MUTOH
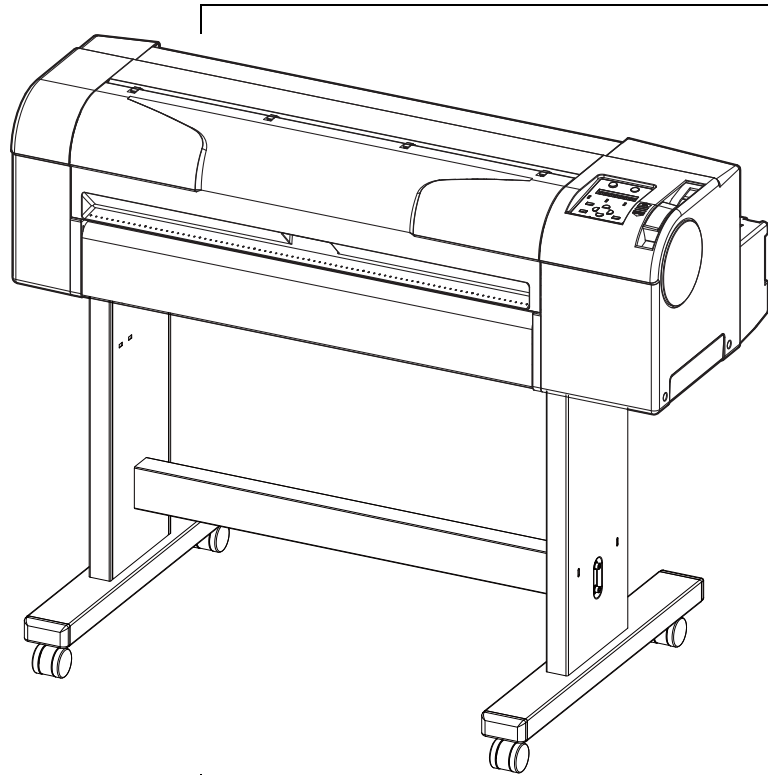
OPERATION MANUAL

Full-Color Inkjet Printer

DrafStation

RJ-901X
RJ-900X

Read This Manual Before Using The Printer.

Important Notice

1.   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.

2.   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.

3. Trademark Mentioned in this Manual

- MUTOH、Draf Station、RJ-901X、RJ-900X、MH-RTL、RTL-PASS are registered trademarks or product names of MUTOH INDUSTRIES LTD.

- 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.

- Company names and product names that appear in this manual are registered trademarks of the respective companies.

NOTE

- No part of this product or publication may be reproduced, copied, or transmitted in any form or by any means, except for personal use, without the permission of MUTOH INDUSTRIES LTD.

- Specification of the product and contents of this document are subject to change without prior notice.

- MUTOH INDUSTRIES LTD. has made the best efforts to keep this publication free from error, but if you find any uncertainties or misprints, please call us or the shop where you bought this equipment.

- MUTOH INDUSTRIES LTD. shall not be liable for any damages or troubles resulting from the use of this equipment or this manual.

About this Manual

1.　Contents of the Manual

There are three manuals for this product.

Installation manual

Explains operating procedures along with unpacking, installation and preparation before use.

Product Activation Guide

This manual explains the procedures when the printer starts up for the first time.

Operation Manual (this manual)

2.　Purpose and Target Readers

This manual explains preparations before use and operation procedures for MUTOH Full Color Ink Jet Printer RJ-900X series.
This manual is prepared for the owners and operators of this printer.
Before using this printer, make sure that you fully understand the contents and instructions in this manual.

3.　Manual Configuration

Section	Description
1 Safety instructions	This chapter explains warning terms, safety precautions and warning labels on the product that operators and installation personnel need to know.
2 Product overview	This chapter explains the features of the printer along with the names and functions of each part.
3 Before using	This chapter explains necessary steps before using the printer.
4 Handling the printer	This chapter explains how to handle the printer.
5 Daily maintenance	This chapter explains the step of the daily maintenance.
6 Troubleshooting	This chapter describes possible troubles during the use of this product and countermeasures.
7 Appendix	This chapter describes each printer specification, Options/Supply, and user support.

NOTE

- "**1 Safety instructions**" to "**3 Before using**" must be read before using the printer.
- Read "**5 Maintenance**" through "**7 Appendix**" as necessary.

4.   Manual Notation

This section explains general cautions that must be followed in order to use this printer safely.

Warning	Meaning
⚠ **WARNING**	Failure to follow the instruction may result in serious injury or death.
⚠ **CAUTION**	Failure to follow the instruction may result in minor injury or damage to the product.
NOTE	Special attention is needed.
TIP	Indicates useful tips for operating or understanding the printer.
🚫	Indicates "prohibited" operations.
❗	Indicates "required" operations.
☞	Indicates reference pages in this manual.

TABLE OF CONTENTS

4 Handling the printer

5   Maintenance

6   Troubleshooting

7   Appendix

1   **Safety instructions**

This chapter explains warning terms, safety precautions and warning labels on the product that operators and installation personnel need to know.

⚠ **WARNING** ████████████████████████████████████

- When performing installation and operation of the printer, be sure to follow the instructions and warnings mentioned in this book.

████████████████████████████████████

1.1 Warnings, cautions and notes

The contents of alarm display written in the Operation Manual and warning label stuck on main body of the printer are classified into the following three steps according to priority (accident's magnitude) of danger.
Understand the meaning of the following warning terms and follow the contents (instructions) in this manual.

Warnings	Meaning
⚠ **WARNING**	Failure to follow the instruction may result in serious injury or death.
⚠ **CAUTION**	Failure to follow the instruction may result in minor injury or damage to the product.
NOTE	Special attention is needed.

1.2   Important safety instructions

In order to use the printer safely, the general notes which must be followed are explained.

⚠ **WARNING**

Do not install the printer in the following places where there is a possibility that the printer may be damaged or might fall or be fallen by chance.
- On a shaky stand
- Slanting location
- Places where vibration of other machines etc. is transmitted

Do not stamp on the printer or do not place heavy things on top of it. The printer may be damaged or might fall or be fallen by chance.

Cover the printer with blanket and cloth like tablecloth and do not close the vent. If the vent is closed, the printer could accumulate heat inside and may cause fire.

Do not install the printer in places where the humidity is high and dusty. It could lead to electric shock and fire.

Do not use damaged power cable. It could lead to an electric shock and fire.

Do not take out or insert power plug with a wet hand. This could lead to an electric shock.

Do not connect an earth wire to the following places.
- Gas pipe
  There is a possibility of ignition and explosion.
- Earth wire of telephone cables and lightning rods
  Heavy current might flow whenever a lightning strikes.
- Water pipe and faucet
  The earth might not work if a plastic pipe is connected in the middle of the metal pipe.

Do not insert or drop metal or objects which are easily combustible through the openings such as fresh air inlet into the printer. It could lead to an electric shock and fire.

When foreign substances or liquids such as water entered the printer, do not use the printer as it is. It could lead to an electric shock and fire. Immediately turn off the power switch, disconnect the power plug from the electric socket, and contact MUTOH local dealer.

While installing option items, be sure to turn OFF the power of the printer and pull out the power plug. It could lead to an electric shock.

Wire the various codes (cable) as directed in the Operation Manual. Mistaken wiring could cause fire.

Be sure to use the power cable supplied with the printer. If other power cables are used, it would cause an electric shock or fire.

Make sure to use only the specified power supply (AC 100 V - 120 V or AC 200 V - 240 V). If the power supply other than the specified voltage is used, it could cause an electric shock and fire.

Take power for the printer directly from the power socket (AC 100 V - 120 V or AC 200 V - 240 V). Do not use complex multiple plugs on the same socket. This could generate heat and might cause fire.

Be sure to use a dedicated power socket with earth wire for the power supply, and connect it to the earth wire. If the earth wire is not connected, an electric shock or fire may occur.

⚠ CAUTION

Pay attention to the following points, while handling power cable.
- Do not do anything forcefully on the power cable.
- Do not keep heavy objects on the power cable.
- Do not bend, twist or pull the power cable by force.
- Do not route the power cable near heating appliances.

Pay attention to the following points while handling power supply plug. Any mishandling of the power cable could cause a fire.
- Make sure that no foreign substances such as dust etc. are stuck to the power plug.
- The power plug is firmly inserted to the edge of the power socket.

Wear protective equipment (gloves, goggles or eye protection, protective mask, protective clothing) when handling ink cartridge or waste fluid box. If the ink gets into the eyes or sticks to the skin, immediately wash off with water. It might possibly cause irritation and light inflammation of eyes. In case of any abnormality, consult the physician immediately.

Do not disassemble the ink cartridge. If disassembled, there is a possibility that the ink might come into contact with eyes or skin.

Be careful to see that fingers are not caught in between opening and closing the media cover.

Do not use volatile solvents such as thinner, benzene, or alcohol. These could damage the paint.

Be careful that moisture does not enter the printer. There is a possibility that electric circuit inside the printer might get short circuited.

Do not open covers attached with screws under any circumstance. There is a possibility of receiving an electric shock or printer breakdown.

Do not touch the edge of the razor blade. Doing so may cause injury.

Do not hit the edge of the razor blade with hard objects, or do not drop the razor blade. There is a possibility that razor blade edge may become blunt or get chipped off.

Do not make the main body of the printer slanting or place in vertical positions or do not keep the printer upside down. There is a possibility that ink inside the printer may leak. Moreover, normal operation after shifting (to these positions) cannot be guaranteed.

To open and move the printer to the installation place, be sure to take the help with the following personnels.
- RJ-901X: 2 or more
- RJ-900X: 3 or more

While taking out the printer from the container box, make sure to remove the vinyl sheet and hold the handles on the printer side. If the printer is lifted with the vinyl sheet attached, there is a possibility that the printer might fall slipping from hands and damaged.

To install the stand to the printer, make sure to take the help with the following personnels.
- RJ-901X: 2 or more
- RJ-900X: 3 or more

While installing the stand, be sure to turn OFF the printer power and to pull out the power plug. It could lead to an electric shock.

If the printer is not used for a longer period, make sure to pull out the power plug from the power socket for safety.

Make sure to connect an earth wire to the earth connection which meets the following standards.
- Earth terminal of power socket
- Earth wire with copper plate which is buried at 650 mm or more, deep in the ground.

Set the roll media on an even surface such as desk etc. If the roll media is set in such a way that the scroller is standing vertical, there is a possibility that the scroller might get damaged.

Be sure to turn OFF the power, and disconnect the power plug when cleaning the printer.

Transfer the printer maintaining the horizontal position.

This equipment is not suitable for use in locations where children are likely to be present.

1.3 **Warning labels**

This section explains handling, location and types of warning labels.
Warning labels are applied onto the product where special attention is required. Understand the locations and the descriptions of the danger associated with each label before operating the printer.

1.3.1   Handling the operation procedure labels

When handling the warning labels, be careful about the following points.

> **NOTE** ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
>
> • Check whether all the warning labels can be read. If the letters or illustrations on the label are not clear, remove the dirt from the label.
>
> • Use cloth, water and neutral detergent for removing dirt from the warning label. Avoid either organic solvents or gasoline.
>
> • It is necessary to replace the labels if they are damaged, lost or illegible.
>   If the warning labels have to be replaced, contact MUTOH local dealer.
>
> ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

1.3.2   **Locations and types of warning labels**

Pasting locations of the warning label is shown in the following figure.
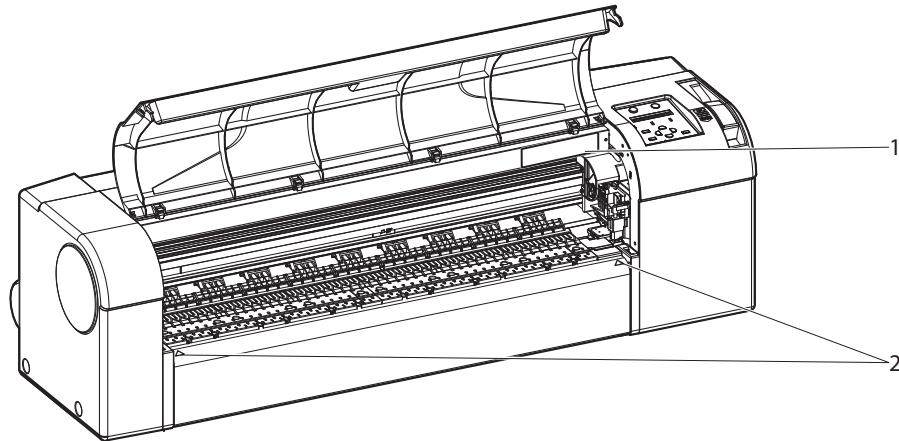
No.	Types of warning label
1	
2	Pinch hazard. Keep hands and fingers clear of covers while opening or closing.
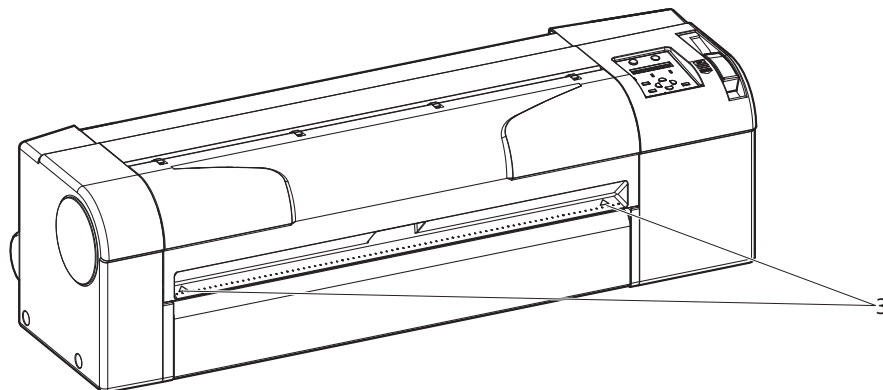
No.	Types of warning label
3	Personal injury may occur. Keep clear of moving and rotating parts.

1.4   Operation procedure labels

This section explains handling, location and types of operation procedure labels.
When handling the operation procedure labels, be careful about the following points. The labels contain the matters with which the operator should be particularly careful while operating it.

1.4.1   Handling the operation procedure labels

NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

Be careful about the following points, while handling with the operation procedure label.

- Check whether all operation procedure labels can be read. If the letters or illustrations on the label are not clear, remove the dirt from the label.

- Use cloth, water and neutral detergent for removing dirt from the operation procedure label. Avoid organic solvents or gasoline.

- It is necessary to replace the labels if they are damaged, lost or illegible.
  If the operation procedure labels have to be replaced, contact MUTOH local dealer.

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1.4.2 **Locations and types of operation procedure labels**

Pasting locations of the operation procedure labels are shown in the following figure.
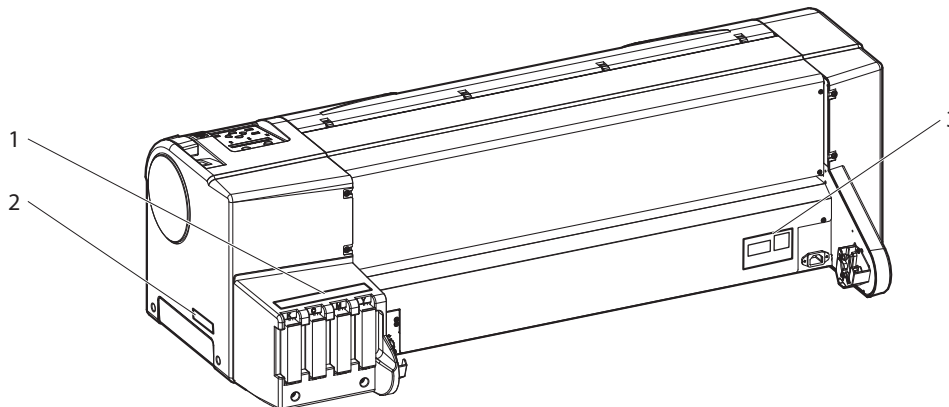
No.	Types of operation procedure label	Reference
1	**K** **C** **M** **Y**	☞**3.3 Installing ink cartridges** ☞**5.1.1 Replacing ink cartridges**
2	**Protective equipment label** (Mask • Glasses • Gloves • Protective clothing) Wear protective equipment when handling ink.	☞**3.3 Installing ink cartridges** ☞**5.1.1 Replacing ink cartridges** ☞**5.1.4 Replacing waste fluid box** ☞**5.1.5 Replacing Flushing Box Sponges**
3	**MUTOH** Complies With UL 62368-1 MET CSA C22.2 No. 62368-1 E112544 VOLTAGE 100V-240V ～ FREQUENCY 50 / 60 Hz CURRENT 2A-1.1A CE **Rating plate** "~" on the rating plate represents AC voltage. The following warning symbols are requirements in China for "low altitude use" and "non-tropical location". *The contents of the rating plate varies depending on the product and regions.	-

2 Product overview

This chapter explains about the features of the printer along with the names and functions of each part.

2 **Product overview**

2.1 **Features**

This section explains the main features of the printer.

（1）High resolution quality image

The head is provided with on-demand piezo head which has proven high print quality and high performance.
As 1440 dpi and 2880 dpi (tab control specification) is realized, a sharp and minute image can be printed from line drawings to images as in CAD drawings

（2）Head discrete type ink cartridge

Discrete type cartridge of ink portion and head portion is adopted. It is not possible to soil your hands during ink replacement.
Moreover, the pigment ink is employed for the black ink which is abundantly used in line drawings.
Conventional printers had difficulty in achieving affinity for tracing paper, bond paper, etc. This printer achieving this feature, and also has improved weather resistance.

（3）Improved feeding performance for thin media

The function to partially release Pressure arms of the media is equipped, minimizing the trouble when using thin media.

（4） Improvement in working efficiency

Setup of roll media (RJ-901X only) or sheet media, replacement of ink cartridge from front of main body has become possible.

（5）Improved Operability

You can make settings for the printer easily from Operation panel on the printer.
All settings necessary for printing are displayed on the Properties screen of Windows driver, allowing you to perform optimum printing with a few steps.

2.2 **Name of the parts and functions**

Names and functions of each part are explained.

2.2.1 **Front section (RJ-901X)**

No.	Name	Function
1	Media loading lever	It is the lever for fixing or releasing the media.
2	Operation panel	Operation condition setting, printer display and various function setting are performed.
3	Front cover	It is the cover for protecting user from coming in contact with the driving mechanism during the printer operation. It is opened and closed during Razor blade replacement and paper jam. It is normally closed.
4	Waste fluid box	It is the box for collecting waste ink discharged from the printer.
5	Media eject tray	It is a part of the stand. It holds the output media.

Option parts

No.	Name	Function
6	Stand	It is used when installing the printer on leveled floor.
7	Media eject tray	It is a part of the stand. It holds the output media.

> **NOTE** ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
>
> • Option parts may vary by region. Please contact MUTOH local dealer.
> ━━

2.2.2 **Front section(RJ-900X)**

No.	Name	Function
1	Media loading lever	It is the lever for fixing or releasing the media.
2	Operation panel	Operation condition setting, printer display and various function setting are performed.
3	Front cover	It is the cover for protecting user from coming in contact with the driving mechanism during the printer operation. It is opened and closed during Razor blade replacement and paper jam. It is normally closed.
4	Waste fluid box	It is the box for collecting waste ink discharged from the printer.
5	Stand	It is used when installing the printer on leveled floor.

Option parts

No.	Name	Function
6	Media eject tray	It is a part of the stand. It holds the output media.

NOTE

• Option parts may vary by region. Please contact MUTOH local dealer.

2.2.3 **Rear section (RJ-901X)**

No.	Name	Function
1	AC inlet	Power cable plug is correctly inserted in the socket.
2	Network interface connector	It is the connector which connects the network interface cable.
3	USB connector	It is the connector which connects the USB2.0/1.1 cable.
4	Scroller receiver	Scroller is set when using roll media.
5	Media feed slot	It is the slot for feeding media.
6	Ink cartridge slot	It houses the ink cartridge.

2.2.4 **Rear section (RJ-900X)**

No.	Name	Function
1	AC inlet	Power cable plug is correctly inserted in the socket.
2	Network interface connector	It is the connector which connects the network interface cable.
3	USB connector	It is the connector which connects the USB2.0/1.1 cable.
4	Scroller receiver	Scroller is set when using roll media.
5	Media feed slot	It is the slot for feeding media.
6	Ink cartridge slot	It houses the ink cartridge.

2.2.5   **Operation panel**

Operation panel is used during setup of operation conditions, printer display and setup of various functions.
Names of each operation key and status display along with the functions are explained.

> **TIP**
>
> • For details on the operation method of operation panel, refer to the followings.
>
>   • When performing menu setting from operation panel:☞**4.5 Menu setup on the operation panel**
>
>   • When performing various operations in the operation panel:☞**4.6 Operating from the operation panel**
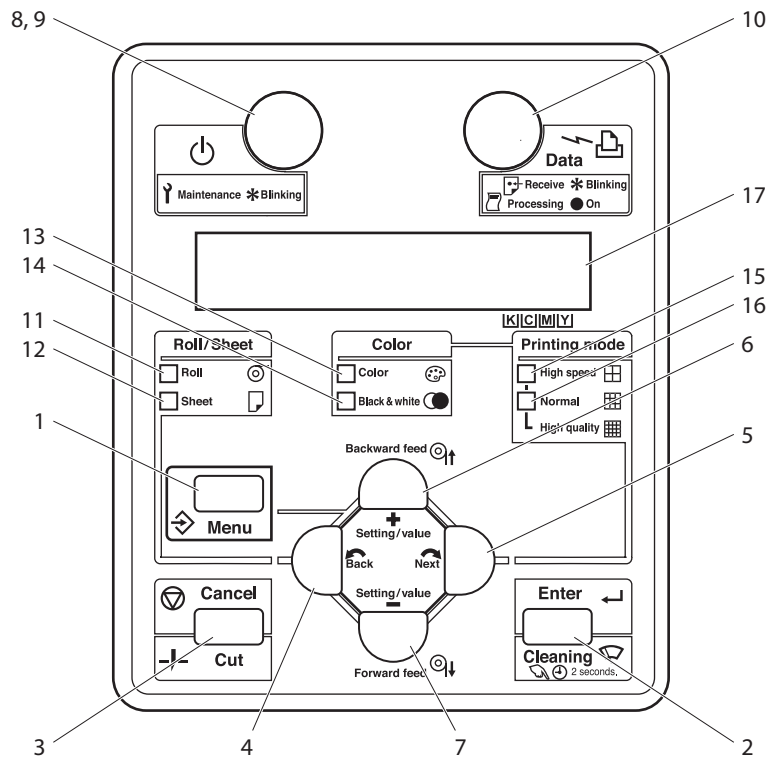
（1）**Operation keys**

NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- The operation keys are assigned with functions and names which change with printer status (Normal or Setup menu display). For details on printer status, refer to "**2.3 Printer status**".

- 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.

━━

No.	Name	Normal	Setup menu display
1	[Menu] key	Changes to Setup menu.	Shifts from Setup menu display to Normal.
2	[Enter] key	-	• The menu to set is selected and it shifts to the next hierarchy. • The value is determined and saved.
	[Cleaning] key	The printer head will be cleaned, if this key is continuously pressed for two seconds or more.	-
3	[Cancel] key	• During printing: Printing is forcefully terminated and one file of the remaining data is deleted. • During receiving/analysis: Data that is already received and analyzed is deleted and one file of subsequent receiving data is ignored. • Ink dry timer wait: Ink dry timer wait is canceled and the media is discharged.	• Returns to the previous menu hierarchy. Change in the setup value becomes invalid. • Shifts from Setup menu display to Normal.
	[Cut] key	Before data receiving when roll media is set, cut the roll media at that position.	-
4	[Back] key	Media type is set. • Lamp of media setup lights up (green).	Menu is changed to reverse feeding.
5	[Next] key	Printing and color mode are set. • The lamps of printing mode and color mode that is set light up (green).	Menu is changed to forward feed.
6	[Backward feed↑] key	Media is fed in reverse direction.	-
	[Setting value +] key	-	• The value is changed to forward direction. • The value is increased during numerical input.
7	[Forward feed↓] key	Media is fed in the forward direction.	-
	[Setting value-] key	-	• The value is changed to reverse direction. • The value is decreased during numerical input.
8	[Power] key	The printer is turned on or off.	The printer is turned on or off.

（2）Display section

No.	Name	Color	Status	Description
9	Power lamp	Blue	Lamp ON	Power ON.
			Lamp blinks	Lamp blinks An error has occurred. Error content is displayed on the LCD.
			Lamp OFF	Power OFF.
		Green	Lamp ON	Running in the power saving mode.
10	Data lamp	Orange	Lamp ON	• Analyzing received data. • Under printing.
			Lamp blinks	Receiving data.
			Lamp OFF	Data is not received/analyzed.
11	Roll media lamp	Green	Lamp ON	Media is set to roll media.
			Lamp OFF	Media is set to sheet media.
12	Sheet media lamp	Green	Lamp ON	Media is set to sheet media.
			Lamp OFF	Media is set to roll media.
13	Color lamp	Green	Lamp ON	Color mode is set to Color.
			Lamp OFF	Color mode is set to Monochrome.
14	Black & white lamp	Green	Lamp ON	Color mode is set to Monochrome.
			Lamp OFF	Color mode is set to Color.
15	High speed lamp	Green	Lamp ON	• Printing mode is set as high speed. • When standard lamp is also turned on, printing mode is set as high quality.
			Lamp OFF	Printing mode is set as standard.
16	Normal lamp	Green	Lamp ON	• Printing mode is set as standard. • When the high speed lamp is also turned on, printing mode is set as high quality.
			Lamp OFF	Printing mode is set as high speed.
17	LCD display section	-	-	Operation status of the printer and error message are displayed.

TIP

When Error requiring a restart (fatal malfunction for the printer operation) occurs, all lamps blink with alarm.
Even if the malfunction is removed, when the error requiring a restart continues, contact MUTOH local dealer.
☞**6.2.5 Error requiring a restart**

2.2.6   Indicator Display

In the following situations, Indicator is displayed to show the conditions of ink and cartridges on LDC display.

- In the normal operation
  ☞**2.3.1 Normal**

- During printing

- To display ink or cartridge errors
  ☞**6.2.2 Error message display and remedies**

There is an alphabetic code printed below Indicator, indicating the following colors respectively:

- K: Black

- C: Cyan

- M: Magenta

- Y: Yellow

Also, in case of following errors, the above code is displayed at the beginning of an error message to identify the ink color.

- Ink Near End

- Ink End

- No cartridge
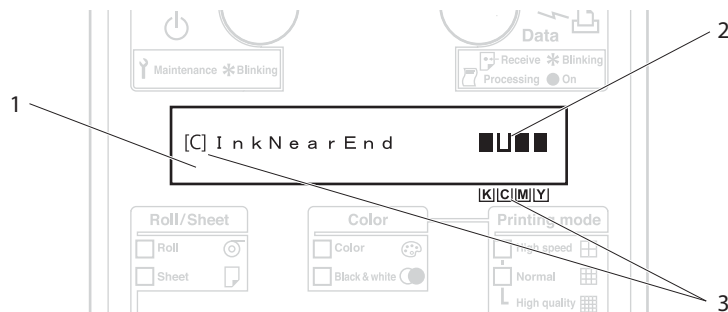
No.	Name
1	LCD display section
2	Indicator
3	Ink colors

NOTE

- If an error occurs on all ink colors, an error message will be displayed without alphabetic code.

2.2.6.1   Contents of Indicator display

No.	Indicator to display	the conditions of ink/cartridges
1		80 to 100% of ink remaining
2		60 to 80% of ink remaining
3		40 to 60% of ink remaining
4		20 to 40% of ink remaining
5		Less than 20% of ink remaining
6		Ink Near End
7		Ink End
8		No cartridge

2.3   **Printer status**

This chapter explains the printer status of the printer.

2.3.1   **Normal**

It is the condition in which the printer is ready to print with media loaded.
The various functions for printing can be performed on the operation panel.

2.3.2   **Setup menu display**

It is in state in which various setup for printing can be done on the operation panel.
Although the essential setting for normal printing is performed on printer driver or application, the same setting can also be performed from the operation panel.

2.3.3   **Changing printer status**

Change the printer status as follows.

（1）**Normal → Setup menu display**

When the printer is in Normal state, press the [Menu] key on the operation panel.

• When "*Menu* TestPrint>" is displayed on the operation panel, the display shifts to the setup menu.

NOTE

• For details on setup menu, refer to "**4.5 Menu setup on the operation panel**".

（2）**Setup menu display → Normal**

While the printer is in setup menu display, if either of the following operation is done, the operation panel shifts to Normal display.

- [Menu] key on operation panel is pressed.

- In the Setup menu, leave the keys untouched for three minutes.

Normal

```
Ready  to  Plot
```

[Menu] key

[Menu] key

Leave the plotter
as it is for 3 minutes

Setting Menu Display

```
＊Menu＊        TestPlot＞
```
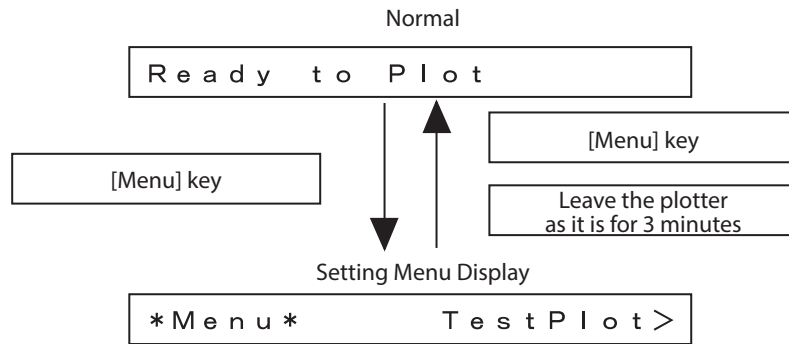
NOTE

- For details on Status message, refer to "**6.2.1 Status messages**".

3   **Before using**

This chapter explains the steps of basic installation before using the printer.

3.1   **Power cable connection**

Power cable connection procedure is explained.

⚠ WARNING ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- Be sure to use the power cable supplied with the printer. If other power cables are used, it would cause an electric shock or fire.

- Do not use damaged power cable. It could lead to an electric shock and fire.

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⚠ CAUTION ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- Pay attention to the following points, while handling power cable.

  - Do not do anything forcefully on the power cable.

  - Do not keep heavy objects on the power cable.

  - Do not bend, twist or pull the power cable by force.

  - Do not route the power cable near heating appliances.

▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

NOTE ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- Contact MUTOH local dealer in case of power cable damage.

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Install the ink cartridge as shown in the following procedure.

1.   Make sure that the printer power is turned OFF.
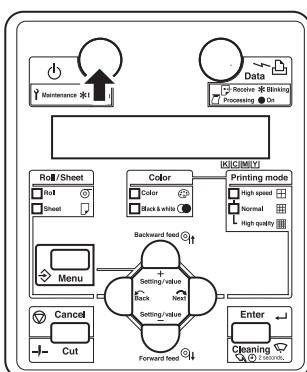
NOTE ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- Power is turned ON when the [Power] key of operation panel is pressed.
  Press the key once again and turn OFF the power.

▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

2. Connect the power cable to the AC inlet on the back of the printer.
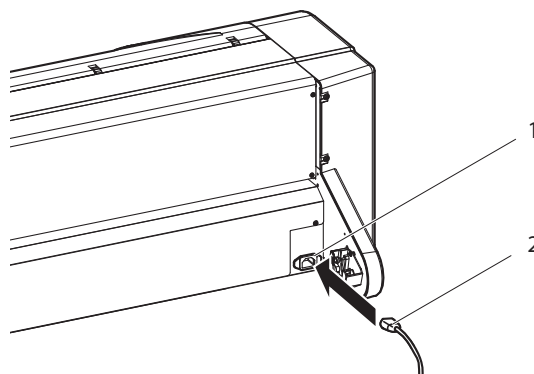
No.	Name
1	AC inlet
2	Power cable

3. Insert the power cable plug into the power socket.

⚠ **WARNING**

- Do not take out or insert power plug with a wet hand. This could lead to an electric shock.

- Make sure to use only the specified power supply (AC 100 V - 120 V or AC 200 V - 240 V). If the power supply other than the specified voltage is used, it could cause an electric shock and fire.

- Take power for the printer directly from the power socket (AC 100 V - 120 V or AC 200 V - 240 V). Do not use complex multiple plugs on the same socket. This could generate heat and might cause fire.

- Make sure to use dedicated power socket with earth terminal for power supply, and connect an earth terminal to it. If the earth wire is not connected, an electric shock or fire may occur.

- Do not connect an earth wire to the following places.

  - Gas pipe
    There is a possibility of ignition and explosion.

  - Earth wire of telephone cables and lightning rods
    Heavy current might flow whenever a lightning strikes.

  - Water pipe and faucet
    The earth might not work if a plastic pipe is connected in the middle of the metal pipe.

⚠ **CAUTION**

- Pay attention to the following points while handling power supply plug. Any mishandling of the power cable could cause a fire.

  - Make sure that no foreign substances such as dust etc. are stuck to the power plug.

  - The power plug is firmly inserted to the edge of the power socket.

- If the printer is not used for a longer period, make sure to pull out the power plug from the power socket for safety.

- Make sure to connect an earth wire to the earth connection which meets the following standards.

  - Earth terminal of power socket

  - Earth wire with copper plate which is buried at 650 mm or more, deep in the ground.

NOTE

- Contact the retail outlet of purchase, when the earth connection cannot be established, or when the earth connection is not given.

- Do not pull out the power cable from the power socket, while the power supply of the printer is ON. Whenever the plug is pulled out from the power socket, allow one minute or more before inserting the plug in the power socket again.
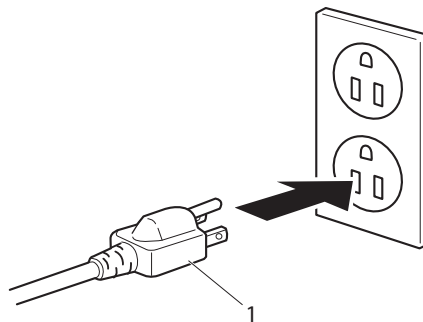
No.	Name
1	Power plug

3.2   Turning the power ON/OFF

This section explains how to turn the printer ON/OFF.

3.2.1   Turning the power ON

Follow the procedure below to turn the power ON.

1. Press the [Power] key on Operation panel to turn ON the printer.

    •   The Power lamp on Operation panel lights up in blue.
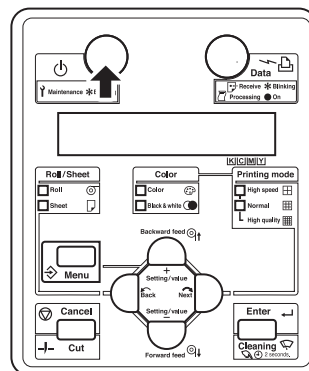
    •   The printer starts the initial operation.

    •   When the initial operation is complete, the printer enters to Normal state.

NOTE

• If there is a problem during the initial operation, a message is displayed on Operation panel and the printer may stop operating.
   If operation stops, refer to "**6 Troubleshooting**" and take an appropriate measure.

3.2.2   Turning the power OFF

Follow the procedure below to turn the printer OFF.

1. Verify the following regarding the operational condition of the printer.

    • Printing or other operations are not in progress.

    • Operation panel display is in Normal state.

2. Press the [Power] key on Operation panel to turn OFF the printer.

    • The Power lamp on Operation panel is turned off.

NOTE

• If Operation panel is in the following status, the power is ON.
    • The [Power] key is pressed in.
    • The Power lamp lights up.
      Press the key once again to turn OFF the power.
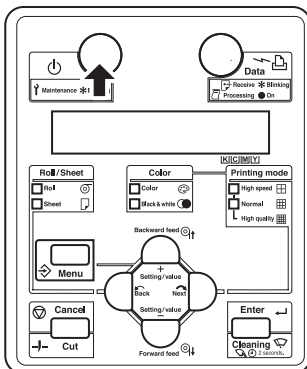
    • The printer turns the power OFF.

NOTE

• When the media is set, "Lift the lever" is displayed on Operation panel. Raise Media loading lever.

    • "Please Wait" is displayed on Operation panel.

    • All the lamps on Operation panel and the LCD monitor are turned OFF.

    • The printer automatically turns the power OFF.

NOTE

- If there is a problem during turning OFF operation, a message is displayed on Operation panel and the printer may stop operating.
  If operation stops, refer to "**6 Troubleshooting**" and deal with the problem.

- After turning OFF the printer, wait for ten seconds or longer to turn it ON again.

3. Push the media loading lever backward when the printer is not used for a long time.
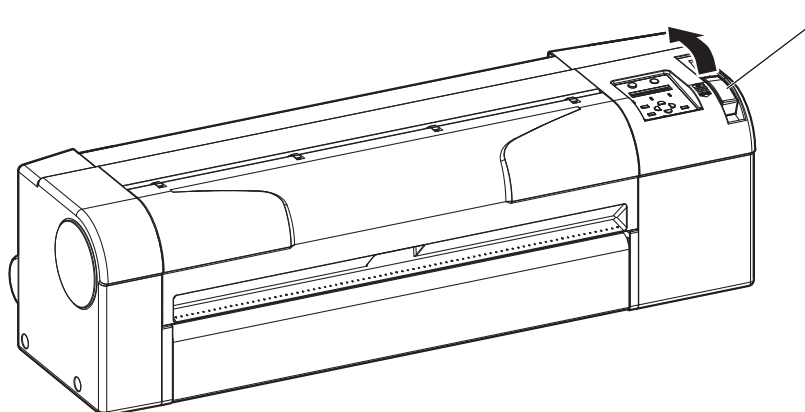
No.	Name
1	Media loading lever

3.3   **Installing ink cartridges**

This sub-section describes the replacement time and steps of ink cartridges.

⚠ CAUTION

- Wear protective equipment (gloves, goggles or eye protection, protective mask, protective clothing) when handling ink cartridge. If the ink gets into the eyes or sticks to the skin, immediately wash off with water. It might possibly cause irritation and light inflammation of eyes. In case of any abnormality, consult the physician immediately.

- Do not disassemble the ink cartridge. If disassembled, there is a possibility that the ink might come into contact with eyes or skin.

NOTE

- When charging up with ink, use the ink cartridge of original manufacturer product.
  This printer has been adjusted for use of genuine ink cartridges. In case of using ink cartridge which is not a product of the original manufacturer,

  - Printing might become blurred and end of ink in the cartridge might no longer be correctly detected.

  - The damage caused by improper use will not be covered by the warranty and repair expenses will be paid by the customer.

- Refer to the following for types and details of ink cartridges.
  ☞**7.3 Options/Supply list**

- Do not give ink cartridges strong shake. Doing so may cause ink leakage.

- Do not disassemble the ink cartridge. A disassembled ink cartridge cannot be used.

- When the ink cartridge is moved from a cold place to a warm place, keep the ink cartridge unused for three hours or more in the printing environment.

Install the ink cartridge as shown in the following procedure.

1. Turn ON the power of the printer.
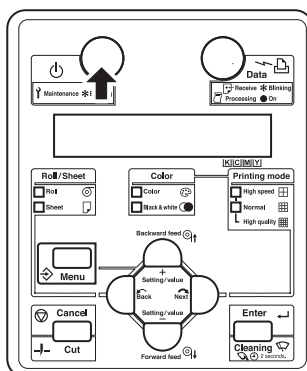
2. Printer initializes.

    • Operation panel displays "[***]   Cartridge".

    NOTE

    • [***] represents the ink color. For details, refer to "**2.2.6 Indicator Display**".
      If an error occurs on all ink colors, an error message will be displayed without alphabetic code.

3. Take out a new ink cartridge from the package.

4. Insert a new ink cartridge into the appropriate ink cartridge slot.

    • Keep ▲ mark of the ink cartridge facing up and insert into the slot.

    NOTE

    • Insert the ink cartridge firmly to the end of the slot.

    • Install all four colors of ink cartridge.

    • The slot for the ink cartridge is specified for the color of the ink cartridge. Match the color marked by the side of slot with the color of the ink cartridge.

    • Each color cartridge has different shape to avoid wrong insertion. If it cannot be inserted into the slot, do not push into the slot by force because there is a possibility of incorrect insertion.
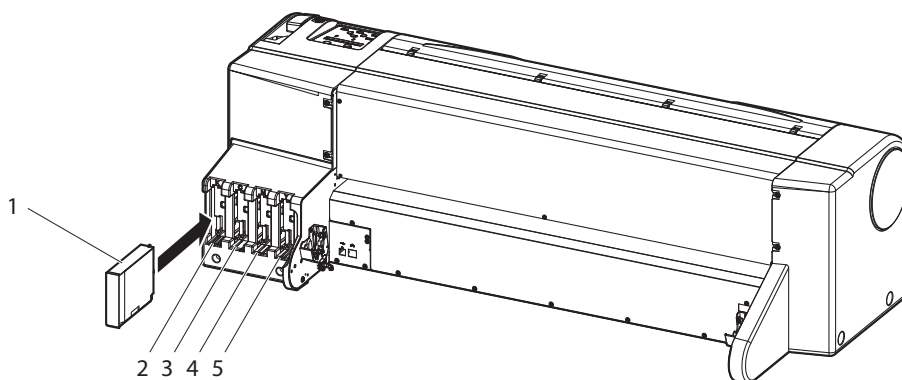
No.	Name
1	Ink cartridge
2	Ink cartridge slot K
3	Ink cartridge slot C
4	Ink cartridge slot M
5	Ink cartridge slot Y

5. Operation panel displays "Ink Refill   **min", and the initial ink charging starts.

    •   Ink charging takes about five minutes. Initial ink charging and pause operation are repeated during initial charging.

    NOTE

• Follow the following points during ink charging.

    • Do not turn OFF the printer power.

    • Do not pull out the printer power cable.

    • Do not open the front cover.

    • Do not push media loading lever to the back side.

6. After ink charging is completed, the operation panel displays "Paper End".

    NOTE

• If the printer is used just after initial charging completion, the following phenomena may occur.

    • Printed line becomes blurred.

    • White lines appear in the printed media.

• In such cases, refer to the following to perform "Longer" cleaning as shown in "**5.2.3 Head cleaning**". Then, check the nozzle check pattern.

• If there is no improvement in the print result even after performing "Longer" cleaning, leave the printer unused for an hour or more. Then perform "Longer" cleaning again and check the print result.
    If nozzle missing still persists, contact your local Mutoh dealer.

3.4   Media handling

Media handling, how to install and load, and setting method of media type are explained.

NOTE

- Refer to the following for details on media handling.
  ☞**4.2 Media**

- It is recommended to use a special media for this printer.
  Refer to the followings for types and details of media.
  ☞**4.2.1 Media**
  ☞**7.3 Options/Supply list**

3.4.1   Roll media loading

Loading procedure of the roll media is explained.
Use the scroller supplied with this printer for roll media loading.

NOTE

- It is possible to load the following roll media in the scroller enclosed in this printer.

  - RJ-901X:
    Two inches diameter media tube (outer diameter less than 100 mm, weight less than 5 kg)

  - RJ-900X:
    Two inches diameter media tube (outer diameter less than 150 mm, weight less than 19 kg)

TIP

- When using the three-inch attachment as the scroller, the following roll media is loaded.

  - RJ-901X:
    Three inches diameter media tube (outer diameter less than 100 mm)

  - RJ-900X:
    Three inches diameter media tube (outer diameter less than 150 mm)

  For details, refer to the following manuals.
  ☞**7.1 Product specifications**
  ☞**7.3 Options/Supply list**

Load the roll media as shown in the following procedure.

⚠ **CAUTION**

• Set the roll media on an even surface such as desk etc.
If the roll media is set in such a way that the scroller is standing vertical, there is a possibility that scroller might get damaged.

1. When using roll media of three-inch diameter media tube, the optional three-inch attachment should be used to the movable flange and fixed flange.
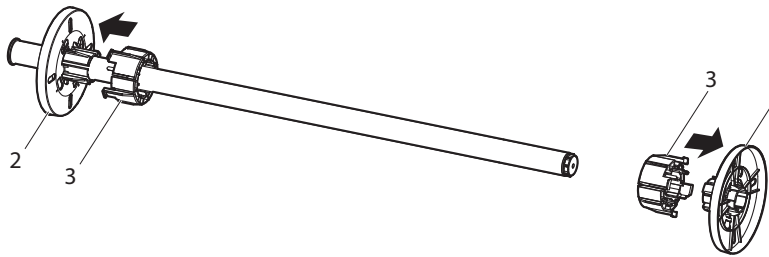
No.	Name
1	Movable flange
2	Fixed flange
3	Three-inch attachment

2. Set the roll media in the scroller, so that the roll media gets winded up anti clockwise direction when viewing from fixed flange.

3. Push the roll media completely until the roll media core hits the right edge of the fixed flange.
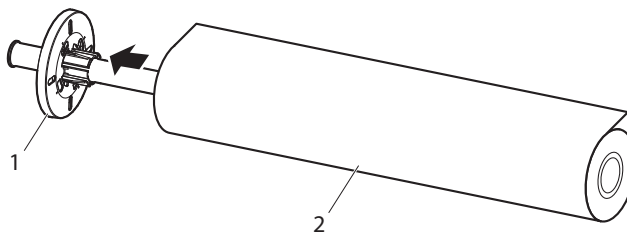
No.	Name
1	Movable flange
2	Roll media

4. Attach the movable flange so that it is firmly attached to the roll media core.
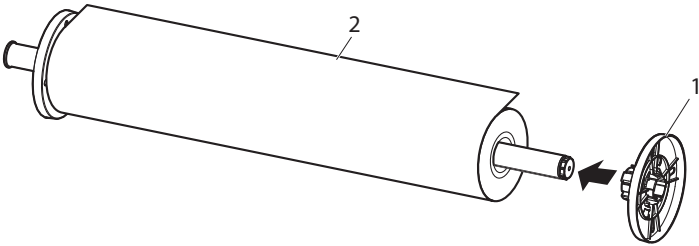
No.	Name
1	Movable flange
2	Roll media

5. Set the scroller to the scroller receiver so that the fixed flange is on the ink cartridge slot side.
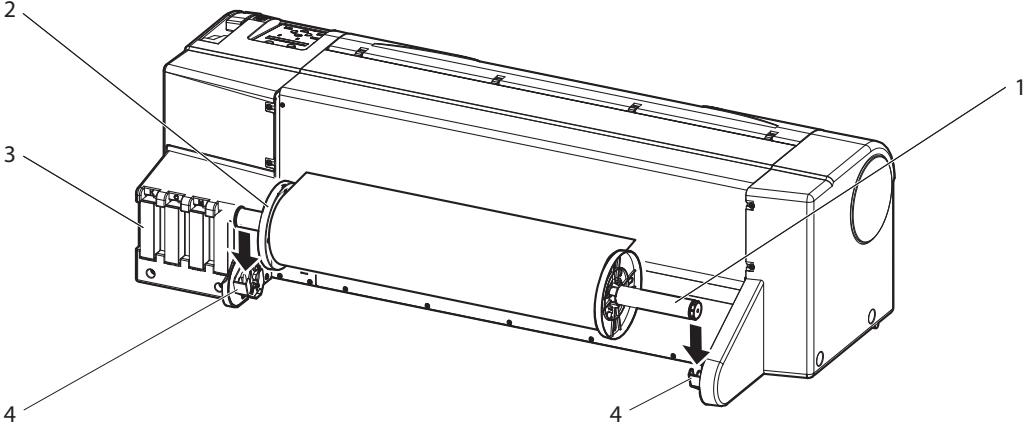
No.	Name
1	Scroller
2	Fixed flange
3	Ink cartridge slot
4	Scroller receiver

> **NOTE**
>
> - The roll media fixing belt provided with the optional scroller prevents the roll media from getting loosen, when the roll media in the printer is not used.
>
> - Put the belt edge to the roll media, and wind the roll media by rotating it.
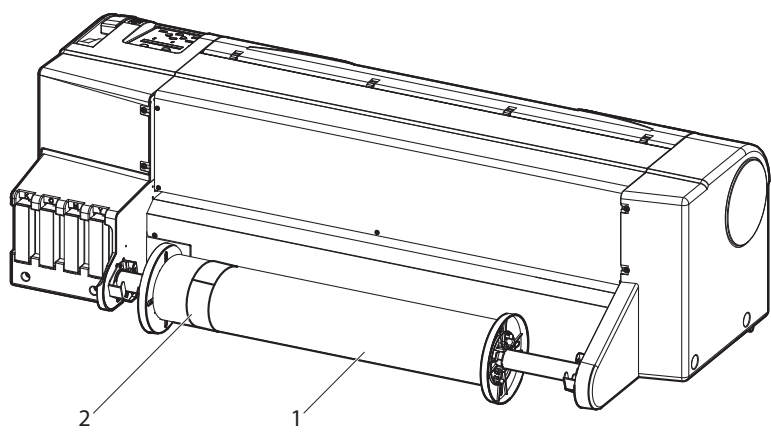
No.	Name
1	Roll media
2	Roll media fixing belt

3.4.2　**Loading roll media**

Loading roll media is explained.
Set the roll media as shown in the following procedure.

NOTE

• When using media eject tray, set the media output tray in the direction in which the media is delivered.
For using media eject tray, refer to "**4.3 Media eject tray setting**".

1.　Turn ON the power of the printer.
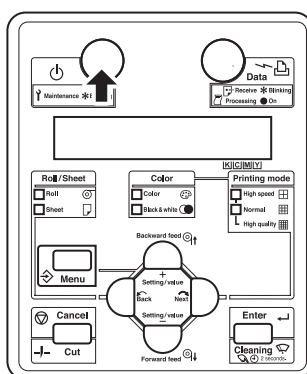
⚠ CAUTION

• Do not operate media loading lever during printer initialization. The carriage portion and the pressurizing roller portion touch each other, there is a possibility that the printer may break down.

• Printer initializes.

• Operation panel displays "Paper End".

2. Press the [Back] key on the operation panel and select "Roll".

    •   Roll media lamp lights up.

    NOTE

    •   If "Sheet" is selected in the operation panel when loading the roll media, the media will not be correctly loaded.
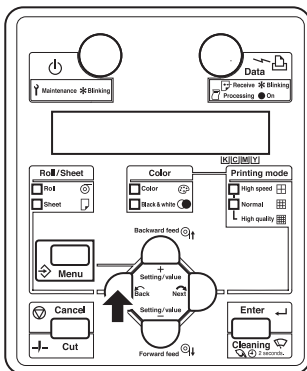
3. Push the media loading lever backward.

    •   Operation panel displays "Lever Up".
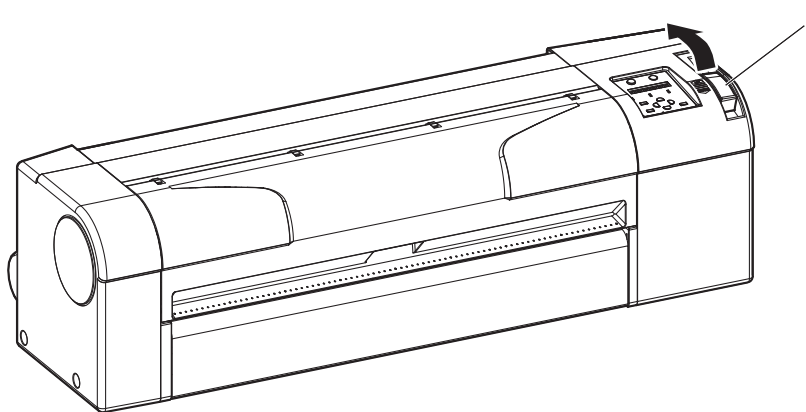
No.	Name
1	Media loading lever

4.　Set the roll media to the media feed slot.

> **NOTE**
>
> • If the roll media end gets loosen, perform loading after properly winding the media.
>
> • If it is not straight when loading the new roll media, cut the front edge of the roll media.
>   For roll media cutting method, refer to "**4.6.3 Cut media**".
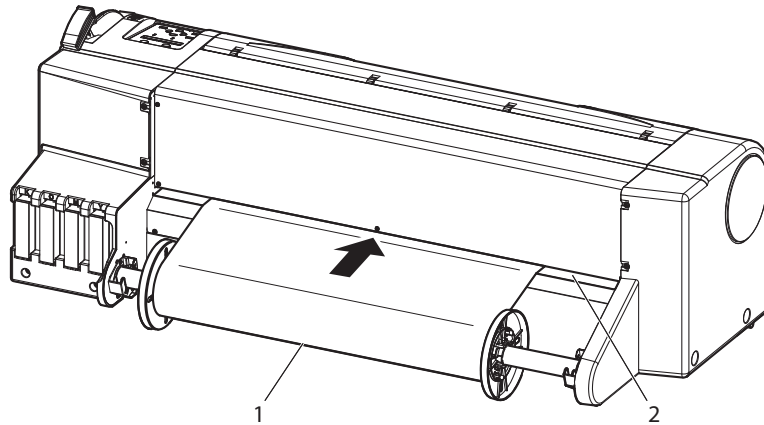
No.	Name
1	Roll media
2	Media feed slot

5.　Open the front cover, and pull out the roll media.
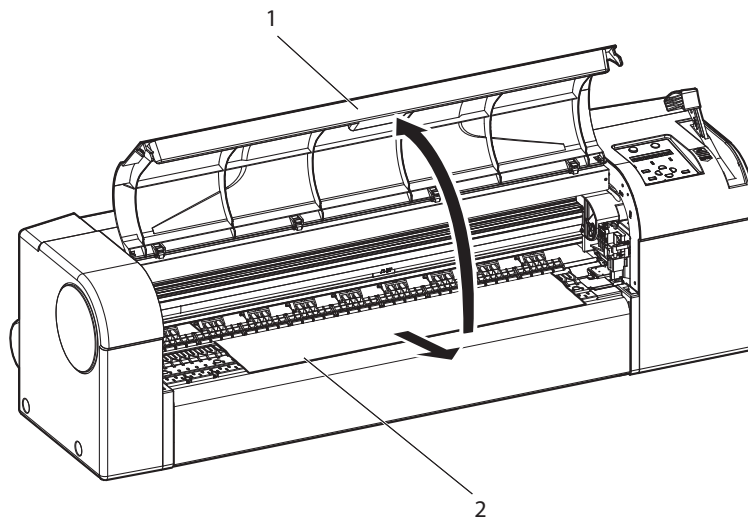
No.	Name
1	Front cover
2	Roll media

6. Wind back the roll media with scroller while pressing down the media edge, remove bending and slant of the media.

> **NOTE**

- Confirm that the right edge of the roll media do not go over right gets beyond the loading mark. There is a possibility that the print quality gets affected.

- Do not match the roll media right edge with loading mark by force while loading the roll media. This could lead to slant.
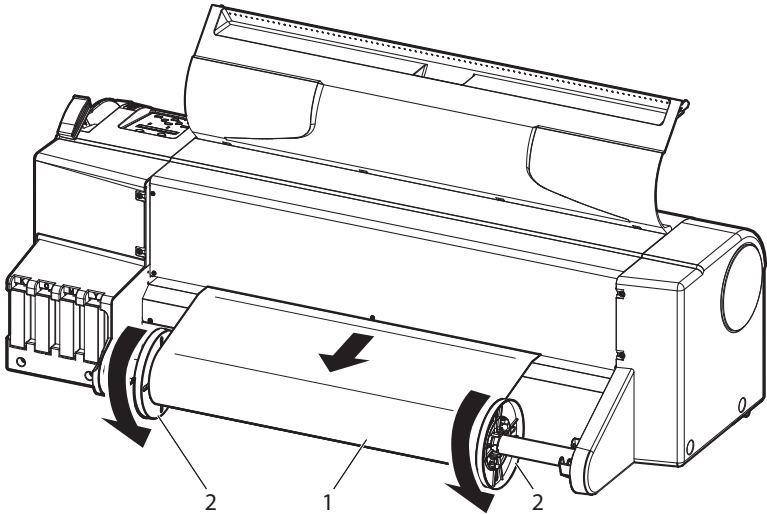
No.	Name
1	Roll media
2	Scroller

7. Pull the media loading lever forward.
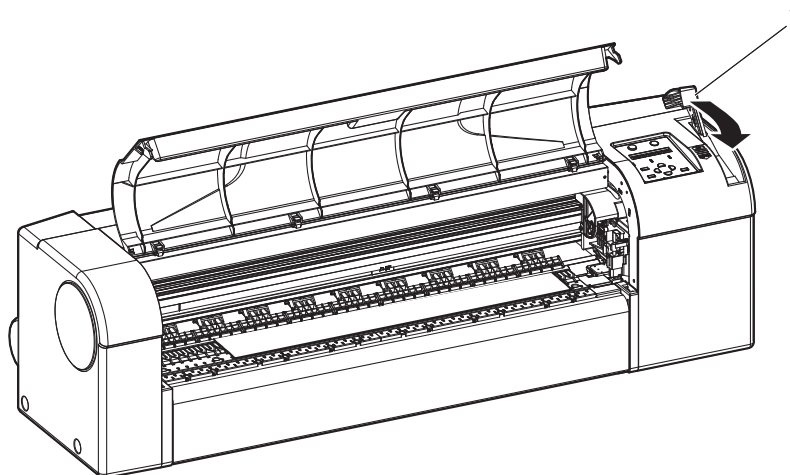
No.	Name
1	Media loading lever

NOTE

• If it is not straight when loading the new roll media, cut the front edge of the roll media. For roll media cutting method, refer to "**4.6.3 Cut media**".

• If the length of the edge to be cut is set on the media setup menu, the roll media edge is automatically cut after the media initialization. For setting method, refer to "**4.5.1.2 MediaSet Menu**".

8. Close the front cover.
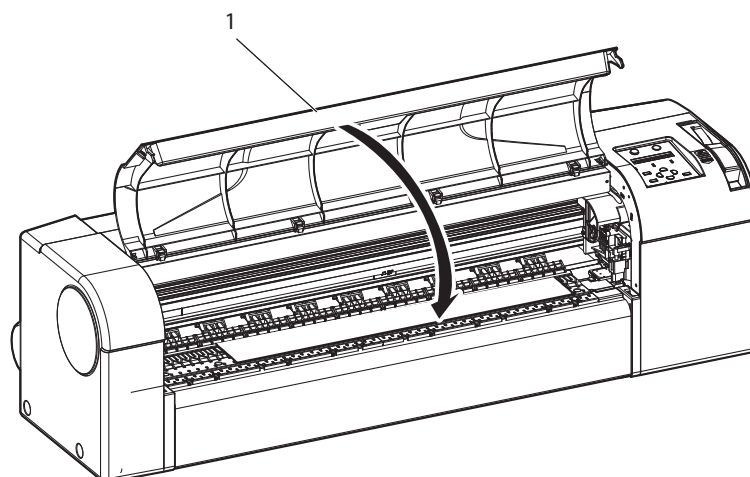
No.	Name
1	Front cover

- Operation panel displays Media type setup menu.

> **TIP** ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- For changing the media type, set the media type as shown in "**3.4.5 Setting media type**".

━━━

3.4.3 **Loading sheet media**

Loading sheet media is explained.
The following sizes of sheet media can be used with the printer.

RJ-901X

- Media width: A4 size to A1 plus size (210 mm to 610 mm)

- Media length: Maximum 1,200 mm

RJ-900X

- Media width: A4 size to A0 plus size (210 mm to 1,080 mm)

- Media length: Maximum 1,600 mm

Set the sheet media as shown in the following procedure.

> **NOTE** ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- When the roll media is loaded, set the sheet media after winding back the roll media.

- When using media eject tray, set the media output tray in the direction in which the media is delivered. For using media eject tray, refer to "**4.3 Media eject tray setting**".

━━━

1. Turn ON the power of the printer.
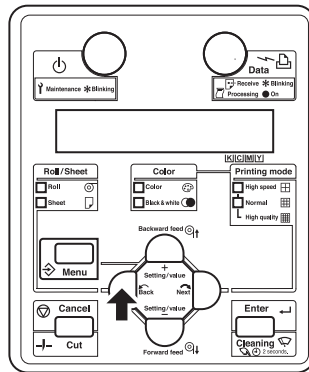
⚠️ **CAUTION**

- Do not operate media loading lever during printer initialization. If the carriage portion and the pressurizing roller portion touch each other, there is a possibility that the printer may break down.


- Printer initializes.

- Operation panel displays "Paper End".

2. Press the [Back] key of operation panel, and select "Sheet".

- Sheet media lamp lights up.

NOTE

- If "Roll" is selected on the operation panel when loading sheet media, the media may not be correctly loaded.
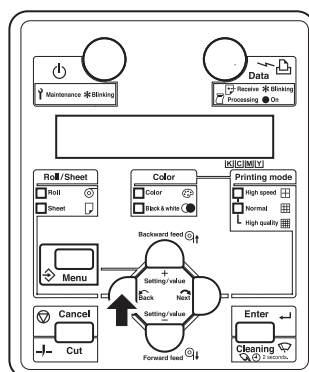
3.   Push the media loading lever backward.

  •   Operation panel displays "Lever Up".
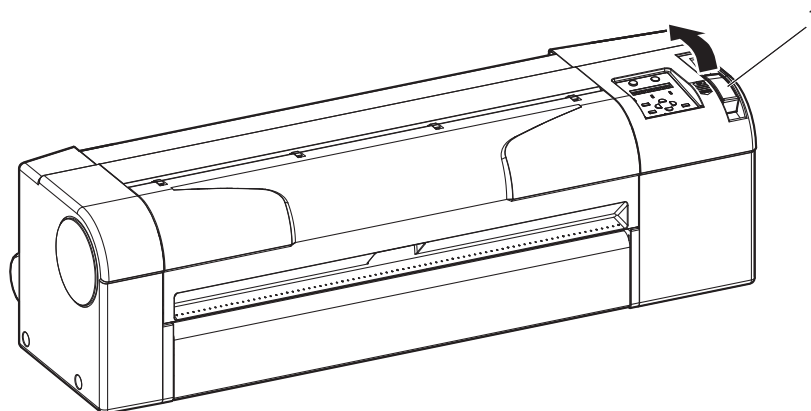
No.	Name
1	Media loading lever

4.   Open the front cover.
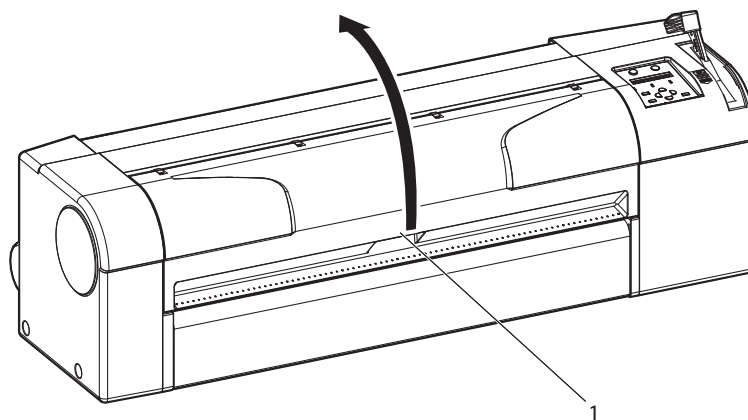
No.	Name
1	Front cover

5. Insert the sheet media into the media feed slot on the printer front side.
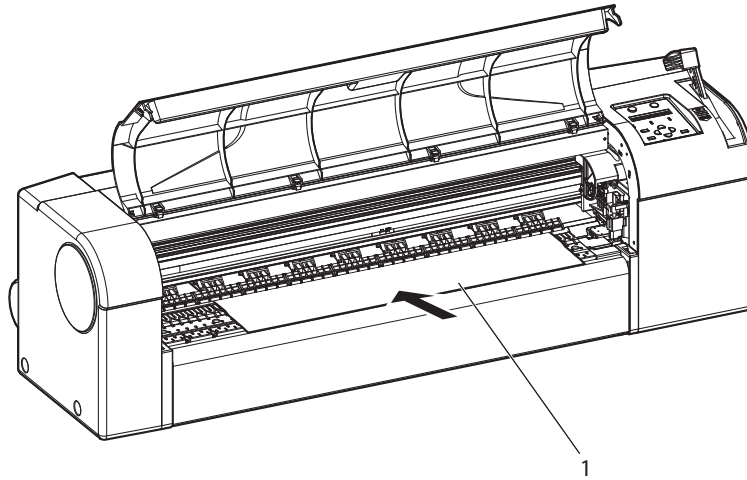
No.	Name
1	Sheet media

6. Align the right end of media to the media loading mark, and align the front edge to step of the platen respectively.

NOTE

• If the sheet media right end shifts either to the right or the left from the loading mark, it would become as media loading error without media being detected.
Load the media within the ±5 mm range from the loading mark.
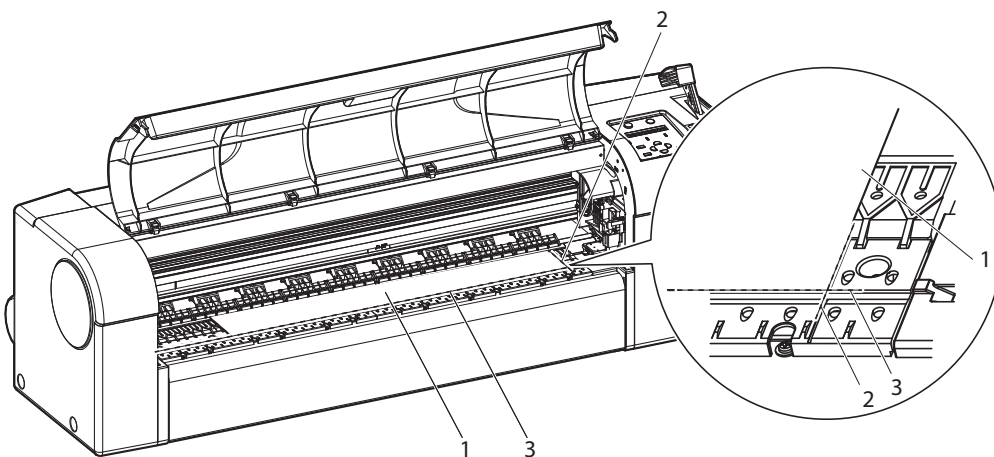
No.	Name
1	Sheet media
2	Media loading mark
3	Platen step

7. Pull the media loading lever forward.
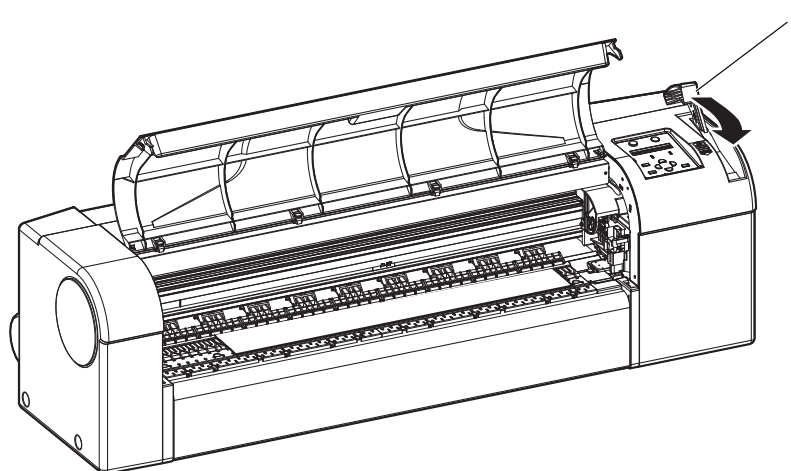
No.	Name
1	Mddia loading lever

8. Close the front cover.
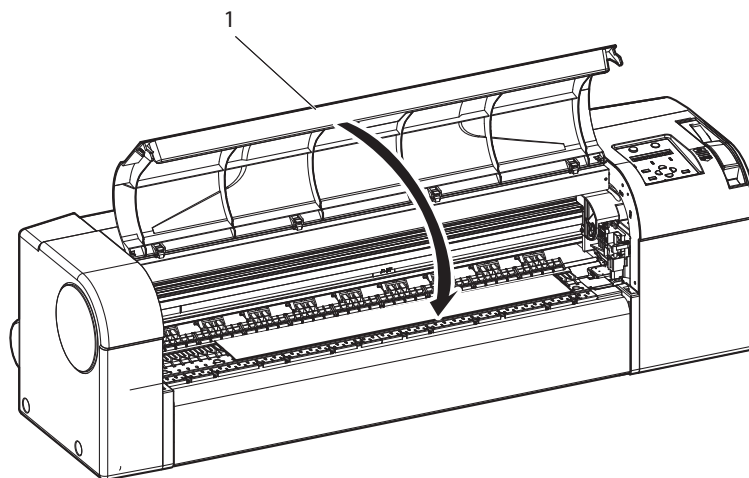
No.	Name
1	Front cover

• Operation panel displays Media type setup menu.

TIP

• To change the media type, follow **3.4.5 Setting media type** and set the media type.

3.4.4   Releasing the Partial Function of Pressure Arms

If thin media is creased while printing, release some of Pressure arms. This may prevent getting creases.

Follow the procedure below to release Pressure arms.

1. Raise Media loading lever.
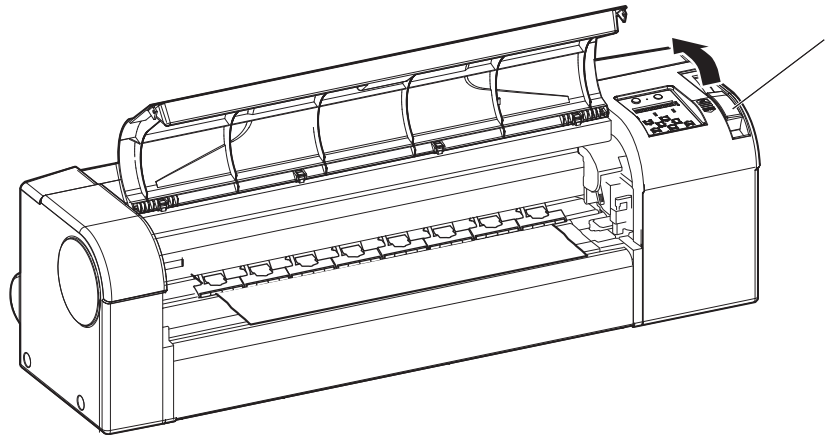
No.	Name
1	Media loading lever

2. Push the release switches of Pressure arms further in that are holding the sides of the media.

    •   When the release switch is set further in, Pressure arms lose the pressure.
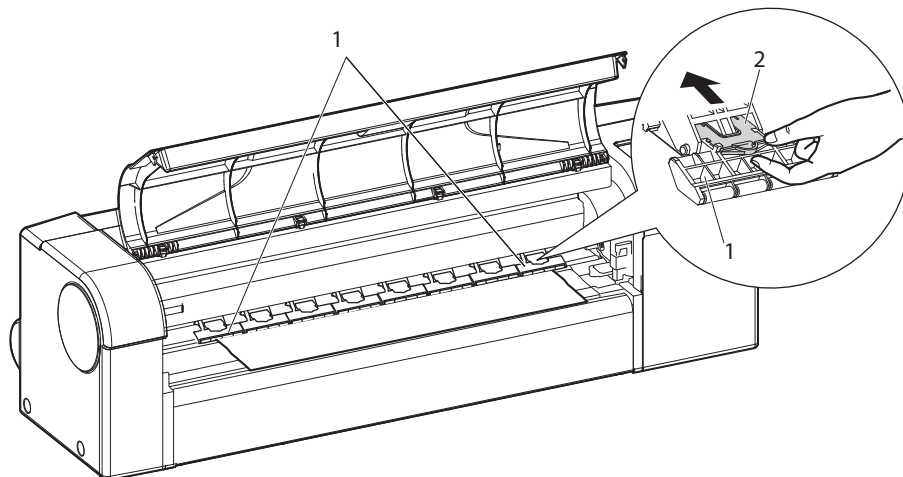
No.	Name
1	Pressure arms
2	Release switch

NOTE

- When releasing the function, make sure to release Pressure arms of both sides of the media as a set.

---

3. If media still gets creases, increase the number of Pressure arms to release.

NOTE

- The media may still get creases even when more Pressure arms are released.

3.4.5 **Setting media type**

Setting of media type is explained.
Set the media type as shown in the following procedure.

1. Turn the printer ON and load the media.
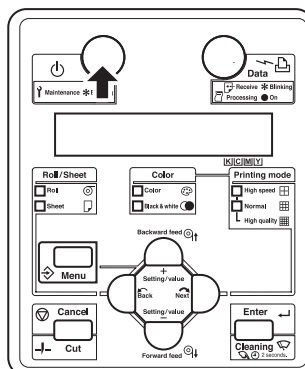
- After the media is loaded, the display shifts to the media type setup menu.

TIP

- Refer to the followings for media loading.

  ☞**3.4.2 Loading roll media**

  ☞**3.4.3 Loading sheet media**

---

2. Press the [Setting value +] key or [Setting value–] key on the operation panel, and enter the selected number.
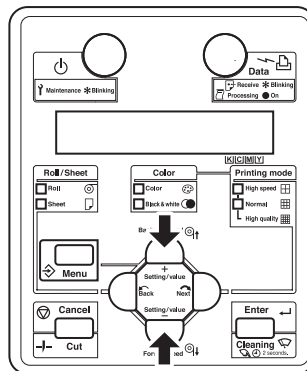
NOTE

• For details about media types, refer to "**4.2.1 Media**".

3. Press the [Enter] key on the operation panel.
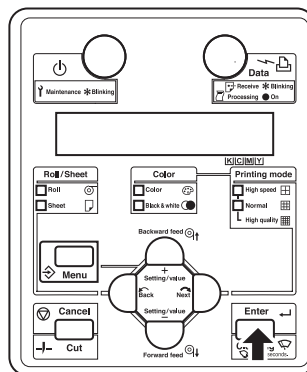
• Media type is determined.

• Operation panel displays "Media Checking", and media initial operation starts.

NOTE

• If the following operations are performed on the media type setup menu, the printer shifts to the media initial operation without setting media type.

• When the [Cancel] key of the operation panel is pressed

• When key operations are not performed on the operation panel for 10 seconds

4. After media initial operation is completed, the operation panel displays "Print Ready", and the display shifts to Normal.

5. When using the roll media, wind back the roll media tightening with the scroller and the media slackness is tightened.
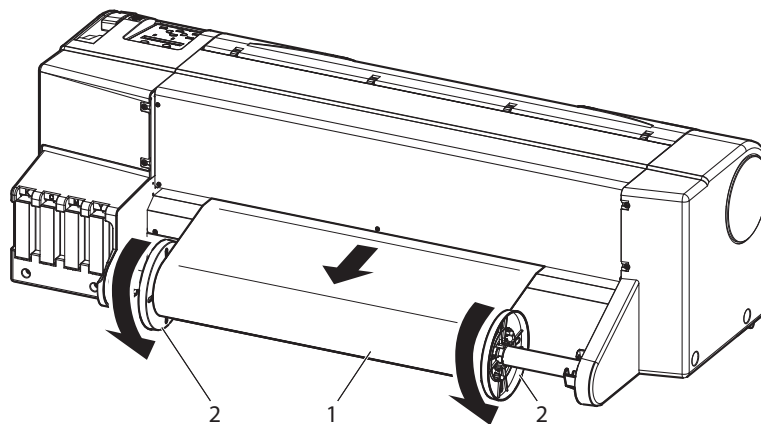
No.	Name
1	Roll media
2	Scroller

6. To use Media ejection tray, you have to set it first.
    ☞**4.3 Media eject tray setting**

*   This completes the media loading.

3.5   Test Print

Test printing is performed as shown in the following procedure, and confirm that the printer correctly works.

1.   Turn the printer ON and load a roll media or sheet media that is A3 or larger.
   ☞**3.4.2 Loading roll media**
   ☞**3.4.3 Loading sheet media**

2.   Confirm that the printer functions normally.

3.   Press the [Menu] key on the operation panel.
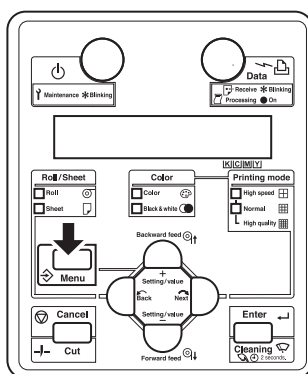
- Operation panel displays "*Menu* TestPrint>".

- Display shifts to Setting Menu.

4.   Press the [Enter] key on the operation panel.
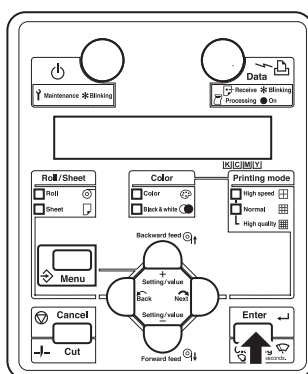
- Operation panel displays "TestPrint: Setup".

- Display shifts to Test Print menu.

5. Press the [Setting value +] key or [Setting value-] key on the operation panel, and select the item to print from the followings, and press the [Enter] key.

    • Setup Print

    • NozzleCheck

    • Palette Print

    • Maintenance
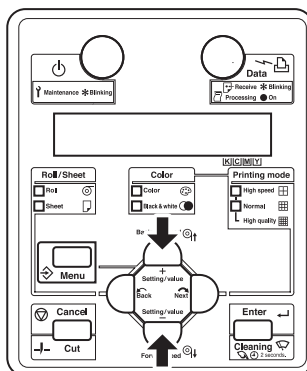
6. Start Printing for the selected item.

TIP

• Please refer to the following for details on each of the print list.
  3.5.1 Setup Print to **3.5.4 Maintenance**

3.5.1 Setup Print

It is used for checking the setup item of the current printer.

NOTE

• Keep the printed setup print at hand.

TIP

• Refer to the following for printing procedure.
☞**3.5 Test Print**

Ｓ ｅ ｔ ｕ ｐ 　 Ｌ ｉ ｓ ｔ

Ｐ ａ ｎ ｅ ｌ		Ｉ ｎ ｆ ｏ ｒ ｍ ａ ｔ ｉ ｏ ｎ	SerialNo. = ER1E000001			Temp. 24℃
Ｒ ｏ ｌ ｌ ／ Ｓ ｈ ｅ ｅ ｔ　 ＝ Ｒ ｏ ｌ ｌ		Model	= RJ-901X	!Error!		
Ｃ ｏ ｌ ｏ ｒ　　　＝ Ｃ ｏ ｌ ｏ ｒ		PROM	= V 1.10	0:None [ ]	3:None [ ]	
Ｐ ｌ ｏ ｔ Ｍ ｏ ｄ ｅ　 ＝ Ｎ ｏ ｒ ｍ ａ ｌ		NVRAM	= V 1.01	1:None [ ]	4:None [ ]	
		Memory Size	= 256MB	2:None [ ]	5:None [ ]	

Ｍ ｅ ｄ ｉ ａ 　 Ｓ ｅ ｔ ｕ ｐ	Ｐ ｅ ｎ 　 Ｓ ｅ ｔ
Ｍ ｅ ｄ ｉ ａ　　　　 ＝ Ｕ ｓ ｅ ｒ 1　 Ｄ ｉ ｓ ｔ ． Ａ ｄ ｊ	Ｐ ｅ ｎ Ｐ ｒ ｉ ｏ ｒ ．　 ＝ Ｐ ａ ｎ ｅ ｌ　　 Ｐ ｅ ｎ Ｔ ｏ ｎ ｅ　　 ＝ Ｉ ｎ ｖ ａ ｌ ｉ ｄ

Ｍ ｅ ｄ ｉ ａ 　 Ｓ ｅ ｔ ｕ ｐ

		Dist.Adj	
Ｍ ｅ ｄ ｉ ａ	＝ Ｕ ｓ ｅ ｒ 1		
Ｃ ｏ ｎ ｄ ｉ ｔ ｉ ｏ ｎ	＝ Ｌ ｉ ｎ ｅ ｓ	Ｄ ａ ｔ ａ Ｘ　 ＝ 1000.00	
Ｐ ｌ ｔ Ｒ ｅ ｓ ｏ Ｃ Ｒ × Ｐ Ｆ ＝ 360×360		Ｒ ｅ ａ ｌ Ｘ　　 ＝ 1000.00	
Ｄ ｉ ｒ ｅ ｃ ｔ ｉ ｏ ｎ	＝ Ｂ ｉ Ｄ ｉ ｒ	Ｃ ｕ ｔ Ｓ ｈ ｅ ｅ ｔ Ｓ ｉ ｚ ｅ ＝ Ｖ ｅ ｒ ｔ ｉ ｃ ａ ｌ	
Ｔ ｈ ｉ ｎ Ｏ ｕ ｔ Ｃ：100％ Ｍ：100％		Ｔ ｏ ｐ Ｆ ｅ ｅ ｄ　　 ＝　 0mm	
Ｙ：100％ Ｋ：100％		Ｍ ａ ｎ ａ ｇ ｅ Ｒ ｏ ｌ ｌ ＝ Ｉ ｎ ｖ ａ ｌ ｉ ｄ	
Ｉ ｎ ｋ Ｄ ｒ ｙ Ｔ ｉ ｍ ｅ ｒ ＝　　 0sec		Ｃ ｕ ｔ Ｒ ｏ ｌ ｌ Ｔ ｏ ｐ ＝　 0mm	
Ｓ ｔ ｉ ｆ ｆ ｎ ｅ ｓ ｓ　 ＝ Ｎ ｏ ｒ ｍ ａ ｌ			
Ｒ ｏ ｌ ｌ Ｃ ｕ ｔ　　 ＝ Ｏ ｆ ｆ			

Ｐ ｅ ｎ 　 Ｓ ｅ ｔ

Ｐ ｅ ｎ Ｐ ｒ ｉ ｏ ｒ ．　 ＝ Ｐ ａ ｎ ｅ ｌ　　 Ｐ ｅ ｎ Ｔ ｏ ｎ ｅ　 ＝ Ｉ ｎ ｖ ａ ｌ ｉ ｄ

Ｐ ｅ ｎ Ｎ ｏ ．	Ｗ ｉ ｄ ｔ ｈ	Ｃ ｏ ｌ ｏ ｒ Ｎ ｏ ．	Ｔ ｏ ｎ ｅ	(End)	(Join)
0	0.25mm	0	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
1	0.10mm	1	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
2	0.13mm	2	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
3	0.18mm	3	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
4	0.25mm	4	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
5	0.35mm	5	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
6	0.50mm	6	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
7	0.25mm	7	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
8	0.25mm	8	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
9	0.25mm	9	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
10	0.25mm	10	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
11	0.25mm	11	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
12	0.25mm	12	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
13	0.25mm	13	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
14	0.25mm	14	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ
15	0.25mm	15	％	Ｒ ｏ ｕ ｎ ｄ	Ｒ ｏ ｕ ｎ ｄ

Ｃ ｏ ｍ ｍ ａ ｎ ｄ 　 Ｓ ｅ ｔ ｕ ｐ

Ｃ ｏ ｍ ｍ ａ ｎ ｄ	＝ ＭＨ － ＧＬ， ＧＬ／2	Ｍ ｅ ｒ ｇ ｅ　　 ＝ Ｌ ａ ｓ ｔ
Ｏ ｒ ｉ ｇ ｉ ｎ	＝ Ｃ ｅ ｎ ｔ ｅ ｒ	Ｑ ｕ ａ ｌ ｉ ｔ ｙ　　 ＝ Ｔ ｈ ｉ ｎ Ｌ ｉ ｎ ｅ
Ｓ ｔ ｅ ｐ	＝ 0.025mm	(Ｃ ｕ ｔ Ｓ ｈ ｅ ｅ ｔ Ｒ ｏ ｔ ａ ｔ ｅ ＝ Ｏ ｎ)
Ｐ ｏ ｓ ｉ ｔ ｉ ｏ ｎ	＝ Ｐ 1	(Ｐ ｏ ｓ ｉ ｔ ｉ ｏ ｎ Ｏ ｆ ｆ ｓ ｅ ｔ Ｘ ＝ 0mm)
Ｔ ｅ ｒ ｍ ｉ ｎ ａ ｔ ｏ ｒ	＝ Ｓ ｐ ｅ ｃ ｉ ａ ｌ	(Ｐ ｏ ｓ ｉ ｔ ｉ ｏ ｎ Ｏ ｆ ｆ ｓ ｅ ｔ Ｙ ＝ 0mm)
Ｉ ｍ ａ ｇ ｅ Ｒ ｅ ｓ ｏ ．	＝ 360dpi	
Ｏ ｎ ｌ ｉ ｎ ｅ Ｔ ｉ ｍ ｅ ｒ ＝　 30sec		

Ｌ ａ ｙ ｏ ｕ ｔ 　 Ｓ ｅ ｔ ｕ ｐ

Ｌ ａ ｙ ｏ ｕ ｔ	＝ Ｏ ｎ	(Ｐ ａ ｇ ｅ Ｓ ｉ ｚ ｅ　 ＝ Ａ ｕ ｔ ｏ)
Ｌ ａ ｙ ｏ ｕ ｔ Ｍ ｅ ｔ ｈ ｏ ｄ ＝ Ｃ ｏ ｍ ｍ ａ ｎ ｄ		Ｍ ａ ｒ ｇ ｉ ｎ　　 ＝ Ｎ ｏ ｒ ｍ ａ ｌ
Ｃ ｕ ｔ Ｌ ｉ ｎ ｅ	＝ Ｏ ｆ ｆ	
Ｌ ａ ｙ ｏ ｕ ｔ Ｔ ｉ ｍ ｅ ｒ ＝　 120sec		

Ｎ ｅ ｔ ｗ ｏ ｒ ｋ

Ｉ Ｐ Ａ ｄ ｄ ｒ ｅ ｓ ｓ	＝ 192.168. 1.253
Ｓ ｕ ｂ ｎ ｅ ｔ Ｍ ａ ｓ ｋ	＝ 255.255.255. 0
Ｇ ａ ｔ ｅ ｗ ａ ｙ	＝ 192.168. 1.254
Ｂ ｉ Ｄ ｉ ｒ Ｐ ｏ ｒ ｔ	＝ 10610

Ｆ ｕ ｎ ｃ ｔ ｉ ｏ ｎ

Ｓ ｃ ａ ｌ ｅ	＝ 100.0％	(Ｈ ａ ｌ ｆ ｔ ｏ ｎ ｉ ｎ ｇ ＝ Ｓ ｐ ｅ ｅ ｄ)
Ｍ ｉ ｒ ｒ ｏ ｒ	＝ Ｏ ｆ ｆ	(ＣＭＹ － ＞ ＢＬＡＣＫ ＝ Ｏ ｎ)
Ｒ ｏ ｔ ａ ｔ ｉ ｏ ｎ	＝ 0°	

Ｕ ｔ ｉ ｌ ｉ ｔ ｙ

Ｍ ｅ ｎ ｕ Ｍ ａ ｓ ｋ	＝ Ａ ｌ ｗ ａ ｙ ｓ ＯＦＦ
Ｅ ｒ ｒ ｏ ｒ Ｄ ｉ ｓ ｐ ｌ ａ ｙ	＝ Ｏ ｆ ｆ
Ｐ ｏ ｗ ｅ ｒ Ｏ ｎ Ｃ ｌ ｅ ａ ｎ ｉ ｎ ｇ ＝ Ｏ ｆ ｆ	

3.5.2 **NozzleCheck**

It is used for checking whether there is any clogging head, missing or blurred prints.

NOTE

• If the nozzle check result indicates that the checked points are blurred or missing, clean the head.
☞**5.2.3 Head cleaning**
Perform the nozzle check once again at the end of the work.

TIP

• Refer to the following for printing procedure.
☞**3.5 Test Print**
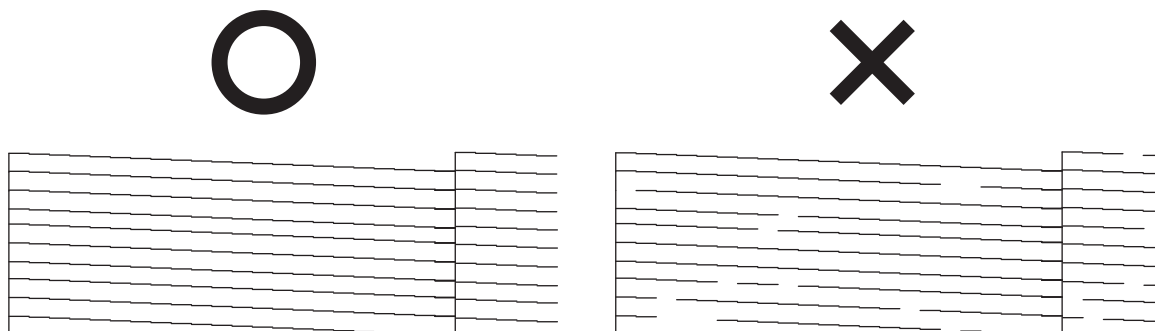
3.5.3   Palette Print

Palette printing is performed as a color demonstration.

> **TIP**
>
> • Refer to the following for printing procedure
>   ☞**3.5 Test Print**

3.5.4   **Maintenance**

It is used for checking the parts life of the printer.

NOTE

- Parts life is expressed as number of ★ marks for each item (Maximum of five: denoting the residual life is 100%).

- As the parts life is getting nearer, the number of ★ marks decreases one by one (20%).

- When all ★ marks disappear, the parts life has ended. Replace parts referring to the followings.

  - Razor blade
    ☞**5.1.3 Replacing razor blade**

  - Waste fluid box
    ☞**5.1.4 Replacing waste fluid box**

  - Other parts
    Contact MUTOH local dealer.

- Refer to the following for printing procedure.
  ☞**3.5 Test Print**

```
========== Maintenance Record ==========
Version               :  1.00
Cutter Life           : E★★★  F
Page Count            : 716
Ink Pad               : E★★★★ F
CR Motor Life         : E★★★★★F
Pump Life             : E★★★★ F
```

3.6   Connecting the printer to PC

The method of the printer connection to the PC is explained.

3.6.1   System requirements

The operation systems the printer driver for this printer is compatible with are as follows.

Operating system	Windows 10, Windows 8.1

NOTE

• The OS support period conforms to the Microsoft support lifecycle policies.

• The memory capacity varies depending on the application software or the print data type.

• We recommend to use hard disk and memory of size as large as possible.

3.6.2   Selecting cables

The printer is equipped with network interface and USB interface for connecting with the PC.
Network interface cable and USB cable are required for connecting the PC with the printer. Prepare them for your PC depending on the objectives.

TIP

• For connecting network interface cable, refer to "**3.6.3 Connecting network interface cable**".

• For connecting USB cable, refer to "**3.6.4 Connecting the USB cable**".

• For the recommended cable specifications, refer to "**7.2 Interface specification**".

3.6.3 **Connecting network interface cable**

The procedure of network interface cable connection is explained.
Connect the printer to your PC as shown in the following procedure.

1. Turn OFF both printer and PC.

2. Insert the network interface cable connector into the network interface connector located on the back of the printer.
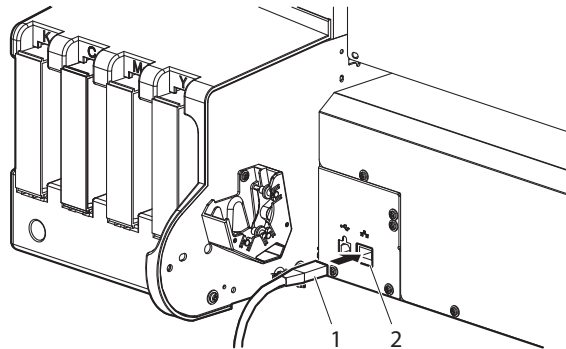
No.	Name
1	Network interface cable
2	Network interface cable connector

3. Put the network interface cable to the cable clamp.
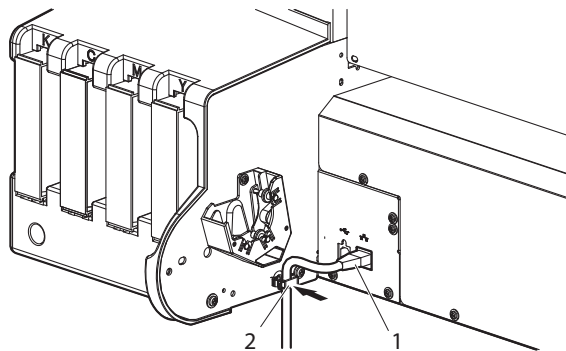
No.	Name
1	Network interface cable
2	Cable clamp

4. Connect the other network interface cable connector to your PC.

> TIP

• Refer to the attached Operation Manual of your PC for the connection to your PC.

• For network setting on the side of the printer, refer to "**4.5.2 Menu Setup Procedure**".

3.6.4   Connecting the USB cable

The procedure of USB cable connection is explained.
Connect the printer to your PC as shown in the following procedure.

> NOTE

• Do not connect USB cable before installing the printer driver. It cannot be correctly installed.

• When printing using USB connection, do not change the USB port on the computer.
  If you have changed the USB port, you have to install the printer driver again

1. Insert the USB cable into the USB connector on the back of the printer.
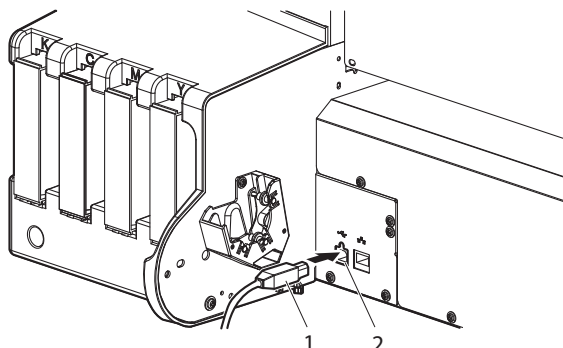
No.	Name
1	USB cable
2	USB connector

2.   Put the network interface cable to the cable clamp.
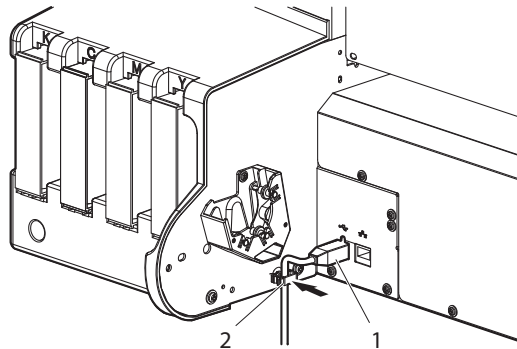
No.	Name
1	USB cable
2	Cable clamp

3.   Connect the other USB cable connector to your PC.

TIP

- Refer to the attached Operation Manual of your PC for the connection to your PC.

- This printer supports USB 2.0. If the connection is made in the following environments, the speed may decrease to the level measured in USB 1.1.

  - When your PC does not support USB 2.0

  - When a USB hub of non USB 2.0 type is used

  - When using the printer with USB connection, install the printer driver into your PC using the printer driver provided with the printer or specified by our company.

3.6.5   Setting IP Address

Make IP address settings on the printer side.

Follow the procedure below to set the IP address.

1. Check that the printer is turned ON.
    ☞**3.2.1 Turning the power ON**

2. Press the [Menu] key on Operation panel to change the display to the Setting menu.

    • "*Menu*   Test Print>" is displayed on Operation panel.

3. Press the [<] key or [>] key on Operation panel to display the Network menu.
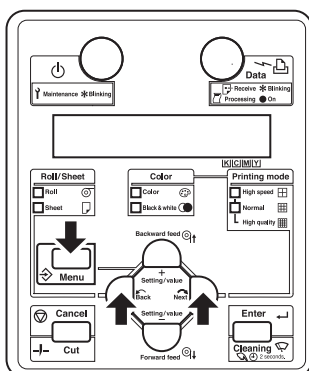
    • "*Menu* Network>" is displayed on Operation panel.

> TIP
>
> • For the key operation while the Setting menu is being displayed, refer to "**4.5.2 Menu Setup Procedure**".

4. Press the [Enter] key on Operation panel to display the IP address menu.

    • "Network: IP Address>" is displayed on Operation panel.

5. Press the [Enter] key on Operation panel to display the IP address setting menu.
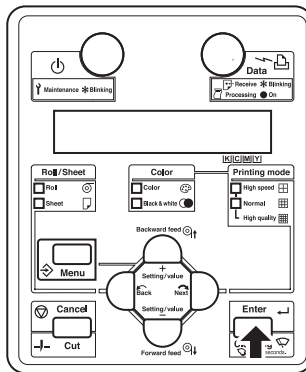
- • "192.168. 1.253" (default) is displayed on Operation panel.

6. Press the following keys on Operation panel to set the value.
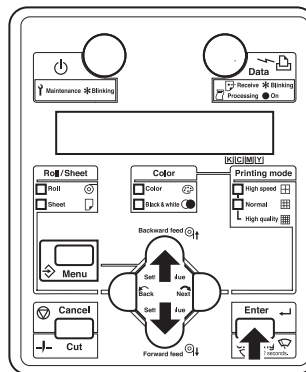
- • [+] key: increases the setting value.

- • [-] key: decreases the setting value

- • [Enter] key: changes the setting value for the next segment.

    - • The settings are saved in the 4th segment, and the display returns to the previous menu.

NOTE

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

- • Allocate the IP addresses that do not overlap the computers or routers within LAN (Local Area Network).

- • Allocate the same network address (usually the 3rd segment of IP address) as the computer that is connected to the printer.

- • If you are using the printer in the network environment where IP addresses are automatically acquired, prepare an IP address for the printer outside of the address range for DHCP.

3.7   Installing / Unistalling Printer Driver

This section explains the outline and installing and uninstalling procedures of the driver provided with the printer.

3.7.1   Printer Driver

The operation systems the printer driver is compatible with are as follows.

- Windows 10

- Windows 8.1

The installing methods for the printer driver vary depending on how the printer is connected to the computer.
Follow the procedure below to install the driver.

- For network connection
  ☞**3.7.2 Installing the Printer Driver (for Network Connection)**

- For USB connection
  ☞**3.7.3 Installing the Printer Driver (for USB Connection)**

⬭ TIP ⬭ ━━━

- For the latest information about the plotter driver such as available functions and restrictions, see the following files, which is included in the downloaded .zip file.

  - Help

  - Readme file

  You can download the latest printer driver from the MUTOH Club below.

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

━━━

3.7.2   Installing the Printer Driver (for Network Connection)

（1）Set the IP address

Before installing the printer driver, set the IP address to the printer.

- For the procedure to set IP addresses, refer to **3.6.5 Setting IP Address**.

If you have already set the IP addresses, proceed to **（2） Installing printer driver**

（2）Installing printer driver

1. Connect the printer to network first.
   ☞**3.6.3 Connecting network interface cable**

2. Turn the printer ON.

3. Turn the computer ON.

NOTE

- Install the printer driver with the user account that has the administrator authority.

4. Ensure that the computer has started normally and click on index.htm, which is included in the .zip
   file downloaded from MUTOH Club.

   - The browser starts.

5. Click the language you want to use.
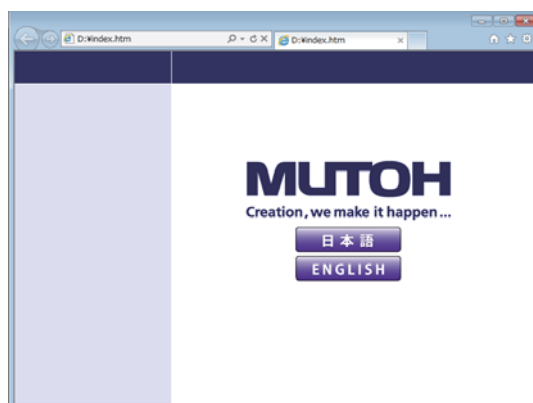
   - Go to the next screen.

6.   Click "Install Printer Driver".
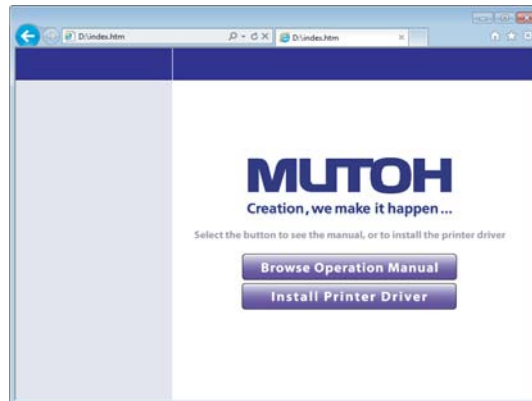
7.   If the confirmation message for executing the program is displayed, click "Run".
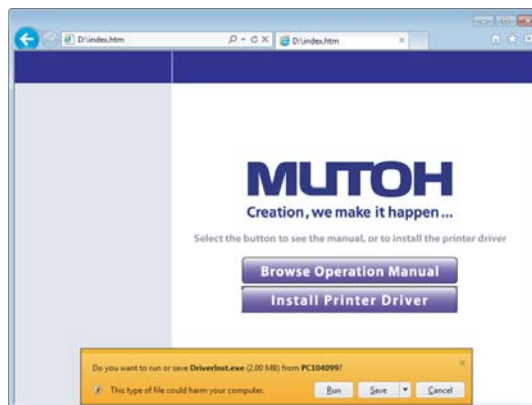
8.   If the following message is displayed due to the setting for user account control, click "Yes".
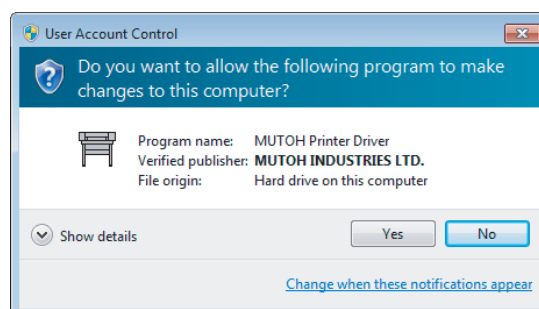
NOTE

- If you click "No", printer driver installation is cancelled.

- Go to the next screen.

9. Select the printer model you want to use, and then click "Install".
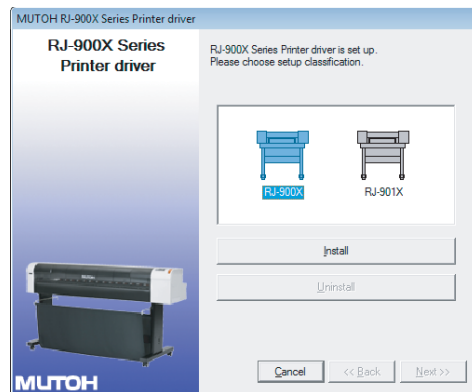
NOTE

• If you click "Cancel", printer driver installation is cancelled.

10. Select "Install the driver", and then click "Next".

11. "Printer Driver License Agreement" is displayed.

    a.   When agreeing with the contents:
        Click "Agrees".

        •   Go to the next screen.

    b.   When disagreeing with the contents:
        Click "Cancel".

        •   Installing the printer driver is cancelled.
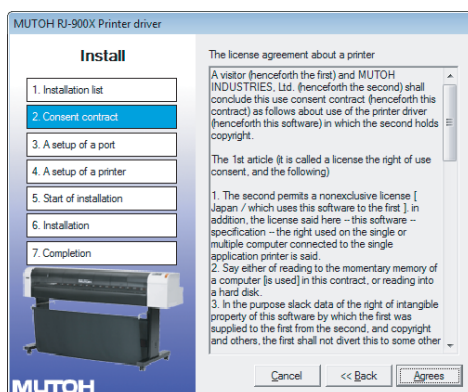
        •   Go to the next screen.

12. Click "Network".
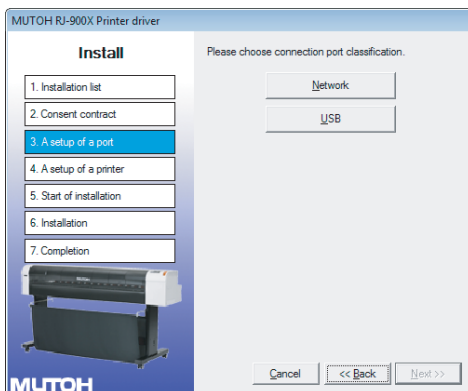
    a.   When installing the printer driver for the first time:
        Proceed to step 13.

    b.   When you have installed the printer driver to the same computer before:
        Proceed to step 14.

13. Make settings for the following items, and then click "Set".

    a. Port name:
        Enter an arbitrary name.

    b. IP Address:
        Enter the IP address set for the printer.→Example: 192.168.1.1

NOTE

• For the IP address set for the printer, refer to "Network Setting Menu".
  ☞**4.5.1.7 Network Menu**
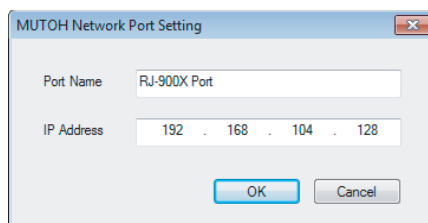
    • Proceed to step 15.

14. The output ports that were installed in the past are displayed on the output port list.

    a. To use the output port that was installed in the past, select it from the output port list, and then click "OK".
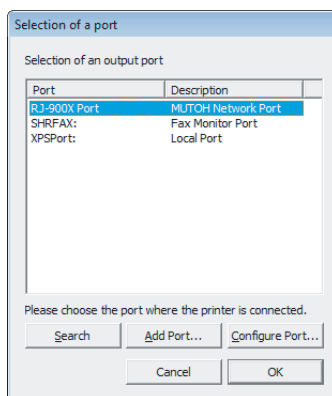
    • Proceed to step 15.

b. To add a new port.

1) Click "Add a port".
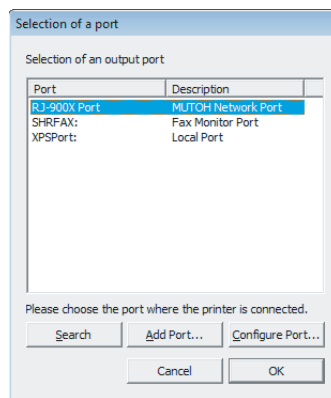
2) Select "MUTOH Network Port", and then click "New port".
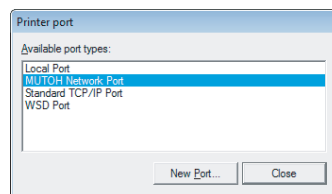
•   Proceed to step 13.

15. Set the printer name, and then click "Next".
    If you do not need to change the printer name, use the default name.
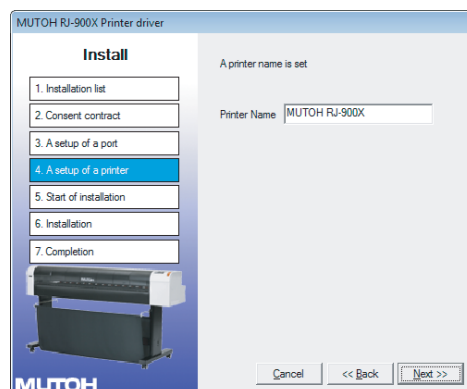
•   Go to the next screen.

16. Check the displayed contents, and if there is no problem, click "Next".
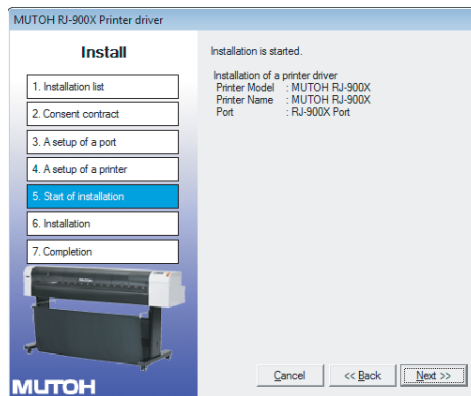
- Installing the printer driver starts.

17. While installing the driver, Windows security warning may be displayed.If it is displayed, click "Install".
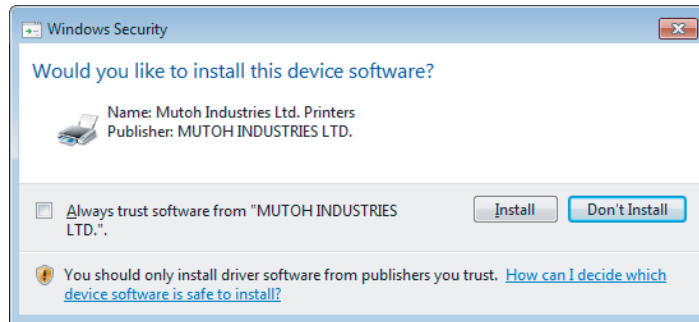
- Once the printer driver has been installed, the following screen is displayed.

18. Click "Finish".
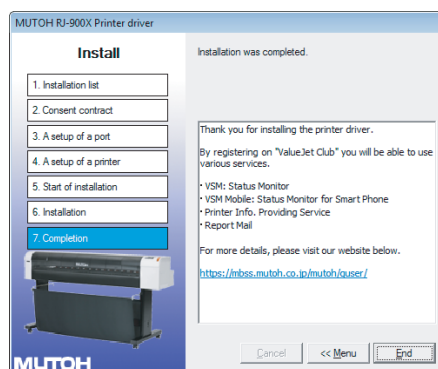
- This completes the printer driver installation.

 NOTE

- If you click "Menu", the first screen of the installer is displayed.

3.7.3   Installing the Printer Driver (for USB Connection)

1. Turn the printer OFF.

NOTE

•   Do not connect the USB cable yet.

•   If you have connected the USB cable first by mistake, check **6.1.1.1 If you have connected using the USB cable before installing the driver**.

2. Turn the computer ON.

3. Ensure that the computer has started normally and click on index.htm, which is included in the .zip file downloaded from MUTOH Club.

    •   The browser starts.

4. Click the language you want to use.
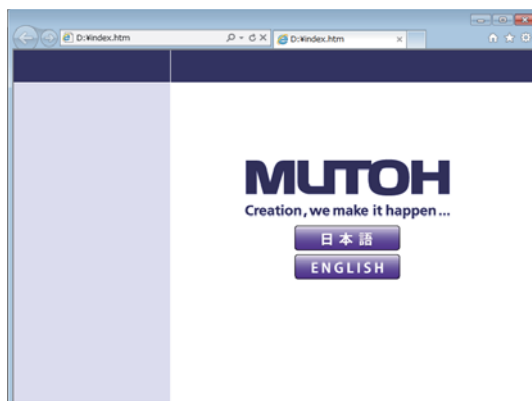
    •   Go to the next screen.

5. Click "Install the printer driver".
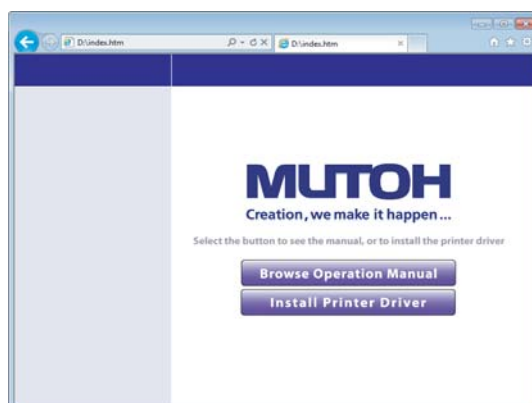
6. If the confirmation message for executing the program is displayed, click "Run".
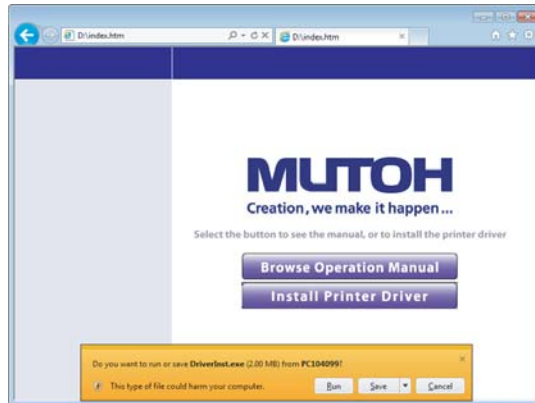
7. If the following message is displayed by setting the User Account Control, click "Yes".
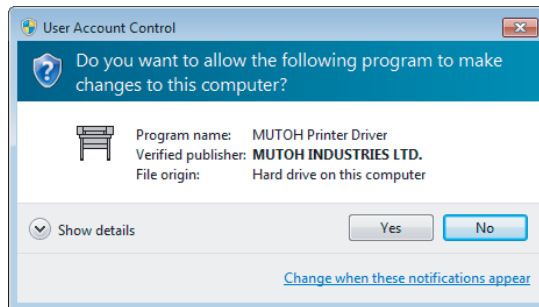
NOTE

- If you click "No", printer driver installation is cancelled.

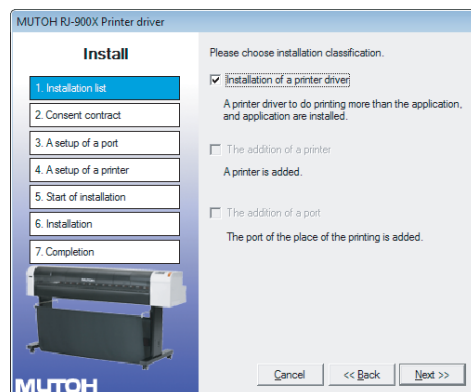- Go to the next screen.

8. Select the printer model you want to use, and then click "Install".
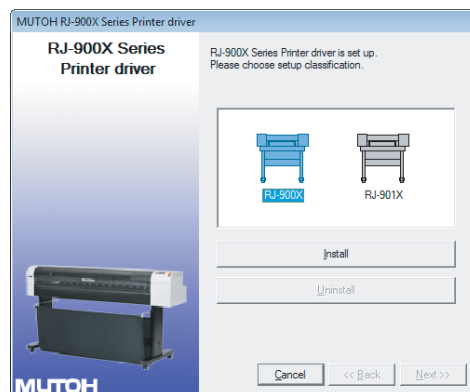
NOTE

• If you click "Cancel", printer driver installation is cancelled.

9. Select "Installing driver", and then click "Next".
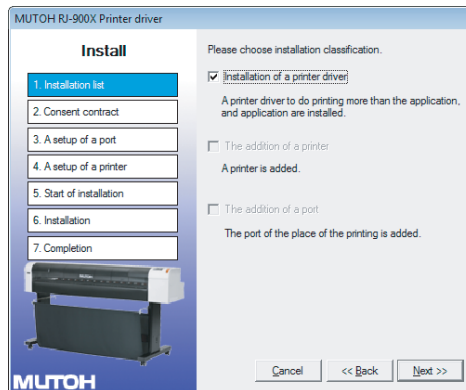

• Go to the next screen.

10. "Printer Driver License Agreement" is displayed.

   a. When agreeing with the contents:
      Click "Agrees".

      • Go to the next screen.

   b. When disagreeing with the content:
      Click "Cancel".

      • Installing the printer driver is cancelled.
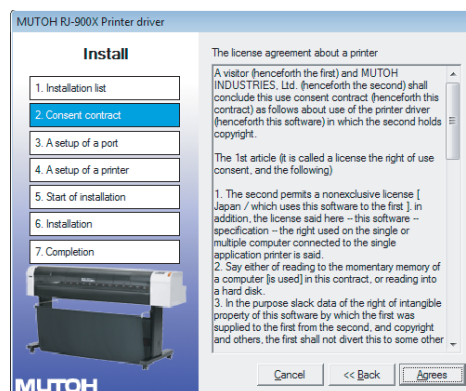
11. Click "USB".
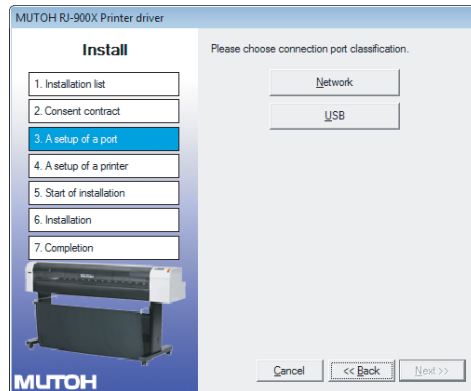
- Go to the next screen.

12. Driver and port to be installed are displayed.
    Check the displayed content, and if there is no problem, click "Next".
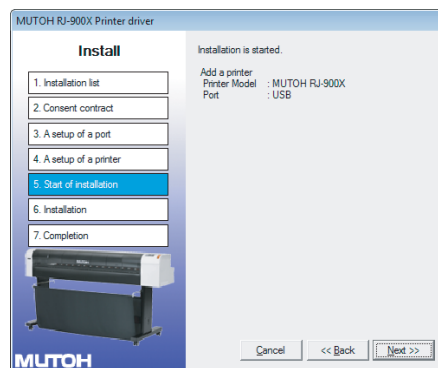
13. During installation, if the Windows security warning is displayed, click "Install".
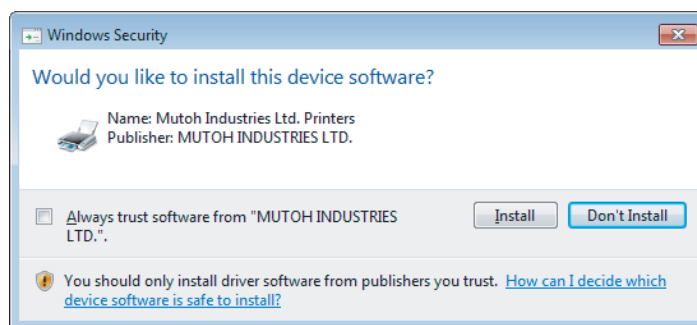
14. Installer is in the standby status for USB connection.

   a. Wait until the standby dialog is displayed.

   b. Turn the printer ON.

c. Connect the printer and computer with a USB cable.
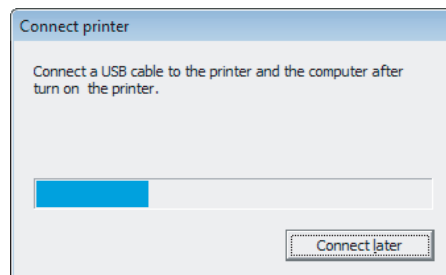
NOTE

- If you have connected the USB cable first by mistake, check "**6.1.1.1 If you have connected using the USB cable before installing the driver**".

- If the printer has not been fully prepared, click "Connect later".

- Installing the printer driver starts.

- Once the driver has been installed to Windows, the USB connection dialog automatically closes.
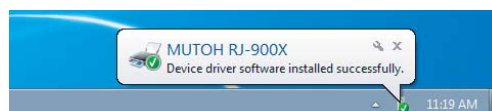
15. Click "End".
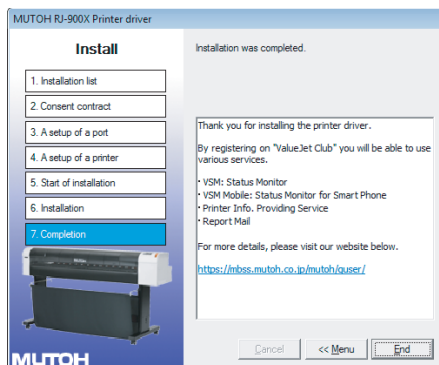
- This completes the printer driver installation.

NOTE

- If you click "Menu", the first screen of the installer is displayed.

- If the printer was not connected during installation, connect it after this.

3.7.4   Uninstalling the Software

NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- When you uninstall the software, the printer driver is removed.
  If you want to print after uninstalling the printer driver, install it again.

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1. Turn the computer ON.

2. Before uninstalling the software, save the current print settings.

   a. Start the printer driver.

   b. On the "Option" tab of the printer setting, click "Save the setting parameters", and then create a setting file.
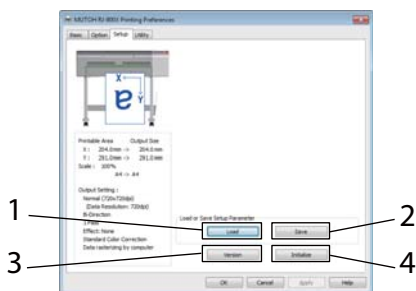
NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- Saved print settings are useful when upgrading the printer driver or changing the computer.

━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

3. Click on index.htm, which is included in the .zip file downloaded from MUTOH Club.

   - The browser starts.

4. Click the language you want to use.
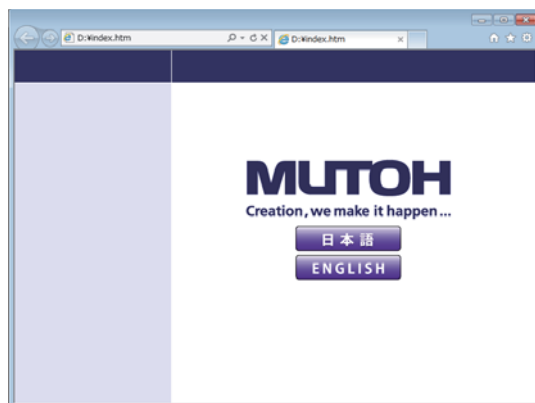
5. Click "Install the printer driver".
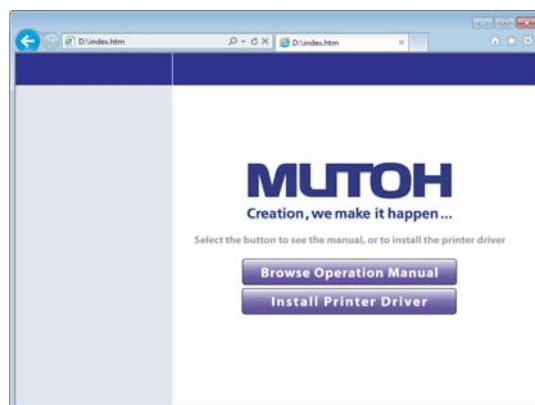
6. If the confirmation message for executing the program is displayed, click "Run".
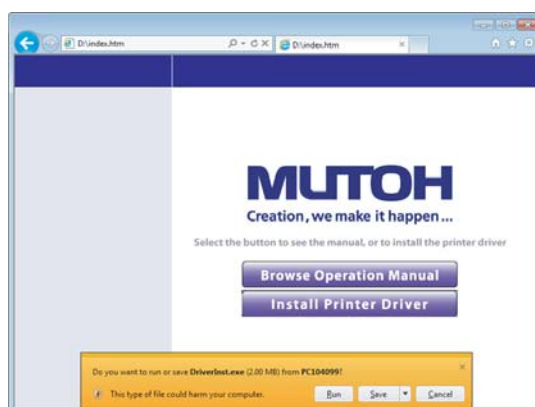
7. If the following message is displayed due to the setting for user account control, click "Yes".
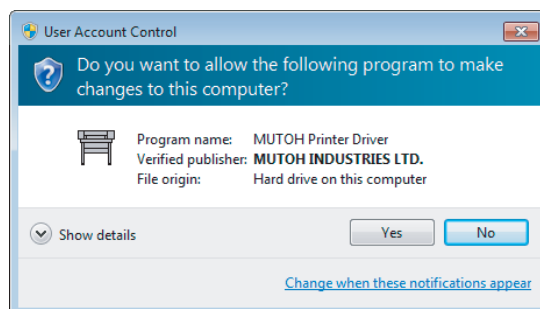
NOTE

• If you click "No", printer driver installation is cancelled.

        •   Go to the next screen.

8. Click "Uninstall".

NOTE

• If you click "Cancel", uninstalling the software is cancelled.
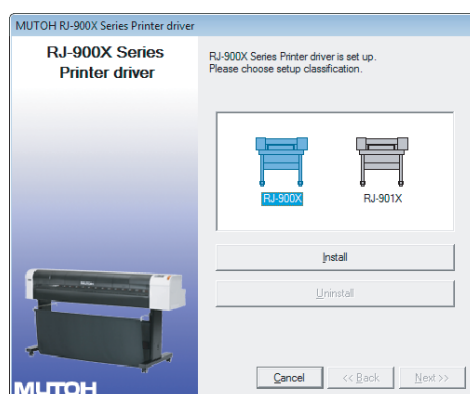
        •   Go to the next screen.

9. Check the precautions before uninstallation, and then click "Next".
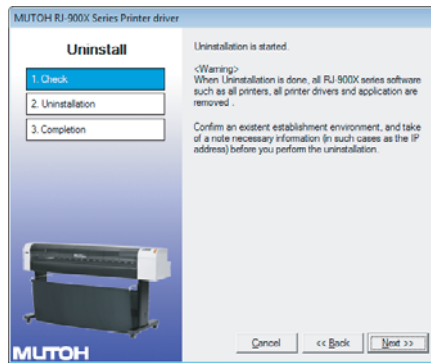
• Uninstallation starts.
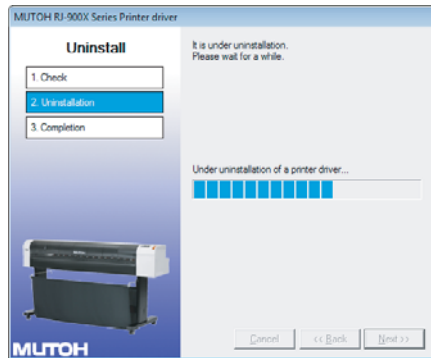
• The next screen is displayed.

10. Click "End".
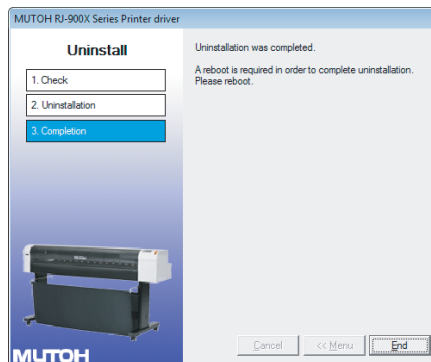
• This completes the printer driver installation.

NOTE

• The printer driver is completely deleted from the system after Windows is restarted.
    When upgrading the printer driver, make sure to restart Windows.

3.7.5   Changing the Rated Value of Print Settings

You can set the settings that you use often as the default print setting for application software.

1. From the category of "Control Panel", select "Display devices and printers".
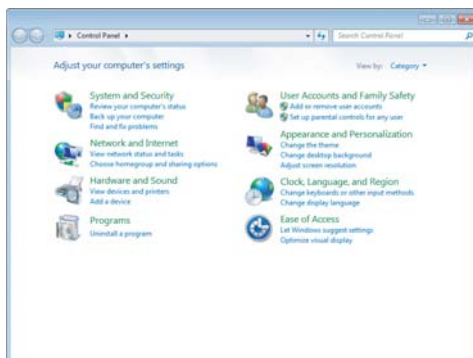
> TIP
>
> • If displayed with icons, select "Devices and Printers".

2. Right-click the icon of the printer for which you want to change the rated value, and then click "Printer setting".
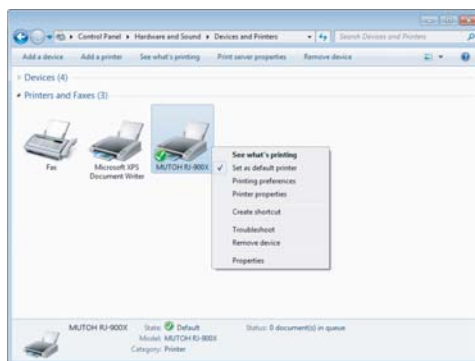
3. Change the settings as required, and then click "OK".
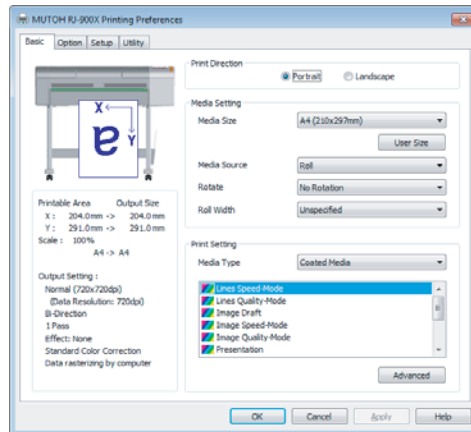
3.7.6   Prioritized Driver Settings

The printer driver can temporarily change the printer setting for printing. Be aware that the settings determined in the printer are not effective for many functions and that the settings determined in the printer driver are always prioritized over the printer settings.

For the functions whose settings can be changed on the printer driver, see the following list.

Panel Menu	Driver settings	Default settings	Note
Color	Color mode	Always prioritize the driver	[Basic settings] - [Advanced settings]
Print Mode	Print quality	Always prioritize the driver	[Basic settings] - [Advanced settings]
Print quality	Overlap	Always prioritize the driver	[Basic settings] - [Advanced settings]
Print resolution	Print Mode	Always prioritize the driver	[Basic settings] - [Advanced settings]
Direction	Prtint Dscharge direction	Always prioritize the driver	[Basic settings] - [Advanced settings]
Effect	Effect	Always prioritize the driver	[Basic settings] - [Advanced settings]
Ink amount	Printer density adjustment	Always prioritize the driver	[Basic settings] - [Advanced settings]
Ink drying time	Ink drying time	Prioritize the printer	[Basic settings] - [Advanced settings]
Tip feeding	Media tip feeding	Always prioritize the driver	[Option]
Command	Output method (color correction)	Always prioritize the driver	[Basic settings] - [Advanced settings]
Origin	--	Always prioritize the driver	-
Print unit	-	Always prioritize the driver	-
Terminator	-	Always prioritize the driver	-
Image resolution	-	Always prioritize the driver	-
Overwriting	-	Always prioritize the driver	-
Line type	Line type	Always prioritize the driver	[Basic settings] - [Advanced settings]
Layout	-	Depending on the setting	When the computer memory is set the driver is prioritized
Layout method	-	Depending on the setting	When the computer memory is set the driver is prioritized

Panel Menu	Driver settings	Default settings	Note
Margin decision	-	Depending on the setting	When the computer memory is set the driver is prioritized
Scales	Scales	Always prioritize the driver	[Option]
Mirror	Mirror	Always prioritize the driver	[Option]
Rotate	Print Direction	Always prioritize the driver	[Basic settings]
Pen settings	-	Always prioritize the driver	-

NOTE

- The functions that can be set on the printer driver may vary depending on the printer driver models and versions.

3.7.7   Creating LPR Port

To print using the LPR port, follow the procedure below to add an LPR port.

1. Windows 10
    Click [Start], [All Apps], then [Windows System].
    In the screen that appears, click [Control Panel].

    Windows 8.1
    Display the charm bar on Desktop, and click [Settings]. Click [Control Panel].

    •   "Control Panel" is displayed.

2. Select "Programs".
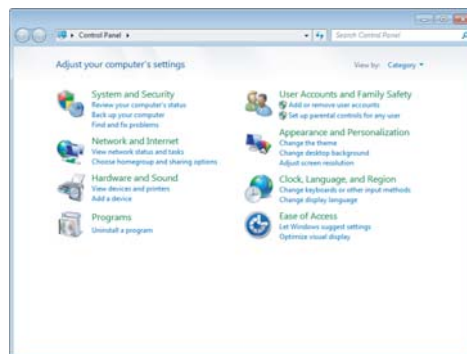
    •   "Programs" is displayed.

3. Select "Activate or deactivate Windows functions".
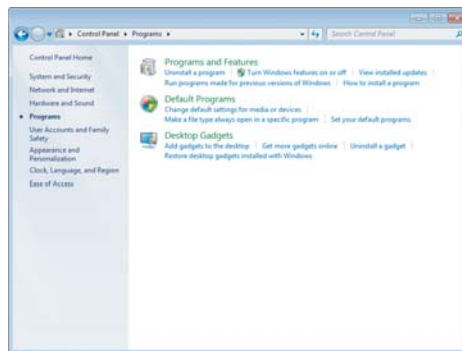
    •   "Windows Features" is displayed.

4. Check "LPR Port Monitor" in "Print and Document Service", and then click "OK".
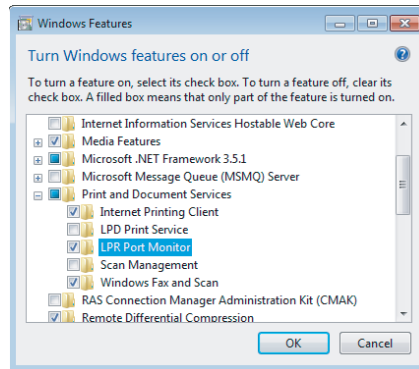
5. Set the LPR port as follows.

Server name or IP address that provides LPD

•   Enter the IP address that is allocated to the printer.

Printer name or print queue of the server

•   "MLP1" in single-byte uppercase alphanumeric letters
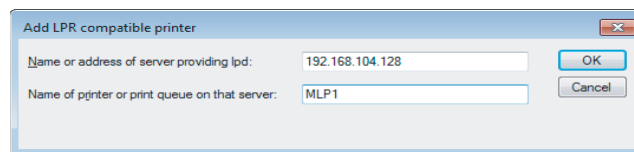
4   Handling the printer

This chapter explains how to handle the printer.

4.1 **Print flow chart**

The necessary procedure for printing with the printer is shown in the following flow chart.
Refer to each section if necessary.

---

1. Create print data.
  Create print data with application software.

↓

2. Turn the power ON and set the media.
☞**3.4 Media handling**
☞**4.2 Media**
☞**4.3 Media eject tray setting**

↓

3. Printing setup conditions.
☞**4.4 Setting the printer driver**
☞**4.5 Menu setup on the operation panel**

↓

4.Perform the printing.
☞**4.6 Operating from the operation panel**
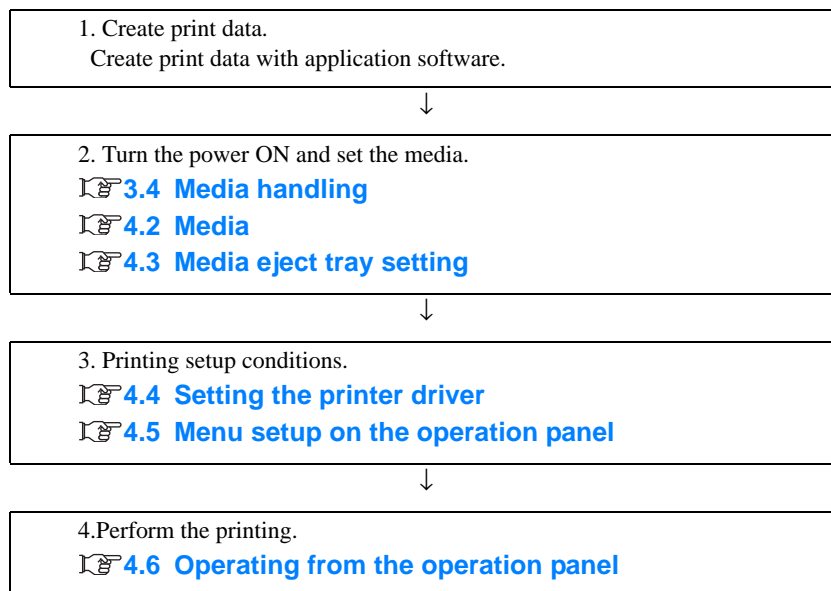
NOTE

- Do not open the front cover during printing. If the front cover is opened, printing will be interrupted. When the front cover is closed, the printer restarts printing, but high printing quality is not assured.

4.2 **Media**

The details of available media for the printer are described.

4.2.1 **Media**

The type and quality of media greatly influence the print result. Use media that matches the application, taking the following information into account.
Various dedicated media are prepared for this printer as follows. Select the appropriate media according to the usage.

• Monochrome tracing paper

• Monochrome erasable tracing paper

• Matte film

• Coated paper

• Recycled paper

• Plain paper

• Check paper

• Glossy paper

NOTE

• If failures or malfunctions of the printer occur by using media that is not dedicated media.

  • The printer will not be covered by the warranty and repair expenses will be paid by the customer.

  • For details, refer to the following manuals.
    ☞**5 Maintenance**
    ☞**6 Troubleshooting**
    If repair is requested, contact MUTOH local dealer.

TIP

• When dedicated media is used, the setting of printing quality is set according to each media type.
  For the settings, refer to "**7.1.2 Printing operation specifications**".

• When printing on media that is not dedicated one,

  • Refer to the media manual or ask the place of purchase of media for the information on the media type or appropriate settings for this printer.

  • Set the printing quality according to "**4.5.1.2 MediaSet Menu**".

4.2.2   **Cautions on handling media**

Note the following points when handling the media.

NOTE

- Use dedicated media under an appropriate environment.
  The appropriate temperature and humidity for printing are as follows.

	Temperature	Humidity
Guaranteed range of printing accuracy	15° C～28° C	40% - 60%
Change rate	within 2° C	within5% per hour

- Do not use media which is folded, cut, or torn.

- The size of media can change at a constant rate according to the change of humidity in the printing environment. Before using media, leave media for 30 minutes in the printing environment to adapt it to the environment.

- Performing printing without adapting media to the printing environment, media jams may occur due to gaps or wrinkles in the media. Printing quality is also affected.

- Media has a print side and a non-print side. Printing on the non-print side can cause blurs and blots.

- Do not touch the print side. Moisture and oil on your hands may affect the printing quality.

- Do not leave media for a long time with media set. Some media has a tendency to roll which may cause media to float, media jams, and degradation of printing quality. Avoid using such media especially in winter, dryness and when printing formal documents.

- Do not lose the individual box and bag. Use them for storing media.

4.2.3   **Precaution on storing media**

Note the following points on storing media.

NOTE

- Avoid high temperature, high humidity, and direct sunlight to store media.

- Put the opened sheet media back into the bag and store it in a flat position.

- After removing the unused roll media from the scroller, wind it properly. Then wrap it with an individual bag and store it in an individual box.

- Keep the media dry.

4.2.4 **Printing area**

The printable area of this printer is as follows.

（1）Roll media

Margin Setting (Printer Driver)

Normal	Type1	Type2
a=3 mm	a=25 mm	a=5 mm
b=3 mm	b=5 mm	b=5 mm
c=3 mm	c=5 mm	c=5 mm
d=3 mm	d=5 mm	d=5 mm

（2）Sheet media

Margin Setting (Printer Driver)

Normal	Type1	Type2
a=3 mm	a=5 mm	a=5 mm
b=3 mm	b=5 mm	b=5 mm
c=17 mm	c=25 mm	c=17 mm
d=3 mm	d=5 mm	d=5 mm
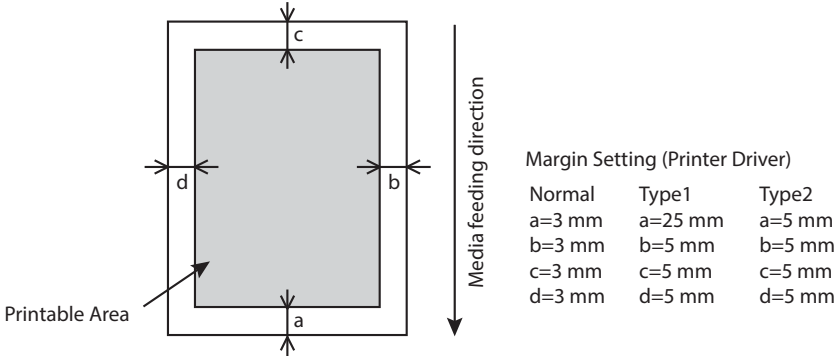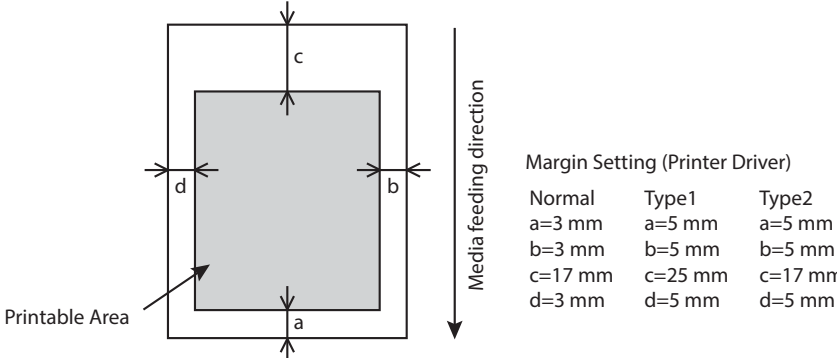
4.2.5   **Head height adjustment**

Printing with high printing rate or using strongly-curved media can cause a head rub.
Changing the head height may allow you to avoid the head rub.
Follow the procedure below to change the head height.

NOTE

- If the head height adjustment lever is raised, the high printing quality will not be guaranteed.

- Do not open the front cover during printing or change the head height. If the head height is changed, the alignment will be changed and high printing quality will not be guaranteed.

1. Open the front cover.
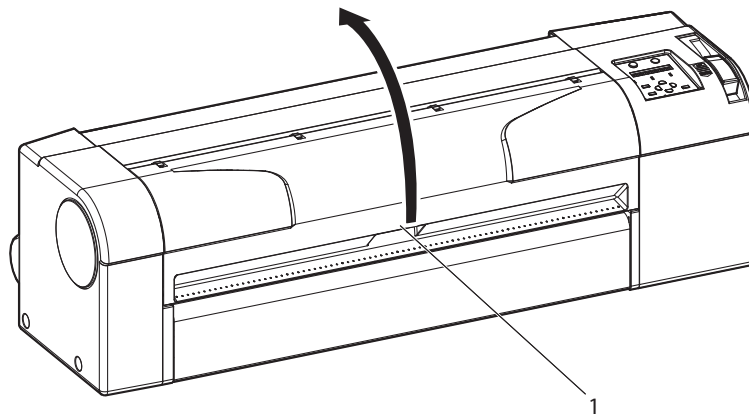
No.	Name
1	Front cover

2. Change the head height by moving the head height adjustment lever (orange).
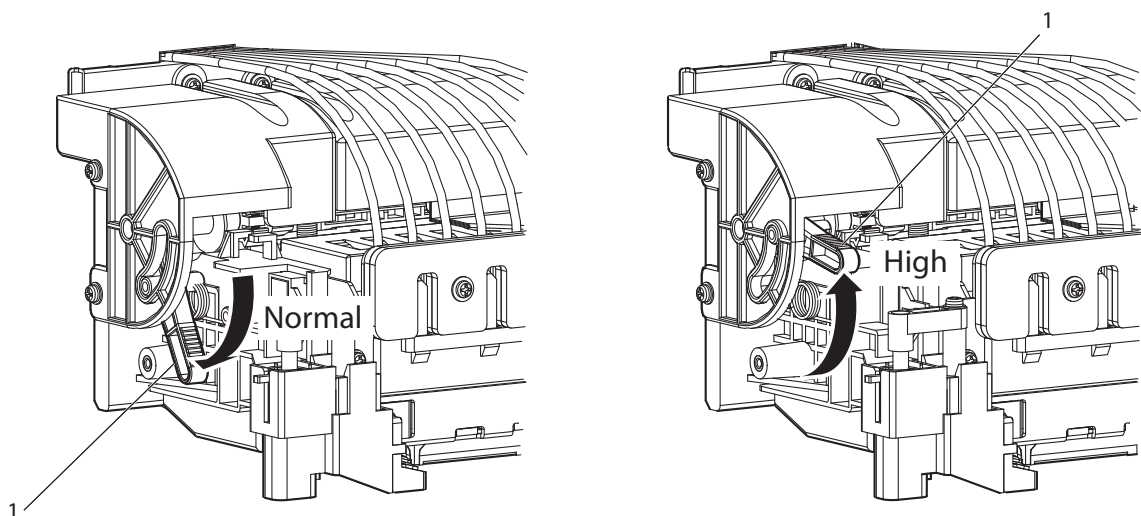
No.	Name
1	Head height adjustment lever

3. Close the front cover.
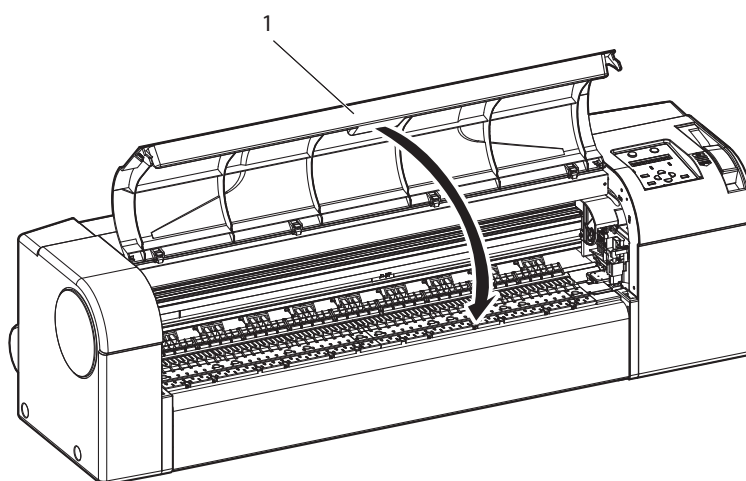
No.	Name
1	Front cover

4.3 **Media eject tray setting**

The setting procedure of media eject tray (optional) is described.
The media eject tray supplied with the dedicated stand can be used to eject media smoothly by preventing the printed media from spotting or folding.

1. Pull out the tray hook as far as possible.
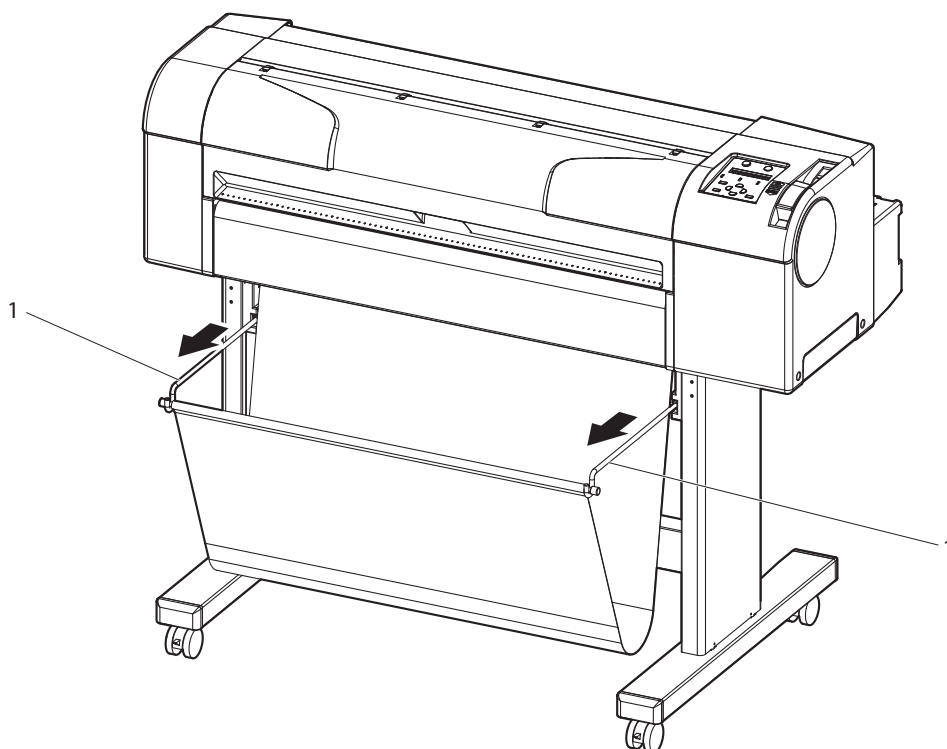
No.	Name
1	Tray hook

4.4   **Setting the printer driver**

The setup procedure of printer driver is described.

4.4.1   **Printer driver setup procedure**

To print and output the print data created with Windows application software to the printer, the printer driver must be set according to the printing conditions.
Set each item according to the following procedure.

1.   Selecting the printer driver.

2.   Setting the printer driver.

(NOTE)

• For the setup procedure of the printer driver, refer to the attached help file. The file will be displayed by clicking [HELP] on the printer driver setup screen.

4.4.2   **Printer driver setup items**

The printer driver setup items are described.

Setup item	Description
Basic setup	Set up the basic setup of printing and check the setup list. ☞ **4.4.2.1 Basic Setup Menu**
Advanced setup	Set up the advanced setting of printing conditions and check the setup list. ☞ **4.4.2.2 Advanced Setup Menu**
Options	Set the optional functions of printing and check the settings. ☞ **4.4.2.3 Option Menu**
Setup	Recalls, saves, and initializes the settings. ☞ **4.4.2.4 Environment Setting Menu**
Utilities	Perform cleaning and nozzle check. ☞ **4.4.2.5 Utility Menu**

4.4.2.1   Basic Setup Menu

You can make basic settings for printing and check the settings.
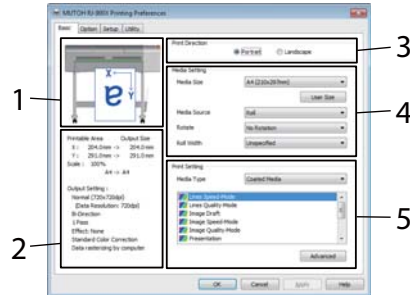
No.	Name	Description
1	Image	Displays the output image to the printer.
2	Setting information display box	Displays the information set for each item.
3	Printing direction setting	You can make settings for the printing direction.
4	Media setting	Make the following media settings. • Media Size • Media Source • Rotate • Roll Width
5	Print Setting	Set the printing conditions. If you click "Detailed setting", the display shifts to Detailed setting menu. ☞**4.4.2.2 Advanced Setup Menu**

4.4.2.2   Advanced Setup Menu

You can make the detailed settings about printing conditions as well as check the setting contents.
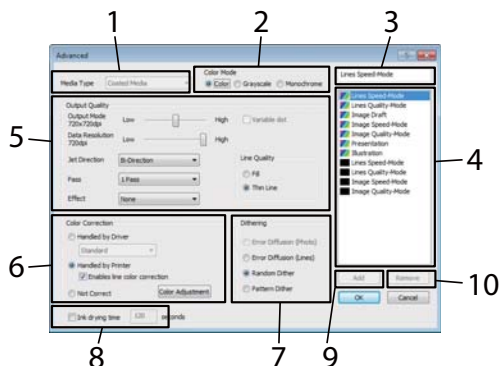
No.	Name	Description
1	Media type	Displays the media type currently set.
2	Color mode	You can make settings for the color mode.
3	Printing condition name	Displays the printing condition name. You can enter a new printing condition name.
4	Printing condition list	Displays the default printing condition list. If you save the data with a new printing condition name, the new printing condition is added to the list.
5	Print quality	You can make settings for the printing quality.
6	Color correction	You can make settings for the color correction. Click "Color adjustment" to make detailed settings.
7	Gradation processing	You can make settings for the gradation processing.
8	Ink drying time	You can make settings for the ink drying time.
9	Backup	Saves the changed printing condition. The default printing condition name cannot be overwritten and saved.
10	Delete	Deletes the printing condition from the list. The default printing condition cannot be deleted.

4.4.2.3 Option Menu

Set the optional functions of printing and check the settings.
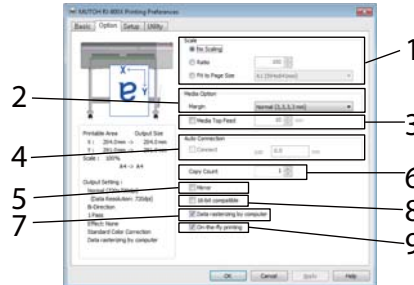
No.	Name	Description
1	Scale	You can make settings for the Scale function.
2	Margin	You can make settings for the margins.
3	Media top feed	Make settings for the media tip feeding function. You can set between 1 mm and 100 mm.
4	Auto Connection	Make settings for the joined printing function.
5	Mirror	Make settings for the mirror function.
6	Copy count	Set the number of copies.
7	Data rasterizing by computer	Make the settings for eliminating the memory shortage.
8	16-bit compatible	Make settings for the 16-bit compatibility function.
9	On-the-fly printing	Make settings for the on-the-fly printing function. When this is set, the data that is processed in the driver is immediately sent to the printer. Depending on the PC performance or data, Print head may stop during printing, or a timeout error may occur and prevent printing.

4.4.2.4   Environment Setting Menu

Calls up, saves, and initializes the settings.
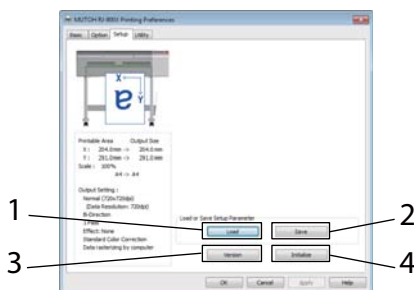
No.	Name	Description
1	Load	Calls up all settings from the specified file (*.MTP).
2	Save	Saves the current settings as a file (*.MTP).
3	Version	Displays the version information and copyright.
4	Initialize	Initializes the settings in the Basic settings and Option tabs.

4.4.2.5   Utility Menu

Performs cleaning and nozzle check.
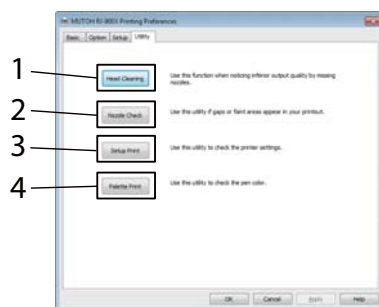
No.	Name	Description
1	Head Cleaning	Performs head cleaning. ☞**5.2.3 Head cleaning**
2	Nozzle Check	Performs nozzle check printing. ☞**3.5.2 NozzleCheck**
3	Setup Print	Setup list printing is performed. ☞**3.5.1 Setup Print**
4	Palette Print	Performs color palette printing. ☞**3.5.3 Palette Print**

4.5   Menu setup on the operation panel

4.5.1   Setup menu items

The setup menu of the printeris described.
The setup menu has the following items.

Setup item	Description
Testprint Menu	Test print can be performed.
MediaSet Menu	Various settings on printing media can be set.
Command Menu	Various condition setup of printer command is performed.
PenSetup Menu	Various settings on the pen used for printing can be set.
Layout Menu	Various settings on the layout function can be set.
Function Menu	Various settings on the process of print data can be set.
Network Menu	Various settings on the network interface can be set.
Utility Menu	Various settings on the advanced function of the printer can be set.
Consumption Menu	Use status display menu Remaining ink quantity and life span of cutter can be displayed.
Cleaning menu	Performs head cleaning.

NOTE

- When the menu display item of Utility Menu is set to Normal, the following menu will not be displayed.

    - Command Menu

    - PenSetup Menu

    - Function Menu

    - BiDir Port item of Network Menu

    - Initialization menu of utility menu

TIP

- < > parts in each list are factory default settings (initial values).

4.5.1.1 **TestPrint Menu**

Test printing of each item can be performed.

Setup item	Description
Setup	Setup list printing is performed. ☞**3.5.1 Setup Print**
NozzleCheck	Nozzle check is performed. ☞**3.5.2 NozzleCheck**
Palette	Palette printing is performed. ☞**3.5.3 Palette Print**
Maintenance	Maintenance status printing is performed. ☞**3.5.4 Maintenance**

4.5.1.2 **MediaSet Menu**

Various settings on printing media can be set.

> **NOTE**

- If media that is not dedicated one (user media) is used, the following problems may occur.

    - Media detection error

    - Slant, snag and wrinkle of media

    - Media jams

    - Favorable printing quality cannot be obtained due to blots, blurs and dirt of ink.

    - End detection of roll media cannot be performed, etc.
      The problems caused by the use of user media will not be covered by the warranty and repair expenses will be paid by the customer.

Setup item	Setting value	Description

Media	MonoTrac
	Col.Trac
	Plain
	<Coat>
	Film
	Photo
	User1
	User2
	User3
	User4
		• Set the type of dedicated media for use.
		  Go to the next item.
		☞ **4.5.1.2.1 When dedicated media is set in Media item**
		• If media that is not dedicated one is used, use "User1" to "User4".
		  Go to the next item.
		☞ **4.5.1.2.2 When "User1" to "User4" is set in Media item**

CutSheetSize	Auto
	
	Auto
	
	<Vert.>
	
	Hori.
		Set a detection method of media size to set sheet media.
		• Auto: Size of length and breadth of sheet media are detected automatically.
		• Auto 2: Set this mode when the Auto mode fails to detect the media size.
		• Vert.: Set when fixed form sheet media are set vertically.
		• Hori.: Set when fixed form sheet media are set horizontally.
		
		⬭ TIP ▬▬▬▬▬▬
		
		• If you are using a cut sheet media other than the dedicated ones, set either Auto or Auto 2.
		• This printer can set the following fixed-form size sheet media
		  • RJ-901X
		    ISO series (A1, A2, A3, A4)
		    JIS series (B2, B3, B4, B5)
		    ARCH series (A, B, C, D)
		  • RJ-900X
		    ISO series (A0, A1, A2, A3, A4)
		    JIS series (B0, B1, B2, B3, B4, B5)
		    ARCH series (A, B, C, D, E)
		▬▬▬▬▬▬▬▬

MediaCheck	<On>
	
	Off
		Sets whether to detect the media before printing.
		• ON: Media detection is performed.
		• OFF: Media detection is not performed. Press the [Enter] key and set the media width for printing.
		  • RJ-901X: 150 mm to <594 mm> to 610 mm
		  • RJ-900X: 150 mm to <841 mm> to 1,143 mm
		
		⬭ TIP ▬▬▬▬▬▬
		
		• To change the media width, use the [+] and [-] keys. Press the [Enter] key to confirm.
		▬▬▬▬▬▬▬▬

Setup item	Setting value	Description
TopFeed	\<0 mm\> to 100 mm	At the beginning of printing, media feed is performed. Set for printing on roll media. **NOTE** • When Top Feed is set to 0 mm, media margin is 3 mm.
ManageRoll	\<Invalid\>	Management of remaining quantity of roll media is not performed.
	Roll1	Remaining quantity of roll media is set. It can be set within the range of 0 m to 99 m. Four types each can be set as "Roll1" to "Roll4".
	Roll2	
	Roll3	
	Roll4	
Cut RollTop	\<0 mm\> to 500 mm	At media initialization, media is cut by the set length.

4.5.1.2.1   When dedicated media is set in Media item

```
TIP
```

- When dedicated media is used, the setting of printing quality is set according to each media type.
  For the settings, refer to "**7.1.2 Printing operation specifications**".

Setup item	Setting value	Description
Effect	<None>	The Effect function is not used.
	Wave	The printing joint will be the wave form. The print quality may improve compared to "None".
	Fog	The printing joint will shade off. Set up this menu when obvious white lines or uneven print density appear on printed media in "Wave". This is a mode suitable for low resolution.
	Fine&Fuzz	The printing joint will shade off as the wave form. Performs the printing at slower speed than "Wave".
	Fine&Fog	The printing joint will shade off. Set this when there is horizontal unevenness in "Fine&Fuzz". Prints at a slower speed than "Fine&Fuzz".
	A-S. Fine&Wave	Performs "Wave" printing using the half of the print head nozzles. Since only the half of the print head nozzles are used, printing speed becomes a half of "Wave". Set up this menu to improve the print quality compared with "Fine&Fuzz". If used when one side of the nozzles is clogged, quality deterioration may be avoided.
	B-S. Fine&Wave	Performs "Wave" printing using the half of the print head nozzles on the opposite side of "A-S.Fine&Wave". Since only half of the print head nozzles are used, printing speed becomes a half of "Wave". Set up this menu to improve the print quality compared with "Fine&Fuzz". If used when one side of the nozzles is clogged, quality deterioration may be avoided.
RollCut	<On>	Sets whether to cut the media after printing. • ON: Automatically cuts the media after printing. • OFF: The media is not cut after printing.
	Off	

CutMethod	<2steps -Lo>[*1]	Sets the media cut method when using the roll media.
		• 2steps: Cuts the media twice.
		  • Hi/Lo: Changes the strength of cutting the media.
		• 3steps: Cuts the media three times.
		  • Hi/Lo: Changes the strength of cutting the media.
		
		[*1]:Default values differ depending on the media.
		  • Glossy paper: 2steps -Hi
		  • Other media: 2steps -Lo

	<2steps -Hi>[*1]	
	3steps -Lo	
	3steps -Hi	

Setup item	Setting value	Description
PF	Initial Print	Based on the printed adjustment patterns, enter the length and measured distance of the data as the set values. ☞**4.5.1.2.3 Media Feed Compensation Menu**
	Initial Change	
	Confirm Print	
	Micro Print	
	Micro Change	
AdjustPrint	Pattern A	Performs accuracy adjustment printing or adjusted value initialization. ☞**4.5.1.2.4 Adjust Print**
	Pattern B	
	Pattern C	
	Initial	

4.5.1.2.2   When "User1" to "User4" is set in Media item

Setup item	Setting value	Description
Condition	<Lines>	The printing quality is set according to the content of print data.
	Photo	• Lines: Printing is performed with proper quality for line drawings. • Photo: Printing is performed with proper quality for images.
PrintReso.	HS360dpi / 360dpi / <720dpi> / 1440dpi / 2880dpi	Set the resolution of the printing data.
Direction	UniDir	Set the operation direction of head during printing.
	<BiDir>	• UniDir: Printed in only one-way direction. • BiDir: Printed in two-way direction.
Effect	<None>	The Effect function is not used.
	Wave	The printing joint will be the wave form. The print quality may improve compared to "None".
	Fog	The printing joint will shade off. Set up this menu when obvious white lines or uneven print density appear on printed media in "Wave". This is a mode suitable for low resolution.
	Fine&Fuzz	The printing joint will shade off as the wave form. Performs the printing at slower speed than "Wave".
	Fine&Fog	The printing joint will shade off. Set this when there is horizontal unevenness in "Fine&Fuzz". Prints at a slower speed than "Fine&Fuzz".
	A-S. Fine&Wave	Performs "Wave" printing using the half of the print head nozzles. Since only the half of the print head nozzles are used, printing speed becomes a half of "Wave". Set up this menu to improve the print quality compared with "Fine&Fuzz". If used when one side of the nozzles is clogged, quality deterioration may be avoided.
	B-S. Fine&Wave	Performs "Wave" printing using the half of the print head nozzles on the opposite side of "A-S.Fine&Wave". Since only half of the print head nozzles are used, printing speed becomes a half of "Wave". Set up this menu to improve the print quality compared with "Fine&Fuzz". If used when one side of the nozzles is clogged, quality deterioration may be avoided.
ThinOut (Black)	5% to <100%>	The discharge of black ink during printing is adjusted to the media quality.
ThinOut (Color)	5% to <100%>	The discharge of color ink during printing is adjusted to the media quality.

Setup item	Setting value	Description
Stiffness	<Normal> Soft SuperSoft Frame	Depending on the stiffness of media, the power to absorb media to the printing board is set. • Normal: Set when general media is used. • Soft: Set when soft media is used and it fails to feed media during printing and there is likely to be media jams. • SuperSoft: Set when softer media is used and there is likely to be media jams in "Soft" setting. • Frame: Set when media which has a frame for reinforcement is used.
InkDryTimer	<0 s> to 270 s to 60 m	The discharge of color ink during printing is adjusted to the media quality.
RollCut	<On> Off	Sets whether to cut the media after printing. • ON: Automatically cuts the media after printing. • OFF: The media is not cut after printing.

CutMethod	<2steps -Lo>[1]
	<2steps -Hi>[1]
	3steps -Lo
	3steps -Hi
		Sets the media cut method when using the roll media.
		• 2steps: Cuts the media twice.
		  • Hi/Lo: Changes the strength of cutting the media.
		• 3steps: Cuts the media three times.
		  • Hi/Lo: Changes the strength of cutting the media.
		
		*1:Default values differ depending on the media.
		  • Glossy paper: 2steps -Hi
		  • Other media: 2steps -Lo

PF	Initial Print Initial Change Confirm Print Micro Print Micro Change	Based on the printed adjustment patterns, enter the length and measured distance of the data as the set values. ☞**4.5.1.2.3 Media Feed Compensation Menu**
AdjustPrint	Pattern A Pattern B Pattern C Initial	Performs accuracy adjustment printing or adjusted value initialization. ☞**4.5.1.2.4 Adjust Print** ☞**4.5.1.2.5 Initializing Adjust Print**

4.5.1.2.3   Media Feed Compensation Menu

This section describes media feeding.

The feeding length depends on the media type. The following or similar results may be seen in prints.

• Printed images overlap.

• White lines are printed over images, etc.

The following method may improve these problems.

1. Display the Media feed compensation menu on Operation panel.

   a. Press the [Menu] key on Operation panel.

      • "*Menu*   TestPrint" is displayed on Operation panel.

      • Operation panel shifts to the Setup menu display.

   b. Press the [>] key on Operation panel.

      • "*Menu*   Media Set>" is displayed on Operation panel.

   c. Press the [Enter] key on Operation panel.

      • "Type: Coated Media" is displayed on Operation panel.

   d. Press the [+] key or [-] key on Operation panel to select the media type to use.

   e. Press the [Enter] key on Operation panel.

      • "Effect: None" is displayed on Operation panel.

   NOTE

   • When using user media 1 to 4, "Condition: Lines" is displayed on Operation panel.

   f. Press the [>] key a few times on Operation panel and select "PF Adjust: Initial Print>".

      • Proceed to Media feed compensation menu.
        ☞**4.5.1.2.1 When dedicated media is set in Media item**
        ☞**4.5.1.2.2 When "User1" to "User4" is set in Media item**

2.   Performs Initial Adjust Print.

    a.   Press the [Enter] key on Operation panel.

       •   "Feed Length: 250 mm" is displayed on Operation panel.

> **TIP**
>
> • 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 compensation improves.
> To change the feeding length, press the [+] key or [-] key on Operation panel to change the set value.

    b.   Press the [Enter] key on Operation panel.

       •   "Printing" is displayed on Operation panel.

       •   Starts initial adjustment printing.

No.	Name
1	Feeding length
2	Media feeding direction

       •   When the initial adjustment printing is complete, the printer enters the Normal condition.

    c.   After the initial adjustment printing, cut the media.
      ☞**4.6.3 Cut media**

3.   Measure the distance between the two pluses (+) in the initial adjustment print using a ruler.

4. Set up Initial Adjust Change.

    a. Display the Media compensation menu on Operation panel in the same way as in Step 1.

    b. Press the [+] key or [-] key on Operation panel to select "PF Adjust: Initial Change".

    c. Press the [Enter] key on Operation panel.

        • "Init.: 250.0/250 mm" is displayed on Operation panel.

    d. Press the [+] key or [-] key on Operation panel and enter the measured value in step 3.

    e. Press the [Enter] key on Operation panel.

        • The initial adjustment value is saved.

        • "PF Adjust: Initial Change" is displayed on Operation panel.

5. Performs Confirm Print.

    a. Press the [+] key or [-] key on Operation panel to select "PF Adjust: Confirm Print ".

    b. Press the [Enter] key on Operation panel.

        • "Feed Length: 250 mm" is displayed on Operation panel.

    TIP

• 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 compensation improves.
To change the feeding length, press the [+] key or [-] key on Operation panel and change the set value.

    c.   Press the [Enter] key on Operation panel.

       •   "Printing" is displayed on Operation panel.

       •   Starts confirmation adjustment printing.

No.	Name
1	Feeding length
2	Media feed direction

       •   When the Confirm Print is complete, the printer enters the Normal condition.

    d.   After the confirmation adjustment printing, the media is cut.
       ☞**4.6.3 Cut media**

6. Measure the distance between the two pluses in the confirmation adjustment print using a ruler. Then, confirm that the distance matches the feeding length when printing.

    a.   If the distance does not match the feeding length, follow the procedure from Steps 1 to 5 to readjust.

    b.   If the distance matches the feeding length, proceed to step 7.

7. Performs Micro Adjustment Print.

  a. Display the Media compensation menu on Operation panel in the same way as in Step 1.

  b. Press the [+] key or [-] key on Operation panel to select "PF Adjust: Micro Print".

  c. Press the [Enter] key on Operation panel.

   • "Printing" is displayed on Operation panel.

   • Starts micro adjustment printing.
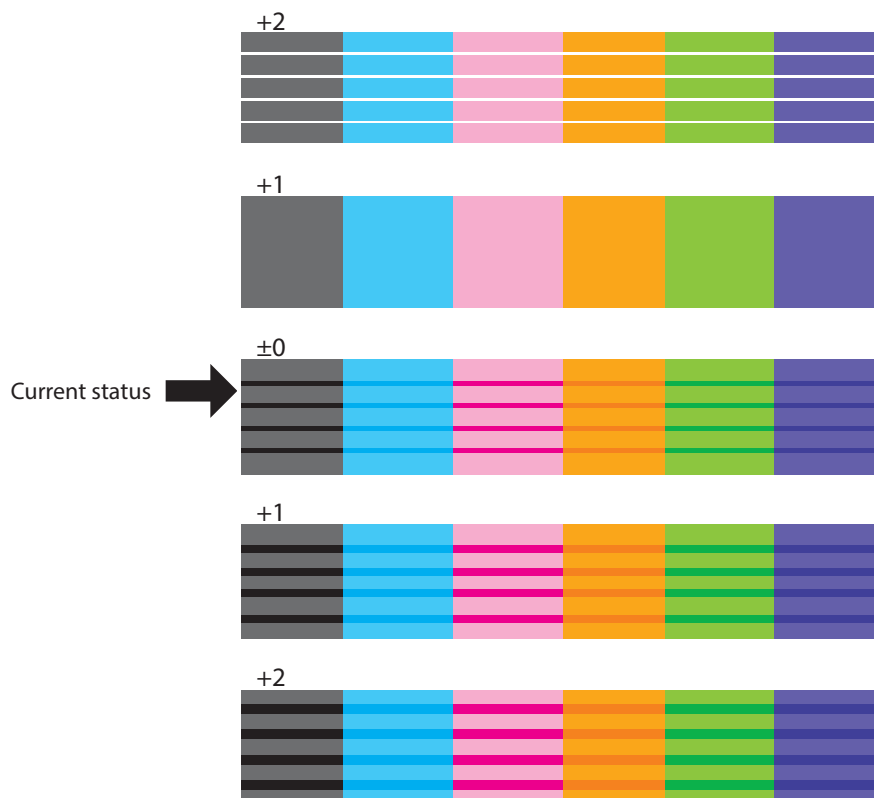
  • After micro adjustment printing is completed, "PF Adjust: Micro Print" is displayed on Operation panel.

8. Refer to the illustrations below and check the printing result.

Enter the correction value
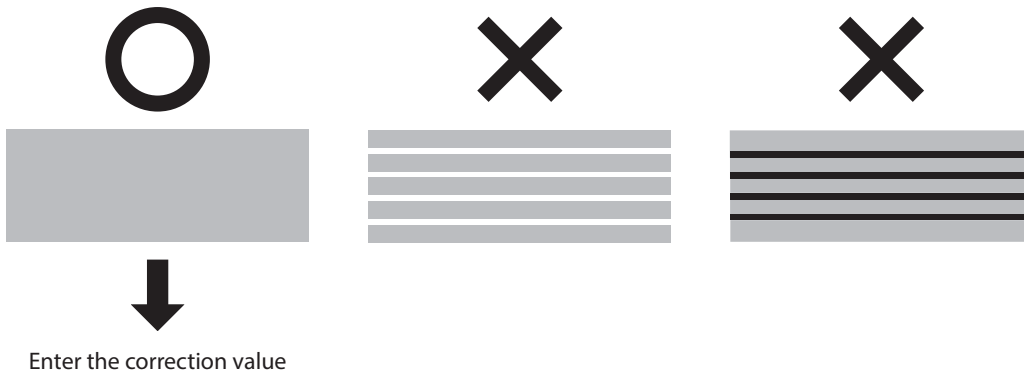
9. Sets up Micro Adjustment Change.

a. Press the [+] key or [-] key on Operation panel to select "PF Adjust: Micro Change".

b. Press the [Enter] key on Operation panel.

•   "Micro: 0 pulse" is displayed on Operation panel.

c. Press the [+] key or [-] key on Operation panel and enter the micro adjustment value according to the printing result in Step 7.
    The optimum adjusted value has the least white lines or overlapping images. Use the number on the top left of the printing result as the adjusted value.± 0 indicates the current status. For the illustration in the step 7, +1 is the optimum adjusted value.

d. Press the [Enter] key on Operation panel.

•   The micro adjustment value is saved.

•   "PF5: Micro Change is displayed on Operation panel.

10. Press the [Menu] key on Operation panel.

•   Operation panel returns to the Normal condition.

•   This completes the media feed compensation value adjustment.

4.5.1.2.4   Adjust Print

Adjusts to optimize print quality.

Required adjust pattern varies depending on the media type setting, color setting, and print mode.

•   When using various media settings or customizing the print settings in the printer driver and so on: Print all adjust patterns A to C.

•   When using the same media setting: Refer to the chart below and print a necessary adjust pattern.

Media type setting	Color setting	Print Mode	Pattern A	Pattern B	Pattern C
MonoTrac.	Common to monochrome and color	High speed	-	-	○
		Standard	-	○	-
		High quality	○	-	-
Col.Trac	Common to monochrome and color	High speed	-	○	-
		Standard	○	-	-
		High quality	○	-	-
Plain	Common to monochrome and color	High speed	-	-	○
		Standard	-	○	-
		High quality	○	-	-
Coat	Common to monochrome and color	High speed	-	○	-
		Standard	○	-	-
		High quality	○	-	-
Film	Monochrome	Common to High speed/ Standard/High quality	○	-	-
	Color	High speed	-	○	-
		Standard	○	-	-
		High quality	○	-	-
Photo	Common to monochrome and color	Common to High speed/ Standard/High quality	○	-	-
User media 1 to 4	-	-	Refer to the following chart		

- Adjust patterns corresponding to the user media 1 to 4.

Print resolution setting	Pattern A	Pattern B	Pattern C
HS360dpi	-	-	○
360dpi	-	○	-
720dpi	○	-	-
1440dpi	○	-	-
2880dpi	○	-	-

Follow the procedure below to adjust print quality.

1. Turn the printer ON and set the media that is bigger than A3 size.
   ☞**3.4.2 Loading roll media**
   ☞**3.4.3 Loading sheet media**

2. Display the Micro adjustment menu on Operation panel.

   a. Press the [Menu] key on Operation panel.

      - "*Menu* Test Print>" is displayed on Operation panel.

      - Operation panel shifts to the Setup menu display.

   b. Press the [>] key on Operation panel.

      - "*Menu* Media Set>" is displayed on Operation panel.

   c. Press the [Enter] key on Operation panel.

      - "Type: Coated Media" is displayed on Operation panel.

   d. Press the [+] key or [-] key on Operation panel to select the media type to use.

   e. Press the [Enter] key on Operation panel.

      - "Effect: None" is displayed on Operation panel.

   ╔══ NOTE ══╗ ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

   - When using user media 1 to 4, "Print Quality: Drawing" is displayed on Operation panel.

   ━━━

   f. Press the [>] key a few times on Operation panel and select "PF Adjust: Pattern A".

      - The display enters the Micro adjustment menu.

3. Press the [+] key or [-] key on Operation panel to select one of the following items for printing.
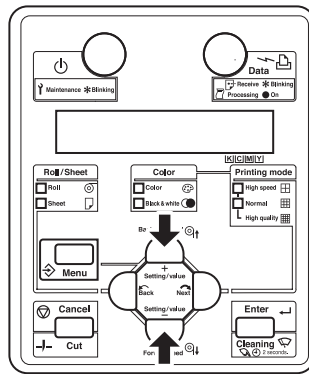
- • Pattern A: Prints Adjust pattern A.

- • Pattern B: Prints Adjust pattern B.

- • Pattern C: Prints Adjust pattern C.

- • Initialization: Initializes the adjusted value for the selected item.
  ☞**4.5.1.2.5 Initializing Adjust Print**

4. Press the [Enter] key on Operation panel.
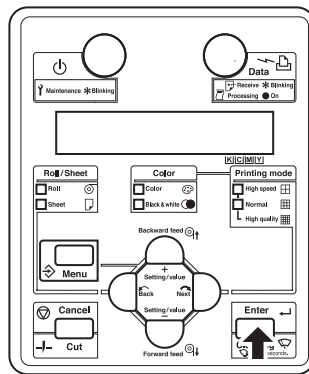
- • "Head Height: Low" is displayed on Operation panel.

5.   Press the [+] key or [-] key on Operation panel to select the head height from "Low" or "High".
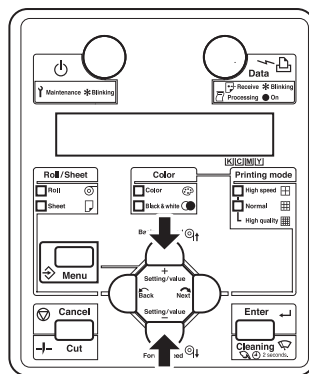
6. Press the [Enter] key on Operation panel.
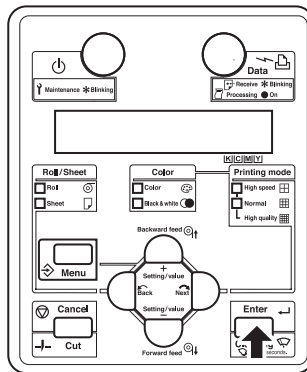
• Start printing the selected adjust pattern.

NOTE

• If the selected head height differs from the actual height, a message to change the head height is displayed.Printing starts after the head height has been changed.

☞**4.2.5 Head height adjustment**

7. Check the print results on both sides and center of the media and select the number that looks most aligned.4 is selected in the next printing sample.
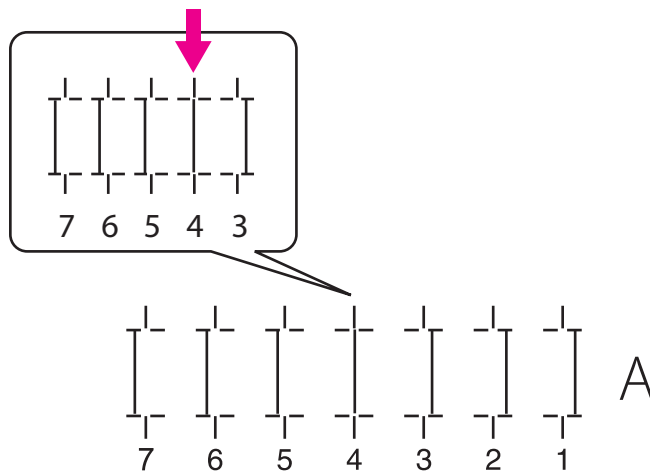
8.   Press the [+] key or [-] key on Operation panel and enter the number selected in step 7.
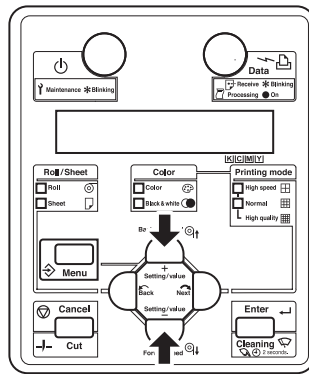
9.   Press the [Enter] key on Operation panel.
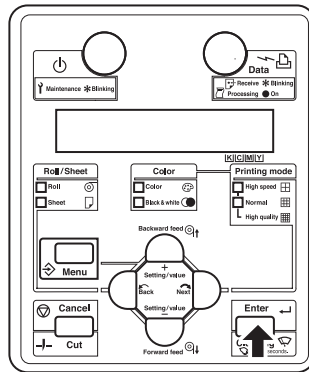
- •   To print other patterns, repeat the procedure from step 1.

- •   This completes print micro adjustment.

4.5.1.2.5   Initializing Adjust Print

Follow the procedure below to initialize print micro adjustment.

1. Display the Micro adjustment menu on Operation panel.

   a. Press the [Menu] key on Operation panel.

      • "*Menu*   Test Print>" is displayed on Operation panel.

      • Operation panel shifts to the Setup menu display.

   b. Press the [>] key on Operation panel.

      • "*Menu*   Media Set>" is displayed on Operation panel.

   c. Press the [Enter] key on Operation panel.

      • "Type: Coated Media" is displayed on Operation panel.

   d. Press the [+] key or [-] key on Operation panel to select the media type to use.

   e. Press the [Enter] key on Operation panel.

      • "Effect: None" is displayed on Operation panel.

NOTE

• When using user media 1 to 4, "Print Quality: Drawing" is displayed on Operation panel.

   f. Press the [>] key a few times on Operation panel and select "PF Adjust: Pattern A".

   • The procedure moves on to the Micro adjustment menu.

2. Press the [+] key or [-] key on Operation panel to select "Initialize".
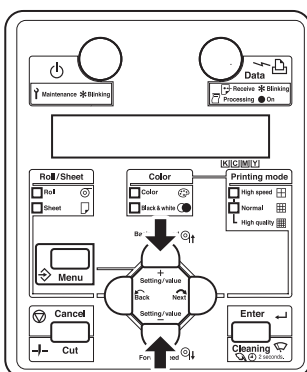
3. Press the [Enter] key on Operation panel.
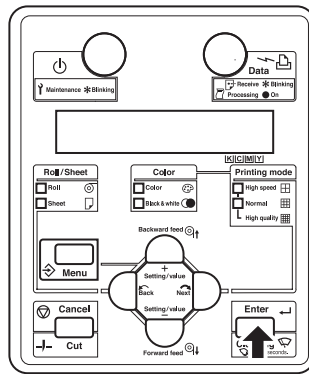
• "Init: Pattern A" is displayed on Operation panel.

4. Press the [+] key or [-] key on Operation panel to select the pattern to initialize.
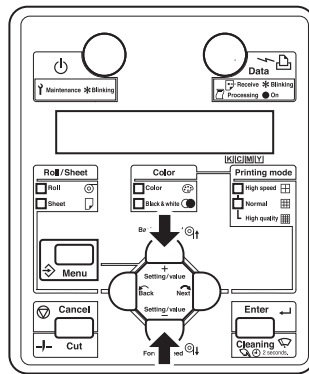
• "Head Height: Low" is displayed on Operation panel.

5. Press the [+] key or [-] key on Operation panel to select the head height from "Low" or "High".
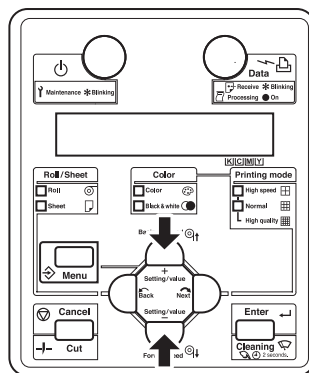
6. Press the [Enter] key on Operation panel.
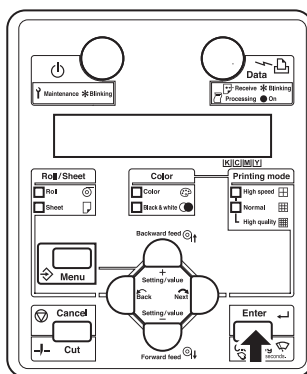
- • Initializes the selected adjusted value.

- • To initialize other adjusted values, repeat the procedure from step 1.

- • This completes adjusted value initialization.

4.5.1.3   **Command Menu**

Various condition setup of printer command is performed.

Setup item	Setting value	Description
Command	<MH-GL, GL/2>	Condition setup of printer command which is sent from a PC to the printer is performed.
	MH-GL/2	
Origin	<Center>	• Origin point of print data is set.
	LL	• Center: Center of hard clip • LL: Bottom left point of hard clip
Step	<0.025 mm>	The step of software resolution at printing is set.
	0.010 mm	
Position	<P1>	The initial print position on printing is set.
	LL	• P1: Initial point of scaling • LL: Bottom left point of hard clip
	Full	• Full: Bottom left point of media
Terminator	Normal	The function at the print finish time on printer command included in print data is set.
	<Special>	• Normal: Only the primary function of printer command is used. • Special: SP0; (SP;) command is recognized as the finish of data.
ImageReso.	300 dpi / <360 dpi> / 600 dpi / 720 dpi / 1200 dpi / 1440 dpi	The resolution when printing image data is set.
OnlineTimer	Off	The time from the break of receiving print data from PC to recognize the finish of print data is set.
	2 s to <30 s> to 800 s	
Merge	<Last>	Sets the printing method for overlapping area in the printing data.
	Mix	
Quality	<ThinLine>	Sets the priority given on figures for printing in the printing quality on printing.
	FillIn	

NOTE

• When the Command item on Command Menu is set to "MH-GL/2", the following setting of the setup item becomes disabled.

    • Origin Menu

    • For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

4.5.1.4 **PenSetup Menu**

Various settings on the pen used for printing can be set.

Setup item	Setting value	Description
PenPrior.	Panel	For pen setup (width, color, tone), it specifies which setup should be given priority, from panel or from command. When "Panel" is set, it proceeds to the next setup item. ☞ **4.5.1.4.1 When "panel" is set in the PenPrior. item.**
	<Command>	
PenTone	Valid	The pen tone setting for each pen number can be enabled or disabled.
	<Invalid>	

NOTE

• For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

TIP

• To perform monochrome binary printing (black/white), set the color mode of the panel to "Monochrome", the pen tone to "Effective", and each pen tone to "100%".

4.5.1.4.1   **When "panel" is set in the PenPrior. item.**

Setup item	Setting value	Description

Pen0Width to Pen15Width	0.10 mm / 0.13 mm / 0.18 mm / 0.25 mm / 0.35 mm / 0.50 mm / 0.60 mm / 0.70 mm / 0.80 mm / 0.90 mm / 1.00 mm	Pen width (line width) to the pen number of print data received from a PC is set.
		
		 NOTE
		
		 • Initial settings of pen width to pen number are as follows.
		   • Pen0: 0.25 mm
		   • Pen1: 0.10 mm
		   • Pen2: 0.13 mm
		   • Pen3: 0.18 mm
		   • Pen4: 0.25 mm
		   • Pen5: 0.35 mm
		   • Pen6: 0.50 mm
		   • Pen7 to Pen15: 0.25 mm

Pen0Color to Pen15Color	0 / 1 / 2 / 3 / 4 / 5 to 255 (when color is set)	Pen color (line color) to pen number of print data received from a PC is set.
		
		 NOTE
		
		 • Initial settings of pen color to pen number are as follows.
		   • Pen 0: 0 Pen 1: 1 Pen 2: 2 Pen 3: 3 ... Pen 15: 15
		   • Check the correspondence between pen numbers and colors with palette print sample. ☞**3.5.3 Palette Print**

Pen0Tone to Pen15Tone	0% / 10% / 20% to 100% (when black & white is set)	Pen color (line color) to pen number of print data received from a PC is set. **NOTE** • Initial settings of pen tone to pen number are as follows. • Pen0 to Pen15: 100 %

Setup item	Setting value	Description
All Width	0.10 mm / 0.13 mm / 0.18 mm / 0.25 mm / 0.35 mm / 0.50 mm / 0.60 mm / 0.70 mm / 0.80 mm / 0.90 mm / 1.00 mm	All Width are set to the same setting.
All Color	0 / 1 / 2 / 3 / 4 / 5 to 255 (when color is set)	All Color are set to the same setting.
All Tone	0% / 10% / 20% to 100% (when pen tone is enabled)	All Tone are set to the same setting.

4.5.1.5 **Layout Menu**

Various settings on the layout function can be set.

Setup item	Setting value	Description
Layout	On	Enable or disable the layout function.
	<Off>	
LayoutMehod	MAX-MIN	Layout method of print data is set.
	<Command>	• Command: When there is a page size specified command in print data, media size is decided from the area specified by the command and data is placed. • MAX-MIN: Regardless of the coordinate origin and page size specified command, decide which media size can hold the data from the max value (MAX) and minimum value (MIN) of real data and place the data with fitting the center of area into the center of media.
Margin	<Normal>	The decision method on which media size can hold, based on the origin of data about layout of print data, is set.
	Full	• Normal: The size of print data is decided from the printable area of media. Some print data might be printed on one size larger media than the media set with CAD. • Full size: The size of print data is decided from the set media size. Print content of some print data might be broken on the way.
CutLine	On	When more than one print data is located in the same page, it sets whether borders of the data are printed or not.
	<Off>	
LayoutTimer	Off	The idle time from the break of receiving print data from PC to output print data is set.
	10 s to <120 s> to 800 s	

NOTE

- Layout function is the function which automatically determines the size of print data sent from a PC and print it after locating on the roll media without futility.

- When the Layout item is set to "On", locate print data as per the following example.

    (example) When the data is received in order of 1) A3 →2) A2 → 3) A3, layout as shown in the right drawing. Actual printing is performed in order of 2) A2 → 1), 3) A3 data.
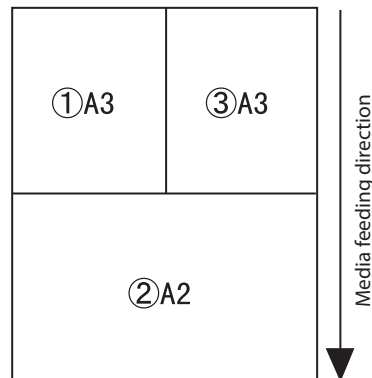
- When the Layout item is set to "Off", print is performed sequentially after receiving print data.

- When sheet media is set, the layout function becomes disabled.

- The layout function might not become enabled depending on print data.

- For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

4.5.1.6 **Function Menu**

Various settings on the process of print data can be set.

Setup item	Setting value	Description
Scale	25% to <100%> to 400%	Scaled or trimmed factor of print data is set. **NOTE** • If raster data including extremely thin line is printed by changing the scale, the data might not be printed properly. In this case, print it by setting the scale to 100%.
Mirror	<Off>	The function which mirror print data to each direction of X axis and Y axis and prints the data is set.
	X On	
	Y On	
	XY On	
Rotation	<0°>	The function which rotates print data to the direction of counterclockwise and prints the data is set.
	90°	
	180°	
	270°	

NOTE

• For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

4.5.1.7 **Network Menu**

Various settings on network interface can be set.

Setup item	Setting value	Description
IPaddress	0.0.0.0 to <192.168.1.253> to 255.255.255.225	IP address of the printer is set.
SubnetMask	0.0.0.0 to <255.255.255.0> to 255.255.255.225	Subnet mask of the printer is set.
Gateway	0.0.0.0 to <192.168.1.254> to 255.255.255.225	IP address of the gateway to which the printer connects is set.
BiDir Port	1024 to <10610> to 49151	Port number of bidirectional port in the printer is set. The same port number as the number which was set at installation of printer driver is set.
MAC Address	Display only	Display the MAC address.

NOTE

- For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

4.5.1.8 **Utility Menu**

Various settings on the advanced function of the printer can be set.

Setup item	Setting value	Description
Version	-	Displays the firmware version.
Serial No.	-	Display the serial number.

MenuMask	<Normal>
	OFF
	AlwaysOFF
		The display item on the setup menu is set.
		• Normal: The following setup item is displayed.
		  • TestPrint Menu
		  • MediaSet Menu
		  • Layout Menu
		  • Network Menu (excluding the BiDir Port item)
		  • Utility Menu (excluding the Initial item)
		  • Consumption Menu
		• OFF: All setup item is displayed until turning the power OFF.
		• AlwaysOFF: All setup item is always displayed.

ErrorDisplay	On <Off>	The display method to the operation panel when the slight error has occurred is set.
Initial	Yes <No>	The setting is returned to default. When "Yes" is set, it proceeds to the next setup item. ☞ **4.5.1.8.1 When "Yes" is set at the Initial item**
Data Dump	Start/End All	Dump print for checking online function is performed. (**NOTE**) • The dump print function should only be used by our service personnel to check the printer's functions. Do not use it for normal print.
CutterChange	<No> Yes	Cutter change handling is performed. (**TIP**) • For cutter change procedure, refer to "**5.1.3 Replacing razor blade**".
On Cleaning	On <Off>	Set whether cleaning is performed automatically or not when the power is turned ON.

Setup item	Setting value	Description
Prefeed	\<Data\> Manual Off	Make settings for the pre-feed operation. • Data: Performs front feeding and back feeding by the amount of print data. Loosening the roll media may decrease uneven media feeding. • Manual: Performs front feeding and back feeding by the amount set in "Pre-feed Amount Menu". Loosening the roll media may decrease uneven media feeding. ☞**4.5.1.8.2 Pre-feed Amount Menu** • OFF: Front feeding and back feeding are not performed.
AutoCL	Waiting Time Printing Time Before Print	If you make the settings for situation and time, cleaning is performed automatically. • Waiting Time: Make the setting for auto-cleaning in standby mode. ☞**4.5.1.8.3 Idle Auto Cleaning** • Printing Time: Make the setting for auto cleaning during printing. ☞**4.5.1.8.4 Printing Mode Auto Cleaning** • Before Printing: Make the setting for auto cleaning before printing. ☞**4.5.1.8.5 Pre-printing Mode Auto Cleaning**
Spitting	\<On\> On Media Off	Sets up the spitting operation while printing. **NOTE** • 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. • During the spitting operation, a small amount of ink is discharged from Print head. • ON: Perform the spitting operation on Spitting box located on the origin side for every shuttle of the print head. ☞**4.5.1.8.7 Spitting Pass Count Menu** • On Media: Perform the spitting operation on the page margins. The printing speed will improve since the number of time returning to Spitting box is reduced. ☞**4.5.1.8.7 Spitting Pass Count Menu** • OFF: Spitting operation is not performed.

Setup item	Setting value	Description
Take-up	<Off>	Set whether to use Take-up unit.
	On	• Off: Take-up unit is not used. • On: Use Take-up unit. **NOTE** • If Take-up unit is set to ON, the printer operation complies with Take-up unit.
Ink Capacity (K/C/M/Y)	<110 ml>	Make settings for the ink amount per color (K/C/M/Y).Make the setting based on the amount of ink cartridges you are using.
	220 ml	• 110 ml: 110 ml ink cartridges are used. • 220 ml: 220 ml ink cartridges are used.
Language	Japanese	Select the language to display on Operation panel.
	<English>	
	German	
	French	
	Italian	
	Spanish	
	Dutch	
	Portuguese	

NOTE

• When set to "Normal" on the MenuMask Menu, the Initial Menu will not be displayed.

• For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

4.5.1.8.1   When "Yes" is set at the Initial item

Setup item	Setting value	Description
All	Yes	All settings can be returned to factory default.
	<No>	
Paper	Yes	The settings of the MediaSet Menu is returned to factory default.
	<No>	
Command	Yes	The settings of the Command Menu is returned to factory default.
	<No>	
Pen	Yes	The settings of the PenSetup Menu is returned to factory default.
	<No>	
Layout	Yes	The settings of the Layout Menu is returned to factory default.
	<No>	
Function	Yes	The settings of the Function Menu is returned to factory default.
	<No>	
Network	Yes	The settings of the Network Menu is returned to factory default.
	<No>	

4.5.1.8.2   Pre-feed Amount Menu

Performs front feeding and back feeding by the set amount.Loosening the roll media may decrease uneven media feeding.

Setup item	Setting value	Description
Prefeed amount	<OFF> / 0mm to 3,000 mm	Make settings for the pre-feeding amount

4.5.1.8.3   Idle Auto Cleaning

Select the time until auto cleaning is in standby mode.

Setup item	Setting value	Description
Waiting Time	0 min to 10 min to <360 min> to 1,440 min	Sets the time for auto cleaning in Waiting Time mode. • 0 min: Auto cleaning is not performed. • Other: Set the time, and then proceed to the next setting item. ☞**4.5.1.8.6 Cleaning Types**

4.5.1.8.4   Printing Mode Auto Cleaning

Select the interval for auto cleaning during printing.

Setup item	Setting value	Description
Printing Time	<0 min> to 5 min to 180 min	Select the interval for auto cleaning during printing. • 0 min: Auto cleaning is not performed. • Other: Set the time, and then proceed to the next setting item. ☞**4.5.1.8.6 Cleaning Types**

4.5.1.8.5   Pre-printing Mode Auto Cleaning

Select whether to perform auto cleaning before printing.

Setup item	Setting value	Description
Before printing	< Off> On	• Off: Auto cleaning is not performed. • On: Performs auto cleaning before printing. Go to the next setting item. ☞**4.5.1.8.6 Cleaning Types**

4.5.1.8.6   Cleaning Types

Select the type for auto cleaning.

Setup item	Setting value	Description
Time	<Short> Normal Long	• Short: Discharges smaller amount of ink compared to Normal. • Normal: Select this mode normally. • Long: Discharges a larger amount of ink compared to Normal.Used when Print head does not improve by normal head cleaning.

4.5.1.8.7   Spitting Pass Count Menu

Set the intervals that Print head returns to Spitting boxes when "On" or "On Media" is set in Spitting menu. Print head returns to Spitting box for every shuttle per the set number.

NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- If the number of spitting returns is set high, the spitting operation is not done on Spitting box. Therefore there is a higher chance of nozzle clogging when printing for a long time.In such a case, print quality cannot be guaranteed.

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Setup item	Setting value	Description
ReturnCount	<1 time> to 999 times	Set the spitting return count.

4.5.1.9   **Consumption Menu**

Utilization status of printer components is displayed.
Take it into consideration for the component replacement.

Setup item	Setting value	Description
Remain Ink K	0 to 100%	Residual quantity of each color is displayed. "Ink End" error is displayed at 0%.
Remain Ink C	0 to 100%	
Remain Ink M	0 to 100%	
Remain Ink Y	0 to 100%	
Remain Roll	**m	Residual quantity of roll media is displayed. It is displayed when it is set on roll media management menu.
RemainWasteTank	0 to 100%	Residual quantity in waste tank is displayed. Waste fluid quantity in the box becomes full at 0%.
RemainCutterLif.	0 to 100%	The life of cutter is displayed. The lifespan of the parts is reached at 0%.

NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━

- Do not take out or insert ink cartridge while the printer is turned ON. If doing so, the ink residual quantity is not correctly detected and the printing cannot be done.

- Do not keep using the parts which have reached the lifespan without changing. The problems caused by doing so will not be covered by the warranty.

- For the operation of the setting menu, refer to "**4.5.2 Menu Setup Procedure**".

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4.5.1.10   Cleaning Menu

Performs head cleaning.

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┌─  NOTE  ─┐ ━━━━━━━━━━━━━━━━━━━━━━━━━━━━━━
```

- Head cleaning can be operated when the printer is in the Normal condition.
  Refer to the following for operation procedures.
  ☞**5.2.3 Head cleaning**

Setup item	Description
Short	Discharges smaller amount of ink compared to "Normal".
Normal	Select this mode normally.
Long	Used when Print head does not improve by "Normal".
Longer	Used when Print head does not improve even if perform "Long" head cleaning several times. • Consumes a lot larger amount of ink than "Long". • The cleaning effect is much higher than "Long".

4.5.2　Menu Setup Procedure

Follow the procedure below to configure each setup menu.

1. Confirm that Operation panel is in the Normal condition.

2. Press the [Menu] key on Operation panel.
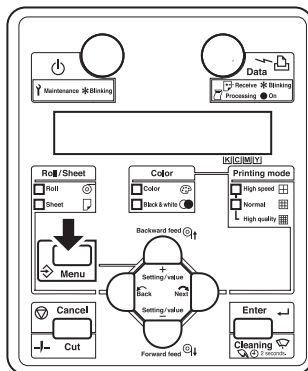
-   "*Menu*　Test Print>" is displayed on Operation panel.

-   Operation panel shifts to the Setup menu display.

3. Press the [<] key or [>] key on Operation panel to select a setup item and press the [Enter] key.
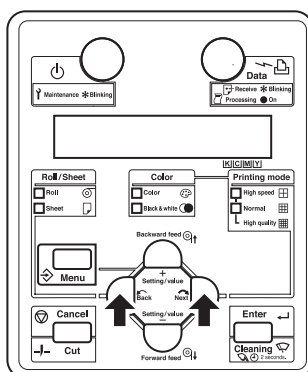
-   The settings will be confirmed.

-   When the setup item has a submenu, the display shifts to the next menu.

NOTE

-   When a setup item has a submenu, ">" is displayed on the right end of LCD monitor of Operation panel.

-   For details on each setting item, refer to "**4.5.1　Setup menu items**".

4. You can change the set value that is blinking on LCD monitor of Operation panel.
   Press the [+] key or [-] key on Operation panel to change the set value.
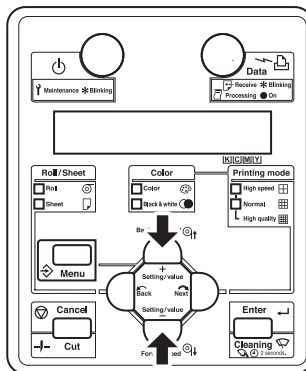
5. To save the changed set value, press the [Enter] key on Operation panel.
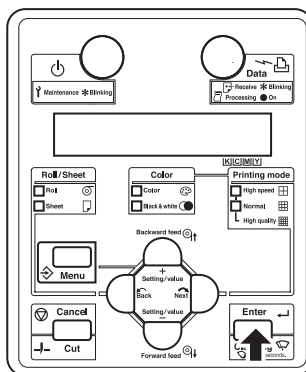
• The set value is saved and the next setting item is displayed.

NOTE

• If you press the [Cancel] key, [+] key or [-] key without pressing the [Enter] key after changing a set value, the change will not be saved.

6. Press the [Menu] key or [Cancel] key on Operation panel to exit from the setup.
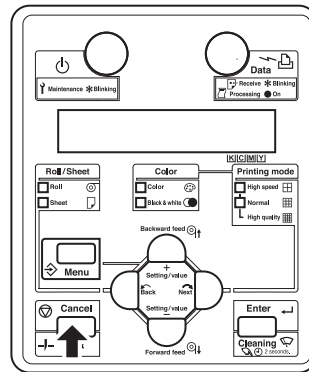
- The previous setup menu is displayed.

- When the main menu is displayed, the screen returns to the Normal condition.

4.6   Operating from the operation panel

Various functions which can be operated from operation panel are described.

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 TIP
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- For names and functions of each key, refer to "**2.2.5 Operation panel**".

4.6.1   Media feed

When roll media is set, it can be fed to any position.
According to the following procedure, feed media.

```
 NOTE
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- When sheet media is set, even if the [Forward feed ↓] key or [Backward feed↑] key on the operation panel is pressed, media feed cannot be performed.

1.   Check that the operation panel is Normal.

2.   Check that the media loading lever is returned to the front side.

3.   Press the [Forward feed↓] key or [Backward feed↑] key on the operation panel.
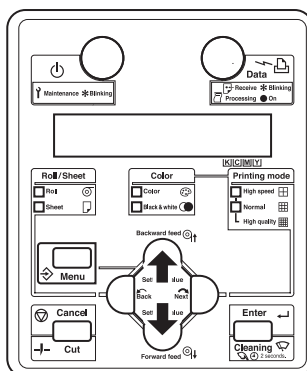
-     Media is fed forward or backward.

4.   Release the [Backward feed ↑] key or [Forward feed ↓] key on the operation panel after feeding media to the desired position.

4.6.2 **Stopping printing operation**

If you want to stop printing operation for some reasons, operate as follows.

1. Press the [Cancel] key on the operation panel.
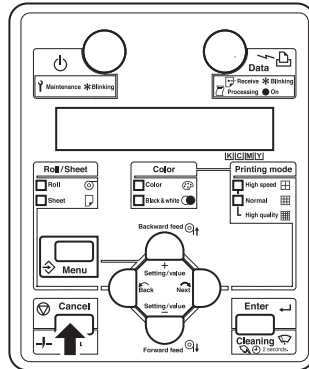
- • The printer operates as follows.

Printer Status	Operation with the [Cancel] key pressed
Printing	Terminate printing and delete a file of the data that remains in the printer.
Receiving, analyzing	Delete the received and analyzed data, and delete a file of subsequent data.
Ink dry timer wait	Release ink dry timer wait, and eject media.

4.6.3 **Cut media**

When the printer prints on roll media, it cuts media automatically after printing.
Roll media can be cut at any position.
According to the following procedure, cut roll media.

1. Check that the operation panel is Normal.

2. Check that the media loading lever is returned to the front side.

3.   Press the [Cut] key on the operation panel.
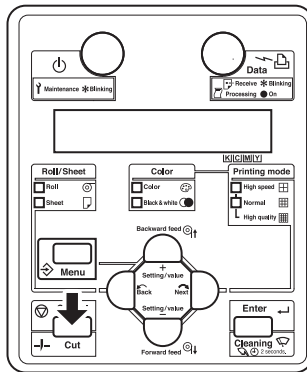
- Roll media is fed forward about 90 mm and cut at media cut position.
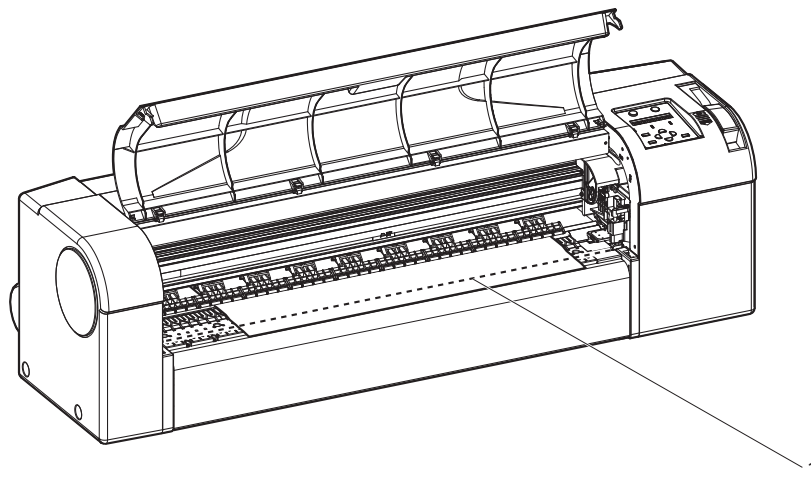
No.	Name
1	Media cut position

NOTE

- If it is not straight when loading the new roll media, cut the front edge of the roll media.

- If "Cut length at the top" in "**4.5.1.2 MediaSet Menu**" is set, the media is cut at the length that was set at the media initialization.

- The razor blade is replaceable. Following the instructions described in "**5.1.3 Replacing razor blade**", periodically replace it.

4.6.4   **Print mode selection**

According to the proper quality and print speed, the following print mode can be set.

Print mode	Feature
High speed color	Set to give priority to the print speed. Use for checking print.
High speed black & white	
Normal color	Set to give priority to the print quality. Use it when high accuracy is required for the result like formal print out.
Normal black & white	
High-quality color	Set to make the print quality higher than the normal color or normal black & white.
High-quality monochrome	

According to the following procedure, select the print mode.

1. Check that the operation panel is Normal.

2. Press the [Next] key on the operation panel.
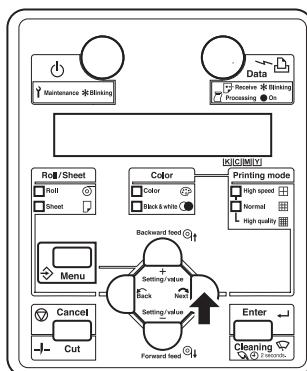
• The selected printing mode lamp is turn on (green).

NOTE

• When printing using the printer driver, the setting made on the printer driver is given priority over the setting set from Operation panel.For setting the printer driver, refer to "**4.4 Setting the printer driver**".

TIP

• For details of print mode, refer to "**7.1.2 Printing operation specifications**".

4.6.5   Changing Media Feed Compensation

During operation such as while printing, you can change the set value for media feed compensation.

Follow the procedure below to change the set value for media feed compensation.

1. Confirm that the printer is in one of the following conditions.

    •   Receiving data

    •   Analyzing data

    •   Printing

2. Press the [Menu] key on Operation panel.
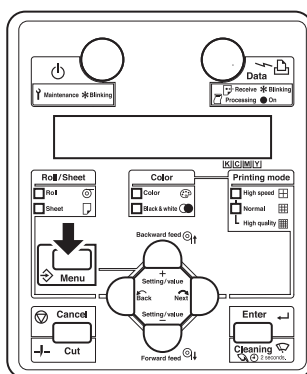
    •   "Micro: XXpulse"(XX is a value) is displayed on Operation panel.

3. Press the [+] key or [-] key on Operation panel to change the set value.
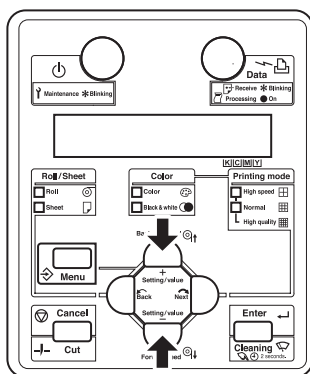
NOTE

• When a setting is saved during operation, be sure to select "Backup" to save the setting that you have changed.
  If the printer returns to the Normal condition without "Backup" being selected, the changed setting is not saved.

Setup item	Setting value	Description
PF Adjust	-20 pulse to 0 to 20 pulse	Change the feed adjustment value.
Backup	-	Press the [Enter] key to save the setting.

4.6.6   Pausing Printing

It is possible to make a pause during printing.

Follow the procedure below to pause or restart printing.

NOTE

• If the printing is paused, the print quality can not be guaranteed.

1. Check that the printer is in operation.

2. Press the [-] key on Operation panel.
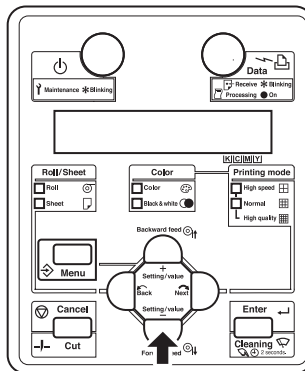
• The printer pauses printing.

• "PrintRestart -> ENTER" is displayed on Operation panel.

3. To restart printing, press the [Enter] key on Operation panel.

5   Maintenance

This chapter describes the daily maintenance of the product.

5   Maintenance

5.1　**Replacing consumable components**

This section describes the replacement time and steps of ink cartridge, roll media, razor blade, waste fluid box and flushing box sponges.

5.1.1　**Replacing ink cartridges**

This sub-section describes the replacement time and steps of ink cartridges.

（1）Replacement time

a.　If the operation panel displays "[***] InkNearEnd". This message will be displayed when the ink in the ink cartridge gets low.

- You can check which color is nearing the end with the indicator on Operation panel.
  ☞**2.2.6 Indicator Display**

- Prepare the ink cartridge for replacement.

b.　 If the operation panel displays "[***] Ink End".

- This message will be displayed when the ink in the ink cartridge runs out.

- You can check which cartridge needs replacing with the indicator on Operation panel.
  ☞**2.2.6 Indicator Display**

- Immediately replace with a new ink cartridge.

───(**NOTE**)────────────────────

- [***] represents the ink color. For details, refer to "**2.2.6 Indicator Display**".
  If an error occurs on all ink colors, an error message will be displayed without alphabetic code.

- Do not insert or remove the ink cartridge except at the time of replacement. Inserting or removing the ink cartridge mixes the air within the ink tubing and failures such as nozzle detachment may occur.

- If "[***] Ink End" appears, printing cannot be performed until the new ink cartridge is inserted.

- If there is no cartridge for replacement at hand, leave the empty ink cartridge inserted to the printer. Leaving the ink cartridge removed from the printer may result in a clogging head.

─────────────────────────────

（2）Type

Our genuine ink cartridges that can be used for the printer are as follows.

Description	Model No.
Ink cartridge K (Black: 110 ml)	RJ9-INK BK
Ink cartridge C (Cyan: 110 ml)	RJ9-INK C
Ink cartridge M (Magenta: 110 ml)	RJ9-INK M
Ink cartridge Y (Yellow: 110 ml)	RJ9-INK Y

NOTE

- Use the genuine ink cartridge for replacement.
  This printer has been adjusted for use of genuine ink cartridges. In case of using ink cartridge which is not a product of the original manufacturer,

- Printing might become blurred and end of ink in the cartridge might no longer be correctly detected.

- The problems caused by doing so will not be covered by the warranty and repair expenses will be paid by the customer.

（3）Replacing steps

Replace ink cartridges in accordance with the following steps.

⚠ CAUTION

- Wear protective equipment (gloves, goggles or eye protection, protective mask, protective clothing) when handling ink cartridge. If the ink gets into the eyes or sticks to the skin, immediately wash off with water. It might possibly cause irritation and light inflammation of eyes. In case of any abnormality, consult the physician immediately.

- Do not disassemble the ink cartridge. If disassembled, there is a possibility that the ink might come into contact with eyes or skin.

NOTE

- Do not give ink cartridges strong shake. Doing so may cause ink leakage.

- Do not disassemble the ink cartridge. A disassembled ink cartridge cannot be used.

- When the ink cartridge is moved from a cold place to a warm place, keep the ink cartridge unused for three hours or more in the printing environment.

- Do not fill the ink cartridge with ink.
  Doing so may result in incorrect printing.

- Insert or remove the ink cartridge at the time of replacement only.
  Inserting or removing the ink cartridge except at the time of replacement may result in incorrect printing.

1. Check that the power to the printer is turned ON.
   ☞**3.2.1 Turning the power ON**

NOTE

- Do not replace ink cartridges when the power of the printer is turned OFF. Doing so may not perform the correct detection of the remaining ink, and result in an abnormal printing.

2. Remove the replacing ink cartridge from the ink cartridge slot.

NOTE

- Used ink cartridge should be put in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.
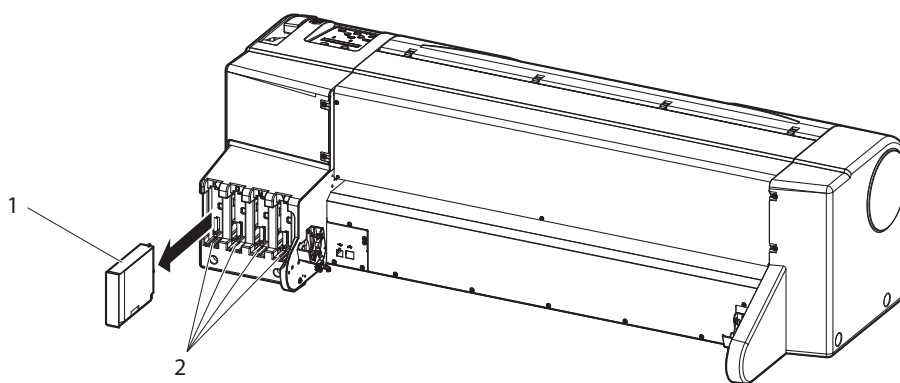
No.	Name
1	Ink cartridge
2	Ink cartridge slot

3.   Pick up the new ink cartridge from the bag.

> **NOTE**
>
> • Open the ink cartridge bag just before attaching the ink cartridge to the cartridge slot. Leaving the ink cartridge open for a long time may result in an abnormal printing.
>
> • Empty the ink cartridge within 2 years from the date printed on the package.
>   Using an ink cartridge after use period may affect the printing quality.
>
> • Replace the ink cartridge 6 months after setting it to the printer.

4.   Attach the new ink cartridge.

5.   Check that the operation panel returns to Normal.

> **NOTE**
>
> • The printer restarts printing when replacing ink cartridges during printing.

5.1.2   Replacing roll media

This sub-section describes the replacing time and steps of roll media.

（1）Replacement time

Replace roll media when the following situation occurs.

a.   If the roll media set to the printer runs out

   • Operation panel displays "End Of Roll".

   • If the media runs out during printing, the printer stops printing operation.

b.   When you want to change the media type to use

（2）Type

> **TIP**
>
> • For types and details of roll media, refer to the following section.
>   ☞**7.3 Options/Supply list**

（3）Replacing steps

Replace roll media in accordance with the following steps.

1. When the power of the printer is turned ON, check that the operation such as printing is not performed.

⚠ **CAUTION**

• Be careful to see that fingers are not caught in between opening and closing the media cover.

2. Push the media loading lever backward.
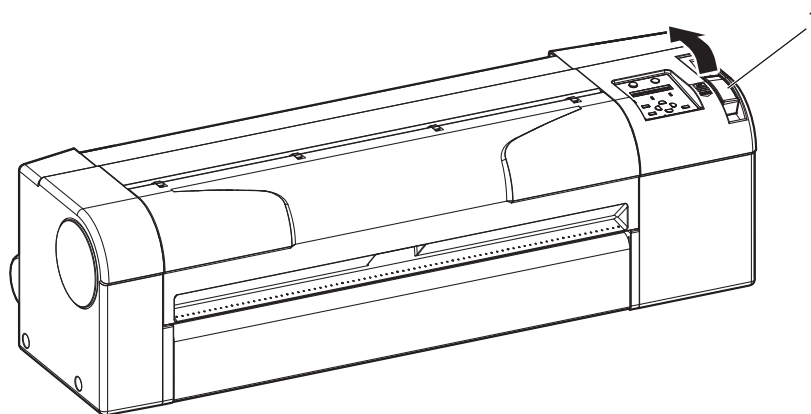
No.	Name
1	Media loading lever

3. Lift both end of the scroller, and manually rewind the roll media.
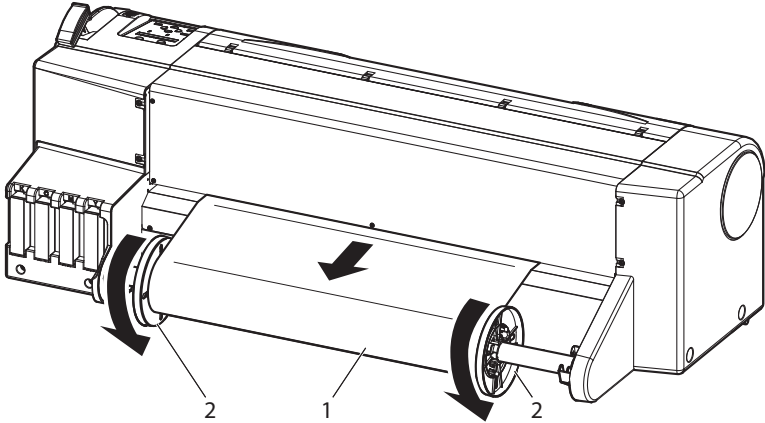
No.	Name
1	Roll media
2	Scroller

4. Remove the scroller from the printer, and place it on a horizontal place.
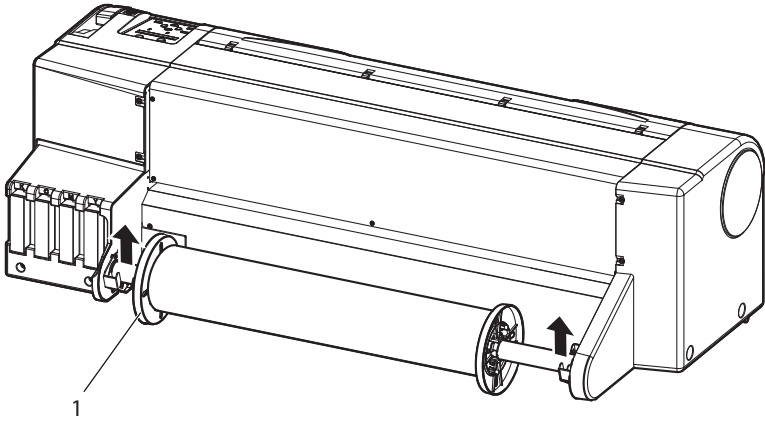
No.	Name
1	Scroller

5. Hold the movable flange, and tap the scroller as illustrated below to remove the movable flange.

NOTE

• When removing roll media, do not give a shock to the left end of the scroller (movable flange side) by dropping it to the floor. Doing so may damage the left end of the scroller due to the shock.
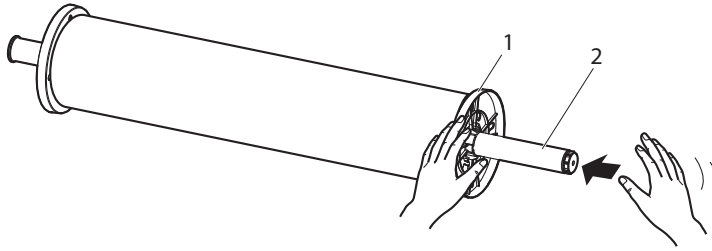
No.	Name
1	Roll media
2	Scroller

6. Remove roll media from the scroller.
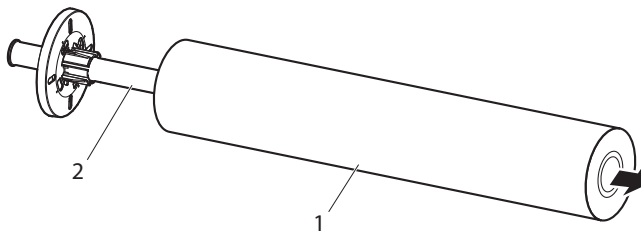
No.	Name
1	Roll media
2	Scroller

7. For loading other roll media, follow the instructions below.

TIP

• For loading the roll media, refer to "**3.4 Media handling**".

• For roll media you do not use, store it according to "**4.2.3 Precaution on storing media**".

8. When you do not set roll media, attach the movable flange to the scroller to set the scroller to the printer.
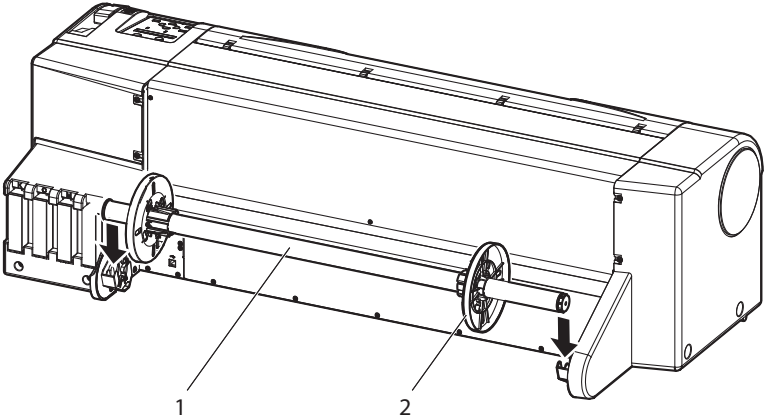
No.	Name
1	Scroller
2	Movable flange

5.1.3   **Replacing razor blade**

This sub-section describes the replacement time and steps of razor blade.

（1）Replacement time

Replace the razor blade when the following situation occurs.

a.   If the media cannot be clearly cut.
     Failure in cutting media displays "Paper Cut Error" on the operation panel.

b.   If fuzz, etc. appears on the cut section.

（2）Type

Our genuine razor blade that can be used for the prrnter is as follows.

Description	Model No.
Substitute razor blade	RJ3-CBS

（3）Replacing steps

Replace razor blade according to the following steps.

1.   Check that the power to the printer is turned ON.
     ☞**3.2.1 Turning the power ON**

2.   Press the [Menu] key on the operation panel to display the setup menu.
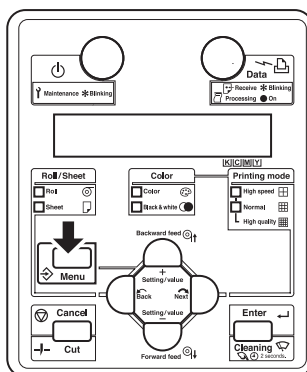
- Operation panel shifts to the Setup menu display.

3. Press the [<] key or [>] key on Operation panel to select "*Menu* Utility>".
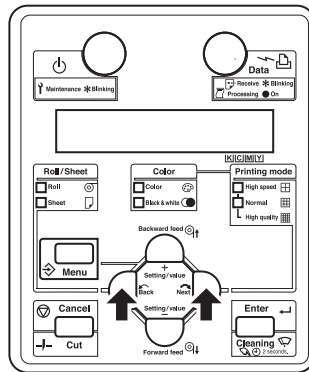
- Utility menu is displayed.

4. Press the [<] key or [>] key on Operation panel to select "CutterChange", and press the [Enter] key.
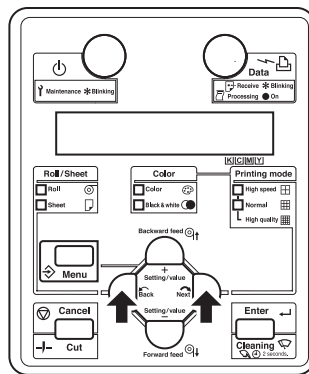
- Cutter replacement menu is displayed.

5. Press the [+] key or [-] key on Operation panel to select "CutterChange: Yes", and press the [Enter] key.
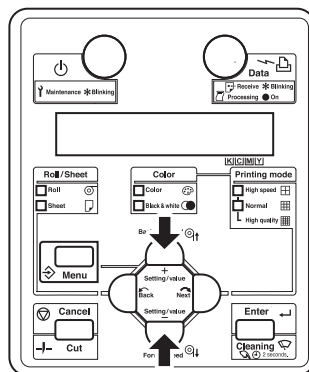
- You can start replacing Cutter.

6. Open Front cover.

- Print head moves and stops at the position to replace Cutter.

- "Cutter Changed ?" is displayed on Operation panel.
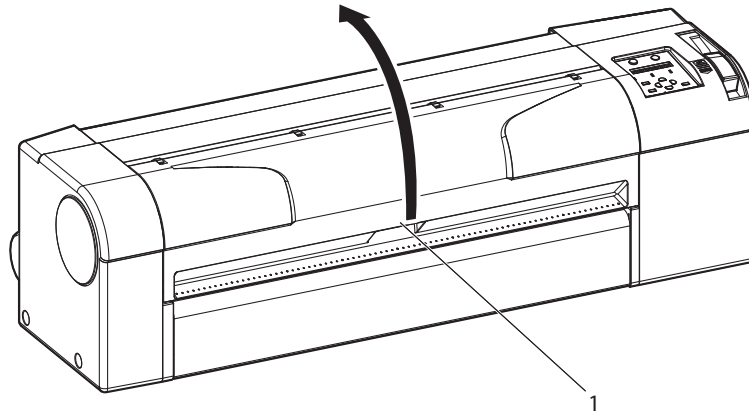
No.	Name
1	Front cover

NOTE

- Perform the cutter change operation in a short time. Leaving carriage section at the cutter change position result in a head clogging.

7. Gently push the knob of the cutter, and rotate cutter holder lever to the illustrated direction simultaneously.

NOTE

- Do not strongly press or suddenly release the cutter knob. Spring is inserted in the cutter holder, so razor blade may spring out.

- Do not hit the edge of the razor blade with hard objects, or do not drop the razor blade. There is a possibility that razor blade edge may become blunt or get chipped off.
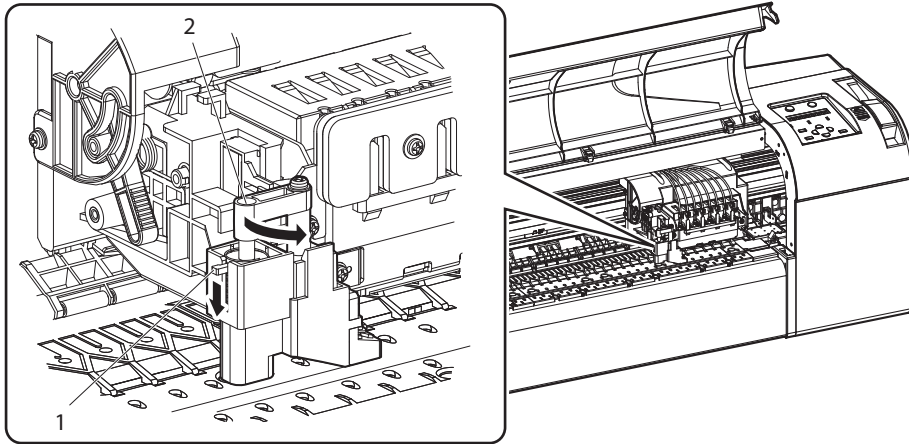
No.	Name
1	Knob of the cutter
2	Cutter holder lever

8. Remove the cutter.

⚠ CAUTION

- Do not touch the edge of razor blade. Doing so may cause injury.

- Do not hit the edge of the razor blade with hard objects, or do not drop the razor blade. There is a possibility that razor blade edge may become blunt or get chipped off.

NOTE

- Used cutter should be put in a vinyl bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.
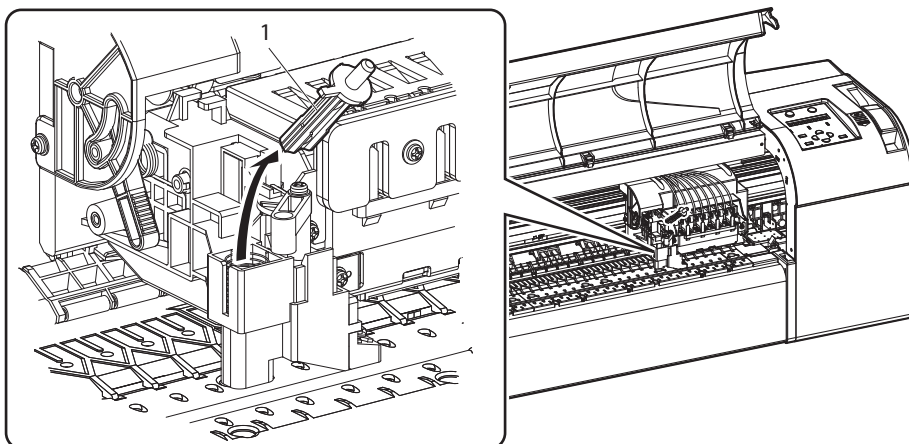
No.	Name
1	Cutter

9. Attach the new cutter as shown in the illustration.

NOTE

*   Install the cutter so as not to spring out the spring inserted in the cutter holder.
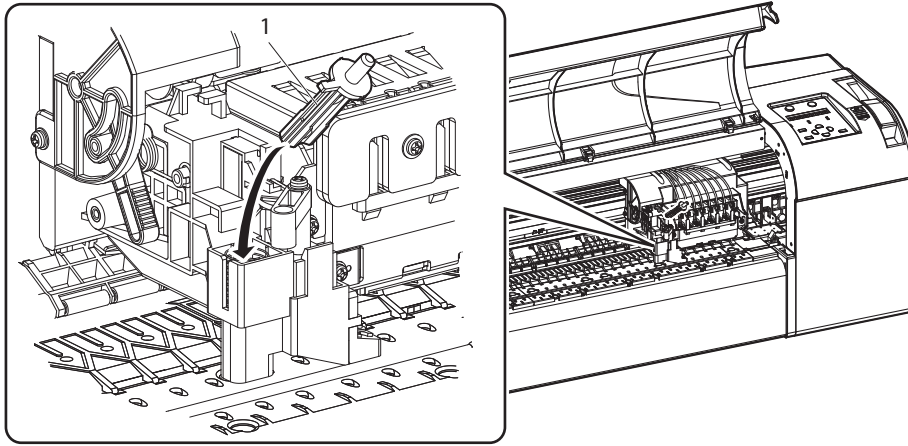
No.	Name
1	Cutter

10. Gently push the knob of the razor blade and reposition the cutter holder lever simultaneously.

NOTE

*   Do not strongly press or suddenly release the cutter knob. Spring is inserted in the cutter holder, so razor blade may spring out.
*   Do not push the cutter holder to the end. Razor blade may damage inside the product.
*   Correctly install the cutter holder lever referring to the illustration below. Incorrect installation may generate errors.
    If an error occurs, check that the cutter holder lever is attached correctly.
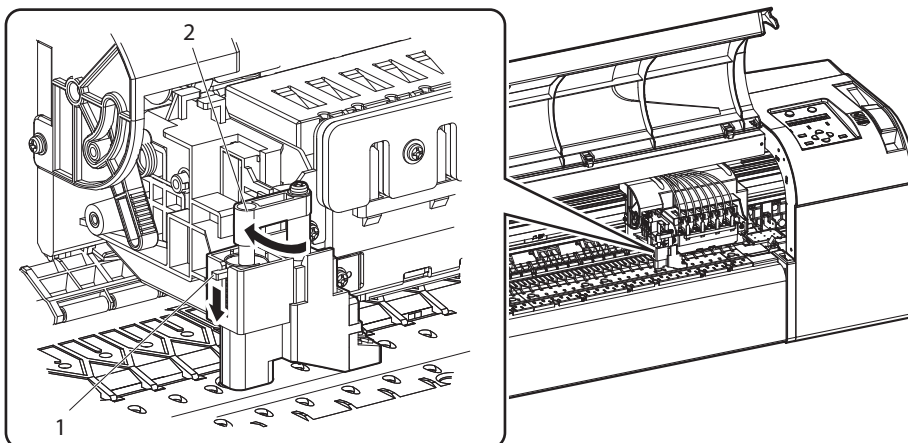
No.	Name
1	Cutter holder
2	Cutter holder lever

11. Close the front cover.
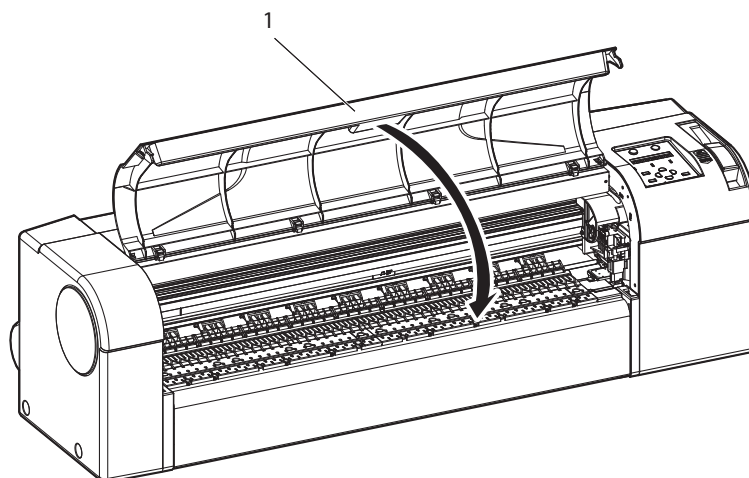
No.	Name
1	Front cover

12. Press the [Enter] key on the operation panel.

- Carriage section returns to the original position.
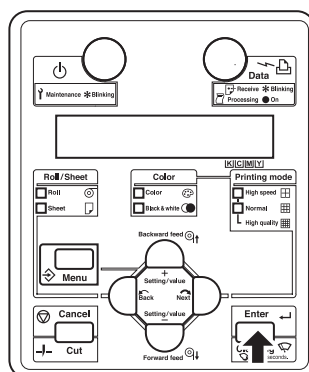
- This completes the replacing procedure of the razor blade.

5.1.4   Replacing waste fluid box

This sub-section describes the replacement time and steps of waste fluid box.

⚠ **CAUTION**

- Wear protective equipment (gloves, goggles or eye protection, protective mask, protective clothing) when replacing. If the ink gets into the eyes or sticks to the skin, immediately wash off with water. It might possibly cause irritation and light inflammation of eyes. In case of any abnormality, consult the physician immediately.

（1）Replacement time

Replace waste fluid box when the following situation occurs.

a.   If "NearFullWasteInkTank" is displayed on the operation panel.

- Waste fluid box shortly becomes full.

- Printing operation continues.

- Prepare a waste fluid box for replacement before the waste fluid box is full.

b.   If "FullWasteInkTank" is displayed on the operation panel.

- The waste fluid box is full.

- Printing operation stops.

- Immediately replace the waste fluid box.

（2）Type

The waste fluid box that can be used for the printer is as follows.

Description	Model No.
Waste fluid box RJ9-HEB	RJ9-HEB

（3）Replacing steps

Replace the waste fluid box according to the following steps.

1.   Check that the power to the printer is turned ON.

2. Pull out the waste fluid box.

   •   "No Waste-InkTank" will be displayed on the operation panel.
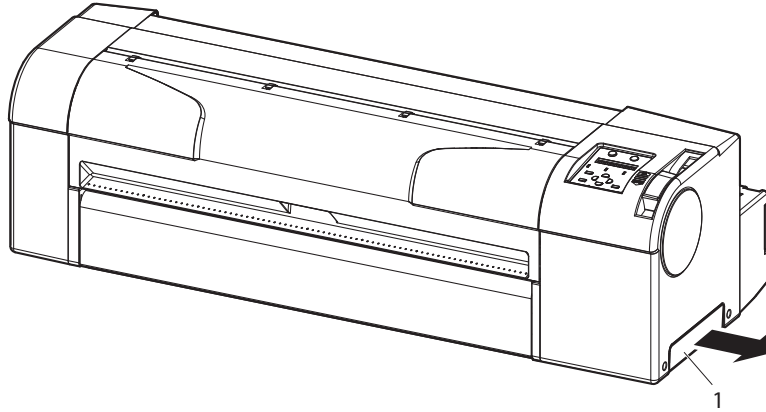
No.	Name
1	Waste fluid box

NOTE

   •   Used waste fluid box should be put in a vinyl bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

3. Install a new waste fluid box to the printer.
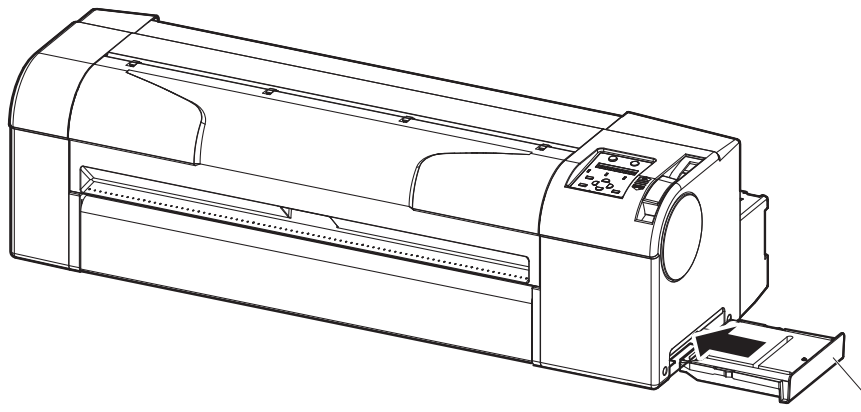
No.	Name
1	Waste fluid box

4. Check that the operation panel displays "Exchnage Tank? No".

5. Select "Exchange Tank? Yes", and press the [Enter] key on the operation panel.

NOTE

*   If the waste fluid box is not replaced, press the [Enter] key on the operation panel with "Exchange Tank? No" displayed.
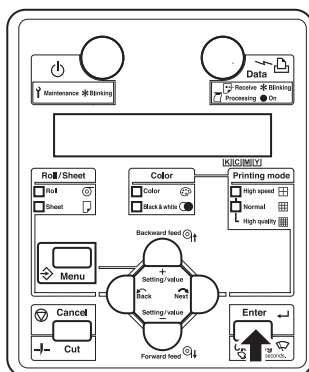
*   This completes the replacement of waste box.

5.1.5 Replacing Flushing Box Sponges

This section explains when and how to replace Flushing box sponges.

⚠ CAUTION ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- Wear protective equipment (gloves, goggles or eye protection, protective mask, protective clothing) when replacing. If the ink gets into the eyes or sticks to the skin, immediately wash off with water. It might possibly cause irritation and light inflammation of eyes. In case of any abnormality, consult the physician immediately.

▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

（1）Replacement time

Flushing box sponges are included in the ink cartridge K (Model number: RJ9-INK BK).
Replace Flushing box sponges when replacing the ink cartridge K.

（2）Type

Flushing box sponges are included in the following ink cartridges.

Description	Model No.
Ink cartridge K (Black: 110 ml)	RJ9-INK BK

（3）Replacing steps

Follow the steps below to replace Flushing-box sponges.

(NOTE) ▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

- During this operation, wear the gloves that comes with the ink cartridge K.

▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬▬

1. Replace the ink cartridge K.
   ☞ **5.1.1 Replacing ink cartridges**
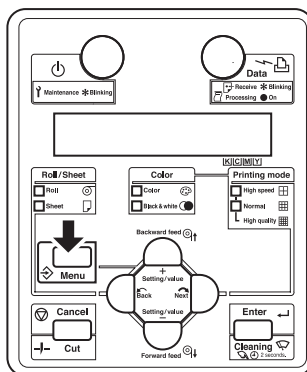
2. Press the [Menu] key on Operation panel.

   - Operation panel shifts to the Setup menu display.

3.   Press the [<] key or [>] key on Operation panel to select "*Menu* Utility>", and press the [Enter] key.
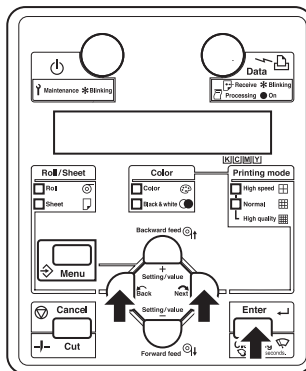
*   Utility menu is displayed.

4.   Press the [<] key or [>] key on Operation panel to select "CutterChange".
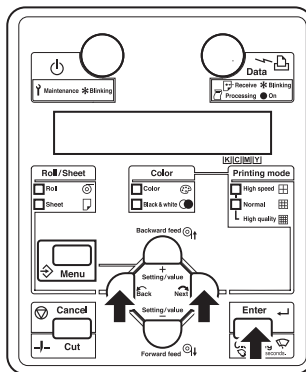
*   Cutter replacement menu is displayed.

5.   Press the [+] key or [-] key on Operation panel to select "CutterChange: Yes", and press the [Enter] key.
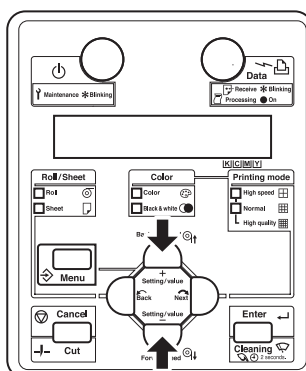
*   Print head moves and stops above the platen.

*   "Cutter Changed ?" is displayed on Operation panel.

6.   Open Front cover.
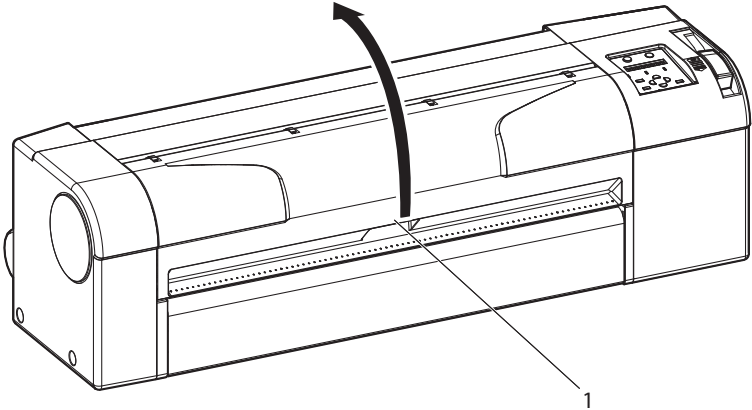
No.	Name
1	Front cover

7.   Lift the hook on the flushing box sponge holder to unhook and remove the holder.
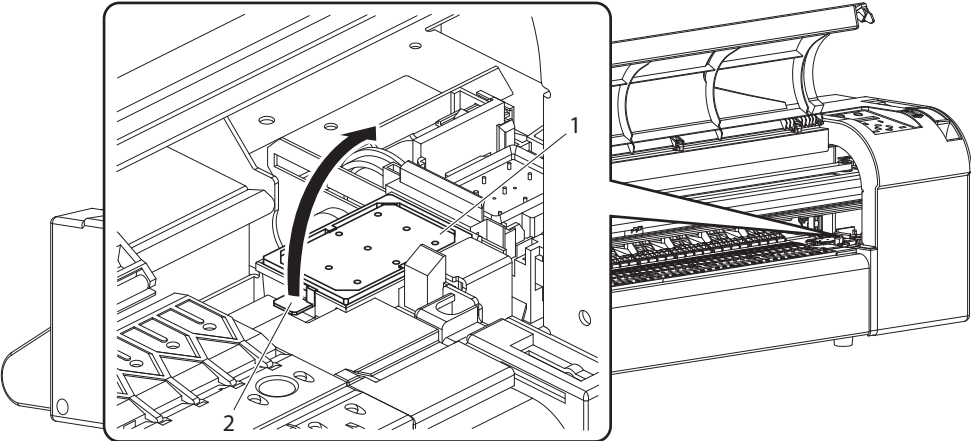
No.	Name
1	Flushing box sponge holder
2	Hook on the flushing box sponge holder

NOTE

• Used Flushing box sponge should be put in a plastic bag, etc, and disposed in compliance with local ordinance or instructions from the local authorities.

8. Install the new Flushing box sponge holder to each Flushing box.

   • Insert the leading edge of the holder into the notch on the flushing box and push it in the box until the hook clicks into place.

NOTE

• Make sure that the flushing box sponge holder is installed correctly. Improper installation will cause the flushing box to hit the print head while operating, resulting in damage to the print head.
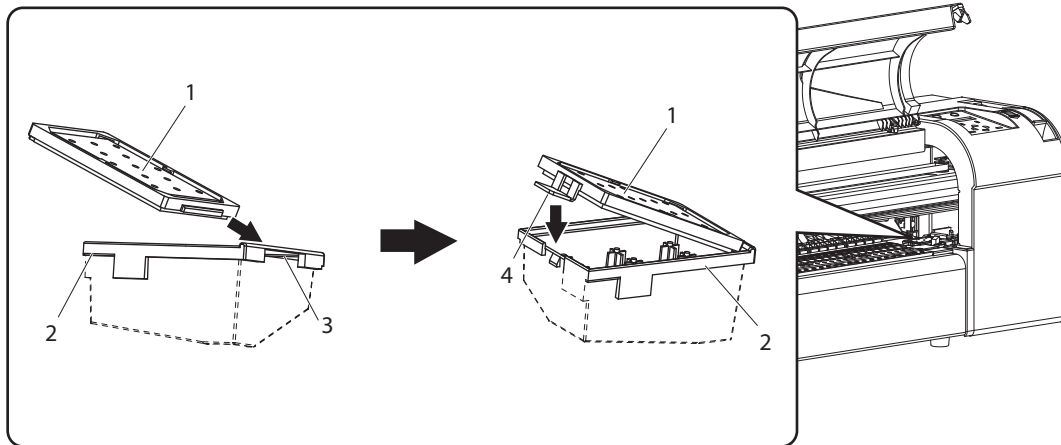
No.	Name
1	Flushing box sponge holder
2	Flushing boxes
3	Notch on the flushing box
4	Hook on the flushing box sponge holder

9. Close Front cover.
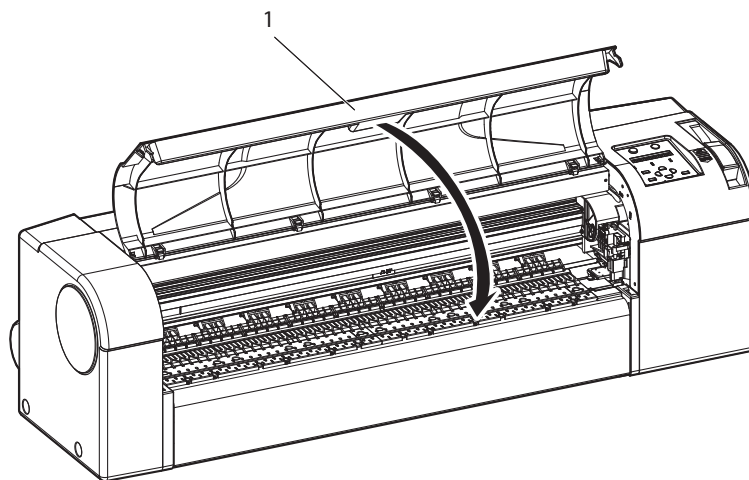
No.	Name
1	Front cover

10. Press the [Enter] key on Operation panel.
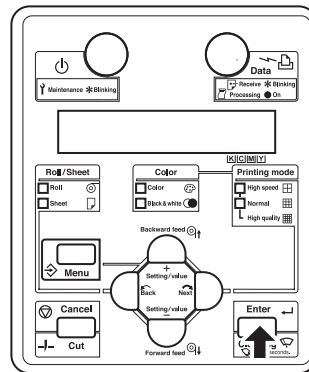
• Print head returns to its original position.

• Flushing box sponge replacement is completed.

5.2   Cleaning the printer

Periodic (every month) cleaning is necessary to use the printer in good condition.

⚠ **WARNING**

- Do not insert or drop metal or objects which are easily combustible through the openings such as fresh air inlet into the printer. It could lead to an electric shock and fire.

- When foreign substances or liquids such as water entered the printer, do not use the printer as it is. It could lead to an electric shock and fire. Immediately turn off the power switch, disconnect the power plug from the electric socket, and contact MUTOH local dealer.

⚠ **CAUTION**

- Be sure to turn OFF the power, and disconnect the power plug when cleaning the printer.

- Do not use volatile solvents such as thinner, benzene, or alcohol. These could damage the paint.

- Be careful that moisture does not enter the printer. There is a possibility that electric circuit inside the printer might get short circuited.

- Do not open covers attached with screws under any circumstance. There is a possibility of receiving an electric shock or printer breakdown.

This section describes how to clean each part of the printer.

5.2.1   Cleaning the outer case

This sub-section describes the cleaning steps of the outer case.
Wipe out the dust and dirt adhered to the outer case by using a soft cloth.
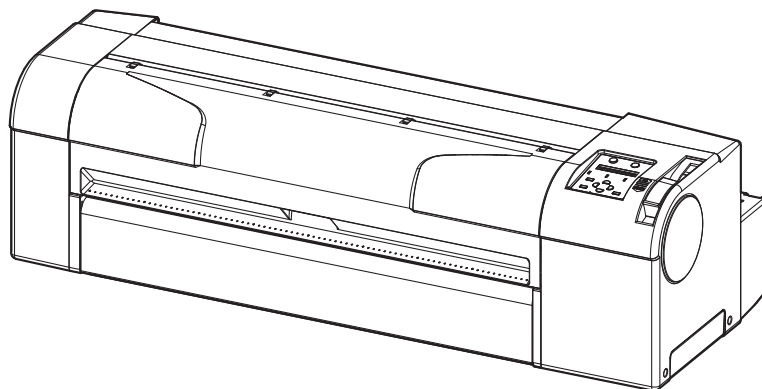
5.2.2 **Cleaning inside the printer**

This sub-section describes the cleaning steps inside the printer.
Clean inside the printer according to the following steps.

1. Open the front cover.
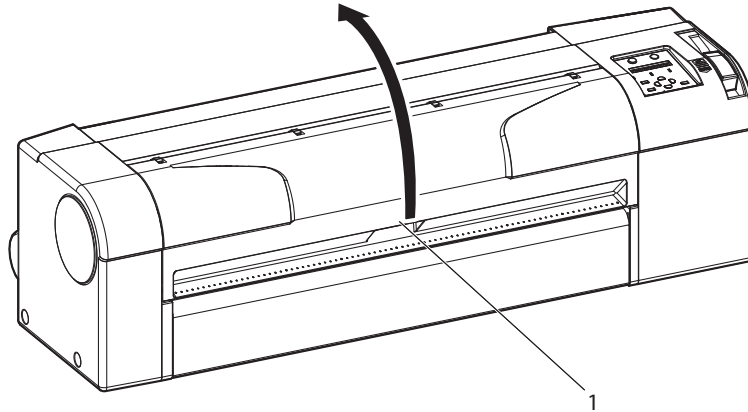
No.	Name
1	Front cover

2. For pressurizing roller, remove paper powder and dust using a soft brush.

> **NOTE**
>
> • Do not blow paper powder inside the printer using tools such as an air duster.
>   It may cause an abnormal noise from the inside of the printer.
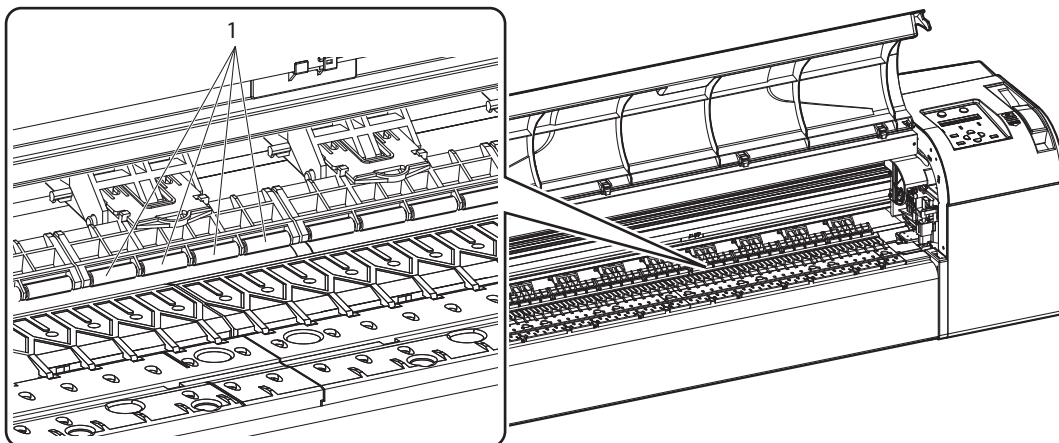
No.	Name
1	Pressurizing roller

3. For printing board, wipe out paper powder and ink using a damp and tightly squeezed soft cloth.
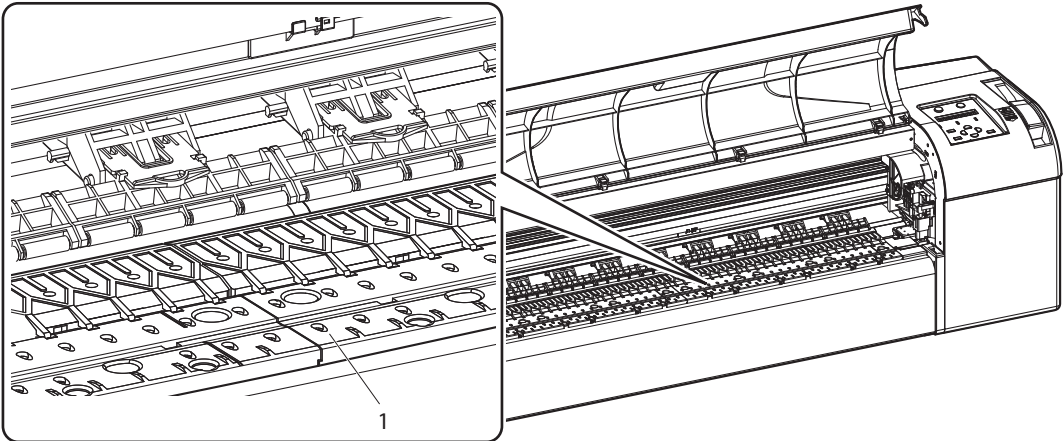
No.	Name
1	Printing board

4. For grid roller, wipe off the dirt of the unpainted (silver color) area of the center section with damp and tightly squeezed soft cloth.
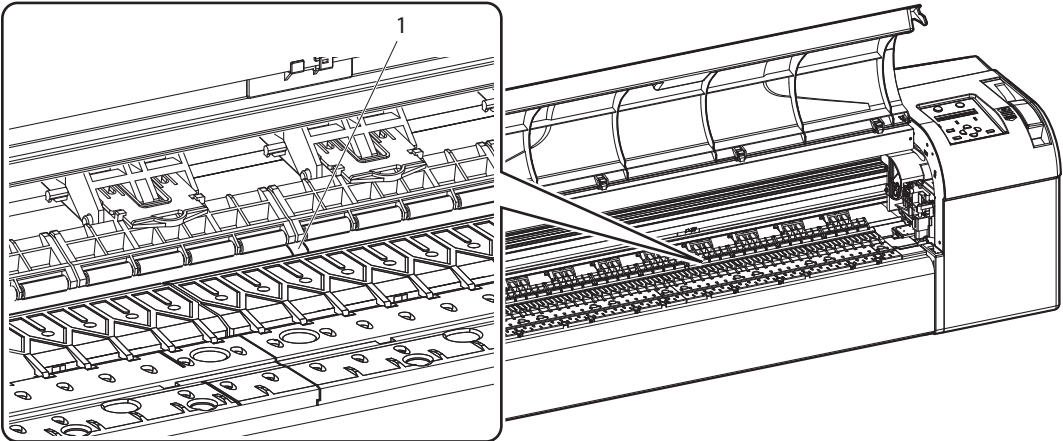
No.	Name
1	Grid roller

5.2.3   **Head cleaning**

If printed data becomes blurred or is incomplete, perform cleaning of the head surface and nozzle. (Head cleaning)
Perform head cleaning in accordance with the following steps.

NOTE

• Remove media while cleaning.
  Cleaning with media set may connect head and media.

1. Check that the operation panel is Normal.

2. Check that the media loading lever is returned to the front side.

3. Press the [Cleaning] key on the operation panel for at least 2 seconds.
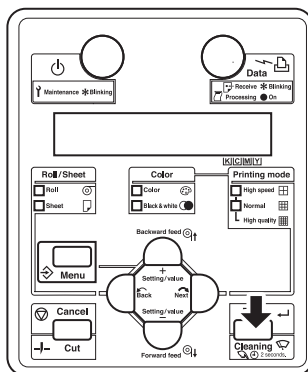
• "Cleaning   ** minutes" is displayed on the operation panel.

• Start head cleaning.

NOTE

• If print blurs or incomplete printing is not fixed by one head cleaning, perform Long cleaning.

• When nozzle clogging remains even after repeating "Long" cleaning several times, clean the cleaning wiper.

• If the nozzle clogging still is not rectified, carry out "Longer" cleaning.

5.2.4   Cleaning Cleaning Wiper

This section describes how to clean Cleaning wiper.

（1）Time for cleaning

Once a week, or when blurs or lacking parts appear on printed media after Head cleaning.

（2）Cleaning procedures

Follow the procedure below to clean Cleaning wiper.

> **NOTE**
>
> • Use a non-woven cloth (commercial product) to clean Cleaning wiper.
>   Other material of cloth may clog Print head; make sure to use a non-woven cloth.

1. Check that the printer is turned ON.
    ☞**3.2.1 Turning the power ON**

2. Press the [Menu] key on Operation panel.
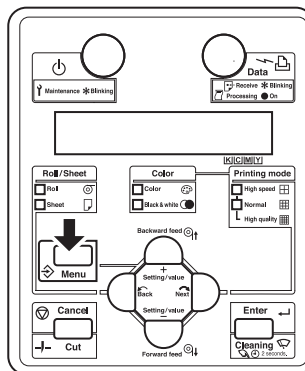
• Operation panel shifts to the Setup menu display.

3. Press the [+] key or [-] key on Operation panel to select "*Menu* Utility>", and press the [Enter] key.
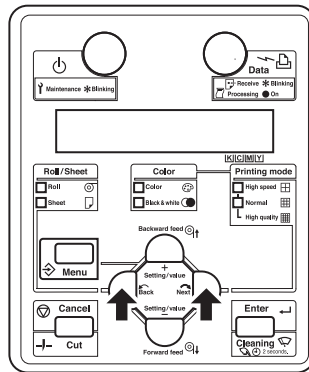
- • Utility menu is displayed.

4. Press the [<] key or [>] key on Operation panel to select "Replace Cutter".
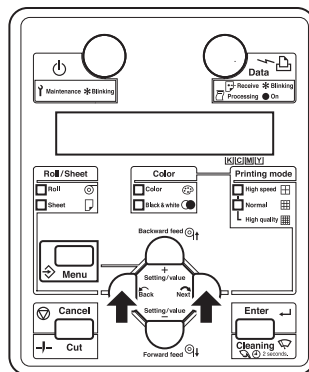
- • Cutter replacement menu is displayed.

5. Press the [+] key or [-] key on Operation panel to select "Replace Cutter: Yes", and press the [Enter] key.
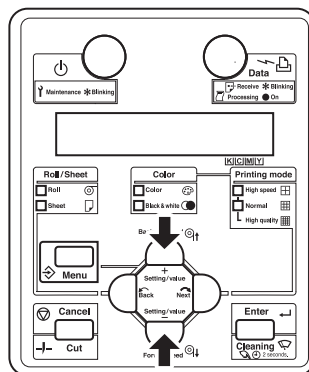
- • You can start replacing Cutter.

6. Open Front cover.

    •   Print head moves and stops at the position to replace Cutter.

    •   "After Replacing Cutter -> ENTER" is displayed on Operation panel.
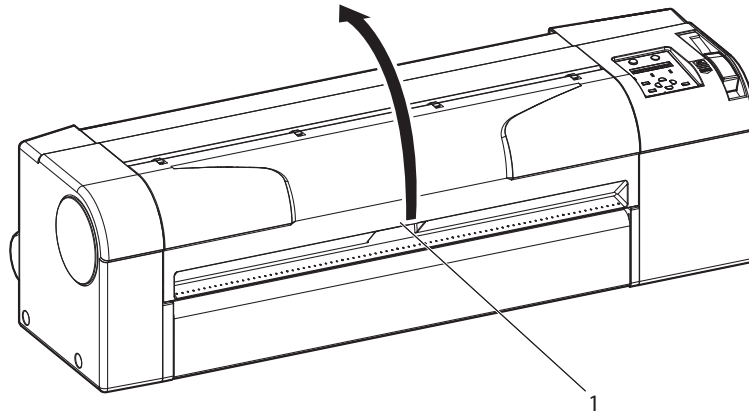
No.	Name
1	Front cover

⚠ CAUTION

•   When cleaning Cleaning wiper:

    •   Do not touch Cleaning wiper and Head cap unit. Head cleaning may not be performed correctly because of oil from your hands.

    •   Make sure to use a dry Polynit wiper (non-woven cloth) to wipe off any dirt.

7. Use a Polynit wiper (non-woven cloth) to wipe off any ink or dust on Cleaning wiper.

    a.   Front side of Cleaning wiper:
        Remove the ink and dust in the horizontal direction.
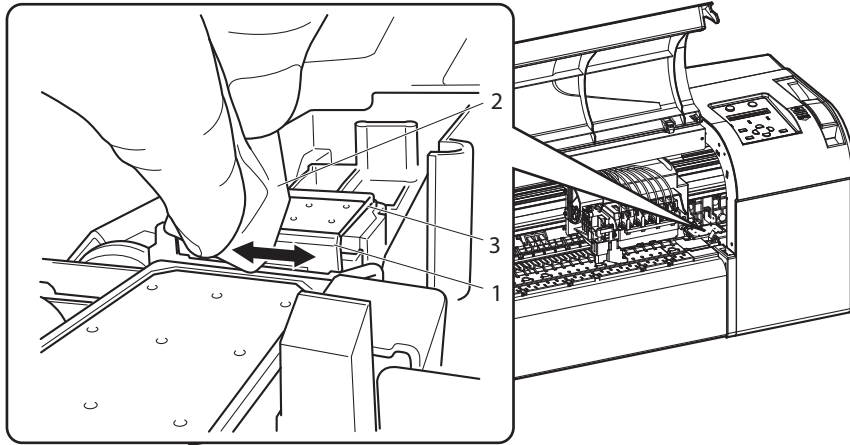
No.	Name
1	Cleaning wiper
2	Polynit wiper (non-woven cloth)
3	Head cap unit

    b. Back side of Cleaning wiper:
        Remove the ink and dust in the upper direction.
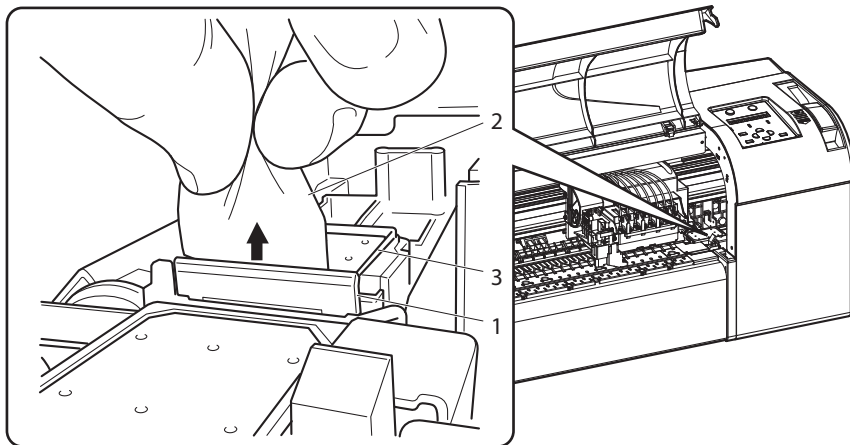
No.	Name
1	Cleaning wiper
2	Polynit wiper (non-woven cloth)
3	Head cap unit

8. Close Front cover.
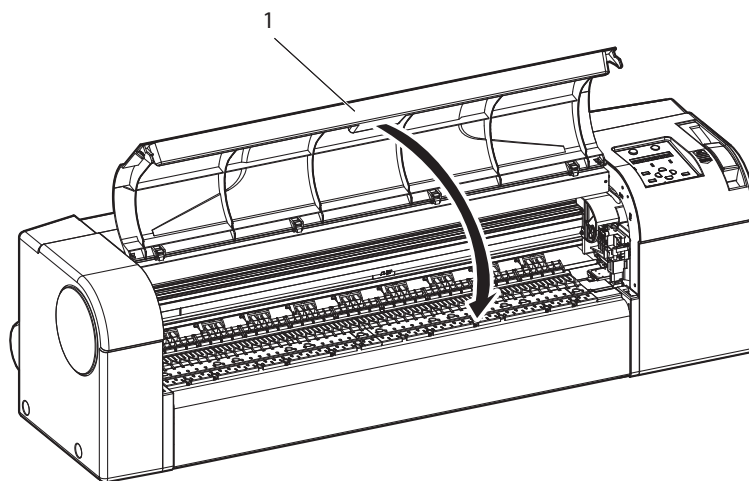
No.	Name
1	Front cover

9. Press the [Enter] key on Operation panel.
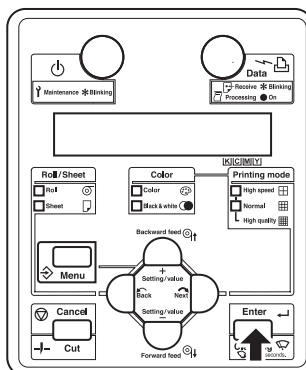
- Print head returns to its original position.

- This completes cleaning Cleaning wiper.

5.3 **Transfer and transportation**

This section describes transfer and transportation of the printer.

5.3.1 **Transferring the printer**

This sub-section describes transferring the printer.

⚠ **CAUTION**

- Transfer the printer maintaining the horizontal position.

- Do not make the main body of the printer slanting or place in vertical positions or do not keep the printer upside down. There is a possibility that ink inside the printer may leak. Moreover, normal operation after shifting (to these positions) cannot be guaranteed.

（1）Pre-transfer steps

When using a dedicated stand, transfer the printer following the steps below.

1. Make sure that the printer power is turned OFF.
   ☞**3.2.2 Turning the power OFF**

2. Check that the butterfly bolts (2) attaching the stand and the printer are not loosen.

3. Check that the printer head is in the rightmost position.

4. Attach the protective material (metal plate) for attaching the head unit, and attach it with thumbscrews.
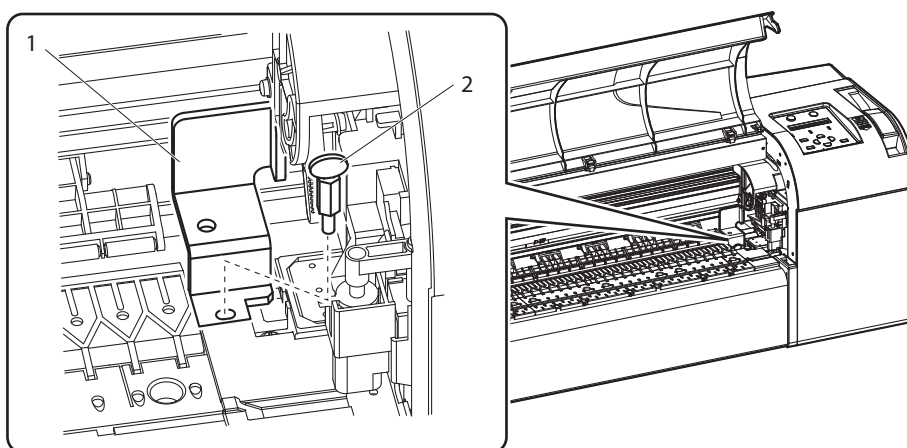
No.	Name
1	Protective material (metal plate) for attaching the head unit
2	Thumbscrew

5.   Remove the scroller.

6.   Remove all the cables such as power cables.

7.   Unlock the casters to move it.

NOTE

• Casters supplied with the dedicated stand are manufactured for a small transfer on the plain area in the room, which is different from the casters of transporting equipment.
  When moving the printer outdoors in places with big step differences, move the stand and printer separately.
  ☞Installation manual

1
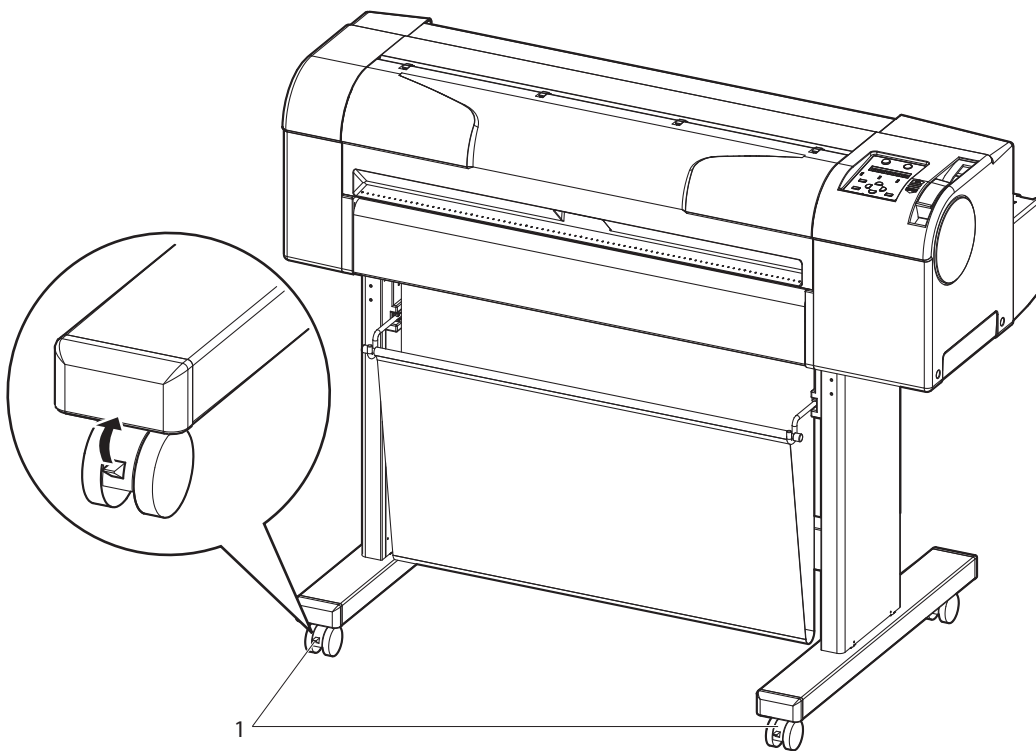
No.	Name
1	Caster

（2）Steps after transfer

After transfer, follow the steps below, and set the printer in an available condition.

1.　Confirm the suitable place for installation.
　　☞Installation manual

2.　After transferring the printer to the installation place, attach the printer.

3.　Check the butterfly bolts (2) fixing the stand and the printer are not loosen when using a dedicated stand.

4.　Attach cables such as power cables.
　　☞**3.1　Power cable connection**
　　☞**3.6　Connecting the printer to PC**

5.　Perform the nozzle check, and confirm that there is no clogging in the printer head.
　　☞**3.5.2　NozzleCheck**

6.　Perform the alignment.
　　☞**4.5.1.2.4　Adjust Print**

5.3.2   Transporting the printer

When transporting the printer, it is necessary to pack in the same condition as at the time of purchase using protective materials and packing materials to protect the printer from vibration and shocks.

NOTE ━━━━━━━━━━━━━━━━━━━━━━━━━━━━

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

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（1）Pre- transport procedure

1. Turn ON the power of the printer.
    ☞**3.2.1 Turning the power ON**

2. Confirm that the printer functions normally.

3. Remove all ink cartridges.

4. Turn OFF the power to the printer.
    ☞**3.2.2 Turning the power OFF**

    •   Operation panel displays "Transport Mode", and the printer starts ink rejecting operation.

    •   Ink rejecting takes about 2 minutes.

5. When ink discharge completes, check that the Power lamp disappears.

6. Remove the scroller.

7. Remove all the cables such as power cables.

8. Check that the printer head is in the rightmost position.

9. Attach the protective material (metal plate) for attaching the head unit, and attach it with thumbscrews.
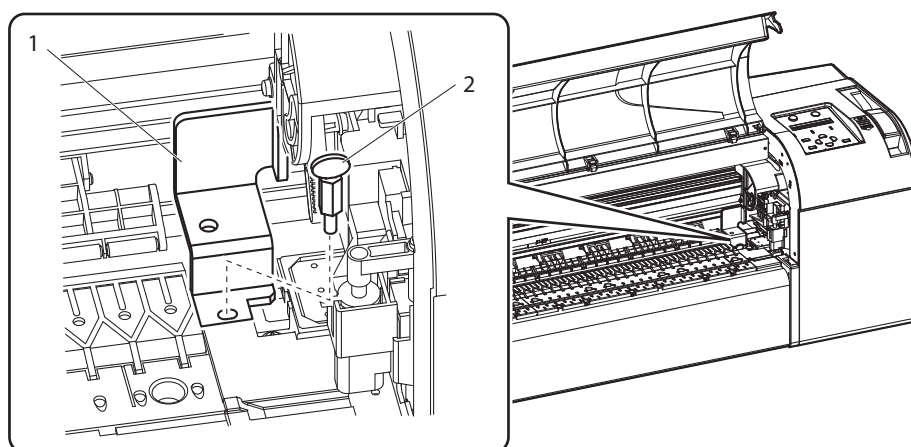
No.	Name
1	Protective material (metal plate) for attaching the head unit
2	Thumbscrew

10. Remove the printer from the stand.
    ☞Installation manual

11. Repack the printer.

（2）Post-transport procedure

1. Perform unpacking, assembling, and setting the printer.
   ☞Installation manual

2. Set the printer in an available condition.
   ☞**5.3.2 Transporting the printer** of (2) Steps after transfer

6   Troubleshooting

This chapter describes possible troubles during the use of this product and countermeasures.

If the error not included in any items of this section occurs, refer to "**6.2 Error messages**" and contact MUTOH local dealer.

6   **Troubleshooting**

6.1 Malfunction and failure of the product

This section describes the malfunction and failure of the product without displaying errors, and possible causes and countermeasures.

6.1.1 Problem at installation and introduction

（1）Cannot perform ink initial charging

No.	Possible cause	Remedy	Reference
1	The front cover is open, or media loading lever is up.	Close the front cover, or lower the media loading lever.	☞**3.4 Media handling**
2	Are all four ink cartridges fully inserted?	Fully insert all four ink cartridges.	☞**3.3 Installing ink cartridges**
3	Is the waste fluid box fully inserted?	Fully insert the waste fluid box.	☞**5.1.4 Replacing waste fluid box**

（2）Ink does not come out after initial charging

No.	Possible cause	Remedy	Reference
1	Is ink cartridge cool and frozen?	Leave the cartridge at room temperature for at least 3 hours, and perform cleaning several times.	☞**5.2.3 Head cleaning**
2	Is the power turned off during initial charging?	Turn the power on again and continue initial charging.	☞**3.3 Installing ink cartridges**
3	Occasionally, normal printing cannot be performed after initial charging.	Perform cleaning several times, and check it each time.	☞**5.2.3 Head cleaning**

（3）There is no response even when USB cable is connected

No.	Possible cause	Remedy	Reference
1	Is the USB cable properly connected?	Follow the procedure below to connect it again. 1. Remove the USB cable. 2. Turn the printer OFF. 3. Turn the printer ON. 4. Connect the USB cable.	☞**3.7 Installing / Unistalling Printer Driver**

（4）Cannot install printer driver

No.	Possible cause	Remedy	Reference
1	Are printers added?	Install the printer driver again.	☞**3.7 Installing / Unistalling Printer Driver**
2	Did you select the the downloaded .zip file? Does it contain "*.INF" file?	Specify the drive and folder that contain the driver program and install it again.	☞**3.7 Installing / Unistalling Printer Driver**

6.1.1.1   If you have connected using the USB cable before installing the driver

1. Displays "Devices and Printers" of "Control Panel".

2. Select "RJ-900X" displayed as an unspecified device and click "Remove device".
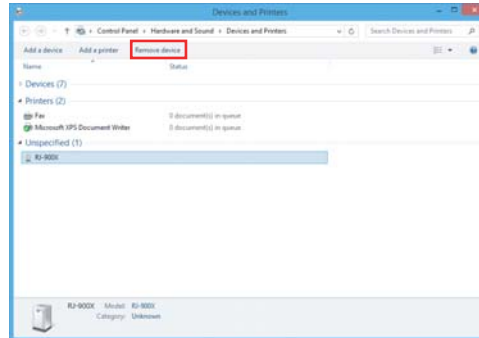
3. Turn the printer OFF.

4. Remove the USB cable.

5. Follow the procedure from the step 3 of "**3.7.3 Installing the Printer Driver (for USB Connection)**" to start installation.

6.1.2   Cannot generate graphics at all

（1）Do not actuate at all after power activation

No.	Possible cause	Remedy	Reference
1	Is the power cable connected to the plug?	Connect the power cable.	☞**3.1 Power cable connection**
2	Is the AC power supply set for the specified voltage?	Connect the cable to another outlet.	☞**3.1 Power cable connection**
3	The front cover is open, or media loading lever is up.	Close the front cover. Lower the media loading lever.	☞**3.4 Media handling**
4	Is the waste fluid box fully inserted?	Fully insert the waste fluid box.	☞**5.1.4 Replacing waste fluid box**

（2）Does not work after setting the media

No.	Possible cause	Remedy	Reference
1	The front cover is open, or media loading lever is up.	Close the front cover. Lower the media loading lever.	☞**3.4 Media handling**
2	Is the media loaded at an angle?	Load the media straight.	☞**3.4 Media handling**
3	Is the ink cartridge inserted?	Insert the ink cartridge.	☞**3.3 Installing ink cartridges**
4	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
5	Is the printer being used in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	☞ Installation manual

（3）An error is displayed and details not printed after sending data from the computer

No.	Possible cause	Remedy	Reference
1	Is the type of computer selected correctly?	Check that the settings on the computer side and printer side are the same.	☞**3.6 Connecting the printer to PC**
2	Are the interface requirements and command mode the same on the computer side and printer side?		☞**4.4 Setting the printer driver**

（4）Cannot use the computer in online mode via LAN

No.	Possible cause	Remedy	Reference
1	Is the network interface cable connected correctly?	Connect the network interface cable correctly.	☞**3.6.3 Connecting network interface cable**
2	Is network setting configured correctly?	Configure network settings correctly.	☞**4.5.1.7 Network Menu**
3	Match this printer's network settings with the computer side environment.	Match this product's network settings with the computer side environment.	☞**3.6.1 System requirements**
4	Does the Data lamp on the operation panel turn on after sending graphics data from the computer?	If the Data lamp does not turn on, contact the computer manufacturer.	-

（5）Cannot use the computer in online mode via USB

No.	Possible cause	Remedy	Reference
1	Is the USB cable connected correctly?	Connect the USB cable correctly.	☞**3.6.4 Connecting the USB cable**
2	Does the Data lamp on the operation panel turn on after sending graphics data from the CAD?	If the Data lamp does not turn on, contact the CAD or computer manufacturer.	-
3	Is the type of command currently set up, the same as the one on the CAD and driver side?	Match the command setting of the printer to the environment of the CAD and driver.	☞**4.5.1.2.4 Adjust Print**

6.1.3 **Media-related troubleshooting**

（1）The media deviates or is torn during initialization.

> **NOTE**
>
> • If the media is jammed or torn, remove it according to "**6.3 The media is jammed**".

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the loading position of the media correct?	Set the media correctly.	☞**3.4.2 Loading roll media** ☞**3.4.3 Loading sheet media**
3	Is the scroller set correctly?	Set the scroller correctly.	☞**3.4.1 Roll media loading**
4	Are there any foreign materials such paper attached to the pressurizing roller?	Clean the pressurizing roller.	☞**5.2.2 Cleaning inside the printer**
5	Is the printer being used in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	☞ Installation manual
6	Did you load sheet media?	Set the media size detection method to "Vert." or "Hori.".	☞**4.5.1.2 Media Set Menu**
7	Are you using folded, torn or rolled media?	Replace the media.	☞**4.2.2 Cautions on handling media**
8	Does the media curl or float?	Use the dedicated media. If media that is not dedicated is used, set the following items in the MediaSet Menu. • Media • Stiffness	☞**4.2.1 Media** ☞**4.5.1.2 Media Set Menu**

（2）The media is crumpled during initialization.

> **NOTE**
>
> • If the media is jammed or torn, remove it according to "**6.3 The media is jammed**".

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the loading position of the media correct?	Set the media correctly.	☞**3.4.2 Loading roll media** ☞**3.4.3 Loading sheet media**

No.	Possible cause	Remedy	Reference
3	Is the media loaded at an angle?	Set the media straight.	☞**3.4.2 Loading roll media** ☞**3.4.3 Loading sheet media**
4	Are there any foreign materials such paper attached to the pressurizing roller?	Clean the pressurizing roller.	☞**5.2.2 Cleaning inside the printer**
5	Is the being printer used in an environment other than the one specified, such as near an air conditioner?	Only use the printer in an environment that is specified for use.	☞Installation manual
6	Did you load sheet media?	Set the media size detection method to "Vert." or "Hori.".	☞**4.5.1.2 Media Set Menu**
7	Are you using folded, torn or rolled media?	Replace the media.	☞**4.2.2 Cautions on handling media**

（3）The wrong media size is set during initialization.

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the media loaded at an angle?	Set the media straight.	☞**3.4.3 Loading sheet media**
3	When the media is set, does it curl upward?	Straighten the media or set a new media.	☞**3.4.2 Loading roll media**
4	Is the being printer used in an environment other than the one specified, such as near an air conditioner?	Only use the printer in an environment that is specified for use.	☞**3.4.1 Roll media loading**
5	Are you using media that has been printed on already?	Use a new media.	☞**4.2.1 Media**

（4）Tracing paper or thin media is not detected.

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the printer being used in an environment other than the one specified, such as in direct sunlight?	Only use the printer in an environment that is specified for use.	☞Installation manual

（5）Media jams frequently occur.

> **NOTE**
>
> • If media other than the dedicated one is used, correct media feeding cannot be assured.

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the media used in a place other than the specified environment?	Use the media in a dedicated environment.	☞**4.2.2 Cautions on handling media**
3	Using an old media?	Replace it with new media.	☞**5.1.2 Replacing roll media**
4	Using media with fold, wrinkle, etc?		☞**3.4.3 Loading sheet media**
5	Does the media curl or float?	Use the dedicated media. If media that is not dedicated is used, set the following items in the MediaSet Menu. • Media • Stiffness	☞**4.2.1 Media** ☞**4.5.1.2 Media Set Menu**

（6）The media veers during printing.

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the loading position of the media correct?	Set the media correctly.	☞**5.1.2 Replacing roll media** ☞**3.4.3 Loading sheet media**
3	Is the scroller set correctly?	Set the scroller correctly.	☞**3.4.1 Roll media loading**

（7）Roll media is not cut well.

No.	Possible cause	Remedy	Reference
1	Does the razor blade cut well?	• Replace the cutter blade. • To use the media other than specified, make settings for the following items in the Media setup menu. ☞**4.5.1.2.1 When dedicated media is set in Media item**	☞**5.1.3 Replacing razor blade**
2	Is the roll media charged with static electricity?	Remove the charged static electricity.	-

6.1.4　**Printing-related troubleshooting**

（1）Printing is partially stained or incomplete.

NOTE

• Proper print quality may not be obtained with the media other than the dedicated one.

No.	Possible cause	Remedy	Reference
1	Does the media include moisture?	Replace it with new media.	☞**5.1.2 Replacing roll media**
2	Using the media with folds and wrinkles?		☞**3.4.3 Loading sheet media**
3	Does the media curl or float?	Use the dedicated media. If media that is not dedicated is used, set the following items in the MediaSet Menu. • Media • Stiffness	☞**4.2.1 Media** ☞**4.5.1.2 Media Set Menu**

（2）The order of printing is incorrect (There are some places that cannot be printed).

No.	Possible cause	Remedy	Reference
1	Is the loading position of the media correct?	Set the media correctly.	☞**5.1.2 Replacing roll media** ☞**3.4.3 Loading sheet media**
2	Set the Scale and Mirror?	Cancel or reset the Scale and Mirror settings.	☞**4.5.1.5 Layout Menu** ☞**4.5.1.6 Function Menu**
3	Set the origin and print position?	Cancel or reset the settings of the origin and print position.	☞**4.5.1.2.4 Adjust Print**

（3）Printing is blurred.

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Using thick and thin media?	Use the dedicated media.	☞**4.2.1 Media**
3	Using standard media?	Use the dedicated media.	☞**4.2.1 Media**
4	Is the media setup correct?	Set up the media correctly.	☞**4.5.1.2 Media Set Menu**
5	Printing on the printing surface?	Confirm the printing surface of the media and set it correctly.	☞**3.4 Media handling**

（4）White or black lines appear on the printing.

No.	Possible cause	Remedy	Reference
1	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
2	Is the scroller set correctly?	Set the scroller correctly.	☞**3.4.1 Roll media loading**
3	Is the nozzle in good condition?	Perform head cleaning.	☞**5.2.3 Head cleaning**

（5）Printing lines are not straight.

No.	Possible cause	Remedy	Reference
1	Is the ink cartridge within the validity period?	Use a new ink cartridge.	☞**5.1.1 Replacing ink cartridges**
2	Are you using the dedicated media?	Use the dedicated media.	☞**4.2.1 Media**
3	Performed an alignment?	Perform alignment.	☞**4.5.1.2.4 Adjust Print**

（6）Printing lines are duplicated or are patchy.

No.	Possible cause	Remedy	Reference
1	Is the nozzle in good condition?	Perform head cleaning.	☞**5.2.3 Head cleaning**

6.2 **Error messages**

This section describes the messages displayed during the normal operation and occurrance of error of the printer, and their solutions.

6.2.1 **Status messages**

This section describes the display during the printer operation.
When the product is operating correctly, the operation panel displays each operation status as below.

No.	Possible cause	Remedy	Reference
1	Print Ready	Idling (Media is set).	-
2	Paper End	Idling (Media is not set).	☞**3.4 Media handling**
3	Receiving	Receiving data. (* displays a port no.)	-
4	Converting	Analyzing data. (* displays a port no.)	-
5	Printing	Under printing.	-
6	Cleaning ** minutes	Cleaning the head. Please wait a while.	☞**5.2.3 Head cleaning**
7	Ink Refill **min	Charging the ink. Please wait a while.	☞**3.3 Installing ink cartridges**
8	Transport Mode	Preparing for transportation. Please wait a while.	☞**5.3.2 Transporting the printer**
9	******** OK?	Initializing the media. Please wait a while. (*** represents the setup media type.)	☞**3.4.4 Releasing the Partial Function of Pressure Arms**
10	Paper Initial		
11	Cover Open	The front cover is open.	☞**3.4 Media handling**
12	Lever Up	The media loading lever is lowered backward. Set the media.	☞**3.4 Media handling**
13	Layout Receiving	After receiving print data, the printer is waiting for the receive of the next data. Displayed when the layout function is enabled.	☞**4.5.1 Setup menu items**

6.2.2   **Error message display and remedies**

This section describes the details of the display when an error message appears and its remedy.
Error messages are displayed when certain failures occur during printer operation.
If an error message appears, the printer may display the following error message on the operation panel and stop operation.
When operation stops and the error is solved, the error message is cancelled and the printer restarts operation.

No.	Display	Description	Remedy	Reference
1	Undefined Paper	Failed in identifying the media. (Stops operation)	Reload the media.	☞**3.4 Media handling**
2	Paper Slant	The media was not fed straight. (Stops operation)	Reload the media.	☞**3.4 Media handling**
3	Paper Cut Error	The media could not be cut. (Stops operation)	Reload the media.	☞**3.4 Media handling**
4	Not Enough Roll	Roll media has run out. (Stops operation)	Load a new roll media.	☞**5.1.2 Replacing roll media**
5	End Of Roll	The roll media has run out. (Stops operation)	Reload a new roll media.	☞**5.1.2 Replacing roll media**
6	[***] InkNearEnd	Ink is running out. (Continues operation)	Prepare a new ink cartridge.	☞**5.1.1 Replacing ink cartridges**
7	[***] Ink End	Ink has run out. (Stops operation)	Replace with a new ink cartridge.	☞**5.1.1 Replacing ink cartridges**
8	[***] Cartridge	Cartridge is not inserted. (Stops operation)	Insert an ink cartridge.	☞**3.3 Installing ink cartridges**
9	Discharged	Initial charging has not been performed. (Stops operation)	Perform initial ink charging.	☞**3.3 Installing ink cartridges**
10	NearFullWasteInkTank	Waste fluid box shortly becomes full. (Continues operation)	Replace the waste fluid box.	☞**5.1.4 Replacing waste fluid box**
11	FullWasteInkTank	The waste fluid box is full. (Stops operation)	Replace the waste fluid box.	☞**5.1.4 Replacing waste fluid box**
12	No WasteInkTank	Waste fluid box is removed. (Stops operation)	Install Waste fluid box.	☞**5.1.4 Replacing waste fluid box**
13	Warning CR Mot. Life	The life CR motor is almost expired. (Continues operation)	Contact MUTOH local dealer.	-

No.	Display	Description	Remedy	Reference
14	Warning Pump Life	The operational life of Pump unit has almost expired. (Continues operation)	Contact your local MUTOH dealer or MUTOH technical support.	-
15	NoMemory DIMM256MB	Memory ran out during data analysis or printing.	Contact MUTOH local dealer.	-

NOTE

- [***] represents the ink color. For details, refer to "**2.2.6 Indicator Display**".
  If an error occurs on all ink colors, an error message will be displayed without alphabetic code.

- If the "No Ink" and "No Cartridge" errors occur simultaneously, "No Cartridge" is displayed.

6.2.3 **Data error display and remedies**

This section describes the details of the display when an error message appears and its remedy.
A data error appears if data communication between your PC and the printer has failed.
If a data error occurs, the following error message appears on the operation panel of the printer and operation stops.
When the cause of the error is solved, the printer starts operating again.

No.	Display	Description	Remedy	Reference
1	I** Error [ ]	An error occurred when receiving data.	Check the communication requirements between the printer and your PC.	☞**4.5 Menu setup on the operation panel**

NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.

6.2.4   **Command error display and remedies**

This section describes the details of the display when a command error occurs and its remedy.
A command error is displayed if a certain failure occurs during analysis of the command data sent from your PC to the printer.
If a command error occurs, the following error message appears on the operation panel of the printer and operation stops.
When the cause of the error is solved, the printer starts operating.

No.	Display	Description	Remedy	Reference
1	MH** Error [ ]	An invalid command has been sent from the computer.	Check that the settings on your PC and the printer are the same.	☞**4.5 Menu setup on the operation panel**

NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.

- The command code representing the error occurred is indicated in [ ].

- For the settings on your PC side, refer to the Operating Manual attached with your PC.

6.2.5   **Error requiring a restart**

This section describes the details of the display when an error requiring a restart occurs and its remedy. An error requiring a restart is displayed if a fatal operational failure such as the following occurs.

- When an obstacle which prevents printing occurs

- When a problem occurs with the electrical circuit (PCB, motor, sensor, etc.) of the printer

- When a failure on the printer control program occurs

If an error requiring a 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 a 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 MUTOH local dealer. Be sure to tell us the code no. of the error message when you contact us.

No.	Display	Description	Remedy	Reference
1	E** Error [ ]	A problem that does not have a remedy.	1. Remove obstacles such as paper scraps in the drive system. 2. Confirm that the replaced items are correctly attached. 3. Turn off the printer power, and turn it on again after more than 10 seconds.	☞**6.3 The media is jammed** ☞**5.1 Replacing consumable components**

NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.

- The command code representing the error occurred is indicated in [ ].

- For the settings on your PC side, refer to the Operating Manual attached with your PC.

6.3 **The media is jammed**

When the set media is jammed, remove it according to the following procedure.

6.3.1 **Roll media**

1. Turn OFF the power of the printer.
   ☞**3.2.2 Turning the power OFF**

2. Open the front cover.
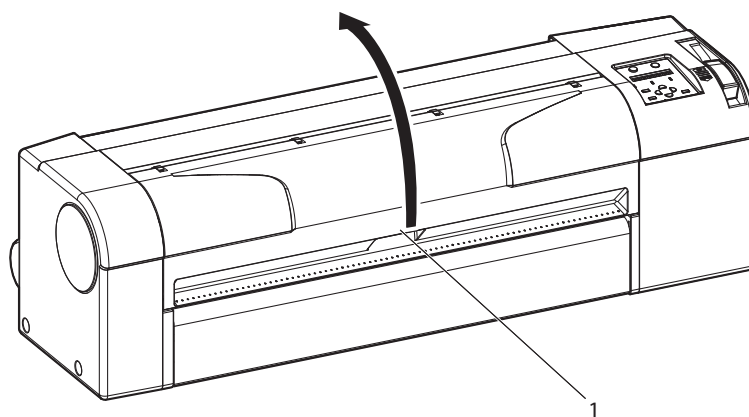
No.	Name
1	Front cover

3. Change the head height to "High".
   ☞**4.2.5 Head height adjustment**

4. Move the carriage section from the top of the media to the right.
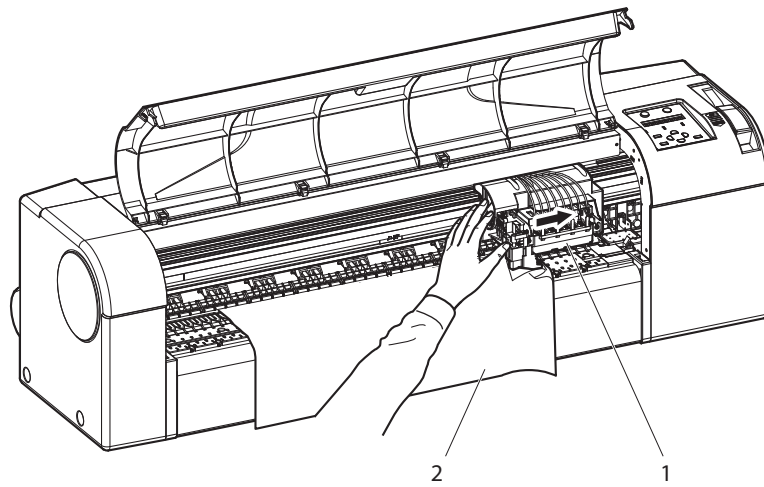
No.	Name
1	Carriage section
2	Roll media

5. Push the media loading lever backward.
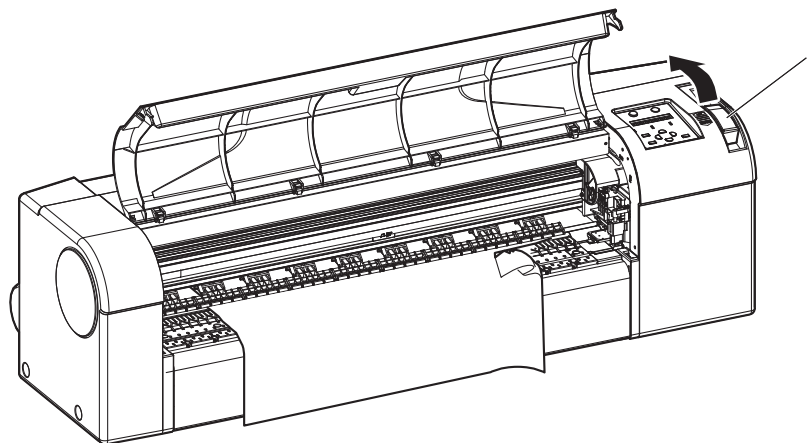
No.	Name
1	Media loading lever

6. Draw the media to your side, and cut the torn part with a razor blade, etc.
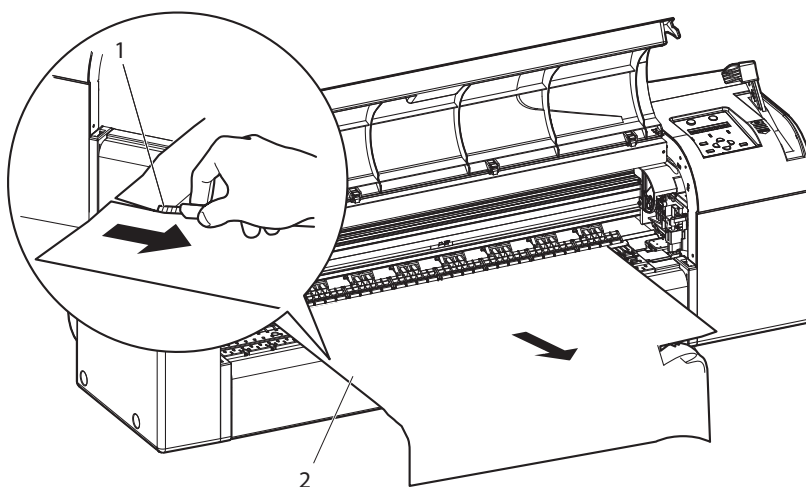
No.	Name
1	Razor blade
2	Roll media

7. Lift both end of the scroller, and manually rewind the roll media.
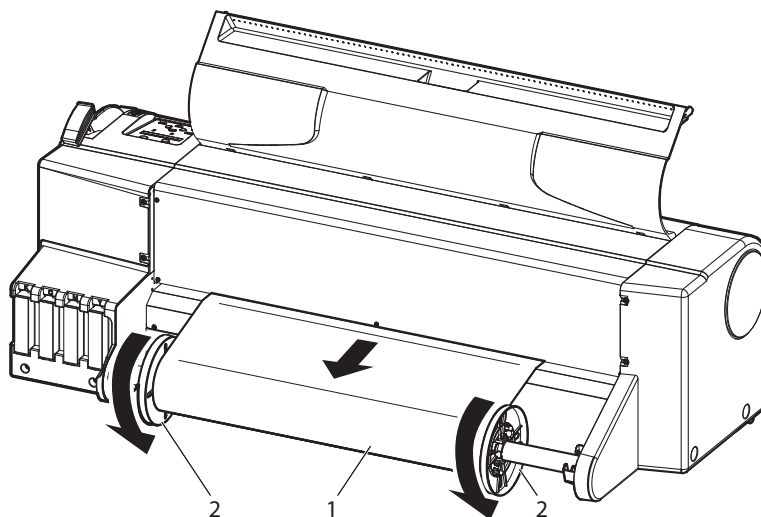
No.	Name
1	Roll media
2	Scroller

8. Remove a torn piece of paper if a paper dust or a piece of paper remained inside the printer.

9. If errors requiring a restart occur, temporarily turn off the [Power] key, and then turn it on again.
    ☞**3.2.1 Turning the power ON**

6.3.2   **Sheet media**

1. Turn OFF the power of the printer.

2. Push the media loading lever backward.
    ☞**3.2.2 Turning the power OFF**
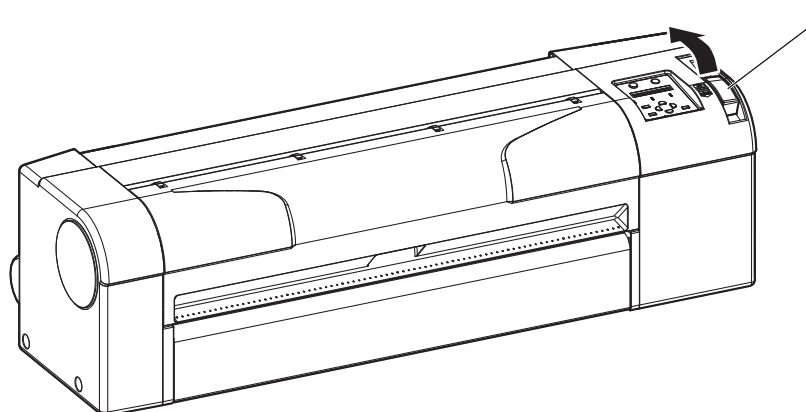
No.	Name
1	Media loading lever

3. Remove a sheet media from the media feed slot.
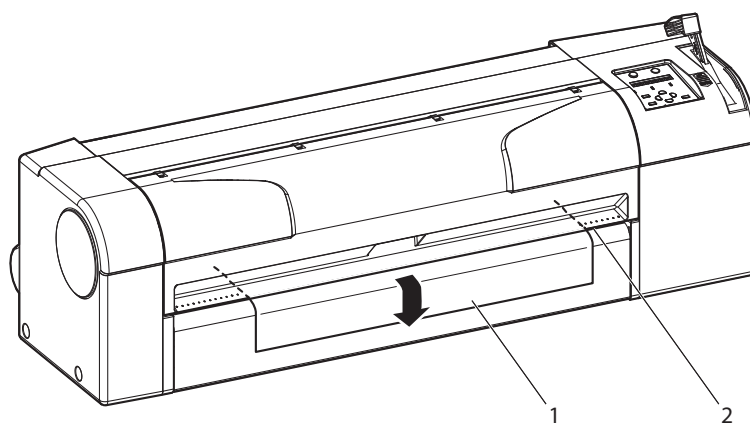
No.	Name
1	Sheet media
2	Media feed slot

4. Open the front cover and remove a torn piece of paper if a paper dust or a piece of paper remained inside the printer.
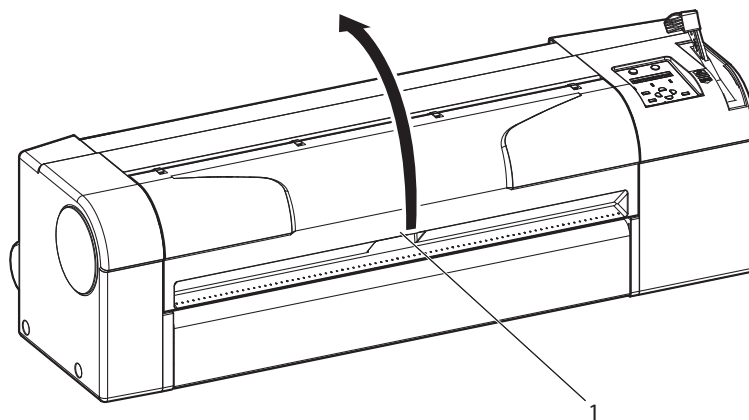
No.	Name
1	Front cover

5. If errors requiring a restart occur, temporarily turn off the [Power] key, and then turn it on again.
   ☞**3.2.1 Turning the power ON**

7   **Appendix**   7-1

This chapter describes each printer specification, Options / Supply, and user support.

7.1   Product specifications

7.1.1   Printer specifications

Items		Specification	
Model name		RJ-901X	RJ-900X
Printing method		On-demand piezo drive system	
Drive system		Firmware servo / DC motor drive	
Media feed system		Multipoint pressurization grid roller system	
Media fixing system		Pressurization roller down system by manual lever	
Media feed/ ejection	Sheet media	Front feed/Front ejection	
	Roll media	Rear feed/Front ejection	
Media		Tracing paper, Color standard paper, Film, Coated paper, Gloss paper	
Outer diameter of the roll media	2 inch	Under 100 mm	Under 150 mm
	3 inch	Under 100 mm	Under 150 mm
Maximum media length	Sheet media	1,200 mm	1,600 mm
	Roll media	50 m	
Maximum media width		610 mm	1,080 mm
Maximum print length	Sheet media	1,180 mm	1,580 mm
	Roll media	18 m	
Maximum print width		604 mm	1,074 mm
Print margin	Sheet media	Front: 3 mm, Back: 17 mm, Left: 3 mm, Right: 3 mm	
	Roll media	Front: 3 mm, Back: 17 mm, Left: 3 mm, Right: 3 mm	
Media cut system		Horizontal auto-cut system	
Head height adjustment		Standard / High (2 step adjustment)	
Range accuracy		Within ± 0.25 mm or ± 0.1% of the moving distance • Use media: Matte film 50 µm • Use temperature: 20°C • Use humidity: 60% • Print mode: High quality	
Perpendicularity		For moving distance (500.0 mm), within ±0.1 mm • Use media: Matte film 50 µm • Use temperature: 20 °C • Use humidity: 60% • Print mode: High quality	
CPU		64Bit RISC CPU	
Memory		256MB	
Command		MH-GL, MH-GL/2, MH-RTL (RTL-PASS)	
Font		Vector font (JIS first level, second level, in accordance with 1990 version)	

Items		Specification	
Interface		• Ethernet (10BASE-T / 100BASE-TX) • USB (Corresponding to USB 1.1 and USB 2.0)	
Ink	Supply system	Tubing supply system from 4 color independent cartridge	
	Cartridge	Black, Cyan, Magenta, Yellow: each color 110 ml ± 5 ml	
Environmental condition	Operating environment	Temperature: 10 °C to 35 °C Humidity: 20% to 80%, No condensation	
	Printing accuracy coverage	Temperature: 15°C to 28 °C Humidity: 40% to 60%, No condensation	
	Rate of change	Temperature: Within 2 °C per 1 hour Humidity: Within 5% per 1 hour	
	Archiving environment (Ink unfilled)	Temperature: -10 °C to 60 °C Humidity: 5% to 85%, No condensation	
	Archiving environment (Ink filled)	Temperature: -10 °C to 40 °C Humidity: 20% to 85%, No condensation	
Power	Power voltage	AC 90 V to AC 132 V / AC 198 V to AC 264 V	
	Frequency	50Hz / 60Hz ± 1Hz	
Power consumption	Printing	100 W	
	Idling	Under 35 W	
Outer diameter	Height	357 mm	983 mm (including Stand)
	Width	1,192 mm	1,172 mm
	Depth	504 mm	
Weight	Printer	30.5 kg	45.0 kg
	Stand	12.5 kg	16.5 kg

7.1.2 **Printing operation specifications**

When dedicated media is used, the setting of printing quality is set according to each media type.

（1）**MonoTrac**

Setup item	High speed color	High speed black & white	Normal color	Normal black & white	High-quality Color	High-quality black & white
Condition	-	Lines	-	Lines	-	Lines
PrintReso. (dpi)	-	HS360	-	360	-	720
Direction	-	BiDir	-	BiDir	-	UniDir
ThinOut (Black)	-	100%	-	100%	-	70%
InkDryTimer	-	30s	-	30s	-	60s
Stiffness	-	Soft	-	Soft	-	Soft

（2）**Col.Trac**

Setup item	High speed color	High speed black & white	Normal color	Normal black & white	High-quality Color	High-quality black & white
Condition	Lines	Lines	Lines	Lines	Lines	Lines
PrintReso. (dpi)	360	360	720	720	1440	1440
Direction	BiDir	BiDir	BiDir	BiDir	BiDir	BiDir
ThinOut (Black)	100%	100%	70%	70%	60%	60%
ThinOut (Color)	70%	-	40%	-	40%	-
InkDryTimer	60s	10s	120s	90s	60s	60s
Stiffness	Normal	Normal	Normal	Normal	Normal	Normal

（3） Plain

Setup item	High speed color	High speed black & white	Normal color	Normal black & white	High-quality Color	High-quality black & white
Condition	Lines	Lines	Lines	Lines	Lines	Lines
PrintReso. (dpi)	HS360	HS360	360	360	720	720
Direction	BiDir	BiDir	BiDir	BiDir	UniDir	UniDir
ThinOut (Black)	100%	100%	100%	100%	70%	70%
ThinOut (Color)	100%	-	60%	-	40%	-
InkDryTimer	0s	0s	0s	0s	0s	0s
Stiffness	Normal	Normal	Normal	Normal	Normal	Normal

（4）**Film**

Setup item	High speed color	High speed black & white	Normal color	Normal black & white	High-quality Color	High-quality black & white
Condition	Lines	Lines	Lines	Lines	Lines	Lines
PrintReso. (dpi)	360	720	720	1440 Position specified	1440	1440
Direction	BiDir	BiDir	BiDir	BiDir	BiDir	BiDir
ThinOut (Black)	100%	100%	100%	40%	100%	100%
ThinOut (Color)	100%	-	50%	-	40%	-
InkDryTimer	60s	60s	60s	90s	90s	90s
Stiffness	Normal	Normal	Normal	Normal	Normal	Normal

（5）**Coat**

Setup item	High speed color	High speed black & white	Normal color	Normal black & white	High-quality Color	High-quality black & white
Condition	Lines	Lines	Lines	Lines	Photo	Lines
PrintReso. (dpi)	360	360	720	720	1440	1440
Direction	BiDir	BiDir	BiDir	BiDir	BiDir	BiDir
ThinOut (Black)	100%	100%	70%	70%	90%	90%
ThinOut (Color)	100%	-	60%	-	60%	-
InkDryTimer	0s	0s	0s	0s	0s	0s
Stiffness	Normal	Normal	Normal	Normal	Normal	Normal

（6）**Photo**
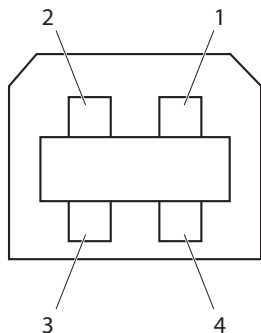
Setup item	High speed color	High speed black & white	Normal color	Normal black & white	High-quality Color	High-quality black & white
Condition	Photo	Lines	Photo	Lines	Photo	Lines
PrintReso. (dpi)	720	720	1440	1440	2880 Position specified	2880 Position specified
Direction	BiDir	BiDir	BiDir	BiDir	BiDir	BiDir
ThinOut (Black)	85%	85%	75%	75%	90%	90%
ThinOut (Color)	55%	-	60%	-	50%	-
InkDryTimer	0s	0s	0s	0s	0s	0s
Stiffness	Normal	Normal	Normal	Normal	Normal	Normal

7.2　**Interface specification**

This section describes each type of interface specifications supported by this product.

7.2.1　**USB interface specification**

（1）**Interface specification**

Item	Specification
Specification	Universal Serial Bus Specifications Revision 2.0 Universal Serial Bus Device Class Definition for Printing Devices Version 1.1
Data format	NRZI
Transfer rate	480Mbps（High speed Device）
Connector	USB Series B
Allowable cable length	3 m
Connector pin No.	

（2）**USB interface table pin No. and signal**

Pin No.	Signal name	Input/Output	Function
1	VCC	-	Cable power
2	- Data	BiDir	Data
3	+ Data	BiDir	Data
4	Ground	-	Cable round

7.2.2   **Network interface specification**

Item	Specification
Network type	Ethernet IEEE802.3
Network I/F	10BASE-T / 100BASE-TX Automatic transfer type (RJ-45 Connector twist pair cable) MDI/MDI-X Automatic transfer
Corresponding protocol	TCP/IP

7.3 **Options/Supply list**

For more information about the options and the supply items, contact MUTOH local dealer.

Setup menu diagram

For details of the Setup menu configuration diagram, refer to the followings.

NOTE

- For details of each setup item, refer to followings:

  ☞「**4.5.1 Setup menu items**」

- The < > parts in each list are factory default settings (initial values).

Setup menu diagram (1/4)

```
TestPrint ─────────────────── Setup
                              ─ NozzleChck
                              ─ Palette
                              ─ Mainte.

MediaSet ──────────────────── Media ──────────────── MonoTrac ──────────────────▶ Ⓐ
                                                     ─ Col.Trac
                                                     ─ Plain
                                                     ─ <Coat>
                                                     ─ Film
                                                     ─ Photo
                                                     ─ User1 ────────────────────▶ Ⓑ
                                                     ─ User2
                                                     ─ User3
                                                     ─ User4

                             ─ CutSheetSize ───────── Auto.
                                                     ─ <Vert.>
                                                     ─ Hori.
                                                     ─ Auto. 2

                             ─ Mediacheck ─────────── <On>
                                                     ─ Off ──────────────────────▶ Ⓒ

                             ─ TopFeed ────────────── <0mm>-100mm
                             ─ ManageRoll ─────────── <Invalid>
                                                     ─ Roll1
                                                     ─ Roll2
                                                     ─ Roll3
▶ To Setup menu diagram(2/4)                         ─ Roll4

                             ─ Cut RollTop ────────── <0mm>-500mm
```

▶ ⒶWhen dedicaded media is set in media type item

```
Effect ───────────────────── <None>/Wave/Fog/Fine&Fuzz/Fine&Fog
                             A-S. Fine&Wave/B-S. Fine&Wave

RollCut ──────────────────── <On>
                            ─ Off

CutMethod ────────────────── <2steps Lo> *1
                            ─ <2steps Hi> *1        *1:Default value vary by printing media.
                            ─ 3steps Lo              ・Photo：2steps-High
                            ─ 3steps Hi              ・Other media：2steps-Low

PF ───────────────────────── Initial Print
                            ─ Initial Change
                            ─ Confirm Print
                            ─ Micro Print
                            ─ Micro Change

AdjustPrint ──────────────── PatternA/PatternB/PatternC
                            ─ Initial
```

▶ ⒷWhen user media is set in media type item

```
Condition ────────────────── <Lines>
                            ─ Photo

PrintReso. ───────────────── HS360dpi
                            ─ 360dpi
                            ─ <720dpi>
                            ─ 1440dpi
                            ─ 2880dpi

Direction ────────────────── UniDir
                            ─ <BiDir>

ThinOut(Black) ───────────── 5％～＜１００％＞
ThinOut(Color) ───────────── 5％～＜１００％＞

Stiffness ────────────────── <Normal>
                            ─ Soft
                            ─ SuperSoft
                            ─ Frame

InkDryTimer ──────────────── <0s>-270s-3600s
RollCut ──────────────────── <On>
                            ─ Off

CutMethod ────────────────── <2steps Lo> *1
                            ─ <2steps Hi> *1        *1:Default value vary by printing media.
                            ─ 3steps Lo              ・Photo：2steps-High
                            ─ 3steps Hi              ・Other media：2steps-Low

PF ───────────────────────── Initial Print
                            ─ Initial Change
                            ─ Confirm Print
                            ─ Micro Print
                            ─ Micro Change

AdjustPrint ──────────────── PatternA/PatternB/PatternC
                            ─ Initial
```

▶ ⒸWhen the off is set in media initial item

```
MediaWidth ───────────────── 150mm-<594mm>-610mm(RJ-901X)
                            ─ 150mm-<841mm>-1143mm(RJ-900X)
```

Setup menu diagram (2/4)

➤ To Setup menu diagram(1/4)

- Command
  - Command
    - <MH-GL,GL/2>
    - MH-GL/2
  - Origin
    - <Center>
    - LL
  - Step
    - <0.025mm>
    - 0.010mm
  - Position
    - <P1>
    - LL
    - Full
  - Terminator
    - Normal
    - <Special>
  - ImageReso.
    - 300dpi
    - <360dpi>
    - 600dpi
    - 720dpi
    - 1200dpi
    - 1440dpi
  - OnlineTimer
    - Off
    - 2s-<30s>-800s
  - Merge
    - <Last>
    - Mix
  - Quality
    - <ThinLine>
    - FillIn

- PenSetup
  - PenPrior
    - Panel ──────────────────➤ Ⓐ
    - <Command>
  - PenTone
    - Valid
    - <Invalid>

➤ To Setup menu diagram(3/4)

➤ Ⓐ When the panel is set in the pen priority item

- Pen0Width-Pen15Width
  - 0.10.mm
  - 0.13mm
  - 0.18mm
  - 0.25mm
  - 0.35mm
  - 0.50mm
  - 0.60mm
  - 0.70mm
  - 0.80mm
  - 0.90mm
  - 1.00mm
- Pen0Color-Pen15Color
  - 0/1/2/3/4/5 - 255
    (When color is set)
- Pen0Tone-Pen15Tone
  - 0%/10%/20% - 100%
    (When Black & White is set)
- All Width
  - 0.10mm
  - 0.13mm
  - 0.18mm
  - 0.25mm
  - 0.35mm
  - 0.50mm
  - 0.60mm
  - 0.70mm
  - 0.80mm
  - 0.90mm
  - 1.00mm
- All Color
  - 0/1/2/3/4/5 - 255
    (When color is set)
- All Tone
  - 0%/10%/20% - 100%
    (when pen tone is enabled)

Setup menu diagram (3/4)

```
─ Layout ──────────────── Layout ───────────────── On
                                                  └ <Off>
                        ── LayoutMeth. ─────────── MAX-MIN
                                                  └ <Command>
                        ── Margin ──────────────── <Normal>
                                                  └ Full
                        ── CutLine ─────────────── On
                                                  └ <Off>
                        ── LayoutTimer ─────────── Off
                                                  └ 10s-<120s>-800s

─ Function ────────────── Scale ────────────────── 25%-<100%>-400%
                        ── Mirror ──────────────── <Off>
                                                  ├ X On
                                                  ├ Y On
                                                  └ XY On
                        ── Rotation ────────────── <0° >
                                                  ├ 90°
                                                  ├ 180°
                                                  └ 270°

─ Network ─────────────── IP Address ───────────── 000.000.000.000-
                                                   <192.168. 1.253>-
                                                   255.255.255.255
                        ── SubnetMask ──────────── 000.000.000.000-
                                                   <255.255.255.000>-
                                                   255.255.255.255
                        ── Gateway ─────────────── 000.000.000.000-
                                                   <192.168. 1.254>-
                                                   255.255.255.255
                        ── BiDir Port ──────────── 1024-<10610>-49151
                        ── MAC Address ─────────── **.**.***.**.**.**.

─ Utility ─────────────── Version
                        ── Serial No.
                        ── MenuMask ────────────── <Normal>
                                                  ├ Off
                                                  └ AlwaysOff
                        ── ErrorDisplay ────────── On
                                                  └ <Off>
                        ── Initial ─────────────── Yes ──────────────► Ⓐ
                                                  └ <No>
                        ── Dump ────────────────── Start/End
                                                  └ All
                        ── CutterChange ────────── <No>
                                                  └ Yes
                        ── On Cleaning ─────────── On
                                                  └ <Off>
                        ── Prefeed ─────────────── Data
                                                  ├ <Manual>
                                                  └ Off
                        ── PrefeedAmount ───────── <0mm>-3000mm
```

► Ⓐ When Execute is set
   at initialize setup item

```
─ Init.All ──────────────── No
                          └ <OK>
─ Init.Media ────────────── No
                          └ <OK>
─ Init.Command ──────────── No
                          └ <OK>
─ Init.Pen ──────────────── No
                          └ <OK>
─ Init.Layout ───────────── No
                          └ <OK>
─ Init.Function ─────────── No
                          └ <OK>
─ Init.Network ──────────── No
                          └ <OK>
```

Setup menu diagram (4/4)

▶ To Setup menu diagram(3/4)
— Utility
  — AutoCL
    — Waiting Time ──────────▶ Ⓐ
    — Printing Time ─────────▶ Ⓑ
    — Before Print ──────────▶ Ⓒ
  — Spitting
    — <On>
    — On Media ─────────────▶ Ⓓ
    — Off
  — Take-Up
    — <Off>
    — On
  — Ink Capacity
    — <110ml>
    — 220ml
  — Language
    — Japanese/<English>/German/French/Italian
      /Spanish/Duch/Portuguese
— Consumption
  — Remain Ink K ──────── 0% - 100%
  — Remain Ink C ──────── 0% - 100%
  — Remain Ink M ──────── 0% - 100%
  — Remain Ink Y ──────── 0% - 100%
  — Remain Roll ──────── **m
  — RemainWasteTank ──────── 0% - 100%
  — RemainCutterLif ──────── 0% - 100%
— Cleaning
  — Short
  — Normal
  — Long
  — Longer

▶ Ⓐ When "Wating Time"is set
     at AutoCL
  — 0min - <360min> - 1440min ──── Time
    — <Short>
    — Normal
    — Long

▶ Ⓑ When "Printing Time"is set
     at AutoCL
  — <0min> - 5min - 180min ──── Time
    — <Short>
    — Normal
    — Long

▶ Ⓒ When "Before Print"is set
     at AutoCL
  — <Off>
  — On ──────────── Time
    — <Short>
    — Normal
    — Long

▶ Ⓓ When "On" or "On Media" is set
     at Spitting
  — Pass Count ──────── <1cnt> - 999cnt

A-6

MUTOH