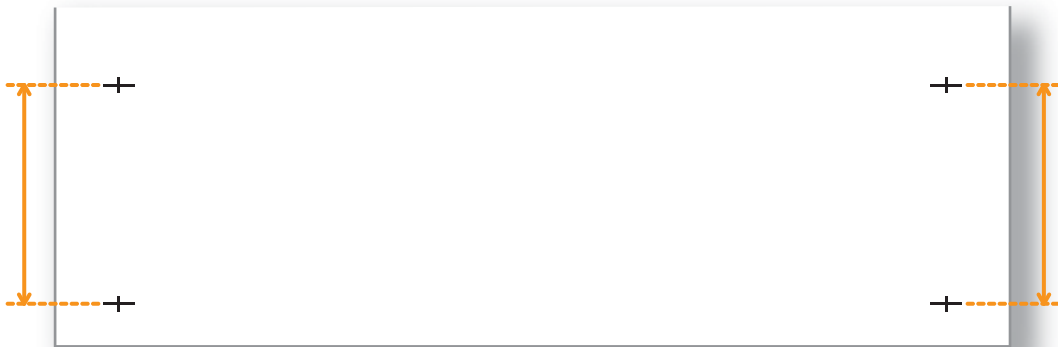
Feed Length : 250 mm

100 mm to <250 mm> to 500 mm  
<> indicates the initial value.

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

### Note

The length of media that is fed (feeding length) for initial adjustment printing is normally set at 250 mm. If you increase the feeding length, the accuracy of the Media feed adjustment improves. To change the feeding length, press the [+ ] key or [- ] key on Operation panel and change the set value.



## PF2: Initial Change

PF2 : Initial Change

Use the [+ ] / [- ] key to enter the adjustment value, and press the [Enter] key.

---

### Setting values

---

Init. : 250.0 mm / 250 mm

You can set a value that is between +50 mm and -50 mm of the feed length configured in "Initial Print".

### PF3: Confirm Print

PF3 : Confirm Print

Performs Confirm Print.  
Enter the "Feed Length" and press the [Enter] key.

Setting values

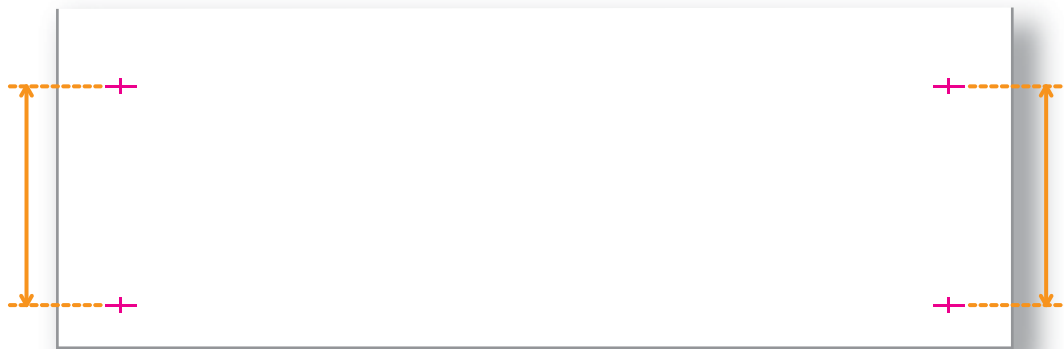
Feed Length : 250 mm

100 mm to <250 mm> to 500 mm  
<> indicates the initial value.

- After the confirmation adjustment printing, cut the media.
- With a ruler, measure the length between " + " in the pattern. In the example below, the measured place is shown in orange dotted lines and arrows (the orange parts are not actually printed).
- If the measured length does not match the feeding length, re-correct with **PF1: Initial Print**.
- If the measured length matches the feeding length, proceed to **PF4: Micro Print**.

 **Note**

The length of media that is fed (feeding length) for confirmation adjustment printing, is normally set at 250 mm. If you increase the feeding length, the accuracy of the Media feed adjustment improves. To change the feeding length, press the [+] key or [-] key on Operation panel and change the set value.

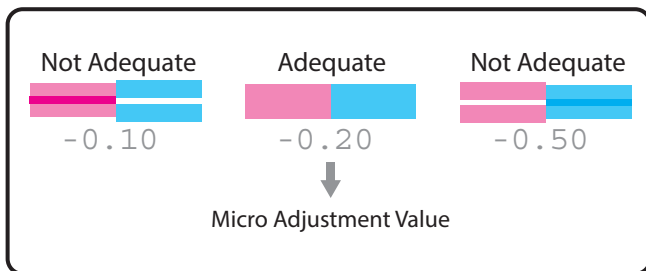


### PF4: Micro Print

PF4 : Micro Print

Performs Micro adjustment Print.  
Enter the appropriate micro adjustment value according to the print result.

- 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 print result.





 **Note**

Once an appropriate micro adjustment value has been saved, the value will be the baseline value from the next time to be printed in the center of the pattern. For example, if you have entered “-0.20” and print a micro adjustment pattern, values printed below block pattern will be changed to (from left) +1.00, +0.60, +0.30, 0.00, -0.20 (baseline value), -0.30, -0.40, -0.70, -1.00, -1.40.

### PF5: Micro Change

<b>PF5 :</b>	<b>Micro Change</b>
--------------	---------------------

Use the [+] / [-] key to enter the adjustment value, and press the [Enter] key.  
Select whether you wish to perform confirmation print and complete the setup.

---

Setting values

---

<b>Micro :</b>	<b>0.00%</b>
----------------	--------------

-5.00% to <0.00%> to 5.00%  
<> indicates the initial value.

### \*\*>4: Heater (Upper)

<b>**&gt; 4:</b>	<b>Heater (Upper) &gt;</b>
------------------	----------------------------

Sets up Heater (Upper).  
Use the [+] / [-] key to enter the value, and press the [Enter] key.

---

Setting values

---

<b>Heater (Upper) :</b>	<b>Off</b>
-------------------------	------------

<Off> / 30°C to 50 °C  
<> indicates the initial value.

### \*\*>5: Heater (Lower)

<b>**&gt; 5:</b>	<b>Heater (Lower) &gt;</b>
------------------	----------------------------

Sets up Heater (Lower).  
Use the [+] / [-] key to enter the value, and press the [Enter] key.

---

Setting values

---

<b>Heater (Lower) :</b>	<b>Off</b>
-------------------------	------------

<Off> / 30°C to 50 °C  
<> indicates the initial value.

## \*\*>6: Vacuum Fan

**\*\*> 6: Vacuum Fan**

Sets up vacuum fan operation.

Use the [ + ] / [ - ] key to select the value, and press the [Enter] key.

- 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.

Setting values

**Vacuum Fan :** High

<High> / Middle / Low / Very Low / Off  
<> indicates the initial value.

## \*\*>7: Thickness

**\*\*> 7: Thickness**

Sets the thickness of the media you are using.

Use the [ + ] / [ - ] key to enter the value, and press the [Enter] key.

Setting values

**Thickness :** 170  $\mu\text{m}$

80  $\mu\text{m}$  to <170  $\mu\text{m}$ > to 2,800  $\mu\text{m}$   
<> indicates the initial value.



### Note

- This menu is to automatically adjust print quality to a certain extent. If you want to improve print quality, manually adjust it.

**\*\*>2: Adjust Print>" P. 57**

- If you have adjusted the print settings, you do not need to configure the thickness of the media in this menu.

## \*\*>8: User Copy

**\*\*> 8: UserCopy**

This is for copying the currently selected User Type setting into another User Type.

The items that will be copied are:

- "Print Mode", "Effect"
- The adjustment value for "Adjust Print", "PF Adjust"
- The setting value for "Heater (Upper / Lower)", "Vacuum Fan" and "Thickness"

Setting values

**UserCopy :** Type 1 -> 2

Here you can select the User Type to copy the settings into.

**UserCopy :** Type 1 -> ALL

If you select ALL, the settings will be copied into all the User Type.

## Set 2: Media Initial

### Set 2: Media Initial

Sets whether to detect the media width while initializing the media.

#### Setting values

Init. : Off

The media will not be detected.

Init. : Top&Width

Detect the media width and edge while initializing the media.

Init. : Width

Detect the media width while initializing the media.

This is the initially set value.



#### Note

When "Media Initial menu" is set to "Off", set the media width of the current media in Media Width menu.

## Set 3: Media Width

### Set 3: Media Width

Sets the width of the current media when the "Media Initial menu" is set to "Off".

Use the [+] / [-] key to enter the value, and press the [Enter] key.

When the "Media Initial menu" is set to "Width", the detected media width will be displayed.

#### Setting values

Media Width : 1000 mm

210 mm to <1,000 mm> to 1,910 mm

<> indicates the initial value.

## Set 4: Roll Length

Set 4: Roll Length

Sets up the roll media length.

### Setting values

Roll Kind : Off

Roll Length is not used.  
This is the initially set value.

Roll Kind : Roll 1

Sets up the roll media length.  
The set values of the roll media length can be set as "Roll1" to "Roll3".

Roll Kind : Roll 2

Roll Kind : Roll 3

## When the "Roll Kind" is set to "Roll 1", "Roll 2" or "Roll 3"

### Length menu

Roll Kind : Roll 1  
Enter

Sets up the roll media length.

### Setting values

Length : 30 m

1 m to <30 m> to 1,500 m  
<> indicates the initial value.

### Print stop menu

Length : 30 m  
Enter

Sets whether or not to display "Roll Remain Error" and pause printing when the length of the roll media that is counted inside the printer becomes 0.

### Setting values

Print Stop : Off

The roll media remaining count is not used to judge for pausing printing. Printing pauses when the rear sensor responds.  
This is the initially set value.

Print Stop : On

Even when the rear sensor does not respond, printing pauses when the roll media remaining count becomes 0.

### Note

- Normally you can set this as "Off" as the rear sensor detects when the roll paper is finished.
- If you are using the roll media that does not come off the paper core easily when it is finished, printing may not be paused when the roll media is finished, if the "Print stop menu" is set to "Off". If this happens, set this to "On".

## Near End menu

Print Stop :	On
<b>Enter</b>	

Sets whether or not to display "Roll Near End: \*m" (\* is replaced with a number between 1 and 10) before the length of the roll media that is counted inside the printer becomes 0.

### Setting values

Near End :	Off
------------	-----

"Near end" is not displayed.  
This is the initially set value.

Near End :	Remain * m
------------	------------

"Near end" is displayed when the remaining count for the roll media becomes the length you selected.

## Set 5: Start Feed

Set 5:	Start Feed
--------	------------

You can change the margin setting between images.

- Value over 0: The margin setting between images will be wider than when setting "0".
- Value equal to 0: The default margin setting between images will be applied.
- Value below 0: The margin setting between images will be smaller than when setting "0".

### Setting values

Start Feed :	150 mm
--------------	--------

-10 mm to <150 mm> to 500.0 mm  
<> indicates the initial value.

### Note

With take-up system: if you want to set "Start Feed" to below 0, set "Page Gap" to "Narrow".

If not, the Start Feed setting is not reflected properly.

 ["When the "Output Mode" is set to "Take Up" P. 71](#)

## Set 6: Side Margin

Set 6:	Side Margin
--------	-------------

Set up the right and left margins (side margins) while printing.  
Use the [+] / [-] key to enter the value, and press the [Enter] key.

### Setting values

Side Margin :	5 mm
---------------	------

<5 mm> to 25 mm  
<> indicates the initial value.

### Note

When the "Spitting menu" is set to "On Media", the maximum printable media width becomes 16 mm shorter.  
Therefore, the side margins become the value that you have set in Side Margin menu +8 mm.

 ["Set 19: Spitting" P. 75](#)

## Set 7: Origin

Set 7: Origin

Sets the beginning of printing (origin) of the print data.

Set the menu when reprinting on the margin with changing the printing data position to the printed media.

Use the [+] / [-] key to enter the value, and press the [Enter] key.

### Setting values

X (PF): -15000 mm X (media feeding distance):  
-15,000 mm to 15,000 mm

·  
·

X (PF): 15000 mm

Y (CR): 0 mm Y (print head transferring distance)  
0 mm to 1,690 mm

·  
·

Y (CR): 1690 mm

### Note

Depending on the set value of the side margin, the maximum set value of Y (print head transferring distance) decreases.

👉 ["Set 6: Side Margin" P. 69](#)

The right side margin will be the following sum depending on the setting.

Y of Origin menu + 8 mm (when the spitting is set to On Media) + Value set in Side Margin menu.

👉 ["Set 6: Side Margin" P. 69](#)

👉 ["Set 19: Spitting" P. 75](#)

## Set 8: Prev. Stick menu

Set 8: Prev. Stick

Sets up to prevent media from sticking when printing starts.

### Setting values

Prev. Stick: Off The stick-prevent operation is not performed.  
This is the initially set value.

Prev. Stick: On The stick-prevent operation is performed.  
Feed the media back and forth to prevent from sticking.

### Note

When the "Output Mode menu" is set to "Take-up", the setting for the "Prev. Stick menu" is disabled.

👉 ["Set 10: Output Mode" P. 71](#)

## Set 9: Slant Check

### Set 9: Slant Check

Sets up slanting detection during media loading.

#### Setting values

**Media Slant :** Off Slant Check is not performed.  
This is the initially set value.

**Media Slant :** On Slant Check is performed.

## Set 10: Output Mode

### Set 10: Output Mode

Sets how the media is handled after printing.

#### Submenus

**Output Mode :** Off The Take-up Unit will not be used.

**Output Mode :** Take Up Set when using the Take-up Unit.  
This is the initially set value.

**Output Mode :** Auto Cut Set when cutting the media automatically.  
 ["Set 11: Method of Cut" P. 72](#)

### When the "Output Mode" is set to "Take Up"

**Output Mode :** Take Up  
**Enter**

When the "Output Mode" is set to "Take up", the menu is shifted to "Page Gap".  
In the "Page Gap menu", you can change the margin setting between images.

#### Setting values

**Page Gap :** Normal The default margin setting between images  
will be applied.  
This is the initially set value.

**Page Gap :** Narrow The margin setting between images is smaller  
than Normal.

After setting the Page Gap, sets the Ink drying time.  
Use the [+] / [-] key to enter the value, and press the [Enter] key.

#### Setting values

**InkDryTimer :** 0 sec <0 sec> to 60 min  
<> indicates the initial value.

## When the "Output Mode" is set to "Off" or "Auto Cut"

Output Mode:	Off
Output Mode:	Auto Cut

Enter

Sets the ink drying time.

Use the [+] / [-] key to enter the value, and press the [Enter] key.

### Setting values

InkDryTimer :	0 sec
---------------	-------

<0 sec> to 60 min

<> indicates the initial value.

## Set 11: Method of Cut

Set 11:	Method of Cut
---------	---------------

Sets the media cutting operation after printing.

### Setting values

Cut :	Single Cut - 2 steps
-------	----------------------

Cut with fewer steps than "Single Cut - 3 steps". Suitable for media with narrow width.

Cut :	Single Cut - 3 steps
-------	----------------------

Normal cutting method. This is the initially set value.

Cut :	Double Cut - 2 steps
-------	----------------------

Set when unable to cut with "Single Cut - 2 steps". Suitable for media with narrow width.

Cut :	Double Cut - 3 steps
-------	----------------------

Set when unable to cut with "Single Cut - 3 steps".

### Note

- When the media detection is set to "Off", the media cannot be cut automatically.

👉 ["Set 2: Media Initial" P. 67](#)

- Some media may not be cut (cannot be cut at all or cannot be cut finely). In such a case, set the "Output Mode menu" to "Off" and cut the media manually.

👉 ["Set 10: Output Mode" P. 71](#)

## Cut Pressure menu

Cut :	Single Cut - 3 steps
	Enter

Sets the media cutting pressure for the cutting operation.

### Setting values

Cut Pressure :	Low
----------------	-----

Cut the media at low pressure.

Suitable for thin media or if the "High" pressure setting is too strong.

Cut Pressure :	High
----------------	------

Normal cutting pressure.

This is the initially set value.



## Set 12: Head Travel

Set 12: Head Travel

Sets up the range that Print head moves while printing.

### Setting values

**Distance :** **Data** Print head moves the range of the print data width.

**Distance :** **Machine** Print head moves from origin to the maximum printable media width.

**Distance :** **Media** Print head shifts within the media width.  
This is the initially set value.

## Set 13: Multi Strike

Set 13: Multi Strike

Sets up the overwrite count per line.

Use the [+] / [-] key to enter the value, and press the [Enter] key.

### Setting values

**Strike Cnt :** **1 cnt** <1 cnt> to 9 cnt  
<> indicates the initial value.

## Set 14: Strike Wait

Set 14: Strike Wait

Sets up the waiting time while overwrite printing.

Use the [+] / [-] key to enter the value, and press the [Enter] key.

### Setting values

**Strike Wait :** **0.0 sec** <0.0 sec> to 5.0 sec  
<> indicates the initial value.

## Set 15: Exhaust Fan

Set 15: Exhaust Fan

Sets up Exhaust fan operation.

Ventilates the inside of the printer to stabilize the parts performance. It also decreases the contamination by ink mist inside the printer.

We recommend that you use Exhaust fan, especially when printing for a long time.

### Setting values

**Exhaust Fan :** **Off** Turn Off Exhaust fan.

**Exhaust Fan :** **Low** Start Exhaust fan at Low.  
This is the initially set value.

**Exhaust Fan :** **High** Start Exhaust fan at High.

## Set 16: Standby Heating

### Set 16: Standby Heating

Sets the time to preheat Heater while the printer is in the standby mode.  
When the preset time has passed, each Heater turns Off.  
Use the [+] / [-] key to enter the value, and press the [Enter] key.

#### Setting values

Standby : 60 min

10 min to <60 min>

<> indicates the initial value.

## Set 17: Print Head

### Set 17: Print Head

Selects a print head for printing.  
You can still print even if some of the print heads malfunction. However, in that case the printing speed will drop.

#### Setting values

Head Select : ALL

Select this setting to use all the print heads for printing.

This is the initially set value.

Head Select : 1 / 2 / 3

Select this setting to use print heads 1, 2 and 3 for printing.

Head Select : 2 / 3 / 4

Select this setting to use print heads 2, 3 and 4 for printing.

Head Select : 1 / 2

Select this setting to use print heads 1 and 2 for printing.

Head Select : 2 / 3

Select this setting to use print heads 2 and 3 for printing.

Head Select : 3 / 4

Select this setting to use print heads 3 and 4 for printing.

Head Select : 1

Select this setting to use only print head 1 for printing.

Head Select : 2

Select this setting to use only print head 2 for printing.

Head Select : 3

Select this setting to use only print head 3 for printing.

Head Select : 4

Select this setting to use only print head 4 for printing.



**In case of any problems with the print heads, contact your local MUTOH dealer.**

## Set 18: Print Nozzle

### Set 18: Print Nozzle

You can set whether to reduce the print head nozzles to half for printing. Print speed will be decreased, but the image quality will be improved.

#### Setting values

Nozzle Select : ALL

Nozzle Select is not used.  
This is the initially set value.

Nozzle Select : Nzl. A

Prints using half of the print head nozzles.  
Prints with one nozzle line of the 2 nozzle lines per color.

Nozzle Select : Nzl. B

Uses the nozzle line opposite of "Nozzle A".

#### Note

- You cannot select this menu when using 8-color for printing.
- You can also use this in combination with the Print Head menu.

 ["Set 17: Print Head" P. 74](#)

## Set 19: Spitting

### Set 19: Spitting

Sets up the spitting operation while printing.

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

#### Setting values

Spitting : On

Perform the spitting operation on Spitting box located on the origin side for every shuttle.  
This is the initially set value.

Spitting : On Media

Perform the spitting operation on the page margins. The printing speed will be improved since the number of time to return to Spitting box is reduced.

Spitting : Off

Spitting operation is not performed.

#### Note

- Spitting is a maintenance operation for preventing clogging of the print head's nozzles. It consumes ink.
- When Spitting is set to "Off", nozzles will become easily clogged because spitting is not performed. In such a case, print quality cannot be guaranteed.
- When the spitting setting is "On Media", the maximum printable media width becomes 16 mm shorter. Therefore, the side margins become the value that you have set in Side Margin menu +8 mm.

 ["Set 6: Side Margin" P. 69](#)

## Pass Count

Spitting :	On
<b>Enter</b>	
Spitting :	On Media

This is for setting the interval at which the print head will carry out spitting operation.

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

### Setting values

Pass Count :	1 cnt
--------------	-------

<1 cnt> to 999 cnt  
<> indicates the initial value.



**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.**

## <Example of spitting operation>

Spitting setting	Pass Count setting	Operation
On	1 cnt	Perform the spitting operation on Spitting box every time Print head returns to the origin position. Spitting operation is not performed over the media.
On	5 cnt	Performs the spitting operation on Spitting box on the origin side every five times Print head returns to the origin position. Spitting operation is not performed over the media.
On Media	1 cnt	Performs the spitting operation on Spitting box on the origin side every time Print head returns to the origin position. Perform the spitting operation on Spitting box every time Print head returns to the origin position.
On Media	5 cnt	Performs the spitting operation on Spitting box on the origin side every five times Print head returns to the origin position. Perform the spitting operation on Spitting box every time Print head returns to the origin position.
Off	—	Spitting is not performed on Spitting box or the media.

## Set 20: FrontInterlace

Set 20:	FrontInterlace
---------	----------------

This menu is used to set media edge treatment menu.

### Setting values

FrontInterlace :	Auto
------------------	------

<Auto> / Off  
<> indicates the initial value.

## Set 21: HeadOverlap

Set 21:	HeadOverlap
---------	-------------

This menu is used to select head overlap pattern.

### Setting values

Overlap :	Pattern1
-----------	----------

<Pattern1> to Pattern5  
<> indicates the initial value.

## Set 22: Initialization

Set 22: Initialization

Returns the settings of the printer to default.

---

### Submenus

---

Init: ALL

For initializing the settings of all the menus.

Init: UserType

Initializes the settings in the User Type menu.

Init: Except UserType

Initializes the settings other than the ones in the User Type menu.

## Set 23: Alert Buzzer

Set 23: 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.

---

### Submenus

---

Alert Buzzer: On

Press any key on Operation panel to turn off beep sound.

This is the initially set value.

Alert Buzzer: Off

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

## Set 24: Temporary

Set 24: Temporary

Displays the menus which have been set to hide in the "Menu4: Menu Option" temporarily.

Press the [Enter] key to return to the previous menu with all set up items displayed.

## Menu 2 : Cleaning

### Select the Print Head

Select the print heads you wish to clean.

If nozzle missing is occurred in specific print head, select the print head that you want to perform cleaning. In this way, you can reduce ink waste.

Head Select :	ALL
Head Select :	1
Head Select :	2
Head Select :	3
Head Select :	4
Head Select :	1 / 2
Head Select :	1 / 3
Head Select :	1 / 4
Head Select :	2 / 3
Head Select :	2 / 4
Head Select :	3 / 4

Select this setting to clean all the print heads.

Select this setting to clean only print head 1.

Select this setting to clean only print head 2.

Select this setting to clean only print head 3.

Select this setting to clean only print head 4.

Select this setting to clean print heads 1 and 2.

Select this setting to clean print heads 1 and 3.

Select this setting to clean print heads 1 and 4.

Select this setting to clean print heads 2 and 3.

Select this setting to clean print heads 2 and 4.

Select this setting to clean print heads 3 and 4.

### Select the Cleaning Mode

Time :	Short
Time :	Normal
Time :	Long
Time :	LittleCharge
Time :	InitialCharge

Consumes less ink than Normal cleaning.

Conduct nozzle check before and after printing, and use when nozzle missing is found.

Consumes more ink than Normal cleaning. When nozzle missing still occurs after Normal cleaning, conduct Long cleaning.

Though much better cleaning results can be expected than Long cleaning, it consumes a large amount of ink.

Gives a rather higher cleaning effect than "LittleCharge", but also consumes rather more ink.

#### Note

- "InitialCharge" is available only when the Head Select menu is set to "ALL".
- "LittleCharge" is available when the Head Select menu is set to "ALL", "1", "2", "3" or "4".

# Menu 3 : Maintenance

## Maintenance 1: CR Maintenance

Mnt. 1: CR Maintenance

Performs maintenance.

Used in the following cases.

- Replacing absorption material for the flushing box
- Cleaning of cleaning wiper
- Cleaning of print head circumference

 ["Maintenance" P. 94](#)

---

### Submenus

---

CR Maint. : Start

Performs maintenance.

CR Maint. : End

Completes maintenance.

Perform the pumping operation (start/stop) by pressing the [ - ] key.

## Maintenance 2: Longstore

Mnt. 2: Longstore

Wash Print head with the cleaning fluid.

---

### Submenu

---

Longstore : Start

Wash Print head with the cleaning fluid.

Press the [Enter] key to perform head cleaning.

 ["Long-term storage" P. 118](#)

 **Important!**

**Be sure to use the dedicated cleaning bag.**

## Maintenance 3: Auto Cleaning

Mnt. 3: Auto Cleaning

Configure the settings for the auto cleaning operation.

Submenus

Auto 1: WaitingTime

 [Auto 1: Waiting Time](#)

Auto 2: PrintingTime

 [Auto 2: Printing Time](#)

Auto 3: Before Print

 [Auto 3: Before Print](#)

### Auto 1: Waiting Time

Auto 1: WaitingTime

For setting whether auto cleaning will be carried out before printing.

Setting values

WaitingTime: Off

<Off> / 10 min to 1,440 min  
<> indicates the initial value.

### Auto 2: Printing Time

Auto 2: PrintingTime

Set the auto cleaning interval during printing.

Setting values

PrintingTime: Off

<Off> / 5 min to 180 min  
<> indicates the initial value.

### Auto 3: Before Print

Auto 3: Before Print

Set the value for auto cleaning before printing.

Setting values

Before Print: Off

<Off> / On  
<> indicates the initial value.



## Maintenance 4: Sleep Mode

Mnt. 4: Sleep Mode

Start Sleep Mode and set the head cleaning interval during Sleep Mode.

Submenu

Sleep Mode 1 : Start

 ["Sleep Mode 1: Start" P. 81](#)

Sleep Mode 2 : SetTimer

 ["Sleep Mode 2: Set Timer" P. 81](#)

### Sleep Mode 1: Start

Sleep Mode 1 : Start

Start Sleep Mode.

#### Important!

**During Sleep Mode, even if the set amount of time has passed, print-head cleaning is not performed under the following circumstances.**

- When the front cover is open.
- When the maintenance cover is open.
- Media loading lever is raised.
- The waste fluid tank is full.
- The ink bag case has been removed.
- The S/C card has been removed.
- The inserted S/C card is not the genuine S/C card, 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.**

### Sleep Mode 2: Set Timer

Sleep Mode 2 : SetTimer

This is for setting the interval at which head cleaning will be carried out in the sleep mode.

Setting values

Cleaning Timer : 6h

1 / 2 / 3 / 4 / 5 / <6> / 9 / 12 / 18 / 24 hours

<> indicates the initial value.

If you set an interval, the display will shift to "SleepMode 1: Start".

## Menu 4 : Initial

### Initial 1: Language

Initial 1: Language

For setting the language that will be displayed.

Setting values

Language : エイゴ English

Displays will be in English.  
This is the initially set value.

Language : ニホンゴ Japanese

Displays will be in Japanese.

### Initial 2: Temperature

Initial 2: Temperature

For setting the temperature units that will be displayed.

Setting values

Temp : Celsius [°C]

Displays the temperature in Celsius.  
This is the initially set value.

Temp : Fahrenheit [°F]

Displays the temperature in Fahrenheit.

### Initial 3: Length

Initial 3: Length

For setting the length units that will be displayed.

Setting values

Length : mm

Displays the length in millimeters (mm).  
This is the initially set value.

Length : inch

Displays the length in inches (inch).

## Initial 4: Header Dump

### Initial 4: Header Dump

Sets whether to print the following information when printing.

- Data header
- Data dot number (printed only when Header dump setting is "On")
- Printing date and time
- Printer serial number
- Firmware version
- Receiving time (printed only when Header dump setting is "Dump")
- Receiving size (printed only when Header dump setting is "Dump")

#### Setting values

Header Dump : Off

Dump data is not printed.  
This is the initially set value.

Header Dump : On

Dump data is printed after the original image is printed.

Header Dump : Dump

Prints only dump data.  
"Data dot number" is not printed.

Header Dump : Print

Prints the last header dump.  
If no history is available, "No Print Data" will appear on the operation panel.

#### Note

- 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.

## Initial 5: IP Address

### Initial 5: IP Address

Sets the IP address of the printer.

- Use the [+ ] key to increase a setting value.
- Use the [ - ] key to decrease a setting value.
- Press the [Enter] key 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

IP : 192. 168. 1. 253

0.0.0.0 to <192.168.1.253> to 255.255.255.255  
<> indicates the initial value.

#### Note

Be sure to set the IP address after consulting the network administrator.

## Initial 6: Subnet Mask

### Initial 6: Subnet Mask

Sets the subnet mask of the printer.

- Use the [+ ] key to increase a setting value.
- Use the [ - ] key to decrease a setting value.
- Press the [Enter] key 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

**MASK:** 255. 255. 255. 0

0.0.0.0 to <255.255.255.0> to 255.255.255.255

<> indicates the initial value.



#### Note

Be sure to set the subnet mask after consulting the network administrator.

## Initial 7: Gateway

### Initial 7: Gateway

Sets the gateway.

- Use the [+ ] key to increase a setting value.
- Use the [ - ] key to decrease a setting value.
- Press the [Enter] key 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

**GW:** 192. 168. 1. 254

0.0.0.0 to <192.168.1.254> to 255.255.255.255

<> indicates the initial value.



#### Note

Be sure to set the gateway after consulting the network administrator.

## Initial 8: Menu Option

You can choose whether to display the menus in “Menu 1: Setup”.  
Choose whether you wish to display a menu by pressing the [Enter] key.

[\*]= the item will be displayed

[ ]= the item will not be displayed

---

1: [\*]                    **User Type**

Displays the “User Type menu”.  
The initial value is [\*].

2: [\*]                    **Media Initial**

Displays the “Media Initial menu”.  
The initial value is [\*].

3: [\*]                    **Media Width**

Displays the “Media Width menu”.  
The initial value is [\*].

·  
·  
·

·  
·  
·

23: [\*]                    **Alert Buzzer**

Displays the “Alert Buzzer menu”.  
The initial value is [\*].

24:                        **ALL On**

If you press the [Enter] key, all the items in Menu Option will be marked with a [\*]  
(displayed).

25:                        **ALL Off**

If you press the [Enter] key, all the items in Menu Option will be marked with a [ ] (not  
displayed).

---

# Menu 5 : Status

## Status 1: Remain Ink

Status 1: Remain Ink

The amount of ink remaining in each Ink bag is displayed. (unit: %)

### Setting values

1 2 3 4 : XX / XX / XX / XX

5 6 7 8 : XX / XX / XX / XX

#### 4-color setting

- 1: Black (K)
- 2: Black (K)
- 3: Cyan (C)
- 4: Cyan (C)
- 5: Magenta (M)
- 6: Magenta (M)
- 7: Yellow (Y)
- 8: Yellow (Y)

#### 8-color setting

- 1: Magenta (M)
- 2: Light Magenta (Lm)
- 3: Cyan (C)
- 4: Light Cyan (Lc)
- 5: Light Light Black (LLk)
- 6: Black (K)
- 7: Yellow (Y)
- 8: Light Black (Lk)



### Note

To display various information of Ink, use genuine ink and S/C cards.

If Ink bags other than genuine Ink bags are used, ink status will not be displayed correctly.

## Status 2: Life Times

Status 2: 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 one (20%).
- 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 pressing the [Cancel] key.

### Submenus

Head 1 : E\*\*\* F

Displays the service life for the print head 1. The service life in this case is at 60%.

Head 2 : E\*\*\* F

Displays the service life for the print head 2. The service life in this case is at 60%.

Head 3 : E\*\* F

Displays the service life for the print head 3. The service life in this case is at 40%.

Head 4 : E\* F

Displays the service life for the print head 4. The service life in this case is at 20%.

Pump 1 : E\*\*\* F

Displays the service life for the pump 1.  
The service life in this case is at 60%.

Pump 2 : E\*\*\* F

Displays the service life for the pump 2.  
The service life in this case is at 60%.

Pump 3 : E\*\*\* F

Displays the service life for the pump 3.  
The service life in this case is at 60%.

Pump 4 : E\*\*\* F

Displays the service life for the pump 4.  
The service life in this case is at 60%.

CR Motor : Change

Displays the service life for the CR motor.  
The service life of the component in this case is over.

Have the component replaced.

PF Motor : E\*\*\*\* F

Displays the service life for the PF motor.  
The service life in this case is at 80%.

## Status 3: Version

Status 3: Version

Displays the versions of the firmware.

Ver. M/C : X.XX / X.XX

Displays the versions of the firmware of the main side (M) and controller side (C).

## Status 4: Job

Status 4: Job

Various information of previous print will be displayed.

JobStatus : Completed

Displays if the print is completed.

- When the print is completed: [Completed]
- When the print is canceled: [Canceled]

ToDoLength : XXX.X m

The total length of print data (media feeding direction) will be displayed.

Done : XXX.X m

The printed length will be displayed.

Remain : XXX.X m

The remaining length of print data will be displayed.



### Note

- 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 ["Menu 6: Job Status" P. 48](#) under ["Menus you can access while printing" P. 44](#).

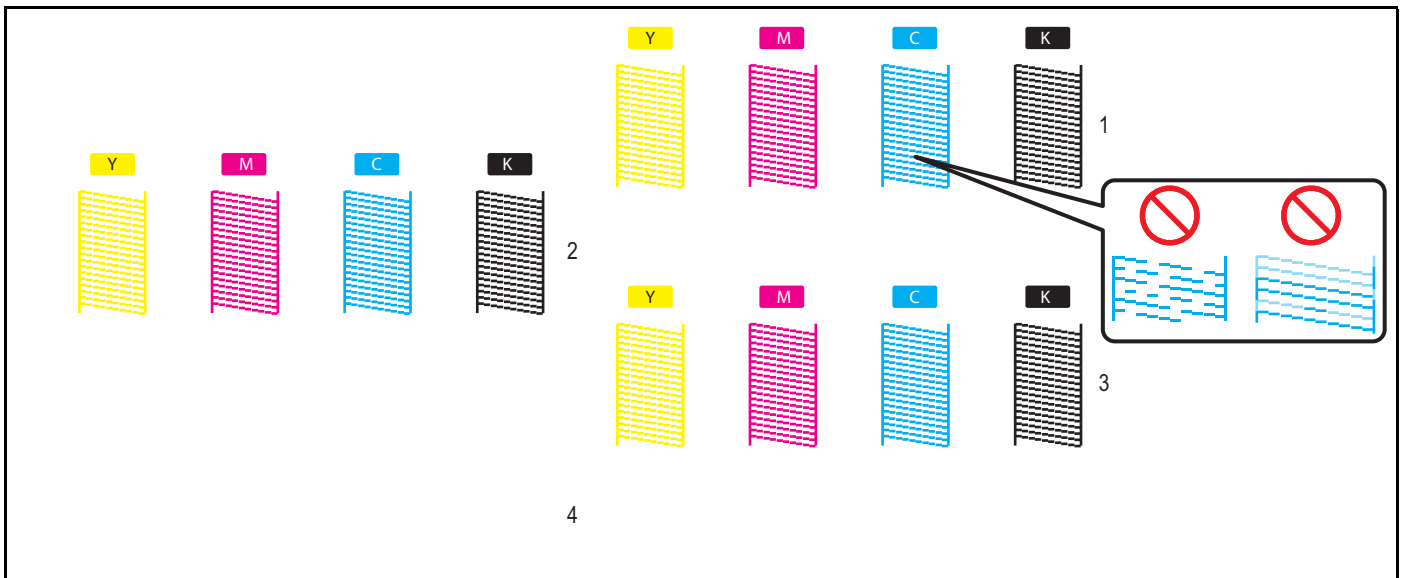
# Menu 6 : Test Print

## Test 1: Nozzle Check


Test 1 : Nozzle Check

Use this menu to check that the print head and print nozzles you selected can properly print without nozzle clogging and missing or too light lines.

 ["Nozzle check" P. 32](#), ["Set 17: Print Head" P. 74](#), ["Set 18: Print Nozzle" P. 75](#)



### Note

- The above pattern is the example when the printer is set to 4-color setting, "Set 17: Print Head" to "1/2/3" and "Set 18: Print Nozzle" to "Nzl.A".
  - The number to the right of each pattern indicates the print head used for printing that pattern.
  - If nozzle missing is occurred in specific print head, go to Print Head menu and select the print head that you want to perform cleaning. In this way, you can reduce ink waste.
-  ["Select the Print Head" P. 78](#)
- The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

## Test 2: Mode Print

Test 2 : Mode Print

Mode print can be performed. Used to confirm the following printing conditions.

- Print quality
- Effect
- Setting value for Heater (Upper) and Heater (Lower)
- Micro adjustment value for feed correction

2016/1/01 0:00 G2(720x1080 6Pass Bi) -Fine&Fog/Heater(Upper): 30°C/Heater(Lower): 30°C/PF Adjust : 0.00%



# Test 3: Setup List

**Test 3 : Setup List**

Setup list printing is performed.

Use this to check the current setting contents and the User Type.

## Setup List

Setup List

<Information> Serial No. : ----- Model : V31480XX Formate M --V.3XX Error : Memory Size : 38400 Formate C --V.3XX 1:Name: 2:Name: 3:Name: 4:Name:	
<Menu Setup> (Number) (Select) Menu -- Setup [ 1 ] [ 1 ] User Type -- Type 1 [ 2 ] Print Mode -- Graphics 2 Effect -- Fine&Fog [ 3 ] PF-Initial Adjust -- 250.0 / 250mm [ 4 ] PF->Micro Adjust -- 0.00% [ 5 ] Heater (Upper) -- Off [ 6 ] Heater (Lower) -- Off [ 7 ] Vacuum Fan -- High [ 8 ] Thickness -- 170µm [ 9 ] Start Feed -- 0.5mm [ 10 ] Start Feeder -- 10mm [ 11 ] Start Paper -- On [ 12 ] Start Check -- On [ 13 ] Start Mode -- High [ 14 ] Method of Cut -- High [ 15 ] Head Forward -- High [ 16 ] Head Reverse -- High [ 17 ] Start Fan -- High [ 18 ] Start Head -- High [ 19 ] Start Needle -- High [ 20 ] Start Needle -- High [ 21 ] Start Needle -- High [ 22 ] Start Needle -- High [ 23 ] Start Needle -- High [ 24 ] Start Needle -- High [ 25 ] Start Needle -- High	
(Maintenance) (Number) (Menu) -- Setup [ 1 ] IC Maintenance -- 30h [ 2 ] Lamp/Time -- 30h [ 3 ] Axes Cleaning -- 30h [ 4 ] Axes Cleaning -- 30h [ 5 ] Axes Cleaning -- 30h [ 6 ] Axes Cleaning -- 30h [ 7 ] Axes Cleaning -- 30h [ 8 ] Axes Cleaning -- 30h [ 9 ] Axes Cleaning -- 30h [ 10 ] Axes Cleaning -- 30h [ 11 ] Axes Cleaning -- 30h [ 12 ] Axes Cleaning -- 30h [ 13 ] Axes Cleaning -- 30h [ 14 ] Axes Cleaning -- 30h [ 15 ] Axes Cleaning -- 30h [ 16 ] Axes Cleaning -- 30h [ 17 ] Axes Cleaning -- 30h [ 18 ] Axes Cleaning -- 30h [ 19 ] Axes Cleaning -- 30h [ 20 ] Axes Cleaning -- 30h [ 21 ] Axes Cleaning -- 30h [ 22 ] Axes Cleaning -- 30h [ 23 ] Axes Cleaning -- 30h [ 24 ] Axes Cleaning -- 30h [ 25 ] Axes Cleaning -- 30h	

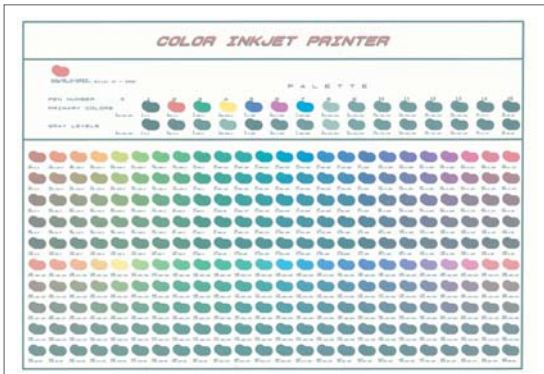
## User Type List

<User Type List>					
User Type	Type 1	Type 2	Type 3	Type 4	Type 5
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
Print Mode->Effect	Fine&Fog	Fine&Fog	Fine&Fog	Fine&Fog	Fine&Fog
PF->Initial Adjust	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm
PF->Micro Adjust	0.00%	0.00%	0.00%	0.00%	0.00%
Heater (Upper)	Off	Off	Off	Off	Off
Heater (Lower)	Off	Off	Off	Off	Off
Vacuum Fan	High	High	High	High	High
Thickness	170µm	170µm	170µm	170µm	170µm
User Type	Type 6	Type 7	Type 8	Type 9	Type 10
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
Print Mode->Effect	Fine&Fog	Fine&Fog	Fine&Fog	Fine&Fog	Fine&Fog
PF->Initial Adjust	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm
PF->Micro Adjust	0.00%	0.00%	0.00%	0.00%	0.00%
Heater (Upper)	Off	Off	Off	Off	Off
Heater (Lower)	Off	Off	Off	Off	Off
Vacuum Fan	High	High	High	High	High
Thickness	170µm	170µm	170µm	170µm	170µm
User Type	Type 11	Type 12	Type 13	Type 14	Type 15
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
Print Mode->Effect	Fine&Fog	Fine&Fog	Fine&Fog	Fine&Fog	Fine&Fog
PF->Initial Adjust	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm	250.0 / 250mm
PF->Micro Adjust	0.00%	0.00%	0.00%	0.00%	0.00%
Heater (Upper)	Off	Off	Off	Off	Off
Heater (Lower)	Off	Off	Off	Off	Off
Vacuum Fan	High	High	High	High	High
Thickness	170µm	170µm	170µm	170µm	170µm

# Test 4: Palette

**Test 4 : Palette**

Palette print is executed for the color demonstration.



**Note**

When the selected print mode of the user type is Graphics 1 or Graphics 2, Palette menu is not displayed.

☞ **\*\*>1: Print Mode" P.56**

# Test 5: Head Adjust

Test 5 : HeadAdjust >

There are 4 print heads installed in the carriage of this product. In this menu, you can align the print head 1 to print head 4 in order to prevent the prints from being misaligned. Press the [>] key to open the submenu.

Align the heads in the following cases:

- If the image quality does not improve after you have used the "Adjust Print" menu.
- When switching to thin media or a type of media where ink drops do not spread.

After executing this menu, be sure to perform the "Adjust Print" function. If you don't, the image quality during bidirectional printing may drop.

### Submenus

Head Adj. 1 : Standard

Adjustment is performed only for the print mode set by the current User Type. You can make the adjustments more quickly than by selecting "Fine Pattern ALL" in "Custom".

When selecting "Standard" here, you need to use the same print mode settings for the RIP (Raster Image Processor) as the print mode settings for the User Type. Use the same settings for the resolution, pass and printing direction in the RIP print mode as in the print mode for the User Type.

Head Adj. 2 : Custom

You can also adjust a print mode other than the one used for the current User Type. You can print with an optimal image quality even if the RIP print mode is different from the print mode used for the User Type.

## When "HeadAdj. 2 Custom" is selected

Head Adj. 2 : Custom

You can select the adjustment method.

When selecting "Fine Pattern X (A to F)", select the option that corresponds to the print mode used for printing.

If the resolution, pass and the printing direction of the RIP print mode differ from the print mode for the User Type, select the fine pattern that is suitable for the RIP.

 ["Adjustment patterns for each print mode" P. 58](#)

### Submenus

Adj. 1 : Fine Ptn. ALL

Adjusts all the patterns.

Adj. 2 : Fine Pattern A

For printing an adjust pattern selected from A to F.

⋮

Adj. 7 : Fine Pattern F

## Steps

1. Print the Head adjustment pattern and look for a place in the pattern that has least white lines or overlapping images.

- The number printed under the pattern without alignment errors is the adjustment value.

2. Enter the adjustment value.

### Note

- Warm up the heater before printing the Adjustment pattern.  
"Warming Up" and "Skip ->Enter" is displayed on Operation panel.

- You can start printing while the printer is warming up.

 ["Starting printing during warming up" P. 43](#)

### CAUTION

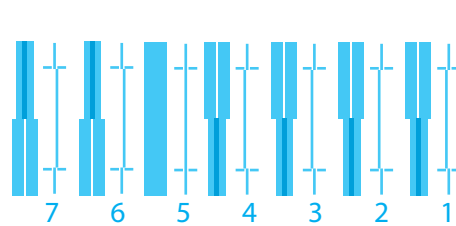
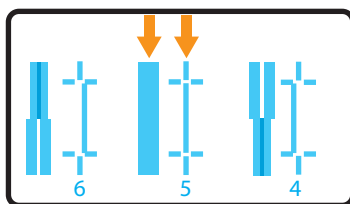


**While "Warming Up" is displayed, do not touch Media guide.**

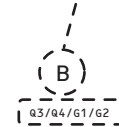
You could burn yourself.

## Head adjustment pattern

- Press the [Enter] key to carry out printing. For the Head adjustment pattern, the same patterns will be printed on both sides and center of the media.
- Check the print results and select the number that looks most aligned between 1 and 7.
- Pattern names such as "Pattern B: 4" are shown on the display. Use the [+] / [-] key to enter the number of the best-adjusted pattern, and press the [Enter] key.
- In the case of the picture below, enter "5", so that the display reads "Pattern B: 5".
- If you selected "Head Adj. 2: Custom" and "Fine Pattern ALL", enter the adjustment value for A to F.



Pattern Name



Current Print Mode

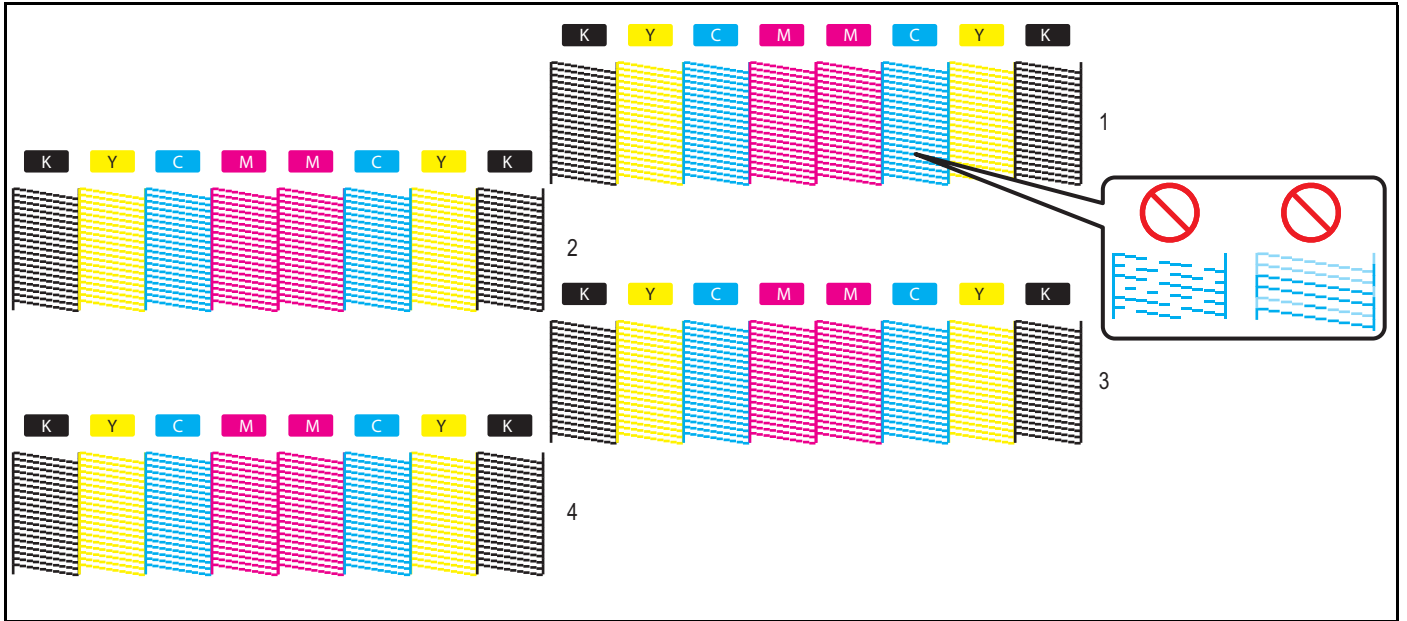
(If you carried out the adjustment with Custom settings, the head height and the printing information will also be printed.)

## Test 6: Nozzle Check F

### Test 6 : Nozzle Check F

The Nozzle Check F pattern is printed using all print head nozzles.

- The following pattern is for 4-color setting.



### Note

- The number to the right of each pattern indicates the print head used for printing that pattern.
- If nozzle missing is occurred in specific print head, go to Print Head menu and select the print head that you want to perform cleaning. In this way, you can reduce ink waste.  
["Select the Print Head" P. 78](#)
- The printer information (date and time of printing, printer's serial number, firmware version) is printed on the nozzle check pattern.

# Chapter 3 Maintenance

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# 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	<a href="#">"Nozzle check and cleaning" P. 32</a>
Based on your usage condition	<a href="#">"Head cleaning" P. 101</a>
	<a href="#">"Replacing ink bag" P. 96</a>
	<a href="#">"Emptying waste fluid tank" P. 99</a>
	<a href="#">"Replacing absorption material for the flushing box" P. 109</a>
Weekly	<a href="#">"Replacing Cutter" P. 113</a>
	<a href="#">"Cleaning of cleaning wiper" P. 103</a>
Monthly	<a href="#">"Cleaning of print head circumference" P. 106</a>
	<a href="#">"Inside cleaning" P. 108</a>
When not used for a week or more	<a href="#">"Head cleaning" P. 101</a> (Once a week)
When not used for a long period	<a href="#">"Long-term storage" P. 118</a>

## Important!

Since a service technician has to handle following cases, please contact your local MUTOH dealer.

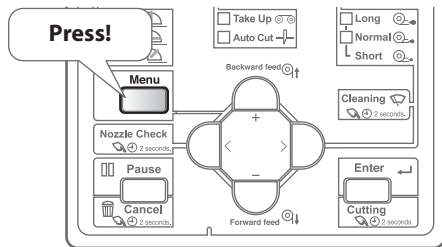
- Error requiring restart is happening repeatedly.
- The message to notify the life of print head and various motors is displayed.

 ["Messages and Error Messages" P. 124](#)

# Checking ink and replacing ink bag

## Checking ink level

[1]



Press the [Menu] key on the operation panel.

[2]

**Menu 5 :                      Status >**

Press the [-] key several times, to bring up the display on the left.  
Press the [>] key.

[3]

**Status 1 :                      Remain Ink**

Press the [Enter] key.

[4]

**1 2 3 4 :                      100 / 90 / 80 / 70**

**5 6 7 8 :                      100 / 90 / 80 / 70**

Press the [-] key to change the display.

- The ink level is displayed from 0% to 100%.

### • 4-color setting

1	K1 (Black)	2	K2 (Black)	3	C1 (Cyan)	4	C2 (Cyan)
5	M1 (Magenta)	6	M2 (Magenta)	7	Y1 (Yellow)	8	Y2 (Yellow)

### • 8-color setting

1	M (Magenta)	2	Lm (Light Magenta)	3	C (Cyan)	4	Lc (Light Cyan)
5	LLk (Light Light Black)	6	K (Black)	7	Y (Yellow)	8	Lk (Light Black)

## When it becomes time to replace ink bag

When the ink level becomes low, the error LED of the operation panel flashes and a buzzer sounds.

### Steps

---

[1]

[4] S / C Ink Low

Press the [Enter] key.

- The buzzer stops.
- In the figure to the left, the slot 4 ink bag is nearing replacement.

[2] Prepare the replacement ink bag.

## Replacing ink bag

When ink level becomes low, the error LED of the operation panel flashes and a buzzer sounds.

Also, [Ink End] or [S/C Ink End] is displayed on the operation panel. Promptly replace the ink.

If the ink is not replaced within a certain period after [Ink End] or [S/C Ink End] is displayed on the operation panel, printing temporarily stops. In this case, replace the ink bag to restart printing.

### Important!

- **Do not replace ink bag when the power of this product is OFF.**  
**Ink level cannot be detected correctly.**
- **If ink bag is moved from cold to warm place, leave it at least three hours.**
- **If you do not have any replacement ink bag, do not remove the empty ink bag from the printer.**  
**Leaving them removed could cause the print head to become clogged.**

### 1. Removing the ink bag case

---

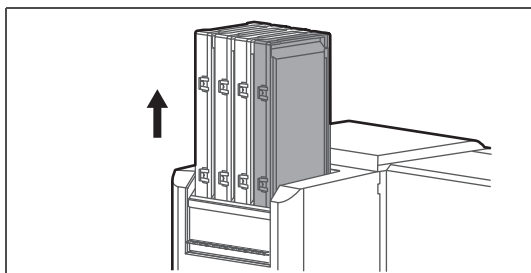
[1]

[46] Ink End

Press the [Enter] key.

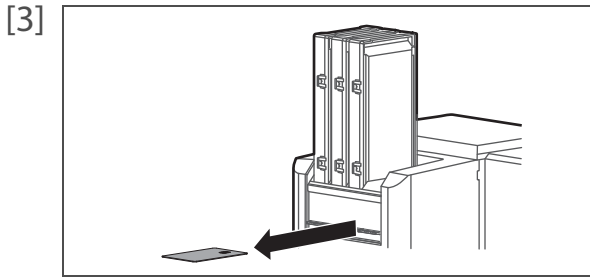
- The buzzer stops.
- In the figure to the left, the slot 4 and slot 6 ink bags must be replaced.

[2]

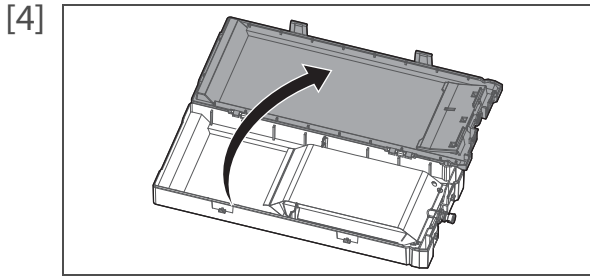


Remove the ink bag case to be replaced.

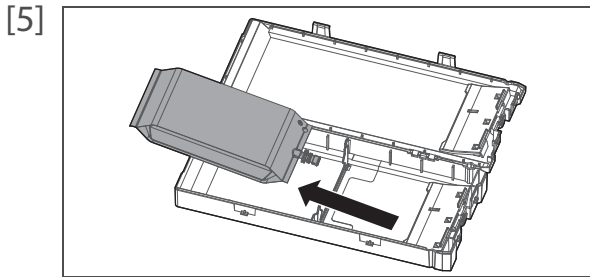




Remove the S/C card from printer.



Open the ink bag case.



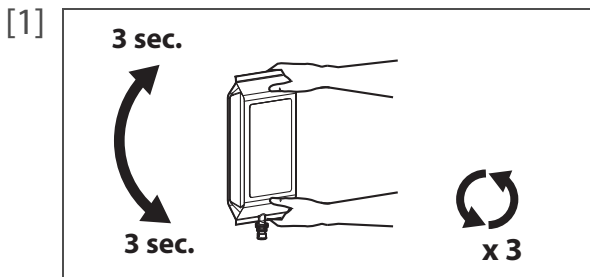
Remove the empty ink bag.



**Note**

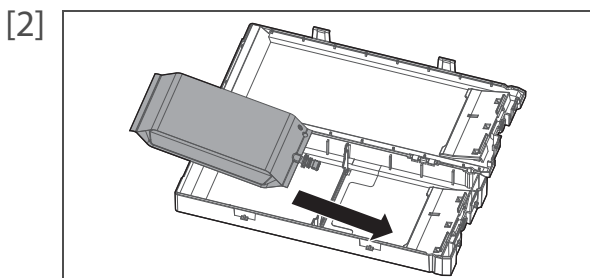
Place the used ink bag in a plastic bag or the like and dispose of it in accordance with local ordinances and municipal instructions.

## 2. Installing the ink bag

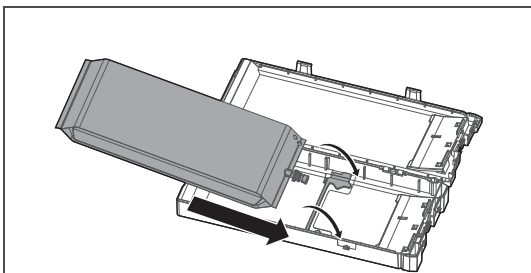


Prepare the new ink bag, and agitate it as instructed below.

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



Put the ink bag into the case.



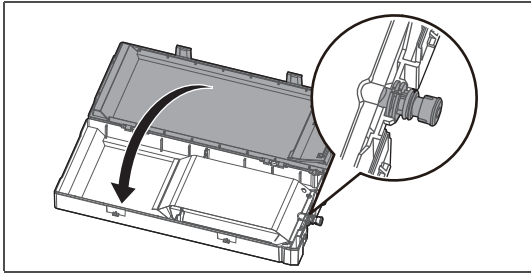
If you are using 2L ink bag, release the lock of divider plate in the case, and then put the ink bag into the case.



**Important!**

**If you are using 1L ink bag, always lock the divider plate.**

[3]

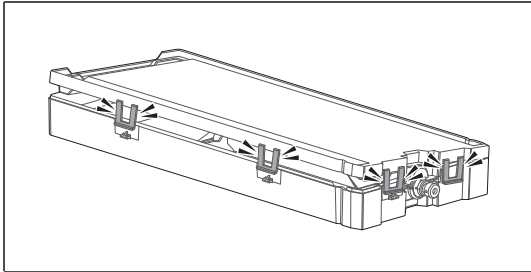


Close the ink bag case.



**Make sure the spout of ink bag is properly fitted into the groove in the case.**

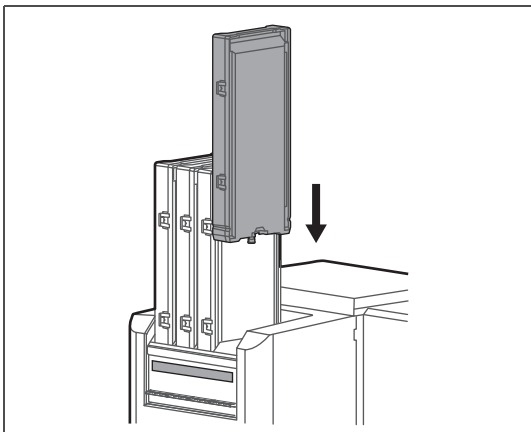
**If not, the printer cannot correctly detect ink bag.**



Close all the latches (x4) of the case properly.

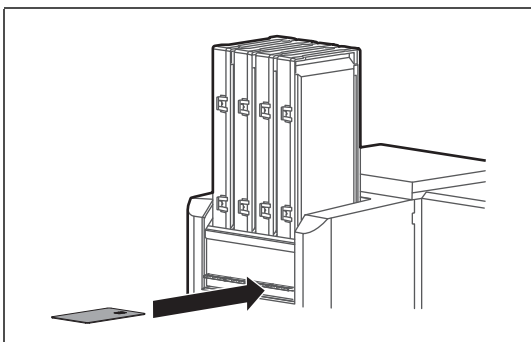
### 3. Installing the ink bag case and S/C card

---



Insert the ink bag case.

- Match the colors of the ink color indicating label on the printer and the label on the ink bag.
- Face the latch side toward you and insert the case into each slot.
- Firmly insert it all the way in.



Insert the new S/C card.

# Emptying waste fluid tank

## Emptying waste fluid tank

In the following cases, move the waste fluid in the waste fluid tank into a container to discharge it.

- When Waste fluid tank is more than half full
- When "Full WasteInkTank" is displayed on operation panel.

### Display messages

Full WasteInkTank

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

- Printing or other operation will stop. It will resume when you have transferred the waste fluid.

## 1. Transfer the waste fluid

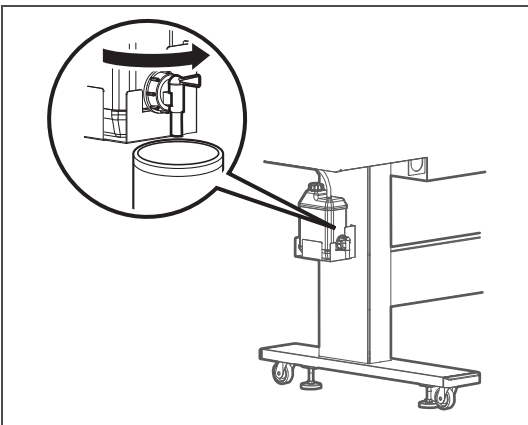
- [1] Prepare a container to put the waste fluid in.

### Important!

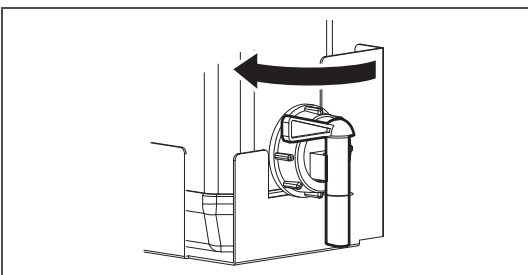
**The capacity of waste fluid tank is 2,000 ml. Make sure to prepare a container that has enough capacity when discharging waste fluid.**

- [2] Cover the floor beneath the waste fluid tank using paper you do not need or the like.

- [3] Open the waste fluid valve, and transfer the waste fluid to the container.



- [4] After pouring the waste fluid to the empty container, close the waste fluid valve securely.



[5] Wipe the opening of Waste fluid valve with a cloth, etc.

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

 **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.**

# Cleaning each part

To use this product always in its best condition, please clean periodically.

## Head cleaning



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

If nozzle missing is occurred in specific print head, select the print head that you want to perform cleaning. In this way, you can reduce ink waste.

 ["Select the Print Head" P. 78](#)

There are several cleaning modes in this product. Please use them accordingly based on your usage condition.

---

Short cleaning	Consumes less ink than Normal cleaning.
Normal cleaning	Conduct nozzle check before and after printing, and use when nozzle missing is found.
Long cleaning	Consumes more ink than Normal cleaning. When nozzle missing still occurs after Normal cleaning, conduct Long cleaning.
Little Charge	Though much better cleaning results can be expected than Long cleaning, it consumes a large amount of ink. *This mode cannot be selected via the "Cleaning" key. Select it from the Cleaning submenu in the Panel Setting Menus.  <a href="#">"Menu 2: Cleaning" P. 78</a>
Initial Charge	Gives a rather higher cleaning effect than "LittleCharge", but also consumes rather more ink. *This mode cannot be selected via the "Cleaning" key. Select it from the Cleaning submenu in the Panel Setting Menus.  <a href="#">"Menu 2: Cleaning" P. 78</a>

---

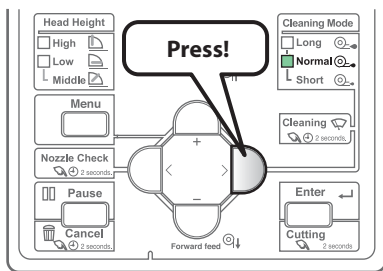
### Important!

**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 bags that have little ink remaining.**

## Steps for head cleaning

[1]

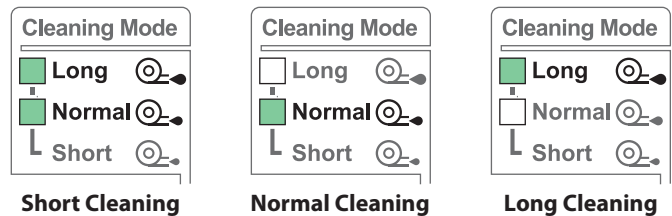


Use the [Cleaning] key to select a cleaning mode.

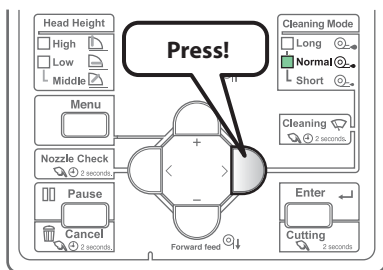
- The "Cleaning Mode" indicators will change each time the key is pressed.

**Note**

- You can alternatively do this via the MSM's remote panel.
- The "Cleaning Mode" indicators will change as shown below.



[2]



Press the [Cleaning] key for more than two seconds.

- Cleaning will start.

[3] Perform Nozzle Check.

- If there is still nozzle missing, repeat cleaning and nozzle check.  
 ["Steps for head cleaning" P. 102](#)
- If nozzle missing is occurred in specific print head, go to Print Head menu and select the print head that you want to perform cleaning. In this way, you can reduce ink waste.  
 ["Select the Print Head" P. 78](#)

**Note**

- When nozzle missing remains even after repeating normal cleaning several times, perform Long cleaning.
- When nozzle missing remains even after repeating Long cleaning several times, perform ["Cleaning of cleaning wiper" P. 103](#) or ["Cleaning of print head circumference" P. 106](#).
- If the nozzle missing still is not rectified, perform "LittleCharge" via the Cleaning submenu in the Panel Setting Menus.

# Cleaning of cleaning wiper

## Cleaning period:

- Weekly
- When print blurring and dot missing remain after head cleaning is done.

## Preparation:

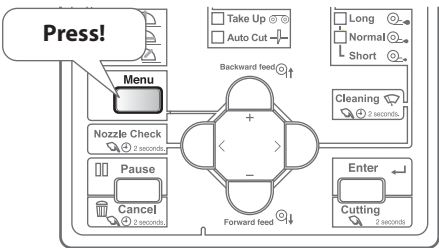




- Cleaning stick

### Important!

During cleaning, please note the followings.

- If it is hard to remove the stain, perform "Short" Head cleaning, and then clean again.
- Use a cleaning stick in dry condition. If moisten with water or solution, it can cause damage to the print head.
- 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.
- Standard cleaning time should be within 5 minutes. If it takes longer, the stick can dry causing damage to the print head.

## 1. Putting the printer into the CR maintenance mode

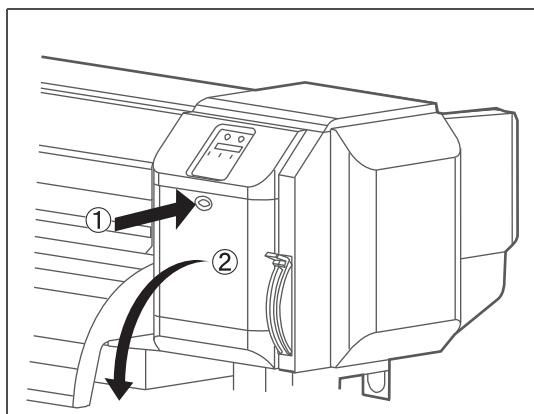
- [1]  Press the [Menu] key.
- [2]  Press the [-] key several times, to bring up the display on the left. Press the [>] key.
- [3]  Press the [Enter] key.
- [4]  Press the [Enter] key.
- The carriage will move to the left side of the printer.
  - The cleaning wiper will move upward.
-  The message on the left will appear.
- Start cleaning.

### Note

If you press the [-] key while [CR Maint. : End] is displayed, the pump is activated, sucking up the ink in the cap.

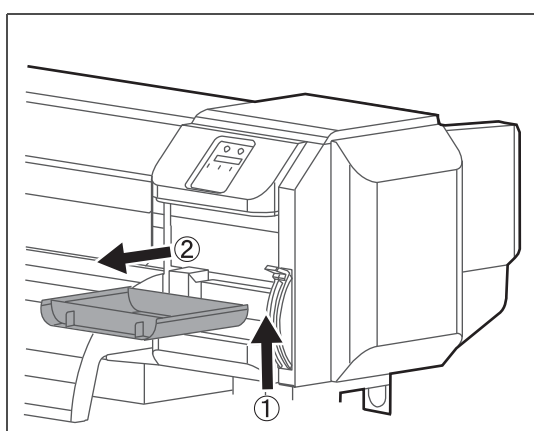
## 2. Cleaning the cleaning wiper

[1]



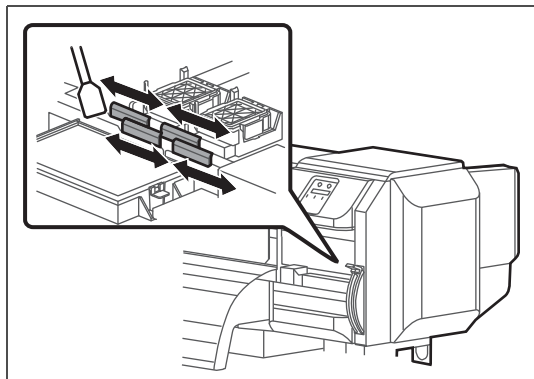
Open the maintenance cover on the right side.

[2]



Detach the maintenance cover.

[3]



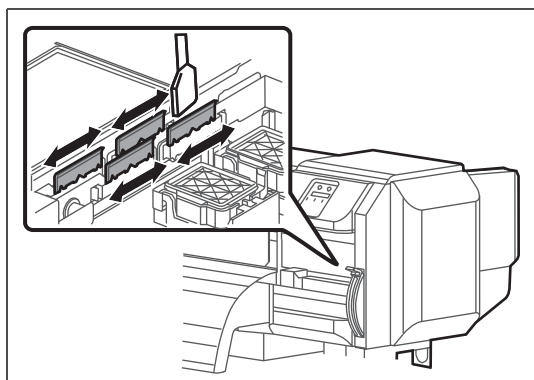
Wipe the cleaning wiper with a cleaning stick.

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

 **Important!**

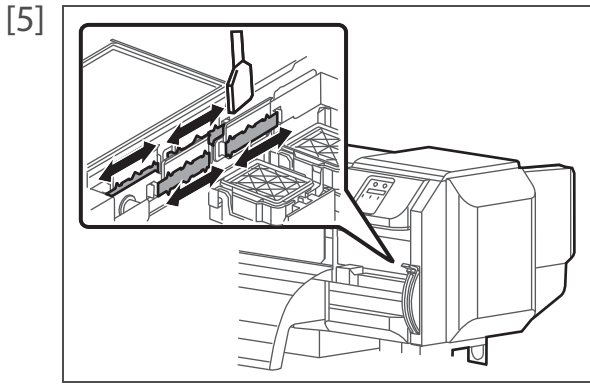
**If it is hard to remove the stain, perform "Short" Head cleaning, and then clean again.**

[4]

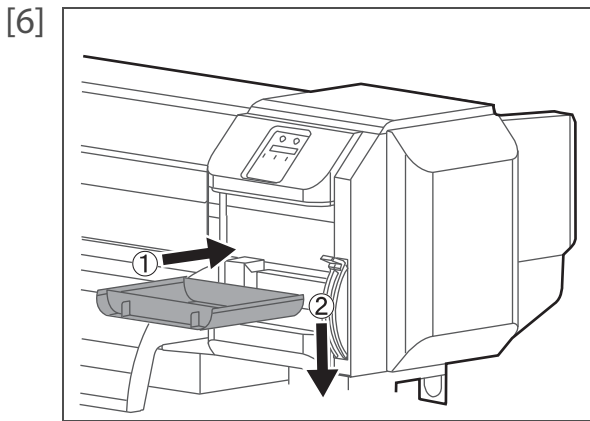


Wipe the right side surface of cleaning wiper going back and forth.

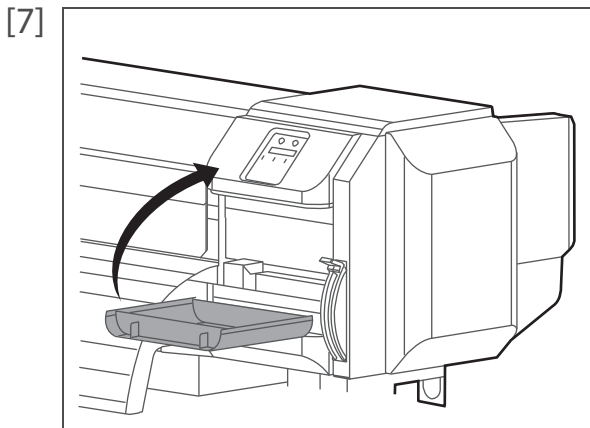




Wipe the right side surface of the base of cleaning wiper going back and forth.



Attach the maintenance cover.



Close the maintenance cover.



Press the [Enter] key.



The message on the left will appear.

- That ends the procedure.

## Cleaning of print head circumference

### Cleaning period:

- Weekly
- When print blurring and dot missing remain after head cleaning is done.

### Preparation:

- Cleaning stick



During cleaning, please note the followings.

- Use a cleaning stick in dry condition. If moisten with water or solution, it can cause damage to the print head.
- 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.
- Standard cleaning time should be within 5 minutes. If it takes longer, the stick can dry causing damage to the print head.

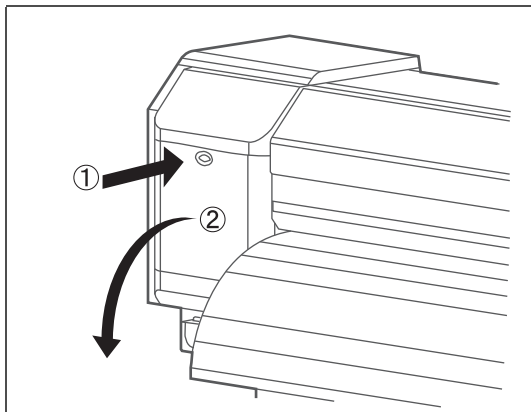
### Steps

---

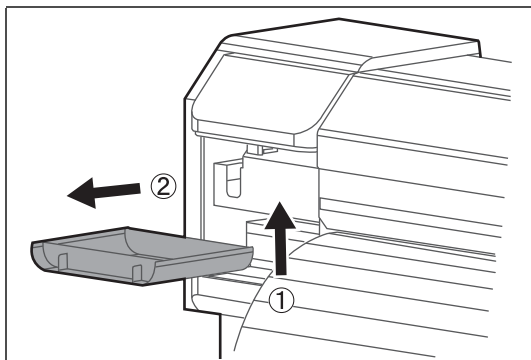
[1] Put the printer into the CR maintenance mode.

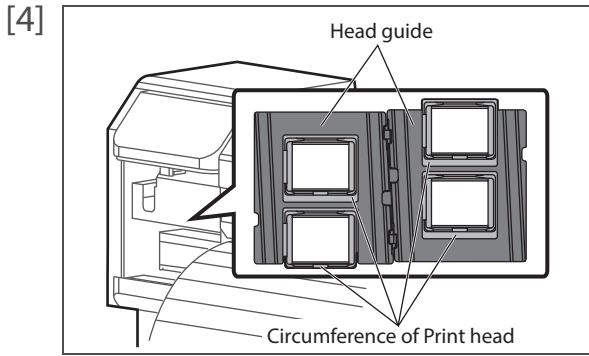
["Putting the printer into the CR maintenance mode" P. 103](#) under [Cleaning of cleaning wiper](#)

[2] Open the maintenance cover on the left side.



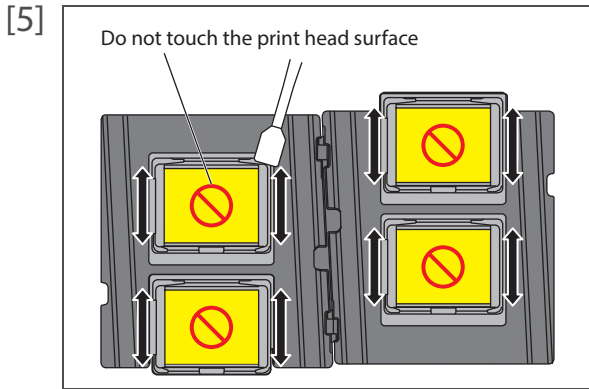
[3] Detach the maintenance cover.





Look at the bottom side of the carriage and check if dusts and ink lump are adhered.

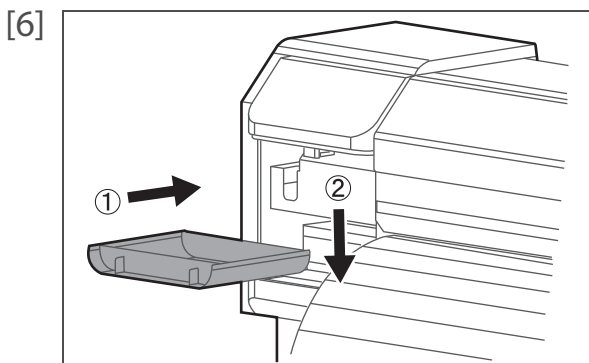
- Print head circumference (silver metal part)
- Print head guide part (black plastic part)



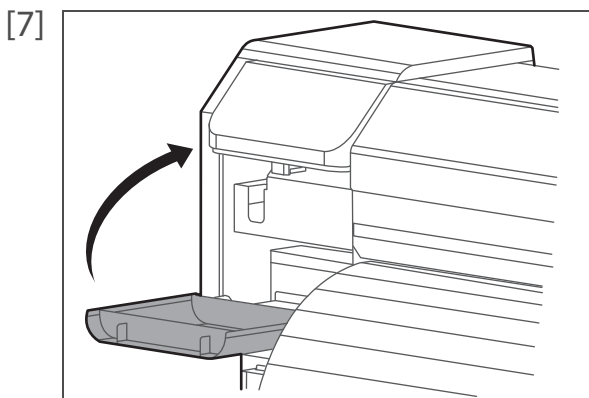
If dusts or ink lump are adhered, clean with a cleaning stick.

**Important!**

**Do not touch the print head surface with fingers or a cleaning stick. It can cause damage to the print head.**



Attach the maintenance cover.



Close the maintenance cover.



Press the [Enter] key.



The message on the left will appear.

- That ends the procedure.

## Inside cleaning

### Cleaning period:

- Monthly
- When dust or ink stains are visible

### Preparation:

- Soft brush
- Soft cloth

### CAUTION

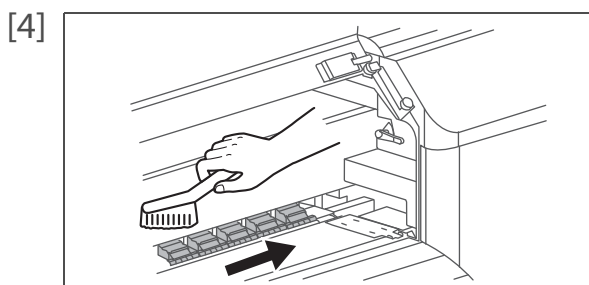


Unplug the power cable with the power OFF, before cleaning the inside of the printer.

### Steps

---

- [1] Remove the media.
- [2] Make sure that the printer is turned OFF.
- [3] Open the front cover.

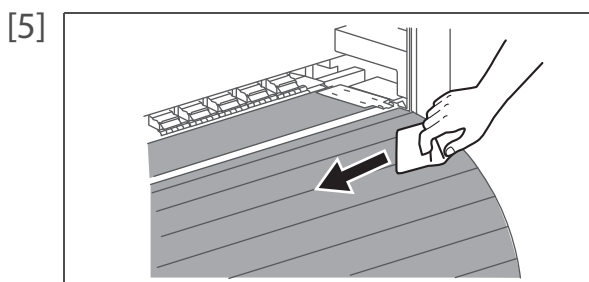


Brush off dusts on the pressurizing rollers with a soft brush.

### Important!

**Do not blow off dusts inside the product with a gas duster.**

**Dust can attach to moving parts, causing abnormal sound or malfunctions.**



Use a wet, tightly-wrung soft cloth to clean the media guide.

- [6] Close the front cover.

# 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.

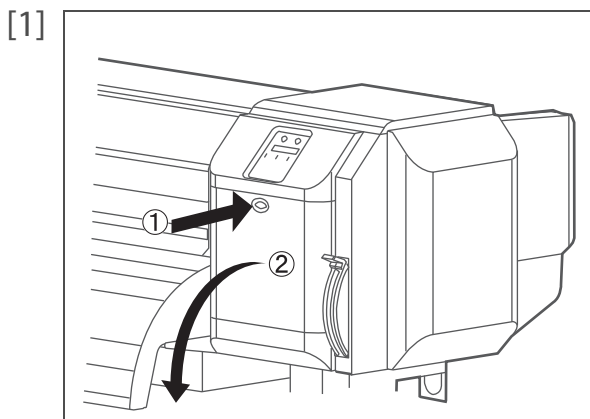
### Replacing period:

- Approx. every two months (since it differs depending on usage frequency, please check periodically)

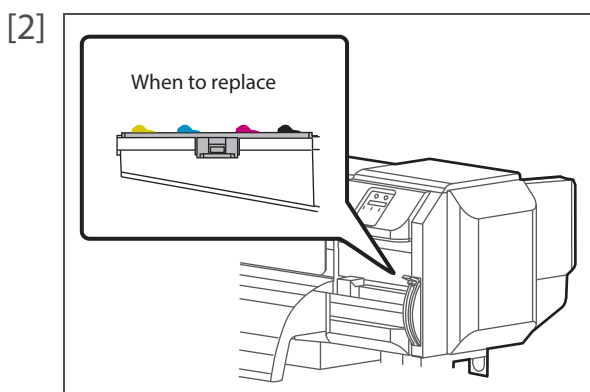
### Preparation:

- Absorption material for the flushing box
- Paper you can get dirty (paper which ink will not bleed through)

## 1. Checking steps



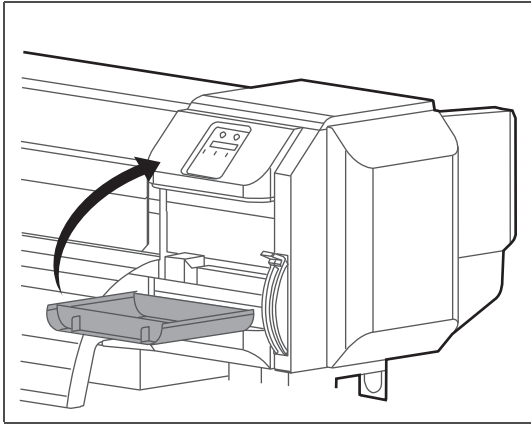
Open the maintenance cover on the right side.



Check the absorption material for the flushing box.

- When there are lumps of ink rise from the frame of the flushing box, it is time to replace.

[3]



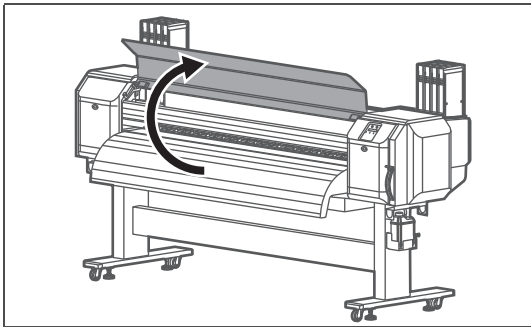
Close the maintenance cover.

## 2. Replacing steps

[1] Put the printer into the CR maintenance mode.

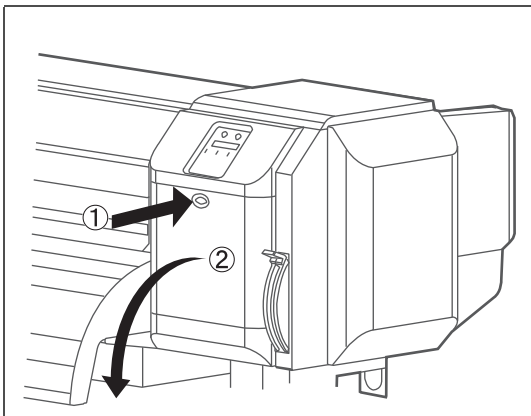
☞ **"Putting the printer into the CR maintenance mode" P. 103** under **Cleaning of cleaning wiper**

[2]



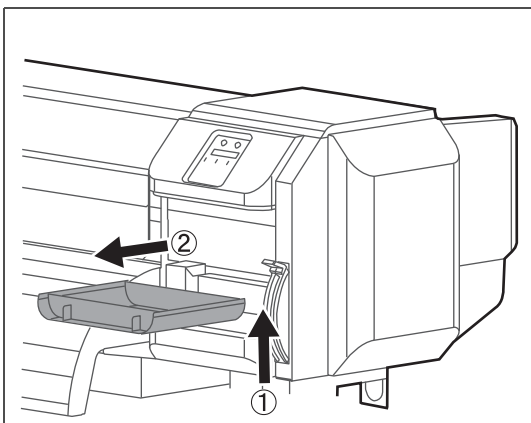
Open the front cover.

[3]



Open the maintenance cover on the right side.

[4]



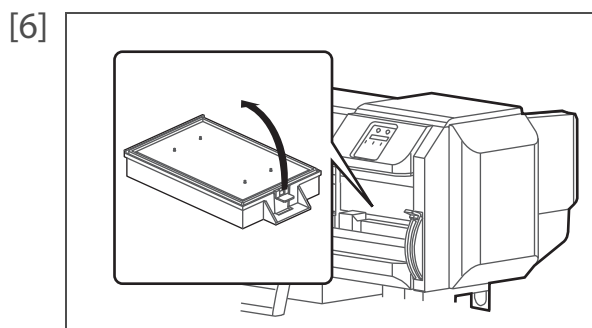
Detach the maintenance cover.

[5] Cover the platen with the paper you can get dirty.

**Important!**

**Ink may drip from the absorption material for the flushing box.**

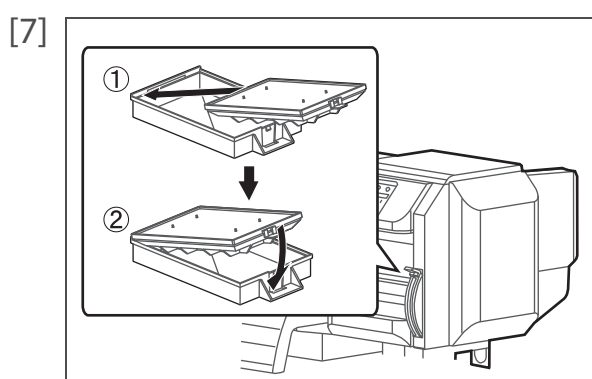
**We recommend covering the floor with paper as well.**



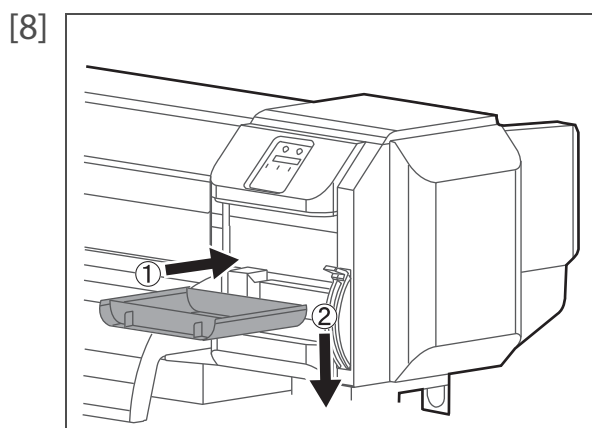
Pull the tab up of the absorption material for the flushing box, and release the hook. Then remove the absorption material for the flushing box.

**Important!**

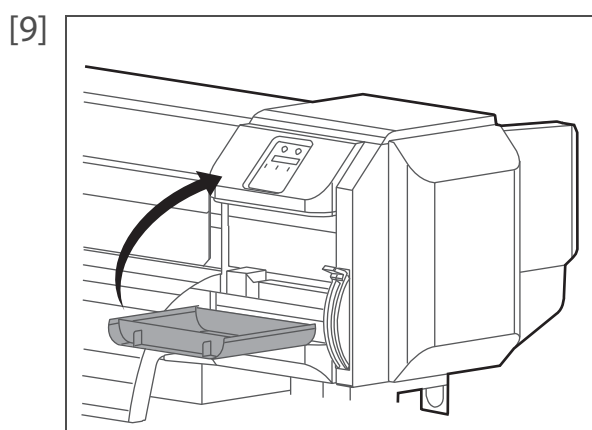
**When removing the absorption material for the flushing box, be cautious of ink drops.**



Attach new absorption material for the flushing box.

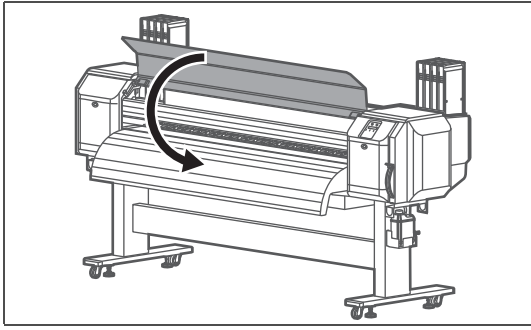


Attach the maintenance cover.



Close the maintenance cover.

[10]



Close the front cover.

[11]

<b>CR Maint. :</b>	<b>End</b>
--------------------	------------

Press the [Enter] key.

<b>CR Maint. :</b>	<b>Start</b>
--------------------	--------------

The message on the left will appear.

- That ends the procedure.



## Replacing Cutter

### Replacing period:

- When the media is not cut smoothly
- When the cut surface is feathered, etc

### Preparation:

- Cutter replacement blade

### ⚠ CAUTION



- **Do not push the knob of cutter or release suddenly.**  
Because there is a spring under the cutter, the cutter can jump out.
- **Do not touch the cutter blade.**  
It may cause injury.

### Steps

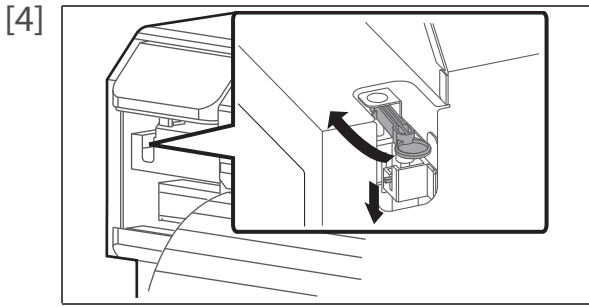
---

[1] Put the printer into the CR maintenance mode.

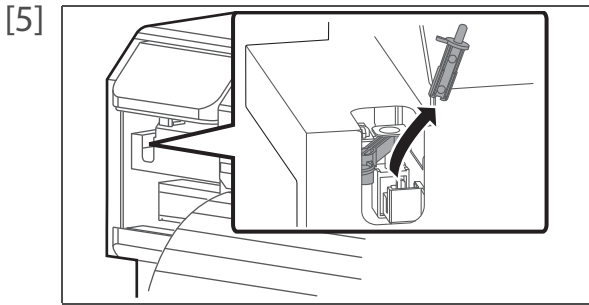
 ["Putting the printer into the CR maintenance mode" P. 103](#) under [Cleaning of cleaning wiper](#)

[2]  Open the maintenance cover on the left side.

[3]  Detach the maintenance cover.



Press the tab of Cutter lightly, turn Cutter holder in the direction as illustrated below.

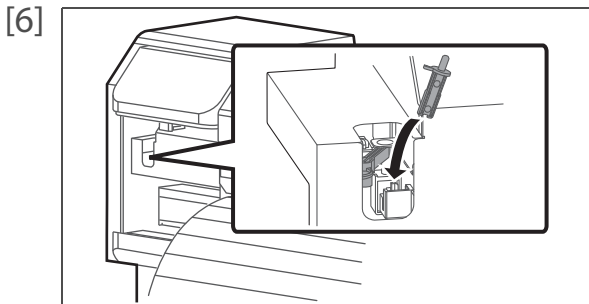


Remove the Cutter.

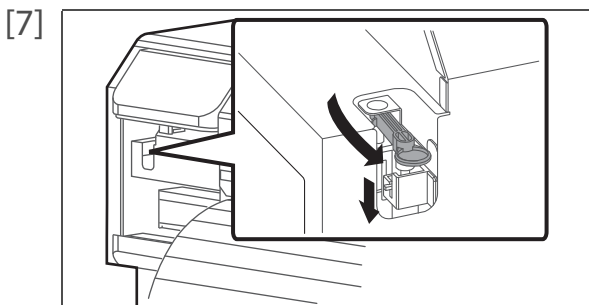


**Note**

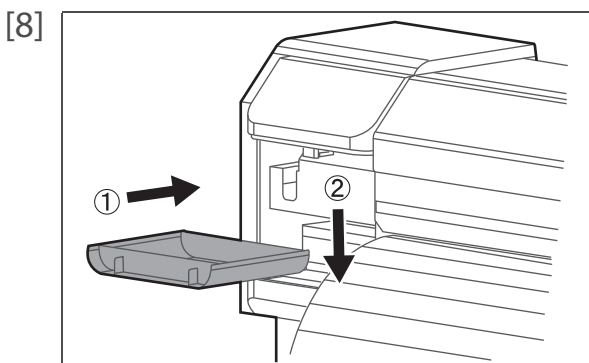
Used Cutter should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.



Attach a new cutter.

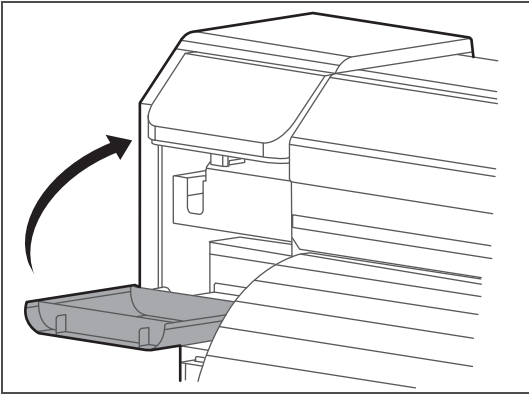


Press the tab of Cutter lightly, return Cutter holder to its initial position.



Attach the maintenance cover.

[9]



Close the maintenance cover.

[10]

CR Maint. :	End
-------------	-----

Press the [Enter] key.

CR Maint. :	Start
-------------	-------

The message on the left will appear.

- That ends the procedure.

# Moving or transporting the printer

This section describes how to move or transport the printer.

## Moving the printer


This section describes how to move the printer.

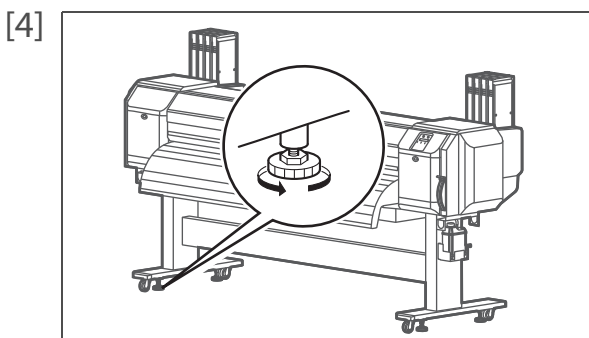
### Important!

- **When moving the printer, make sure to maintain a horizontal position.**
- **Do not tilt, set against something or place this product upside down.**  
**Otherwise the ink may leak or the handling mentioned above may cause abnormality.**

### 1. Preparation before moving

---

- [1] Make sure that the printer is turned OFF.
- [2] Dispose of waste fluid.  
 ["Emptying waste fluid tank" P. 99](#)
- [3] Remove all the cables, such as Power cord set.






Loosen the four adjusters of Stand as shown in the left.

- [5] Move the printer.

## 2. Reinstalling

---

- [1] Select a suitable place for installation.  
 [Startup Guide](#)
- [2] Move and install the printer to the location.
- [3] Attach Cables, such as Power cord set.
- [4] Perform Nozzle check, and then confirm that there is no clogging in Print head.  
 ["Nozzle check steps" P. 32](#)
- [5] Perform print quality adjustment.  
 ["Print quality adjustment steps" P. 37](#)

### Transporting the printer

When transporting the printer, make sure to pack it in the same condition as purchased, using protective and packing materials to protect the printer from vibration and shocks.



**When transporting the printer, consult the MUTOH product dealer at your point of purchase.**

## Long-term storage

If not using the printer for a long time, execute [Longstore].

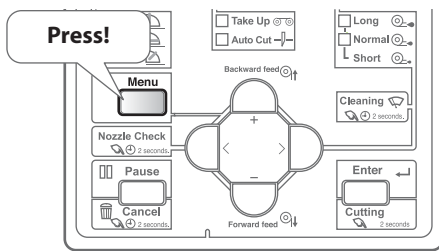
### Preparation:

- Cleaning bag: 8

[1] Empty the waste fluid tank.

 **"Emptying waste fluid tank" P. 99**

[2]



Press the [Menu] key.

[3]



Press the [-] key several times, to bring up the display on the left.  
Press the [>] key.

[4]



Press the [-] key several times, to bring up the display on the left.  
Press the [Enter] key.

[5]

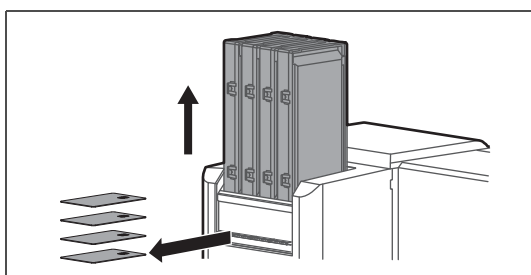


Press the [Enter] key.



The message to the left is displayed.

[6]



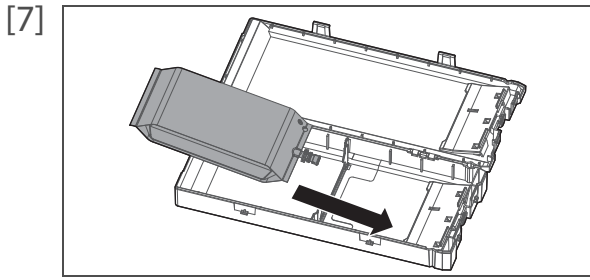
Remove all ink bag cases and S/C cards.



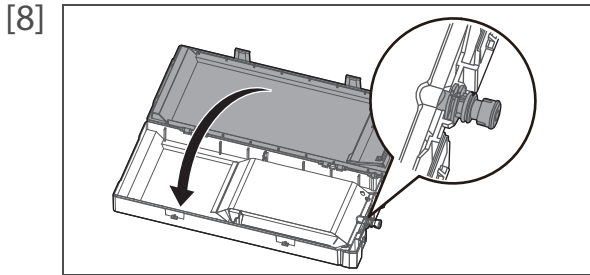
The message on the left will appear.  
• Ink discharging begins.



When the discharge is complete, the message to the left is displayed.



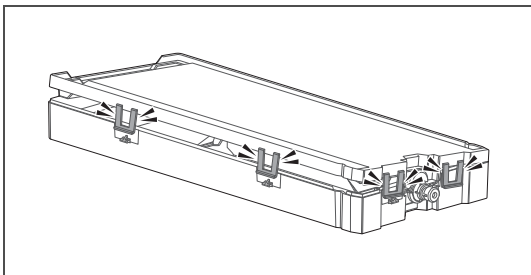
Put the cleaning bag into the case.



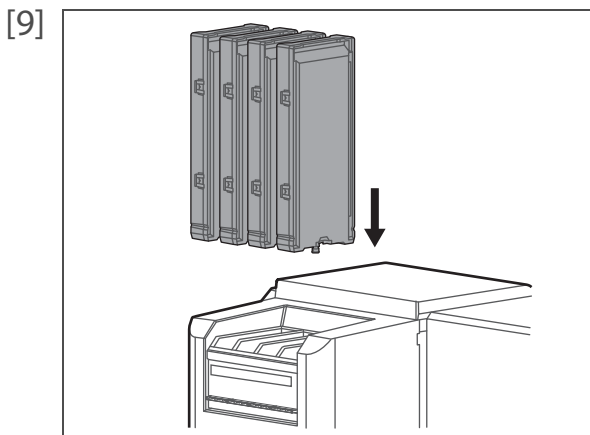
Close the ink bag case.



**Make sure the spout of cleaning bag is properly fitted into the groove in the case.  
If not, the printer cannot correctly detect cleaning bag.**

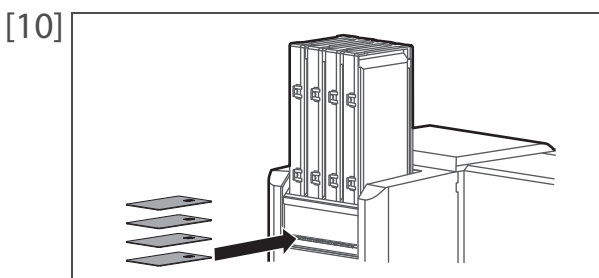


Close all the latches (x4) of the case properly.



Insert the ink bag cases with cleaning bags into all slots.

- Face the latch side toward you and insert the case into each slot.
- Insert all the way to the end.



Insert S/C cards.

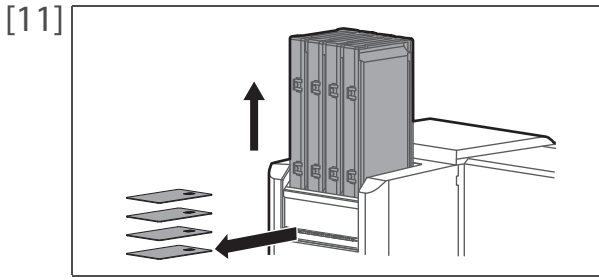
**Busy-Washing**

The message on the left will appear.

- Charging of the cleaning fluid begins.

**Remove Bags**

When charging of the cleaning fluid is complete, the message to the left is displayed.



Remove all ink bag cases and S/C cards.

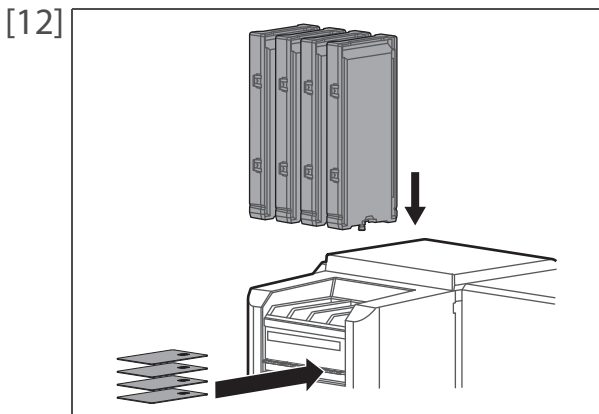
**Busy-Washing**

The message on the left will appear.

- Discharging of cleaning fluid begins.

**Insert CleaningBag**

When cleaning fluid discharging ends, the message on the left will appear.



Insert the ink bag cases with cleaning bags and S/C cards into all slots.

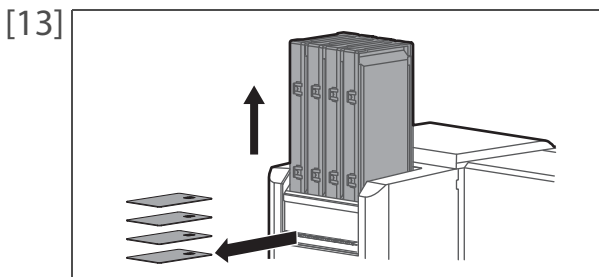
**Busy-Washing**

The message on the left will appear.

- Start charging cleaning fluid.

**Remove Bags**

When cleaning fluid charging ends, the message on the left will appear.



Remove all ink bag cases and S/C cards.

**Busy-Washing**

The message on the left will appear.

- Discharging of cleaning fluid begins.

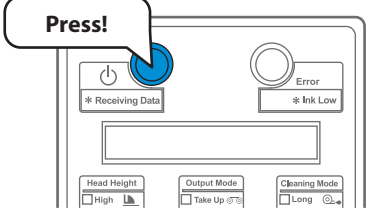


**[ALL] No Bag**

When discharging is complete, the message to the left is displayed.

[14] Turn the power OFF.



## Performing initial charging after head cleaning

- [1]  Turn the printer ON.
- Blue light becomes ON.
  - The product starts initialization operations.
- [2]  When the message to the left is displayed, press the [Enter] key.
- [3]  Press the [Enter] key when the message on the left appears.

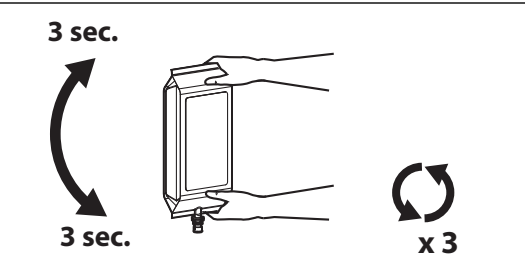
### Note

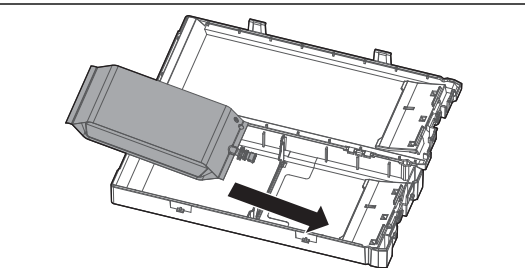
If you need to perform a head cleaning and “Wash retry? No” is displayed, press the [ - ] key to change the display to “Wash retry? Yes” and press the [Enter] key. After that, follow the instructions displayed on the operation panel.

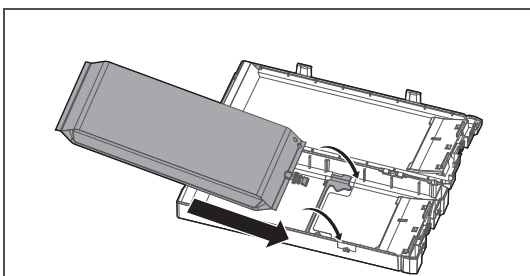
When cleaning is complete, “Insert InkBags” is displayed. Proceed to step 4 in this section.

### Insert InkBags

The message on the left will appear.

- [4]  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 three times.

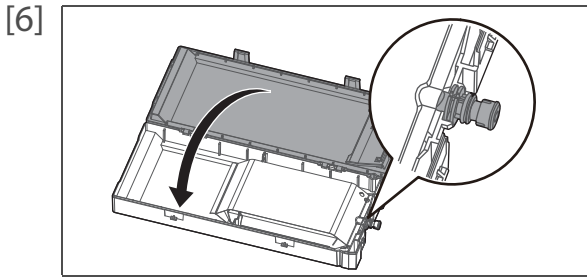
- [5]  Put the ink bag into the case.



If you are using 2L ink bag, release the lock of divider plate in the case, and then put the ink bag into the case.

### Important!

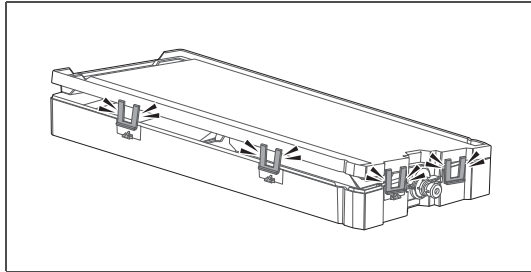
**If you are using 1L ink bag, always lock the divider plate.**



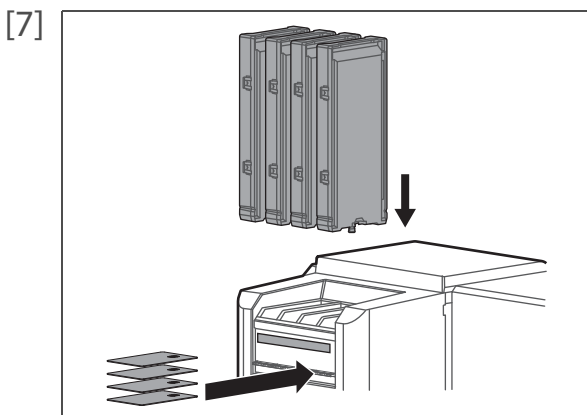
Close the ink bag case.



**Make sure the spout of ink bag is properly fitted into the groove in the case.**  
**If not, the printer cannot correctly detect ink bag.**



Close all the latches (x4) of the case properly.



Insert ink bag cases and S/C cards.

- Match the colors of the ink color indicating label on the printer and the label on the ink bag.
- Face the latch side toward you and insert the case into each slot.
- Insert all the way to the end.

Ink Refill

\*\*%

The message on the left will appear.

- Ink charging begins.

### ⚠ CAUTION



During ink charging, make sure:

- Not to turn OFF the printer.
- Not to unplug the power cable of the printer.
- Not to open the front cover.
- Not to open the maintenance cover.
- Not to raise the media loading lever.

Media End

When ink charging is complete, the message to the left is displayed.



If the printer perform the nozzle check printing immediately after the initial ink charge is complete, the following results may occur.

- Printed lines become blurred.
- The data is partially not printed.

In such cases, follow "[Menu 2: Cleaning](#)" P. 78 and perform "Little Charge". Then, check the print result.

If there is no improvement in the print result even after performing "Little Charge", leave the printer unused for an hour or more.

Then perform "Little Charge" again and check the print result.

If there is still no improvement, contact your local Mutoh dealer.

# Chapter 4 Appendix

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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 operation panel as below.

Display	Description
Ready to Print	Standby (Media is loaded).
Media End	Standby (Media is not loaded).  <a href="#">"Loading the media" P. 26</a>
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.
Media Remain: XXX m	Displays the remaining length of the roll media currently set in meters.
PrintRestart -> Enter	Pausing printing. Press the [Enter] key to restart printing.
Warming Up	Warming up Heater.
Warming Up Skip -> Enter	Received the printing data while Heater is warming up. To start printing before Heater is warmed up, press the [Enter] key.
SubTank Refill **%	Charging the subtank. Please wait a while.
During discharge	Flushing ink from the print head in the head cleaning process. Please wait a while.
User: Type ** OK?	Initializing the media. Please wait a while.
Media Initial	(** represents the set User type.)
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.
Power Off	Turning OFF the printer. Wait for a while.

Display	Description
S/C Reading	Reading the S/C card.
*** Remote Mode ***	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, press the [Cancel] key for more than two seconds.
Roll Remain Error	The remaining roll paper count has become 0. (Printing stops)
Roll Near End: *m	The remaining roll paper count is almost 0. The remaining roll paper is *m.
Insert CleaningBag	Washing Print head. Install cleaning bags.
Busy-Washing	<ul style="list-style-type: none"> <li>• Initial charging, ejecting filler fluid.</li> <li>• Washing the print head by cleaning fluid.</li> </ul> Please wait a while.
Remove Bags	Washing Print head or discharging ink. Remove ink bag cases.
Insert Ink Bags	Charging the ink. Insert ink bag cases.
Ink Refill **%	Charging the ink. Please wait a while.

 Note




[\*] in the roll near end display indicates the remaining length of the roll paper.


## Error message display and remedies

This section describes error messages and remedies.

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	Front cover is open. Close Front cover.
Maint. CoverL Open	Left Maintenance cover is open. Close Maintenance cover.
Maint. CoverR Open	Right Maintenance cover is open. Close Maintenance cover.
Lever Up	Media loading lever is raised. (Media is already loaded) Lower Media loading lever.  The media is not loaded. Load the media.  <a href="#">"Loading the media" P. 26</a>
Undefined Media	Media detection has failed. (Stops operation) Reload the media.
Media Slant	Media is fed obliquely. (Stops operation) Reload the media.
Media Cut Error	The media was not cut. (Stops operation)
End Of Roll	The Media has run out. (Stops operation) Load a new media.  <a href="#">"Loading the media" P. 26</a>
Heater Error	Your heater may be malfunctioning. (Stops operation) Check the heater.
[*****] Ink End	Ink has run out. (Stops operation) Replace with a new ink bag.  <a href="#">"Replacing ink bag" P. 96</a>
[*****] No Bag	Ink bag case is not inserted. (Stops operation) Insert Ink bag case.
[*****] Discharged	Ink is not filled. Perform initial ink charging.  <a href="#">"Performing initial charging after head cleaning" P. 121</a>
Full WasteInkTank	The waste fluid tank has become full. (Stops operation) Immediately transfer the waste fluid into a container.  <a href="#">"Emptying waste fluid tank" P. 99</a>
[*****] S/C ReadErr	Reading S/C Card has been failed. Insert S/C Card again.
[*****] S/C Col.Err	Ink bag cases are inserted in wrong slots. Insert ink bag cases correctly again.
[*] S/C Ink Err	The ink bag cannot be used for this printer. Contact your local MUTOH dealer.

Display	Description
[*] S/C CodeErr	Inserted ink bag is not a proper one. Contact your local MUTOH dealer.
[*****] No S/C Card	S/C card is not inserted. (Stops operation) Insert S/C card.
[*****] S/C Ink End	Ink has run out. (Stops operation) Replace with a new ink bag.  <a href="#">"Replacing ink bag" P. 96</a>
[*] S/C Ink Low	Slot * ink is low. Get a replacement bag ready.
[*] Broken Chip	S/C Card has been broken. Insert new ink bag.

 Note

- [\*\*\*\*\*] in the error message indicates the target ink cartridge slot.
- If "Ink End" or "No S/C Card" and "No Bag" occur at the same time, "No Bag" message has priority to be displayed.

## 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 lamps on the operation panel blink, and the buzzer rings 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 continues to be 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
E***Err []	A problem that does not have a remedy has occurred. <ol style="list-style-type: none"><li>1. Remove obstacles such as paper scraps in the drive system.</li><li>2. Confirm that the replaced items are correctly attached.</li><li>3. Turn the power button off. Wait a short while, then turn the power button on, to restart the printer.</li></ol>

### Note


- "\*\*\*\*" in the error message is the code no. that indicates what type of error occurred.
- The command code representing the error occurred may be indicated in [].



# Troubleshooting

This section describes undisplayed malfunctions and failures of the printer, possible causes and countermeasures.

## Note

- 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

Cannot perform the initial ink charging.

Is the front cover, or the maintenance cover open?

- Close the front cover, or the maintenance cover.

Is the media loading lever raised?

- Lower the media loading lever.

Are ink bag cases and S/C cards inserted all the way into the printer?

- Make sure ink bag cases and S/C cards are all inserted properly.

Ink does not come out after ink charging.

Is the ink bag too cold?

- Leave the ink bag at room temperature for at least three hours, and perform cleaning several times.

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.

- 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 there is still no improvement, contact your local Mutoh dealer.

 ["Installing the ink bag case and S/C card" P. 98](#), ["Head cleaning" P. 101](#)

MSM or RIP cannot access to the printer.

Is Gigabit Ethernet cable connected correctly?

- Securely connect the Gigabit 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.

 ["Connecting to a Computer" P. 19](#), ["Initial 5: IP Address" P. 83](#), ["Initial 6: Subnet Mask" P. 84](#), ["Initial 7: Gateway" P. 84](#)

## Boot-up troubleshooting

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 the media loading lever raised?

- Lower the media loading lever.

Is the media loaded correctly?

- Load the media correctly.

Is the ink bag case inserted?

- Insert the ink bag case.

Do you use the printer within recommended environmental conditions?

- Make sure to use the printer within the specification range.

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.

 ["Loading the media" P. 26](#), "Ensuring a suitable place for installation" of the "Startup Guide" on page P.10

The media slips, is torn / crumpled during initialization.

Is the media loaded correctly? - Load the media correctly.
Are there any foreign materials such as torn paper attached to Pressurizing rollers? - Clean Pressurizing rollers.
Do you use the printer within recommended environmental conditions? - Make sure to use the printer within the specification range.
Are any curls or warps present on your media? - Set the media holder at both edges of the media. - Check that you select the appropriate vacuum fan setting.
Are you using creased, damaged, torn or curled media? - Replace the media.




### Note

If the media is jammed or torn, remove it according to "The media is jammed" P.136.

The printer does not detect the media.

Is the media loaded correctly? - Load the media correctly.
Is the media loaded at an angle? - Load the media straight.
Do you use the printer within recommended environmental conditions? - Make sure to use the printer within the specification range.
Did you load the media which has been printed before? - Use a new media.

 ["Loading the media" P. 26](#), ["Inside cleaning" P. 108](#), ["After loading the media..." P. 30](#), ["6: Vacuum Fan" P. 66](#), ["The media is jammed" P. 136](#), "Ensuring a suitable place for installation" of the "Startup Guide" on page P.10

Media jams frequently occur.

Do you use the printer within recommended environmental conditions?

- Make sure to use the printer within the specification range.

Are any curls or warps present on your media?

- Set the media holder at both edges of the media.

- Check that you select the appropriate vacuum fan setting.

Are you using creased, damaged, torn or curled media?

- Replace the media.




Note

If the media is jammed or torn, remove it according to "The media is jammed" P.136.

The media skews during printing.

Is the media loaded correctly?

- Load the media correctly.

 "Ensuring a suitable place for installation" of the "Startup Guide" on page P.10, ["After loading the media..." P. 30](#), [">6: Vacuum Fan" P. 66](#), ["The media is jammed" P. 136](#), ["Loading the media" P. 26](#)

The printer does not print.

Is Gigabit Ethernet cable connected correctly?

- Securely connect the Gigabit 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.

Have you enabled MPS in MSM?

- In MSM, go to the MPS Info. tab to check that MPS is enabled.

Have you set the output port to MPS on your RIP software?

- Check that the output port of your RIP is set to MPS.

The carriage pauses at either side of the printer while printing.

Does your computer meets the following requirements?

- OS: Windows 10 (64bit), Windows 8/8.1 (64bit), Windows 7 (64bit)
- CPU: Intel (R) Core (TM) i5 / i7
- Memory: No less than 8G byte
- Network: Use a network port that supports Gigabit Ethernet, and an Ethernet cable that supports Category 6 Gigabit Ethernet or later.

Do you use a Gigabit Ethernet cable?

- To connect your printer to your computer, use a Gigabit Ethernet cable Category 6 or later.

Are any curls or warps present on your media?

- Set the media holder at both edges of the media.
- Check that you select the appropriate vacuum fan setting.

Smears or missing area partially appears on the prints.

Does the printer heater deform your media?

- If the heater deforms the media loaded to the printer before printing, go to the "Start Feed" menu to increase the media feeding amount.

Does the media contain moisture or are you using the creased or wrinkled media?

- Replace it with the new media.

 ["Connecting to a Computer" P. 19](#), ["After loading the media..." P. 30](#), ["6: Vacuum Fan" P. 66](#), ["Set 5: Start Feed" P. 69](#)

The printing position is incorrect (some parts of the media cannot be printed on).

Is the media loaded correctly?

- Load the media correctly.

Did you set up the origin?

- Cancel or reset the settings of the origin.

Printing is blurred.

Is the media printed on the printing surface?

- Check the printing surface of the media and set it correctly.

Did you perform Print quality adjustment?

- Perform Print quality adjustment.

Did you perform Media feed adjustment?

- Perform Media feed adjustment.

White or black lines appear on printed media.

Is the media loaded correctly?

- Load the media correctly.

Does the media contain moisture or are you using the creased or wrinkled media?

- Replace it with the new media.

Are Nozzles in good condition?

- Perform Nozzle check.  
Then if nozzle missing is found, conduct cleaning.

Did you perform Print quality adjustment?

- Perform Print quality adjustment.

Did you perform Media feed adjustment?

- Perform Media feed adjustment.

 ["Loading the media" P. 26](#), ["Set 7: Origin" P. 70](#), ["2: Adjust Print" P. 57](#), ["3: PF Adjust" P. 61](#), ["Nozzle check and cleaning" P. 32](#)

Printing lines are not straight / are duplicated or patchy.

Are Nozzles in good condition?  - Perform Nozzle check. Then if nozzle missing is found, conduct cleaning.
Did you perform Print quality adjustment?  - Perform Print quality adjustment.
Did you perform Media feed adjustment?  - Perform Media feed adjustment.
Is Ink bag within the validity period?  - Use a non-expired ink bag.

Printed color is not accurate.

Are Nozzles in good condition?  - Perform Nozzle check. Then if nozzle missing is found, conduct cleaning.
Did you install an ink bag on each ink pack case with correct ink color of S/C card?  - Check that the ink color written on S/C card matches the ink color of ink bag installed on each ink pack case. - If it does not match, perform "Longstore" to clean the print head and then perform initial ink charging.

Nozzle missing remains after head cleaning.


Is there any ink stains or deposits on the cleaning wiper or circumference of the print head?  - Clean the cleaning wiper and circumference of the print head.
Did you select an appropriate cleaning setting?  - Head Select: Select "ALL" or the print head which nozzle missing occurs. - Cleaning Mode: If nozzle missing still persists after attempting Normal Cleaning or Long Cleaning two or three times, perform "Little Charge".

Printed area does not dry completely.

Do you use the heaters of the printer?  - Check the settings of heaters.
Did you select an appropriate print mode?  - Check that the print mode is set to the appropriate mode.

 **Note**

- If an image contains high ink density area, the area may not dry easily.
- Depending on the media being used, printed area may not dry easily.

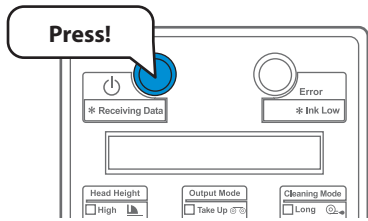
 ["Nozzle check and cleaning" P. 32](#), ["\\*\\*\\*>2: Adjust Print" P. 57](#), ["\\*\\*\\*>3: PF Adjust" P. 61](#), ["Cleaning of cleaning wiper" P. 103](#), ["Cleaning of print head circumference" P. 106](#), ["Menu 2: Cleaning" P. 78](#), ["\\*\\*\\*>4: Heater \(Upper\)" P. 65](#), ["\\*\\*\\*>5: Heater \(Lower\)" P. 65](#), ["\\*\\*\\*>1: Print Mode" P. 56](#)

# The media is jammed

When the media is jammed in the printer, follow the procedure below to remove it.

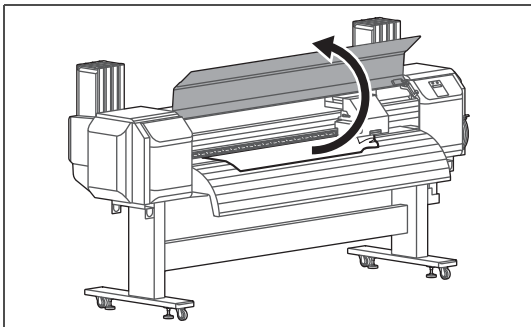
## Steps

[1]



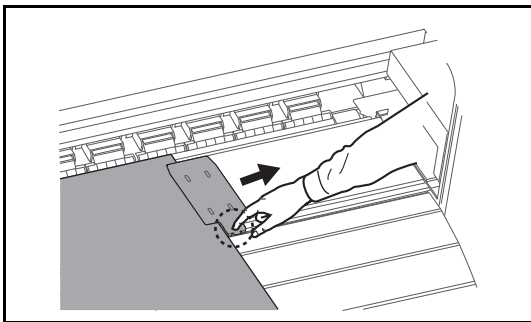
Turn the printer OFF.

[2]



Open the front cover.

[3]

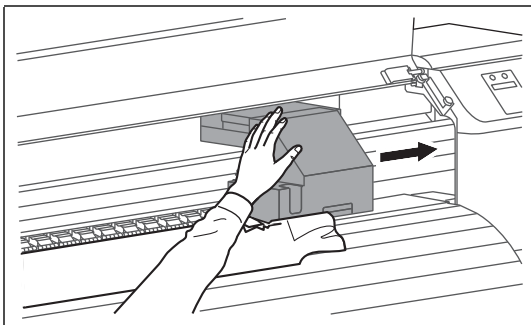


While keep pressing the part circled with a dotted line in the figure left, slide the media holder to the right to remove it from the media.

**Important!**

**If any deformation is found on the media holder, stop using it and contact your local Mutoh dealer.**

[4]



Move the carriage from the top of the media to the right.

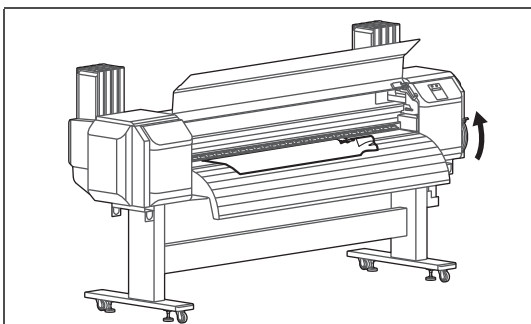
**Important!**

**When the head height is set to Low, change it to High and then shift Head.**

**After shifting Head, change the setting back to Low.**

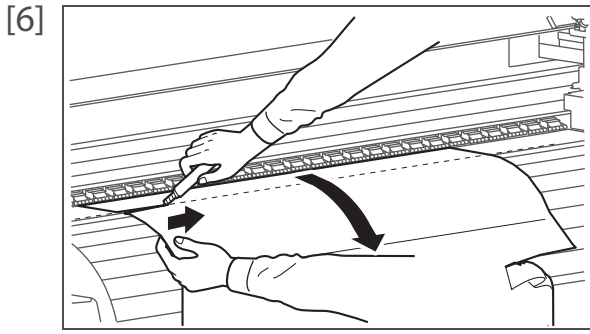
**☞ "Changing the Head Height" P. 40**

[5]

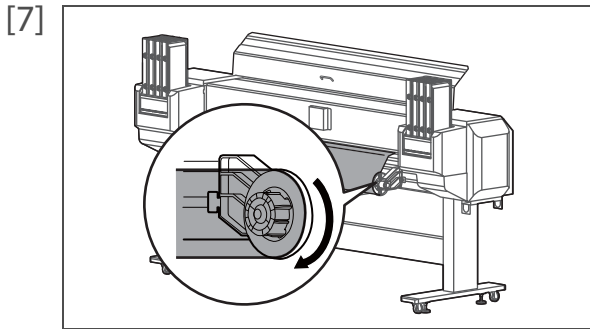


Raise the media loading lever.





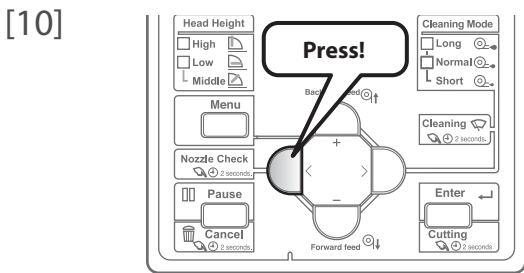
[6] Pull the media towards you, and cut the torn part with cutting tools such as a razor blade.



[7] Rewind the media a little by rolling Flange on Roll media holder.

[8] If paper dust or pieces of paper remain inside the printer, remove them.

[9] Turn the printer ON.



[10] Press the [Nozzle Check] key for more than two seconds.  
 • Nozzle check printing will start.

[11] Check the print result.  
 • If there is nozzle missing, go to **"Cleaning steps" P. 33**.  
 • If all lines are clearly printed, you can start printing.

# Specifications of this product

## List of specifications

Model Name	VJ-1948WX	
Print method	On demand piezo method	
Drive method	Firmware servo/DC motor drive	
Media feed method	Multipoint pressurizing Grid roller system	
Media fixing system	Pressurization roller down system by manual lever	
Conditions of usable media	Roll media outer diameter	Φ150 mm or less
	Tube diameter	2 inches or 3 inches
	Weight	30 kg or less
	Maximum width	1,910 mm
	Minimum width	900 mm
	Maximum thickness	0.3 mm (when the head height is set to Low) 1.3 mm (when the head height is set to Mid) 2.8 mm (when the head height is set to High)
Maximum print width	1,900 mm	
Maximum print length	1,500 m	
Head height adjustment	Three-level adjustment of Low, Mid, and High	
CPU	64bit RISC CPU	
Memory	384 MB	
Interface	Gb-Ethernet (1000BASE-T) miniDIN (8pin) connector	
Waste fluid tank	Fixed to the body type, capacity 2,000 ml, waste fluid discharge by users	
Ink	Color	4-color (Black, Cyan, Magenta, Yellow) 8-color (Black, Cyan, Magenta, Yellow, Light Cyan, Light Magenta, Light Black, Light Light Black)
	Type	1,000 ml ink bag, 2,000 ml ink bag

Environmental conditions	Printer Operation Environment	Temperature 20 to 32 °C, humidity 40 to 60% No condensation
	Printer Accuracy Guaranteed Environment	Temperature 22 to 30 °C, humidity 40 to 60% No condensation
	Change rate	Temperature: No more than 2 °C per 1 hour Humidity: No more than 5% per 1 hour
	Printer Storage Environment	Storage without ink charging: up to 6 months Temperature -20 to +60 °C, humidity 20 to 80% No condensation  Storage with ink charging: Temperature 5 to 30 °C, humidity 20 to 60% No condensation
	Ink Storage Environment	<ul style="list-style-type: none"> <li>• Dye sublimation ink (DH11, DH21) Black/Cyan/Magenta/Yellow/Light Cyan/Light Magenta/ Light Black/Light Light Black (1,000 ml or 2,000 ml each) Temperature -5 to 35 °C Humidity: No condensation</li> <li>• Dye sublimation ink (DM11) Black/Cyan/Magenta/Yellow (1,000 ml or 2,000 ml each) Temperature 10 to 35 °C Humidity: 40 to 80%</li> <li>• Cleaning bag (600 ml) Temperature 5 to 35 °C Humidity: No condensation</li> </ul>
Power supply specifications	Printer	Voltage: AC 100V to AC 120V ±10% / AC 200V to 240V ±10%  Frequency: 50/ 60Hz ±1Hz  Capacity: AC 100V to AC 120V: No less than 8.0 A AC 200V to AC 240V: No less than 5.0 A
	Heater ×2	Voltage: AC 100V to AC 120V ±10% / AC 200V to 240V ±10%  Frequency: 50/ 60Hz ±1Hz  Capacity: AC 100V to AC 120V: No less than 9.0 A AC 200V to AC 240V: No less than 5.0 A

Power consumption	Power off	<ul style="list-style-type: none"> <li>• Printer: AC100V to 120V, 1 W or below AC200V to 240V, 2 W or below</li> <li>• Heater ×2: AC100V to 120V, 0.1 W or below AC200V to 240V, 0.2 W or below</li> </ul>
	Standby	<ul style="list-style-type: none"> <li>• Printer: AC100V to 120V, 91 W or below AC200V to 240V, 82 W or below</li> <li>• Heater ×2: AC100V to 120V, 1,110 W or below AC200V to 240V, 1,110 W or below</li> </ul>
	Sleep Mode	<ul style="list-style-type: none"> <li>• Printer: AC100V to 120V, 35 W or below AC200V to 240V, 28 W or below</li> <li>• Heater ×2: AC100V to 120V, 0.1 W or below AC200V to 240V, 0.2 W or below</li> </ul>
	Operation	<ul style="list-style-type: none"> <li>• Printer: AC100V to 120V, 600 W or below AC200V to 240V, 530 W or below</li> <li>• Heater ×2: AC100V to 120V, 1,120 W or below AC200V to 240V, 1,120 W or below</li> </ul>
Current consumption	100V to 120V	<ul style="list-style-type: none"> <li>• Printer: 7 A or below</li> <li>• Heater ×2: 8.5 A or below</li> </ul>
	200V to 240V	<ul style="list-style-type: none"> <li>• Printer: 4.5 A or below</li> <li>• Heater ×2: 4.5 A or below</li> </ul>
External dimensions	Height	1,261 mm (Size of printer when the front cover is opened: 1,529 mm)
	Width	2,983 mm
	Depth	966 mm (Size of printer when the covers are opened: 994 mm)
Weight	Main body	164 kg
	Stand	37 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
2016.9	00	VJ1948WXE-A-00	V.1.00
2016.12	01	VJ1948WXE-A-01	V.1.01
2017.3	02	VJ1948WXE-A-02	V.1.05
2017.11	03	VJ1948WXE-A-03	V.1.07
2018.8	04	VJ1948WXE-A-04	V.1.08
2019.4	05	VJ1948WXE-A-05	V.1.08
2020.1	06	VJ1948WXE-A-06	V.1.08 or later

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