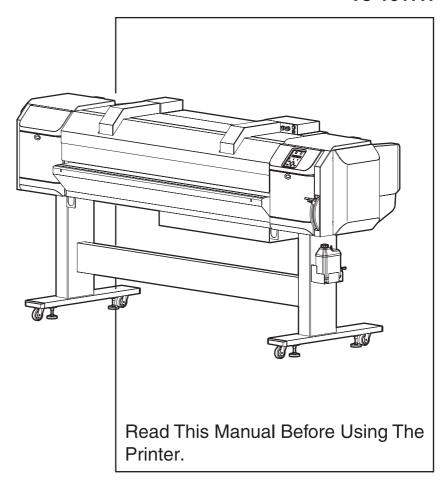
MUTOH

OPERATION MANUAL

Full-Color Inkjet Printer



VJ-1617H



Rev.

VJ-1617HE-A-01

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, ValueJet, VJ-1617H, MH-RTL are registered trademarks or product names of MUTOH INDUSTRIES LTD.
- Windows 7, Windows Vista and Windows XP are registered trademarks or product names of Microsoft Corporation.
- Other company and product names may be registered trademarks or product names.

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.
- The product and the contents of this publication may be changed without prior notification.
- 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.

Warranty Limitations

- MUTOH INDUSTRIES LTD. warrants part repair or replacement as a sole measure only if a failure
 is found in the system or in the materials and workmanship of the product the seller produced.
 However, if the cause of failure is uncertain, decide the action after due mutual consultation.
 Details concerning the warranty are written in the warranty certificate included with the product.
- 2. The warranty shall not apply to any direct or indirect loss, or compensation for the loss due to the product that has been subject to misuse, neglect, or improper alternation.

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 operation procedure when you start the printer 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 VJ-1617H.

This manual is prepared for the owners and operators of this printer.

Before using this printer, fully understand the contents and directions in this manual.

3. Manual Configuration

Section	Description
1 Safety instructions	This chapter explains the installation of this printer, warning terms that operators need to know, caution items and warning labels on the printer main unit.
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 Panel setup menu	The section explains the Setup menu of the printer.
6 Maintenance	This chapter describes daily maintenance of the product.
7 Troubleshooting	This chapter describes possible troubles during the use of this product and countermeasures.
8 Appendix	This chapter describes specifications and included components with this printer.



- "1 Safety instructions" to "4 Handling the printer" must be read before using the printer.
- Read "5 Panel setup menu" through "8 Appendix" as necessary.

4. Manual Notation

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

Warning	Meaning
A WARNING	Used for dangerous situations where death or serious injury may be caused.
A CAUTION	Used for dangerous situations that may cause slight or medium injury, or when all or parts of products are damaged.
NOTE	It is used for special cautions and for information that needs to be emphasized.
TIP	Indicates useful tips for operating or understanding the printer.
\Diamond	Indicates "prohibited" operations.
0	Indicates required operations.
LF.	Indicates reference pages in this manual.

TABLE OF CONTENTS

1	Sa	fety instructions	
1.1	Тур	pes and meanings of warnings	16
1.2	lmp	portant safety instructions	17
	Wa 3.1 3.2	Handling the warning labels	21
2	Pr	oduct overview	
2.1	Fea	atures	26
2.2	Nai 2.1 2.2 2.3	mes of parts and functions. Front section	27 29
2.3 2.3	Pri i 3.1 3.2 3.3 3.4	Number of colors to be used	35 35 35
3	Be	efore using	
3.1	Pov	wer cable connection	38
_	Tur 2.1 2.2	rning the power ON/OFF Turning the power ON Turning the power OFF	42
_	Sle 3.1 3.2	Set sleep mode on the printer	52
3.4 3.4	Init 4.1	tial ink filling Details of initial ink filling	

3.5	Set	tting media	. 73
3.5	5.1	Installing Media-feed table	. 73
3.5	5.2	Loading rigid media	. 83
3.5	5.3	Removing Media-feed table (optional)	. 92
3.5	5.4	Loading roll media	. 95
3.5	5.5	Setting roll media	. 98
3.5	5.6	Setting media type	104
3.5	5.7	Media Type Change Procedure from Media Type Menu	107
3.6	Tes	st print	116
3.6		Nozzle check	
3.6	5.2	Nozzle check B	
3.6	3.3	Mode print	121
3.6	5.4	Setup print	
3.6	6.5	Palette print	123
3.6	6.6	Color verify	124
3.7	bΔ	just print	137
3.7		Standard print quality adjustment	
_	7.2	Custom print quality adjustment	
3.8	Co	nnecting the printer to PC	165
3.6		System requirements	
	3.2	Preparing cables	
	3.2 3.3	Connecting a network interface cable	
	3.4	Setting the IP address	
	3. 5	Setting subnet mask	
	3.6	Gateway setting	
0.0			
4	Ha	andling the printer	
4.1	Pri	nt flow chart	176
4.2	Ma	dia	170
	1 VIE 2.1		
		Recommended media	
	2.2	Cautions on handling media	
	2.3 2.4	Precaution on storing media	
	2. 4 2.5	Printing area	
	2.5 2.6	Head height adjustment	
	2.0 2.7	Media feed compensation	
	2. <i>1</i> 2.8	Installing media holder plates	
4.3		nu setups on the operation panel	
	3.1	Panel setup menu overview	
4.3	3.2	Menu setup procedure	192

4.4	Operating from the operation panel	195
4.4	.1 Feeding media	195
4.4	Stopping printing operation	196
4.4	3	
4.4		
4.4		
4.4		
4.4	Normal Display while Printing	202
4.5	Using Blower heater	204
4.5		204
4.5		
4.5	· · · · · · · · · · · · · · · · · · ·	
4.5	· ·	
4.6	Using Spectrophotometer	
7.0	(SPECTROVUE VM-10)210	
_		
5	Panel setup menu	
5.1	Sleep mode menu	220
-	.1 Timer Setting menu	
5.1 5.1		
J. 1	·	
5.2	User Type menu	
5.2	71	
5.2	2.2 Various settings of User type	224
5.3	Setup menu	239
5.3	•	
5.3		
5.3		
5.3	8.4 Media loading position	245
5.3	3.5 Origin menu	247
5.3	S.6 Standby Heating menu	249
5.3	3.7 Head Travel menu	249
5.3	8.8 Multi Strike count menu	250
5.3	S.9 Slant Check menu	250
5.3	3.10 Auto Cleaning menu	251
	3.11 Roll Length menu	
	3.12 Paper Interlace Menu	
	8.13 BtmInterlace menu	
	3.14 CR Maintenance menu	
	3.15 Ink Status menu	
	3.16 Life Times menu	
	8.17 Header Dump menu	
5.3	3.18 Initialization menu	261
5.4	TestPrint Menu	262
5.5	Cleaning menu	263
5.6	-	264

5.7 5.7		Id maintenance	
5.8	Vers	sion menu	268
5.9 5.9 5.9 5.9 5.9	Def a .1 .2 .3	ault settings Longstore menu Length menu IP Address menu Subnet Mask menu Gateway menu	269 269 270 270 271
5.10	Job	Status Menu	272
6	Ma	intenance	
6.1	Sha	king ink packs	274
6.2 6.2 6.2	.1	ly maintenance	280
6.3 6.3 6.3	.1	Operation procedure for long storage	287
6.4 6.4 6.4 6.4 6.4	.1 .2 .3	Replacing Consumable components Replacing ink bags Replacing Connector rubber Replacing roll media Replacing the flushing-box sponges	305 312 313
6.5 6.5 6.5 6.5	.1 .2	Cleaning the outer case	322 323
6.6	Dis	posal the waste fluids	327
6.7 6.7 6.7	.1	Ving or transporting the printer	329
7	Tro	oubleshooting	
7.1 7.1 7.1 7.1 7.1	.1 .2 .3	functions and failures	334 335 337

7.2 Eri	ror messages	342
7.2.1	Status messages	
7.2.2	Error message display and remedies	
7.2.3	Data error display and solutions	351
7.2.4	Command error display and remedies	
7.2.5	Error requiring restart	353
7.3 Th	e media is jammed	354
7.3.1	Removing Thick Media	
7.3.2	Removing Roll Media	
8 Ap	opendix	
8.1 Pro	oduct specifications	358
8.1.1	•	
8.2 Int	erface specification	360
8.2.1		
8.3 Op	otions/Supply list	361
9 Se	etup menu diagram	

1 Safety instructions

This chapter explains the installation of this printer, warning terms that operators need to know, caution items and warning labels on the printer main unit.



• When installing and operating this printer, be sure to follow the directions and warnings in this book.

1.1 Types and meanings of warnings

The warnings in the Operation Manual and the warning labels attached to the printer are categorized into three stages.

Understand the meanings of the following warning terms and follow the contents (instructions) in this manual.

Warning	Meaning
♠ WARNING	Used for dangerous situations where death or serious injury may be caused.
A CAUTION	Used for dangerous situations that may cause slight or medium injury, or when all or parts of products are damaged.
NOTE	It is used for special cautions and for information that needs to be emphasized.

1.2 Important safety instructions

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





Do not install this printer in the following places.

It may cause an injury if the printer falls down.

- On a shaky stand
- Slanting location
- •Place where vibration from other machines is transmitted.



Do not step on this printer or place heavy things on top of it.

It may cause an injury if the printer falls down.



Do not block the vent by covering the printer with cloths, such as a blanket or tablecloth.

If the vent is blocked, heat may accumulate inside the printer and it may cause fire.



Do not install the printer where it is humid or dusty.

It could lead to an electric shock and fire.



Do not use a damaged power cable.

It could lead to an electric shock and fire.



Do not pull out or insert the 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 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 put combustible materials on the platen or media guide while performing the heater operation. It could lead to fire.



Do not spill flammable liquid over the platen or media guide.

This could lead to fire.



Do not insert or drop metal or flammable objects into the printer through openings such as a vent. It could lead to an electric shock or fire.



If 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 or fire.

Immediately turn OFF the power switch, disconnect the power plug from the electric socket, and contact your local MUTOH dealer.



Wire the various cords as directed in the Operation Manual.

Mistaken wiring could cause fire.



Be sure to use the power cable supplied with the printer.

Using other power cables can cause an electric shock or fire.



Use the power cord set compliant with the safety standards, power-supply voltage, and plug shape of the country where the printer is used.



Use a power cord set which is equipped with a protective earth, and securely connect it to the outlet.



Make sure to use only the specified power supply (AC 100-120 V or AC 200-240 V).

If a 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 100-120 V or AC 200-240 V).

Do not use 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.



The waste fluid from the printer is industrial waste.

Proper waste fluid disposal according to industrial waste disposal laws and ordinances of your local government is required.

Consign disposal of waste fluids to a specialized processor.

A CAUTION



Pay attention to the following points when handling power cable.

- •Do not tamper with the power cable.
- •Do not put 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 when handling the 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.
- •Make sure that the power plug is firmly inserted to the edge of the power socket.



When handling ink bags, pay attention so that ink does not get into your eyes or stick to your skin.

If ink gets into your eyes or sticks to your skin, immediately wash it off with water.

Failing to do so might cause irritation or light inflammation of eyes.

In case of any abnormality, consult a physician immediately.



Do not disassemble the ink bags.

If disassembled, there is a possibility that ink might come into contact with eyes or skin.



Do not operate the media loading lever during initial operation and printing.

The print head portion may touch the pressurizing roller portion, and cause a malfunction.



Do not use volatile solvents such as thinner, benzene, or alcohol.

These solvents could cause damage to the paint.



Be careful that no moisture enters the printer.

There is a possibility that the electric circuit inside the printer is short circuited.



Do not open covers attached using screws under any circumstances.

This may cause an electric shock or a malfunction.



Do not drop waste fluid when replacing the flushing-box sponges.

If waste fluid comes into contact with the grid roller, the surface of the grid roller will be damaged, and the media feed function may be affected.



When cleaning the cleaning wiper

•Do not touch the cleaning wiper and head cap unit.

Head cleaning may not be performed correctly because of oil from your hands.

•Make sure to use a cleaning stick, and dip it in the specialized cleaning fluid, and then clean around the print head. Wipe it with a fluid other than cleaning fluid can cause the print head to clog.

•Cleaning sticks can be used for about 1 week.

After 1 week, or when you cannot remove ink clumps, replace the cleaning stick.



When cleaning around the print head

•Do not touch the nozzle of the print head.

Doing so may damage the print head.

•Do not touch the head of the cleaning stick.

Oil on your hands may attach to the cleaning stick, causing damage to the print head.

•Make sure to use a cleaning stick, and dip it in the specialized cleaning fluid, and then clean around the print head.

Wipe it with a fluid other than cleaning fluid can cause the print head to clog.

•Cleaning sticks can be used for about 1 week.

After 1 week, or when you cannot remove ink clumps, replace the cleaning stick.



Do not slant the printer, prop it against a wall or turn it upside down.

There is a possibility that ink inside the printer may leak. Moreover, normal operation after shifting (to these positions) cannot be guaranteed.



When unpacking and moving the printer to an installation point, be sure to have the following number of personnel.

•VJ-1617H: four or more



When you do not use the printer for a long period, make sure to pull out the power plug from the power socket for safety.



If you are leaving the printer unplugged for a long time, follow the procedure in "6.3.1.1 Before turning OFF the printer for long storage" to turn the power OFF, and then unplug the power plug.



Make sure to connect an earth wire to the earth connection that 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.



Before performing work, make sure to read the material safety data sheet (MSDS).



Keep the work area well-ventilated.

This prevents fire, and stops operators from feeling sick from bad air.



Pay attention to the following points when you cut roll media.

Mishandling the razor blade may cause a cut on your finger or hand.

- •When you hold media, do not place your finger on the media cut groove.
- •Move the razor blade along the media cut groove.



When cleaning the areas other than the print head and wiper, be sure to turn OFF the power and disconnect the power plug.



Move the printer maintaining a horizontal position.



You need to let the ink flow inside the printer regularly, therefore, do not turn OFF the printer after regular operation; make sure you use the Sleep mode. Ink is maintained automatically in Sleep mode.



If you have to turn OFF the printer for a long time (move than 24 hours), follow "Procedure in when not using the printer for a long time (Power OFF)" to turn the printer OFF. If you do not follow the procedure and leave the printer OFF for a long time, the printer's performance may not be recovered even after cleaning.

- For the new white ink as well as white ink that has not been used for a month, read "Precautions before using white ink" provided with the white ink packs, and then shake Ink pack. Inappropriate shaking may cause poor print quality or a malfunction.
- Do not leave the printer in Sleep mode for more than two weeks. If the printer is going to be in Sleep mode for more than two weeks, perform "Long storage", and then turn the power OFF.
- If the printer is going to be in Sleep mode for more than one week, shake the ink packs once one week has passed.
- Shake the ink packs before use.
- If the printer is not going to be used for a long time, first follow the procedure in "6.3.1 Operation procedure for long storage".
- Make sure you perform daily maintenance. If the printer goes into Sleep mode or the power is turned OFF without daily maintenance, nozzles may get clogged.
- Print head cap is removed during daily maintenance; therefore daily maintenance must be performed before Print head dries.

 This maintenance should be finished within five minutes.

If maintenance may take more than five minutes, stop the operation. Perform head cleaning, and then perform daily maintenance again.

- This product must be protected from chemical agents, corrosive vapors, strong vibration and mechanical impact.
- Unauthorized dismantling of this product will void all warranty claims.

1.3 Warning labels

This section explains the handling of warning label, pasting location and types.

Warning labels are attached to parts of the printer that need special caution.

Understand the locations and the descriptions of the danger associated with each label before operating the printer.

1.3.1 Handling the warning labels

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



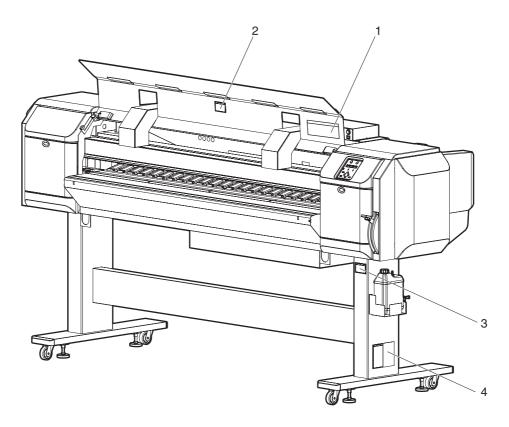
- Check whether all the warning labels can be read.

 If the letters or illustrations on the label are not clear, remove the dirt from the label.
- Use cloth, water and mild 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 your local MUTOH dealer.

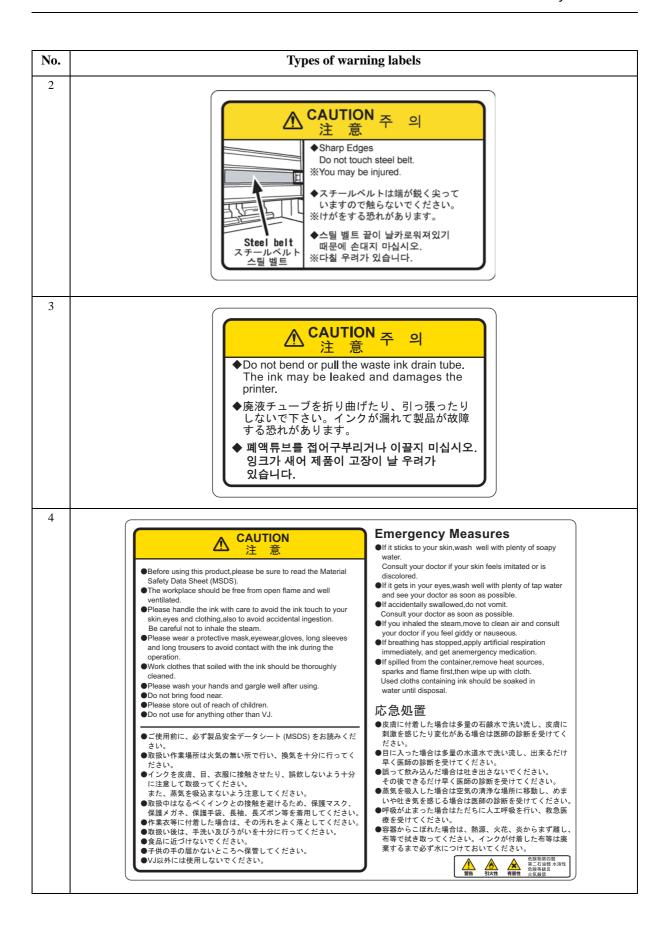
1.3.2 Location and type of warning labels

Pasting locations of the warning labels are shown in the following figure.

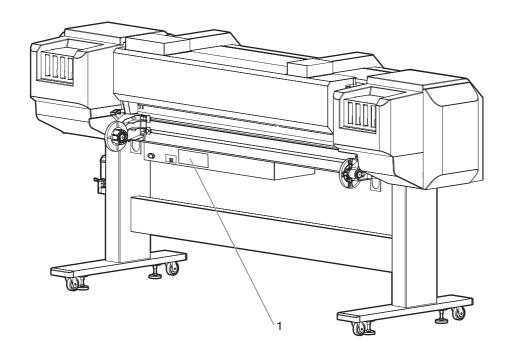
Front side

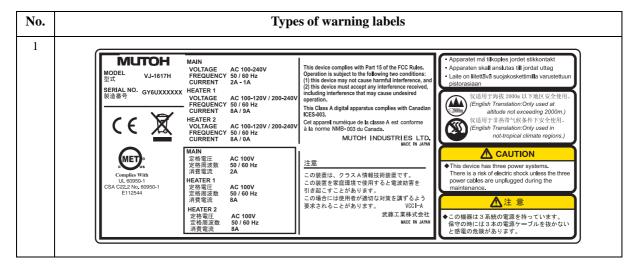


No.	Types of warning labels
1	소 CAUTION 주 의 注意
	◆Do not give a direct wind from a fan or air conditione to the machine. ※A wind may dry the ink in the head nozzles causing clogging that affects ink jetting and you will not be able to obtain satisfactory printing results. ◆Normal cleaning should be done once a week if the printer is not used for a long period. ※If the printer is not used for a long period.



Rear side





2 Product overview

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

2.1 Features

This section explains the main features of the printer.

(1) Wide range of media - thicknesses

Height adjustment mechanism of the print head now supports rigid media*1 of up to a thickness of 15.0 mm

A wide variety of media of a thickness of 0.08 mm to 15.0 mm is supported.

*1 : Hard media such as a board is described as "rigid media" in this manual.

(2) Wide range of media - materials

Rubber rollers adopted in the feeding mechanism have realized feeding rigid media such as glass.

(3) Wide range of media - colors

MP11 white ink is supported. (Only when using 5-color set) Use white ink as the base when printing on transparent or colored media to improve color development. (Dedicated RIP software is required). White ink uses twice as many nozzles as other colors; you can perform more dense white printing.

(4) Simple heaters

Newly developed Blower heater is mounted. The heating system has been made simpler without any ancillary facilities such as compressor or air dryer.

(5) LED pointer embedded

Embedded LED pointer has made it easy to change the origin point for printing. By saving the changed origin position, it has also been made easy to print on the same position repeatedly.

(6) Improved Media-feed table functions (optional)

Embedded rollers in Media-feed table have improved the feeding accuracy for rigid media.

(7) Compact and light Spectrophotometer (optional)

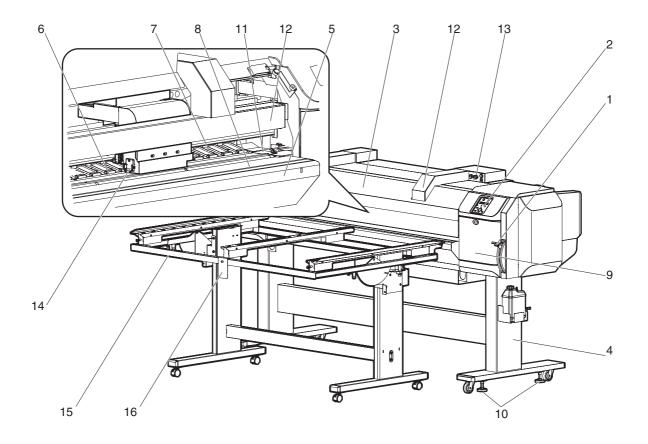
A compact and light Spectrophotometer (SPECTROVUE VM-10) to measure visible light ranging from 400 nm to 700 nm can be directly connected to the printer. Spectrophotometer can be used as a colorimeter for color calibration or color profiling. (Color calibration and profiling depend on the RIP software functions being used.)

Install Spectrophotometer on Print head to measure the color target automatically.

2.2 Names of parts and functions

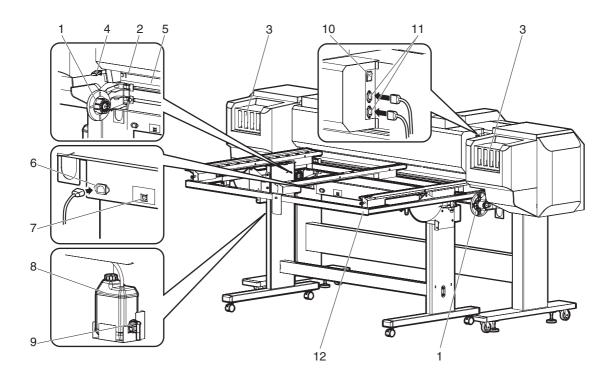
This section explains the names and functions of each part.

2.2.1 Front section



No.	Name	Function
1	Front media loading lever	Used for fixing or releasing the media. The operation is the opposite of Rear media loading lever on the rear side of the printer. • Lower Lever to fix the media. • Raise Lever to release the media.
2	Printer operation panel	Operation condition setting, printer display and various function settings are performed. 2.2.3 Operation panel
3	Front cover	Used for preventing a user from coming in contact with the driving mechanism during the printer operation. Opened and closed when media is set or jammed. It is normally closed.
4	Stand	Used when installing the printer on a flat floor.
5	Media guide	Used for feeding media smoothly when the media is set or printed. The heater (drier) to dry ink is installed.
6	Platen	Installed inside of Front cover. Holds the media from the bottom during printing.
7	Pressurizing rollers	Installed inside of the front cover. Press and hold the media when printing.
8	Media cut groove	Installed inside of the front cover. Used to cut media straight.
9	Maintenance cover	Used to prevent the user from touching the inner mechanical section. Open and close in the following cases. When cleaning the cleaning wiper unit When cleaning around the print head When performing daily maintenance It is normally closed.
10	Adjuster	Used to install the printer horizontally.
11	Media holder plate	Installed inside of Front cover. Attach them to the both edges of the media to minimize warpage of thin media such as roll media (with a thickness of less than 0.3 mm) to a degree.
12	Blower heater	Blows hot air to accelerate drying of media.
13	Blower heater operation panel	Make operational settings and operate Blower heater. **Endower heater operation panel**
14	Connecor	Used to install the optional spectrophotometer (SPECTROVUE VM-10).
15	Media-feed table	Used for feeding thick media smoothly. Remove it when using roll media.
16	Media stopper	If the media you placed on Media-feed table slides down forward, loosen the lug screw and move Stopper upward. Stopper should normally be facing down.

2.2.2 Rear section



No.	Name	Function
1	Roll media holders	Used to load the roll media. Include flanges where roll media is attached, and the levers that fix the roll media holders.
2	Media feed slot	Used for feeding media.
3	Ink bag slot	Install High-capacity ink pack adapter.
4	Rear media loading lever	Used for fixing or releasing the media. The operation is the opposite of Front media loading lever on the front of the printer. • Lower Lever to release the media. • Raise Lever to fix the media.
5	Media guide	Used for feeding media smoothly when the media is set or printed. The heater (pre heater) to warm media is installed.
6	AC inlet for the printer	Used for connecting the power cable.
7	Network interface connector	Connects a network interface cable.
8	Waste fluid tank	Used for collecting waste ink discharged from the printer.
9	Waste fluid valve	Open and close when discharging the waste fluid from the waste fluid tank. It is normally closed.
10	Power switch for Blower heater	Turns Blower heater ON/OFF.
11	AC inlet for Blower heater	Used for connecting the power cable.
12	Media-feed table (optional)	Used for feeding thick media smoothly Remove it when using roll media.

2.2.3 Operation panel

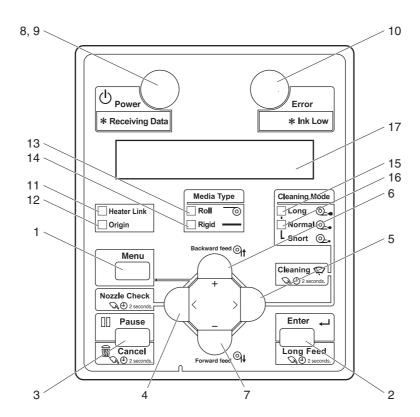
There are two Operation panels on this printer: Printer operation panel and Blower heater operation panel.

Used for setting operation conditions, display of printer status and various functions. Names of each operation key (Switch) and status display along with the functions are explained.



- •Refer to the following for details regarding the operation method of the operation panel.
- •When performing menu setting from the printer operation panel: \$\sum 4.3\$ Menu setups on the operation panel
- •When performing various operations in the printer operation panel: \$\sum_4.4\$ Operating from the operation panel
- •When performing various operations in the Blower heater operation panel: 1274.5 Using Blower heater

2.2.3.1 Printer operation panel



(1) Operation keys

NOTE

• The operation keys are assigned with different functions and names depending on printer status (Normal or Setup menu display).

For details about printer status, refer to "2.3 Printer status".

No.	Name	Normal	Setup menu display		
1	[Menu] key	Shifts to the Setup menu.	Shifts from Setup menu display to Normal.		
2	[Enter] key	Restarts printing when the printing is suspended.	 Select the menu to be set, and shifts to the next hierarchy. The setting is determined and saved. 		
	[Long Feed] key	Feeds a specified amount of media when pressed for more than two seconds.	_		
3	[Pause] key	Pauses printing.	_		
	[Cancel] key	Press and hold this key for more than two seconds to do the following operations: • When printing: Forcefully terminates printing and deletes one file of the remaining data. • When receiving or analyzing: Deletes data that are already received and analyzed, and delete the next data.	Returns to the previous menu hierarchy. Changes made in the setting are discarded. Shifts from Setup menu display to Normal.		
4	[<] key	_	Changes the set value.		
	[Nozzle Check] key	Press and hold this key for two seconds or more to perform Nozzle Check printing.	_		
5	[>] key	Sets Cleaning Mode. • The lamp of Cleaning Mode that you set lights up in green.	 Down the menu level in the directory tree. Changes the set value. 		
6	[Backward↑] key	Media is fed in the reverse direction.	_		
	[+] key	_	 Changes to the previous item in the displayed menu. The setting is changed to the forward direction. The numeric value is increased during numerical input. 		
7	[Forward↓] key	Media is fed in the forward direction.	_		
	[–] key	_	 Changes to the previous item in the displayed setting. The setting is changed to the reverse direction. The numeric value is decreased during numerical input. 		
8	[Power] key	Turns the printer ON and OFF.	Turns the printer ON and OFF.		

(2) Display section

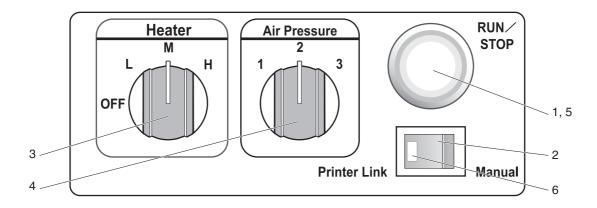
No.	Name	Color	Status	Description
9	Power lamp	Blue	Lamp ON	Power ON.
			Lamp blinks	Data is received and analyzed. Performing media initial operation.
			Lamp OFF	Power OFF.
10	Error lamp	Orange	Lamp ON	 An error has occurred. The error content is displayed on the LCD.
			Lamp blinks	The remaining amount of ink is low.
			Lamp OFF	There is no error.
11	Heater Link lamp	Green	Lamp ON	Blower heater is in the "Printer Link" condition.
			Lamp OFF	Blower heater is in the "Manual" condition.
12	Origin lamp	Green	Lamp ON	"Origin" is activated.
			Lamp OFF	"Origin" is deactivated.
13	Roll lamp	Green	Lamp ON	"Roll media" is set as "Media type".
14	Rigid lamp	Green	Lamp ON	"Media type" is set as "Rigid".
15	Long lamp	Green	Lamp ON	Cleaning Mode is set to Long.When the Normal lamp is also turned on, Cleaning Mode is set to Short.
			Lamp OFF	Cleaning Mode is set to Normal.
16	Normal lamp	Green	Lamp ON	Cleaning Mode is set to Normal.When the Long lamp is also turned on, Cleaning Mode is set to Short.
			Lamp OFF	Cleaning Mode is set to Long.
17	LCD display section		_	Displays operation status of the printer or an error message.



[•]When an error requiring a restart (fatal malfunction for the printer operation) occurs, all lamps blink with an alarm. 7.2.5 Error requiring restart

 $[\]bullet If$ the error persists even when the malfunction is fixed, contact your local MUTOH dealer.

2.2.3.2 Blower hearter operation panel



(1) Operational switch unit

No.	Name	Description
1	RUN/STOP switch	Turns ON/OFF the warm air when Blower heater is in the "Manual" condition and operating independently. When Blower heater operates simultaneously with the printer (in the "Printer Link" condition), this switch is deactivated.
2	Link switch	Switches whether or not to set Blower heater to operate simultaneously with the printer. • Printer Link: Blower heater operates simultaneously with the printer. • Manual: Blower heater starts up independently, allowing the user to turn ON/OFF the warm air.
3	HEATER adjustment tab	Adjusts the heater temperature. OFF: Heater is not turned on. L: Heater temperature is set as "Low". M: Heater temperature is set as "Medium". H: Heater temperature is set as "High".
4	AirPressure adjustment tab	Adjusts the amount of air. 1: Air volume is set as "Low". 2: Air volume is set as "Medium". 3: Air volume is set as "High".

(2) Display section

No.	Name	Color	Status	Description
5	RUN/STOP switch	Green	Lamp OFF	Blast is stopped.
			Blinking (slow)	Heater is warming up. (LED blinks once per second)
			Lamp ON	Heater is warmed up.
			Blinking (medium speed)	Heater is cooling down at the time of power-off. (LED blinks twice per second)
			Blinking (fast)	An error has occurred at Blower heater. Turn the power OFF. (LED blinks four times per second) 4.5.2 Turning Blower heater OFF
6	Link switch	Green	Lamp OFF	Blower heater is set to "Manual" mode.
			Lamp ON	Blower heater is set to "Printer Link" mode.
			Blinking (medium speed)	The communication error between Blower heater and Printer has occured. Turn the printer OFF if it's ON. Operate the printer in Manual mode if it's status is ON. (LED lamp blinks twice per second.)
			Blinking (fast)	A Blower hearter error has occured Turn the printer OFF. (LED lamp blinks about four times per second.) 1374.5.2 Turning Blower heater OFF

NOTE

[•]If an error has occurred at Blower heater in the Printer Link mode, "Heater Error" is displayed on Operation panel as well.

2.3 Printer status

This chapter explains printer status.

2.3.1 Number of colors to be used

You can select the number of ink colors to set to this printer at the time of initial ink filling. Each ink set has the following features:

- 4-color set: you can print faster than when using the 5-color set ink.
- 5-color set: you can use MP11 white ink. Use white ink as the base when printing on transparent or colored media to improve color development. (Dedicated RIP software is required).



- Pigment of MP11 white ink has the tendency to settle at the bottom. To assure stable
 printing, you need the ink circulating inside the printer, as well as regular head
 cleaning. Sleep mode does the above operations automatically; after printing, use
 sleep mode instead of turning the printer OFF.
- Shake the ink packs before use.
 6.1 Shaking ink packs
- If the printer is not going to be used for a long time, follow the procedure in "6.3.1 Operation procedure for long storage".

2.3.2 **Normal**

Printing is possible when media is loaded.

The various functions for printing can be performed on the operation panel.

2.3.3 Setup menu display

Various settings regarding printing can be made from the operation panel. The various functions for printing can be performed on the operation panel. Display contents in the LCD monitor of the operation panel are as follows.

2.3.4 Changing printer status

Follow the procedure below and change printer status.

(1) Normal → Setup menu display

Press the [Menu] key on the operation panel when the printer is Normal.

• "Menu 1: Setup>" is displayed on the operation panel and the display shifts to the Setup menu.

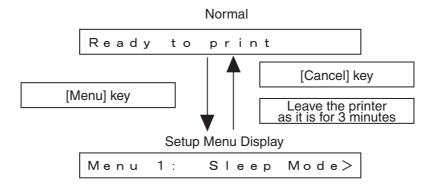


• For details regarding the Setup menu, refer to "4.3 Menu setups on the operation panel".

(2) Setup menu display → Normal

When the printer is at the Setup menu display, perform either of the following operations to shift the operation panel to the Normal display.

- Press the [Cancel] key on the operation panel.
- In the Setup menu, leave the keys untouched for three minutes.



NOTE

• When the CR maintenance menu is displayed, even leaving the keys untouched for three minutes does not return to the printer to normal status.

5.3.14 CR Maintenance menu

• For details on Status messages, refer to "7.2.1 Status messages".

3 Before using

This chapter explains necessary steps before using the printer.

3.1 Power cable connection

This section explains power cable connection.

! WARNING

- Be sure to use the power cable supplied with the printer.
 Using other power cables can cause an electric shock or fire.
- Use the power cord set compliant with the safety standards, power-supply voltage, and plug shape of the country where the printer is used.
- Use a power cord set which is equipped with a protective earth, and securely connect it to the outlet.
- Do not use a damaged power cable.
 It could lead to an electric shock and fire.

A CAUTION

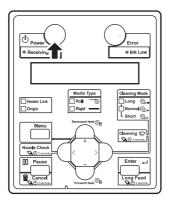
- Pay attention to the following points when handling power cable.
 - Do not tamper with the power cable.
 - Do not put heavy objects on the power cable.
 - Do not bend, twist or pull the power cable by force.
 - Do not route the power cable near heating appliances.

NOTE

• Contact your local MUTOH dealer in case of power cable damage.

Follow the procedure below to install the power cable.

1. Make sure that the printer is turned OFF.

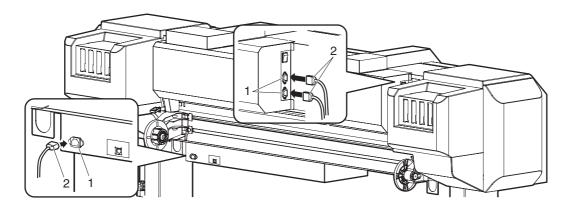


NOTE

- The power is ON when the [Power] key of the operation panel is pressed in. Press the key once again to turn OFF the power.
- 2. Connect the power cables $(\times 3)$ to the AC inlets $(\times 3)$ on the rear side of the product.

NOTE

• Cables (2 pieces) on the upper side of the printer are for Blower heater, and the cable on the bottom side (1 piece) is for the printer.



No.	Name
1	AC inlet
2	Power cable

3. Insert the power cable plug firmly in the socket.

! WARNING

- Do not pull out or insert the power plug with a wet hand.
 This could lead to an electric shock.
- Make sure to use only the specified power supply (AC 100-120 V or AC 200-240 V).
 If a 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 100-120 V or AC 200-240 V).

Do not use 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.

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

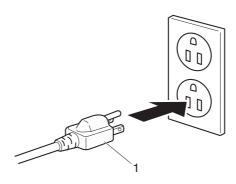


- Pay attention to the following points when handling the power supply plug.
 Any mishandling of the power cable could cause a fire.
 - Make sure that no foreign substances such as dust etc. are stuck to the power plug.
 - Make sure that the power plug is firmly inserted to the edge of the power socket.
 - When you do not use the printer for a long period, make sure to pull out the power plug from the power socket for safety.
- If you are leaving the printer unplugged for a long time, follow the procedure in "6.3.1 Operation procedure for long storage" to turn the power OFF, and then unplug the power plug.
- Make sure to connect an earth wire to the earth connection that 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.
 - Earth wire with copper plate which is buried at 650 mm or more, deep in the ground.

NOTE

- Contact the retail outlet of purchase if the earth connection cannot be established, or if the earth connection is not given.
- When the power supply of the printer is ON, do not pull out the power cable from the power socket. Whenever the plug is pulled out from the power socket, allow one minute or more before inserting the plug in the power socket again.
- When connecting 3 power cables, the following capacity is required.

 If the capacity is beyond the outlet you are using, connect it to another outlet.
 - 100V-120V: Total of 18A (2A on the main side, 8A on Heater 1 side, and 8A on Heater 2 side)
 - 200V-240V: Total of 10A (1A on the main side, a total of 9A on Heater 1 and Heater 2)



No.	Name
1	Power plug

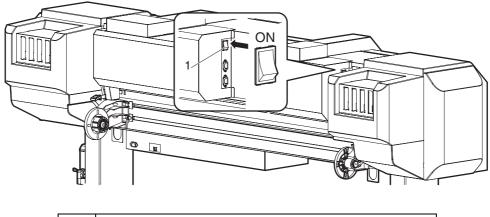
3.2 Turning the power ON/OFF

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

3.2.1 Turning the power ON

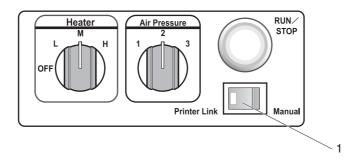
Follow the procedure below to turn the power ON.

1. Turn ON the power switch of Blower heater on the rear side of the printer.



No.	Name
1	Power switch

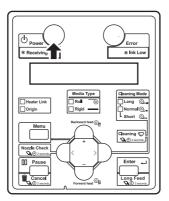
2. Turn Link switch of Blower heater on the front of the printer to "Printer Link".



No.	Name
1	Link switch

- Link switch blinks.
- 3. Set the temperature and air volume of Blower heater. \$\tilde{\mathbb{L}}\displays 4.5.4 \text{ Adjusting Heater output and air volume}\$

- 4. Press the [Power] key on the operation panel to turn ON the printer.
 - The Power lamp on the operation panel lights up in blue.
 - The printer starts initial operation.
 - When the initial operation is complete, the printer enters Normal.



NOTE

- If there is a problem during the initial operation, a message is displayed on the operation panel and the printer may stop operating.
 - If operation stops, refer to "7 Troubleshooting" and deal with the problem.
- When an error has occurred on the heater, the LED on Heater's Operation panel starts blinking (approximately four times per second).
 - Follow the procedure in "(2) Display section" of "2.2.3.2 Blower hearter operation panel".

3.2.2 Turning the power OFF



 You need to let the ink flow inside the printer regularly, therefore, do not turn OFF the printer after regular operation; make sure you use the sleep mode.
 Ink is maintained automatically in Sleep mode.

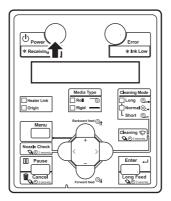
3.3 Sleep mode

• If you have to turn OFF the printer for a long time (move than 24 hours), follow the procedure in "When not using the printer for a long time (Power OFF)" to turn the printer OFF. If you do not follow the procedure and leave the printer OFF for a long time, the printer's performance may not be recovered even after cleaning.

The procedures to turn OFF the printer are different for 4-color set usage and 5-color set usage. Make sure you follow the correct procedure based on the ink colors you are using.

(1) When using 5-color set

- 1. Make sure that the printer's operating condition is as follows:
 - Printing or other operation is not in progress.
 - Operation panel display is in the Normal condition.
- 2. Press the [POWER] key on Operation panel.



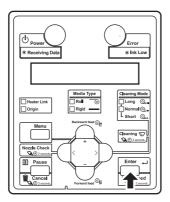
• "CR Mainte.: Start" is displayed on Operation panel.



• If you press the [Cancel] key on Operation panel at this point, you can skip the next procedure and turn OFF the printer. If you have already performed daily maintenance, you can skip the operation.

A CAUTION

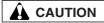
 Make sure you perform daily maintenance. If the printer goes into Sleep mode or the power is turned OFF without daily maintenance, nozzles may get clogged.



- "Wait for a while" is displayed on Operation panel.
- Maintenance starts.
- Print head moves to the left.
- Cleaning wiper rises.
- "CR Mainte.: End" is displayed on Operation panel.
- 4. Perform daily maintenance.

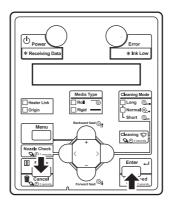
126.2 Daily maintenance

You can also refer to "User maintenance sheet" provided with the printer.

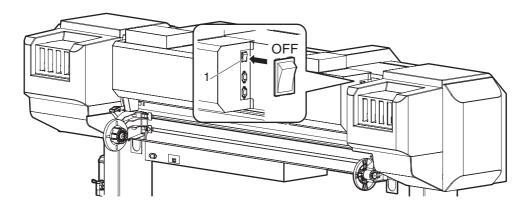


- Five minutes after "CR Mainte.: End" is displayed on Operation panel, the LCD display changes to the following.
 - When Right maintenance cover is open: "Close right mainte. Cover."
 - When Left maintenance cover is open: "Close left mainte. Cover."
 - If the above message is displayed, close Maintenance cover and stop the operation. Perform Head cleaning, and then clean up again.

5. Press the [Enter] or [Cancel] key on Operation panel.



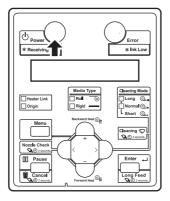
- "Wait for a while" is displayed on Operation panel.
- Cleaning wiper returns to the original position.
- Print head returns to its original position.
- "Power Off" is displayed on Operation panel.
- The printer turns the power OFF.
- All lamps on Operation panel and the LCD monitor turn OFF.
- Power is turned OFF.
- 6. Turn OFF the power switch of Blower heater on the rear side of the printer.



No.	Name
1	Power switch

(2) When using 4-color set

- 1. Make sure that the printer's operating condition is as follows:
 - Printing or other operation is not in progress.
 - Operation panel display is in the Normal condition.
- 2. Press the [POWER] key on Operation panel.



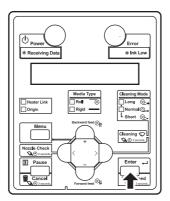
• "CR Mainte.: Start" is displayed on Operation panel.

NOTE

• If you press the [Cancel] key on Operation panel at this point, you can skip the next procedure and turn OFF the printer. If you have already performed daily maintenance, you can skip the operation.

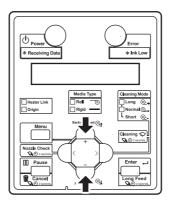


- Make sure you perform daily maintenance. If the printer goes into Sleep mode or the power is turned OFF without daily maintenance, nozzles may get clogged.
- 3. Press the [Enter] key on Operation panel.

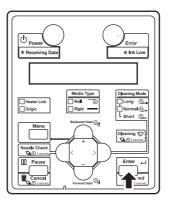


• "Wash Exe? Yes" is displayed on Operation panel.

4. Use the [+] or [-] key to select whether or not to automatically clean the Cleaning wiper unit and Flushing box with the cleaning fluid.



- "Wash Exe? No": Cleaning is not performed automatically. Clean the Cleaning wiper unit and around Print head as described in step 6.
- "Wash Exe? Yes": Cleaning is performed automatically. Note that the ink inside Print head is discharged by the cleaning fluid; therefore some ink will be used. You can skip some of the cleaning operation for the Cleaning wiper unit and around Print head in step 6.
- 5. Press the [Enter] key on Operation panel.



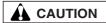
- If you have selected "Wash Exe? Yes" in step 4, the printer starts the cleaning operation
- "Wait for a while" is displayed on Operation panel.
- Maintenance starts.
- Print head moves to the left.
- Cleaning wiper rises.
- "CR Mainte.: End" is displayed on Operation panel.

6. Excecute the daily maintenance.

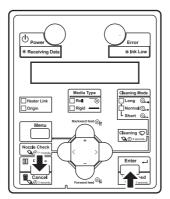
13 6.2 Daily maintenance

or "User maintenance sheet" provided with the printer.

• If you have selected "Wash Exe? Yes" in step 4, you can skip the operation of dropping the cleaning fluid on Cleaning wiper and Head cap unit with a dropper. Perform the rest of the cleaning operation.

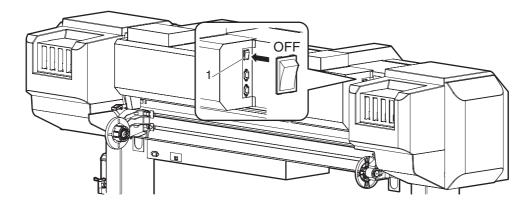


- Five minutes after "CR Mainte.: End" is displayed on Operation panel, the LCD display changes to the following.
 - When Right maintenance cover is open: "Close right mainte. Cover."
 - When Left maintenance cover is open: "Close left mainte. Cover." If the above message is displayed, close Maintenance cover and stop the operation. Perform Head cleaning, and then clean up again.
- 7. Press the [Enter] or [Cancel] key on Operation panel.



- "Wait for a while" is displayed on Operation panel.
- Cleaning wiper returns to the original position.
- Print head returns to its original position.
- "Power Off" is displayed on Operation panel.
- The printer turns the power OFF.
- All lamps on Operation panel and the LCD monitor turn OFF.
- Power is turned OFF.

8. Turn OFF the power switch of Blower heater on the rear side of the printer.



No.	Name
1	Power switch

3.3 Sleep mode

If you set the printer's sleep mode, the printer performs the following operation.

- Vacuum fan stops.
- Blower heater stops (Link mode only)
- All Lamps turn off except for Power lamp.
- Automatic head cleaning is performed after the time set in the Timer Setting Menu has elapsed. \$\sum_{5.1.1}\$ Timer Setting menu
- Some of the ink inside the printer is circulated (every 24 hours).
- Refills a small amount of ink (once every week: only when 5 colors are used).

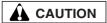
Because this minimizes the operation, you can reduce power consumption.



•The cleaning mode reflects the settings in Operation panel.

126.5.3 Head cleaning

- •It may take some time for Blower heater to stop because it has to cool down.
- •Stop Blower heater manually in Manual mode.



- You need to let the ink flow inside the printer regularly, therefore, do not turn OFF the printer after regular operation; make sure you use the sleep mode.
- If you expect keeping the sleep mode for a long time, first follow the procedure in "6.3.1 Operation procedure for long storage".

3.3.1 Set sleep mode on the printer

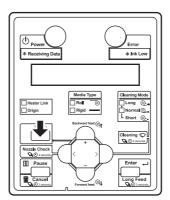
- 1. Make sure that the printer's operating condition is as follows:
 - Printing or other operation is not in progress.
 - Operation panel display is in the Normal condition.
 - There is ample amount of ink in the ink packs.

15.3.15 Ink Status menu 16.4.1 Replacing ink bags

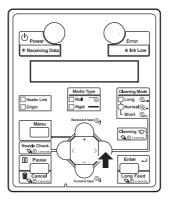
• There is enough free space in the waste fluid bottle.

13 6.6 Disposal the waste fluids

- Front cover is closed.
- Media loading lever is lowered (Media loading lever on the rear side is raised).
- Front media loading lever is lowered (Rear media loading lever is raised).
- 2. Press the [Menu] key on Operation panel.



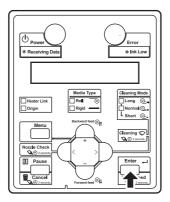
- "Menu1: Sleep Mode>" is displayed on Operation panel.
- 3. Press the [>] key on Operation panel.



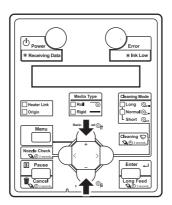
• "Sleep Mode1: Timer Set" is displayed on Operation panel.

NOTE

- Set the head cleaning interval while the printer is in Sleep Mode. If it has already been set, proceed to step 7.
- 4. Press the [Enter] key on Operation panel.



- "Timer: Off" is displayed on Operation panel.
- 5. Use the [+] or [-] key on Operation panel to select the head cleaning interval.

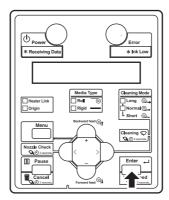


- For the head cleaning intervals, select from the following.

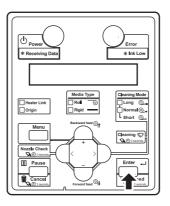
 When more than the set time has passed, Print head is cleaned automatically.
 - Off: Head cleaning is not performed.
 - 24H: Head cleaning is performed every 24 hours.
 - 48H: Head cleaning is performed every 48 hours.

NOTE

• When using 5-color set, even if the timer is set to Off, white ink and cleaning fluid are consumed a little every 24 hours. When you are using 5 colors, a small amount of ink is automatically charged once every week, even if Timer is set to Off. This is for maintaining Print head and ink.



- The timer has been set.
- "Sleep Mode1: Timer Set" is displayed on Operation panel.
- 7. Use the [+] or [-] key on Operation panel to select "Sleep Mode2: Start".
 - "Start Sleep Mode?" is displayed on Operation panel.
- 8. Press the [Enter] key on Operation panel.



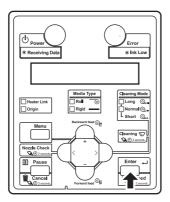
• "CR Mainte.: Start" is displayed on Operation panel.

NOTE

• If you press the [Cancel] key on Operation panel at this point, you can skip the next procedure and turn OFF the printer. If you have already performed daily maintenance, you can skip the operation.

A CAUTION

• Make sure you perform daily maintenance. If the printer goes into Sleep mode or the power is turned OFF without daily maintenance, nozzles may get clogged.



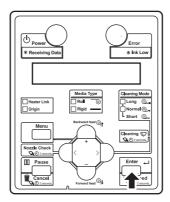
- Maintenance starts.
- Print head moves to the left.
- Cleaning wiper rises.
- "CR Mainte.: End" is displayed on Operation panel.
- Execute the daily maintenance.

126.2 Daily maintenance

You can also refer to "User maintenance sheet" provided with the printer.



- Five minutes after "CR Mainte.: End" is displayed on Operation panel, the LCD display changes to the following.
 - When Right maintenance cover is open: "Close right mainte. Cover."
 - When Left maintenance cover is open: "Close left mainte. Cover."
- If the above message is displayed, close Maintenance cover and stop the operation. Perform Head cleaning, and then clean up again.



- Cleaning wiper returns to the original position.
- Print head returns to its original position.
- "Restart -> ENTER" is displayed on Operation panel.
- The printer goes into sleep mode.

NOTE

- If you press the [Enter] key during sleep mode, the printer returns to the Normal condition.
- If the printer is under one of the following conditions while shifting to sleep mode, "Don'tStart SleepMode" is displayed, and sleep mode does not start.
 - Front cover or Maintenance cover is open.
 - Front media loading lever is raised (Rear media loading lever is lowered).
 - Waste fluid tank is full.
 - There is little remaining ink in the ink pack (or no ink)
 - Ink pack has been removed.
 - An ink pack other than genuine ink pack is inserted into Cartridge slot, etc.

Activate Sleep Mode again after returning the printer to a normal state.

17.2 Error messages

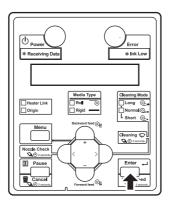
• If the printer is under one of the conditions above during sleep mode, the printer will not return to the Normal condition even after pressing the [Enter] key.

Make sure that everything is as it should be, and press the [Enter] key to return the printer to the normal condition.

127.2 Error messages

3.3.2 Recover the printer from sleep mode

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



• The printer returns to the Normal condition.

3.4 Initial ink filling

Head cleaning and the initial ink filling are required before you use this printer.

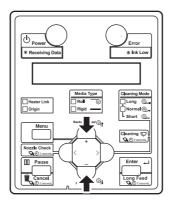
NOTE

- High-capacity ink pack adapter is used to install ink packs on this printer.
- This operation takes about 43 minutes. (Not including the time for removing or installing the High-capacity ink pack adapter.)

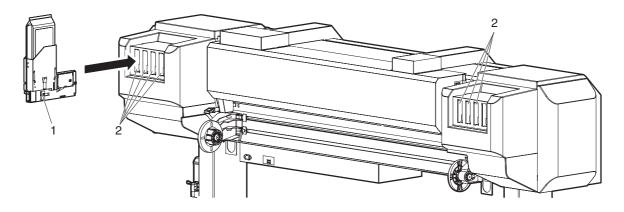
Outline of the procedure is as follows.

Make sure that you also read "3.4.1 Details of initial ink filling".

1. On Operation panel, select the number of ink you want to use.



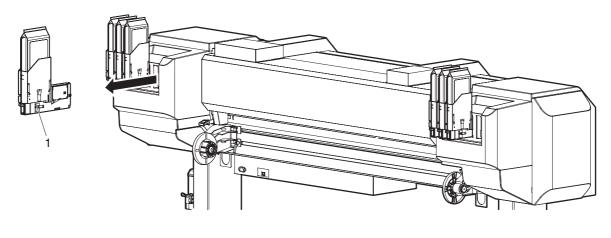
2. Set a cleaning fluid pack to High-capacity pack adapter, and then install it to the printer.



No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

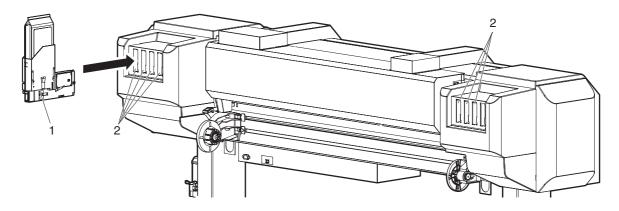
• The printer fills the cleaning fluid.

3. Remove High-capacity ink pack adapter from the printer.



No.	Name
1	High-capacity pack adapter

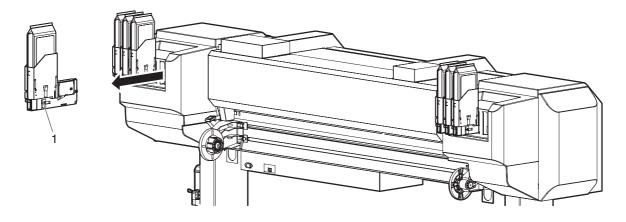
- The printer performs the first head cleaning.
- 4. Set a cleaning fluid pack to High-capacity pack adapter, and then install it to the printer again.



No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

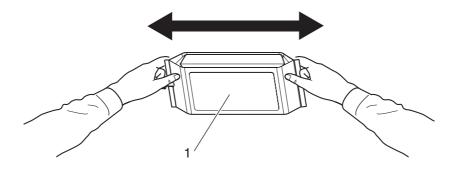
• The printer fills the cleaning fluid.

5. Remove all High-capacity ink pack adapters from the printer.



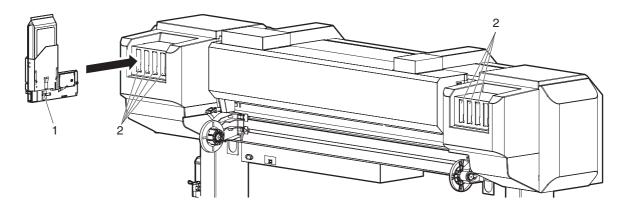
No.	Name
1	High-capacity pack adapter

- The printer performs the second head cleaning.
- 6. Shake the ink packs.



Ī	No.	Name
	1	Ink pack

7. Set a ink pack to High-capacity pack adapter, and then install it to the printer.



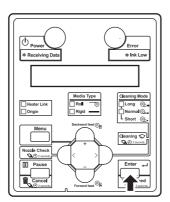
No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

• The printer fills the ink.

3.4.1 Details of initial ink filling

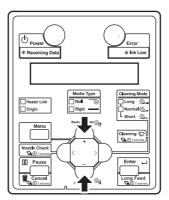
Follow the procedure below to perform initial ink filling.

- 1. Turn the printer ON.
 - The printer starts the initializing operation.
 - After the initial operation is complete, "Start Ink Charge -> E" is displayed on Operation panel.
- 2. Press the [Enter] key on Operation panel.

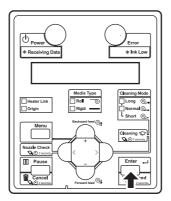


• "Ink Comb.: 4Color" is displayed on Operation panel.

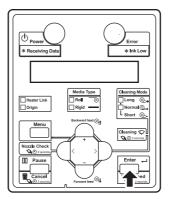
3. Use the [+] or [-] key on Operation panel to select the number of ink colors you want to use.



- "Ink Comb.: 4Color": Cyan (C), Magenta (M), Yellow (Y), and Black (K)
- "Ink Comb.: 5Color": Cyan (C), Magenta (M), Yellow (Y), Black (K), and White (WH)
- 4. Press the [Enter] key on Operation panel.



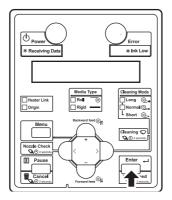
- When head cleaning is complete, "Wash Retry? Yes" is displayed on Operation panel.
- 5. Press the [Enter] key on Operation panel.



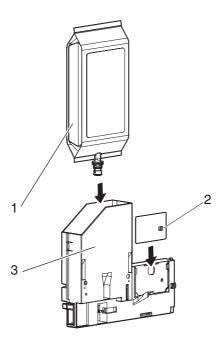
• "Check waste fluid" is displayed on Operation panel.

NOTE

- If this message is displayed during operation, check Waste fluid tank and remove any waste fluid. If there is waste fluid inside the tank, the cleaning liquid is wasted.
- 6. Press the [Enter] key on Operation panel.



- "Insert CleaningCart." is displayed on Operation panel.
- 7. Install Cleaning fluid pack and IC chip card to High-capacity ink pack adapter.



No.	Name
1	Cleaning fluid pack
2	IC chip
3	High-capacity pack adapter

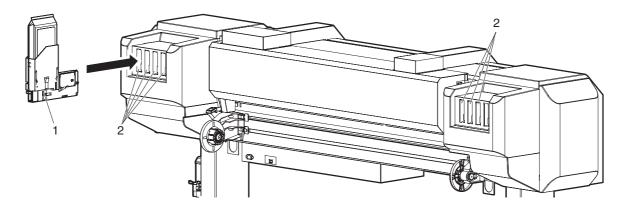
• Required number of cleaning fluid packs: 7

NOTE

To install or remove High-capacity ink pack adapter to/from Cleaning fluid pack and IC chip card, refer to the operation manual included with High-capacity ink pack adapter.

© Operation manual for High-capacity pack adapter "3.1 Installing ink packs"

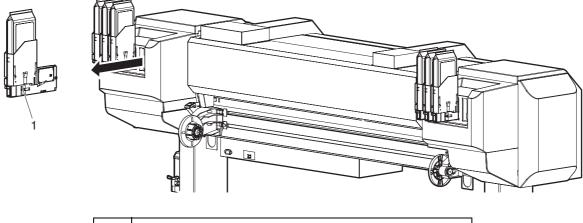
8. Insert High-capacity ink pack adapters into all Ink cartridge slots.



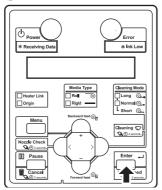
No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

- Insert High-capacity ink pack adapters all the way in Ink cartridge slots.
- When all High-capacity ink pack adapters are installed, "Busy-Washing" is displayed on Operation panel, and the printer starts charging Cleaning fluid.
- When Cleaning fluid has been charged, "Remove Cartridges" is displayed on Operation panel.

- 9. Remove all High-capacity ink pack adapters from the printer.
 - Leave the cleaning fluid packs still installed on High-capacity pack adapters.
 - "Busy-Washing" is displayed on Operation panel and the printer starts head cleaning.
 - After head cleaning, "Insert CleaningCart." is displayed on Operation panel again.
 - After head cleaning is complete, "Check waste fluid" is displayed on Operation panel.
 - Check Waste fluid tank.

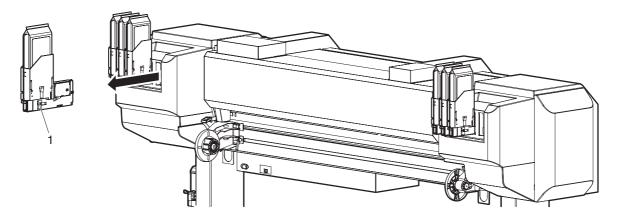


No.	Name
1	High-capacity pack adapter



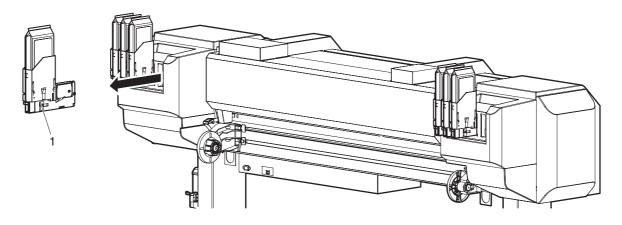
• "Insert CleaningCart." is displayed on Operation panel.

- 11. Insert High-capacity pack adapters, with the cleaning fluid packs still installed, into the ink cartridge slots.
 - When all High-capacity ink pack adapters are installed, "Busy-Washing" is displayed on Operation panel, and the printer starts charging Cleaning fluid.
 - When Cleaning fluid has been charged, "Remove Cartridges" is displayed on Operation panel.



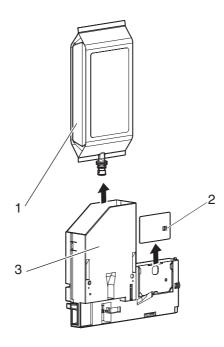
No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

- 12. Remove all High-capacity ink pack adapters from the printer.
 - "Busy-Washing" is displayed on Operation panel and the printer starts head cleaning.
 - After head cleaning is complete, "Check waste fluid" is displayed on Operation panel.
 - Check Waste fluid tank.



No.	Name	
1	High-capacity pack adapter	

13. Remove Cleaning fluid pack and IC chip card from High-capacity ink pack adapter.



No.	Name
1	Cleaning fluid pack
2	IC chip
3	High-capacity pack adapter

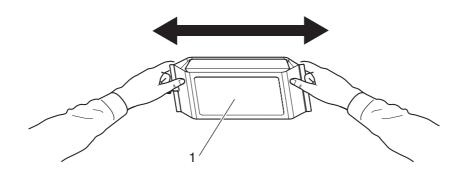
NOTE

When there is remaining Cleaning fluid pack and IC chip card, clarify the corresponding pack and card, and store it as a set.

14. Hold Ink pack horizontally and shake it 10 times.



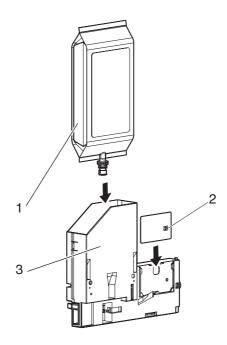
• For the new white ink, read "Precautions before using white ink" provided with the white ink packs, and then shake Ink pack. Inappropriate shaking may cause poor print quality or a malfunction.



No.	Name
1	Ink pack

15. Install Ink pack and IC chip card to High-capacity ink pack adapter.

**Coperation manual for High-capacity pack adapter "3.1 Installing ink packs"



No.	Name
1	Ink pack
2	IC chip
3	High-capacity pack adapter

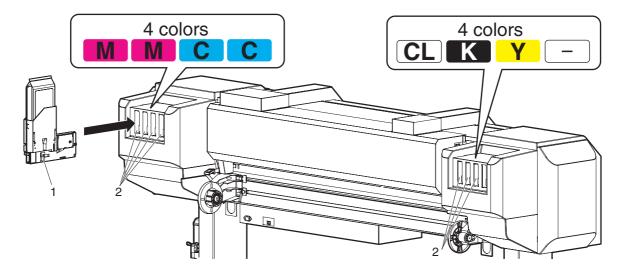
- The number of Ink packs or Cleaning fluid packs to be used differs depending on the number of colors selected in step 3.
- (1) When using 4-color set
 - Cyan (C): 2 packs
 - Magenta (M): 2 packs
 - Yellow (Y): 1 pack
 - Black (K): 1 pack
 - Cleaning fluid (CL): 1 pack
- (2) When using 5-color set
 - Cyan (C): 1 packs
 - Magenta (M): 1 packs
 - Yellow (Y): 1 pack
 - Black (K): 1 pack
 - White (WH): 1 pack
 - Cleaning fluid (CL): 2 pack

16. Install High-capacity pack adapters into Ink cartridge slots.

NOTE

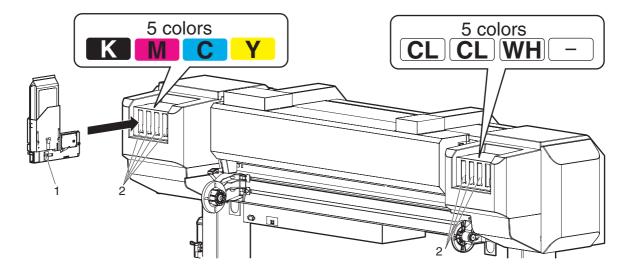
• Note that the ink colors and corresponding ink cartridge slots differ depending on the number of ink colors selected in step 3.

(1) When using 4-color set



No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

(2) When using 5-color set



No.	Name
1	High-capacity pack adapter
2	Ink cartridge slots

- You can check the ink color labels for ink colors and its cartridge slots.
- Insert High-capacity ink pack adapters all the way in Ink cartridge slots.
- When a High-capacity ink pack adapter is installed, "Ink Refill **%" is displayed on Operation panel and ink replenishment starts.
- Initial replenishment takes about 10 minutes.
- Ink filling operation and pause operation are repeated during the initial ink replenishment.
- When 100% is displayed, the initial ink replenishment is complete.
- After the initial ink replenishment is complete, "Media End" is displayed on Operation panel.

A CAUTION

- Comply strictly with the following during ink filling. If filling is interrupted, ink will be lost when filling is resumed.
 - Do not turn OFF the printer.
 - Do not unplug the power cord set of the printer.
 - Do not open Front cover.
 - Do not open Maintenance cover.
 - Do not raise Front media loading lever (i.e., Do not lower Rear media loading lever).
 - Do not use ink packs that have little ink remaining.

NOTE

- If the printer perform the nozzle check printing immediately after initial charging is complete, the following results may occur.
 - Printed lines become blurred.
 - The data is partially not printed.

In such cases, follow "5.5 Cleaning menu" and refill a small amount of ink. Then, check the printing result.

If there is no improvement in the print result even after refill a small amount of ink, leave the printer unused for an hour or more. Then, refill a small amount of ink again and check the print result.

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

3.5 Setting media

3.5.1 Installing Media-feed table

When using rigid media on this printer, use Media-feed table (optional).

Follow the procedure below to install Media-feed table.

The following items are required for installing Media-feed table:

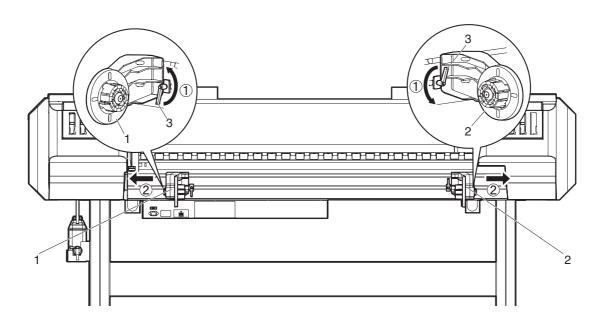
- Spanner: Accessories for Media-feed table
- Level: provided with the printer



See the printer's installation manual for how to assemble Media-feed table.

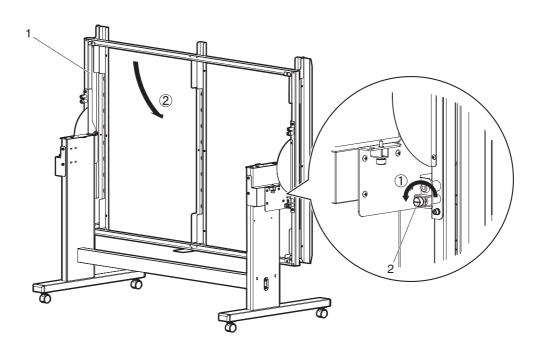
3.5.1.1 Rear side

1. Loosen the fixing levers on the right and left side of the rear. Set the distance between the roll media holders wider than the roll media width.



No.	Name
1	Roll media holder (left)
2	Roll media holder (right)
3	Fixing lever

2. Loosen retaining screws of Media-feed table, and slowly level the table.

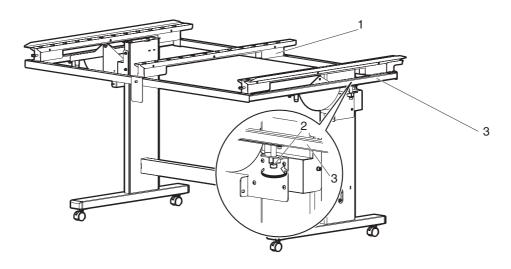


No.	Name
1	Media-feed table
2	Leveling screw

3. Tighten the leveling screws of Media-feed table (2 places, both sides), and fix the table.

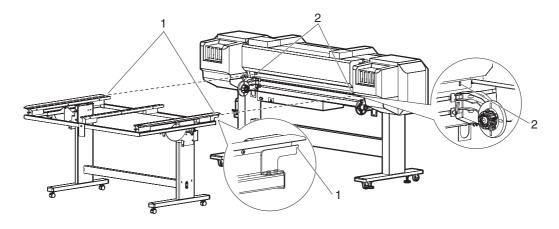
NOTE

• When fixing the leveling screws, hold the frame while pressuring the rubber foot, and then turn the screw until it doesn't turn any further.



No.	Name
1	Media-feed table
2	Leveliong screw
3	Frame

- 4. Insert the positioning guide of Media-feed table into the square hole of Paper guide R.
 - If the height of the positioning guide does not match the square hole, turn the screw of Media-feed table's caster, and adjust the height. (See step 5.)

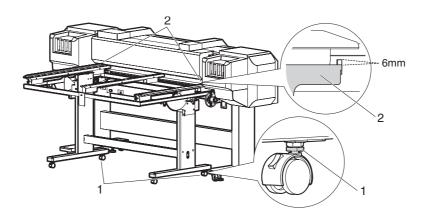


No.	Name
1	Positioning guide
2	Square hole

5. Turn the screws on the caster of Media-feed table (2 places, ones closer to the printer) with a spanner. Adjust so that there is a 6 mm gap between the top side of the square hole of Paper guide R and the top side of the positioning guide.

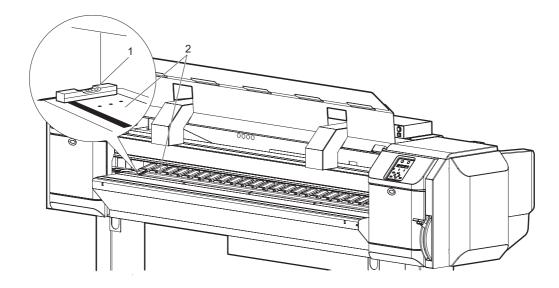
NOTE

- Caster of Media-feed table has 2 types of screws. Turn the bottom screw.
- Turn the screw clockwise to raise Media-feed table.



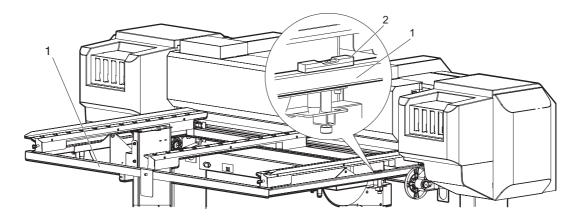
No.	Name
1	Screws on the casters
2	Positioning guide

6. Place the level at the edge of printer's platen, and check the position of the air bubble.



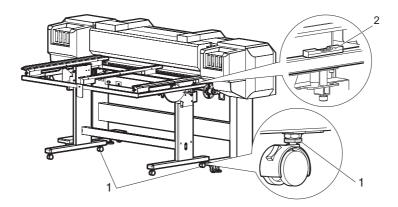
No.	Name
1	Level
2	Platen

7. Place the level on the frame of Media-feed table.
Place the level on the same side as when you placed it on the printer.



No.	Name
1	Level
2	Frame of Media-feed table

- 8. Turn the screw of Media-feed table's caster (the one further from the printer) with a spanner, and adjust the slant.
 - Make sure that the position of the level's air bubble is at the same position as when you place it on the printer.



No.	Name
1	Screws on Casters
2	Level

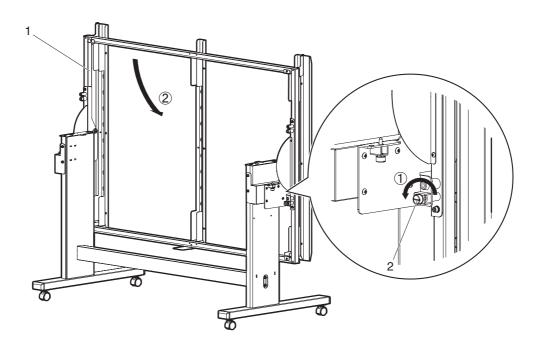
9. Adjust the slant on the other side in the same way.



• If Media-feed table's slanted, media may touch Print head, and Print head may break.

3.5.1.2 Front side

1. Loosen retaining screws of Media-feed table, and slowly level the table.

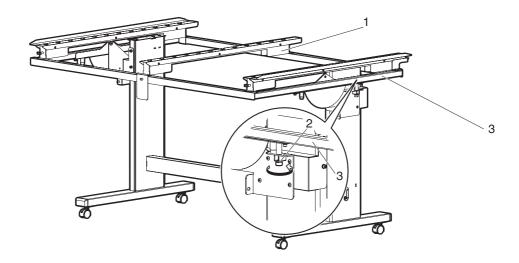


No.	Name
1	Media-feed table
2	Leveling screw



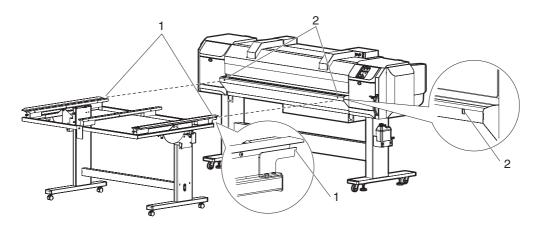
• When fixing the leveling screws, hold the frame while pressuring the rubber foot, and then turn the screw until it doesn't turn any further.

2. Tighten the leveling screws of Media-feed table (2 places, both sides), and fix the table.



No.	Name
1	Media-feed table
2	Leveling screw
3	Frame

- 3. Insert the positioning guide of Media-feed table into the square hole of Paper guide F.
 - If the height of the positioning guide does not match the square hole, turn the screw of Media-feed table's caster, and adjust the height. (See step 4.)

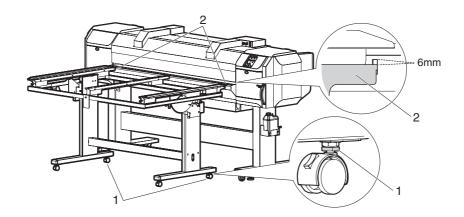


No.	Name
1	Positioning guide
2	Square hole

4. Turn the screws of Media-feed table's caster (2 places, closer to the printer) with a spanner so that the top side of Media-feed table's positioning guide slightly touches the top side of Paper guide F's square hole.

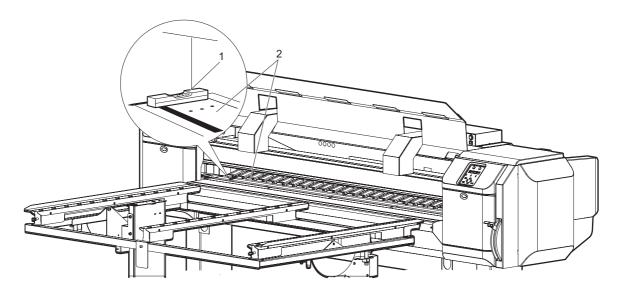
NOTE

- Caster of Media-feed table has 2 types of screws. Turn the bottom screw.
- Turn the screw clockwise to raise Media-feed table.



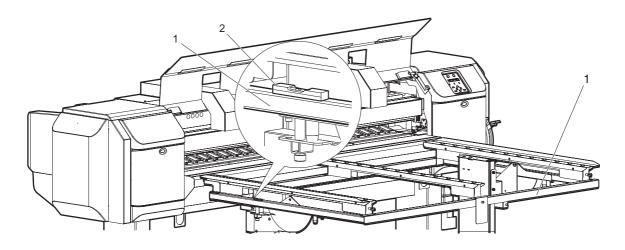
No.	Name
1	Screws on Caster
2	Positioning guide

5. Place the level at the edge of printer's platen, and check the position of the air bubble.



No.	Name
1	Level
2	Platen

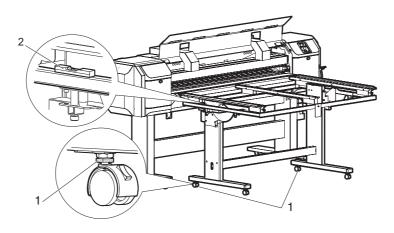
6. Place the level on the frame of Media-feed table.
Place the level on the same side as when you placed it on the printer.



No.	Name
1	Frame of Media-feed table
2	Level

7. Turn the screw of Media-feed table's caster (the one further from the printer) with a spanner, and adjust the slant.

Make sure that the position of the level's air bubble is at the same position as when you place it on the printer.



No.	Name
1	Screws on Caster
2	Level

8. Adjust the slant on the other side in the same way.

3.5.2 Loading rigid media

NOTE

You can load the following rigid media on this printer:

Maximum width: 1,625 mm
Minimum width: 182 mm
Maximum depth: 1,200 mm

• Minimum depth: 200 mm

• Thickness: 15 mm or less (including media warpage and unevenness)

• Weight: 15 kg or less

• Media warpage: Less than 1 mm. (when the media thickness is uneven, make sure that the total of the warpage and unevenness is less than 1 mm. Also, do not print with the warpage facing up.)

See the following for loading the rigid media (only when adjusting Media-feed table).

• Spanner: provided with Media-feed table

Follow the procedure below to load the rigid media.

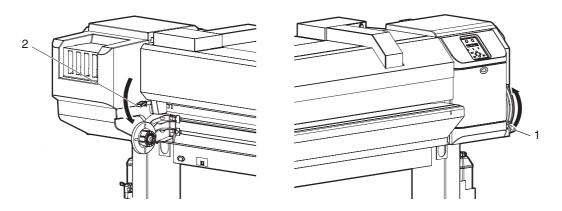
- 1. Turn the printer ON.
- 2. In Panel setup menu, check if the "media type" for the User type you're going to use is appropriately set.

13.2 Menu setup procedure 13.2.2.10 MediaType menu

NOTE

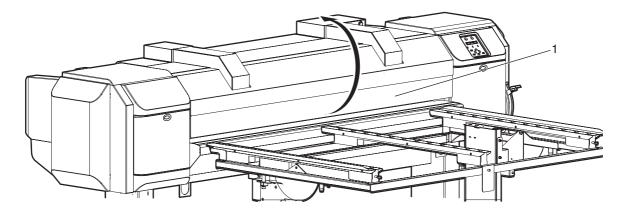
• If the type of the media you have loaded differs from that of the user type you have set, the media may not be detected properly.

- 3. Raise Front media loading lever (lower Rear media loading lever).
 - Media-feed table is excluded from the illustration for simplicity.



No.	Name
1	Front media loading lever
2	Rear media loading lever

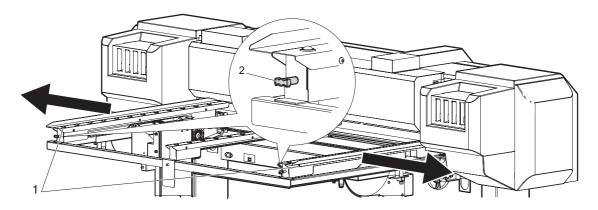
4. Open the front cover.



N	lo.	Name
	1	Front cover

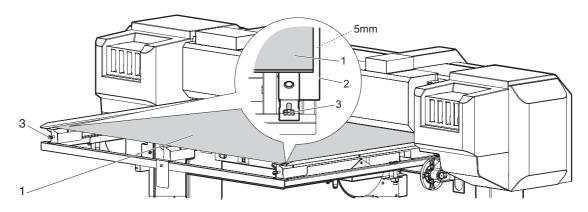
5. Loosen the rail retaining screw on Media-feed table (rear side), and widen the rails to the sides so that you can place the rigid media.

Make sure that the rigid media is set on the center of the printer.



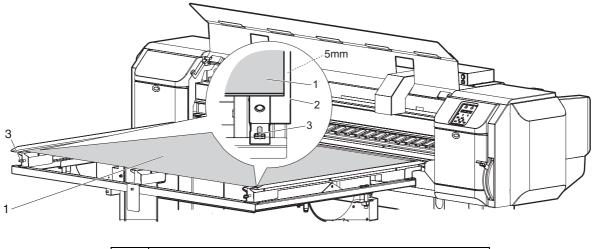
No.	Name
1	Rail
2	Rail retaining screws

- 6. Place the rigid media on the rails and tighten the rail retaining screw at where there is a 5 mm gap between the stoppers on both sides and the media.
 - Make sure that the rigid media is placed parallel to the media feeding direction.
 - Make sure that the rigid media is placed on the ball part on the rails.
 - Adjust and fix the rails so that they are parallel to the rigid media.



No.	Name
1	Rigid media
2	Stopper
3	Rail retaining screw

7. Place the rigid media on Media-feed table (front side) in the same way, and fix the rails at where there is a 5 mm gap between the stoppers on both sides and the media.



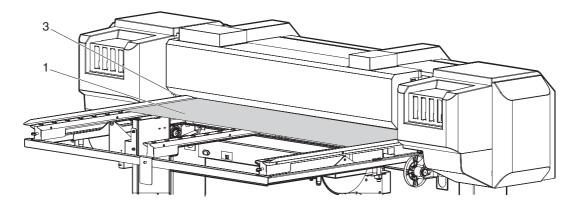
No.	Name
1	Rigid media
2	Stopper
3	Rail retaining screw

NOTE

• If the rigid media slides down forward, use Media stopper.

12.2 Names of parts and functions

8. From the rear side of the printer, insert the rigid media into Media feed slot.



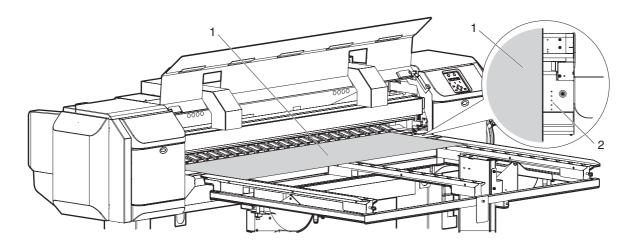
No.	Name
1	Rigid media
2	Media feed slot

9. If the right edge of the roll media goes further right from the loading mark when seen from the front, adjust the position of Media-feed table's rails.



Loading mark is not used for deciding where the right edge of the media should be placed.

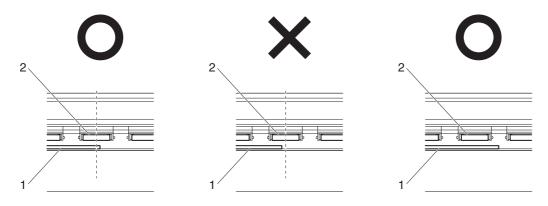
There should be no problem if the media is placed away from the line, as long as it does not go beyond the line.



No.	Name
1	Rigid media
2	Media loading mark

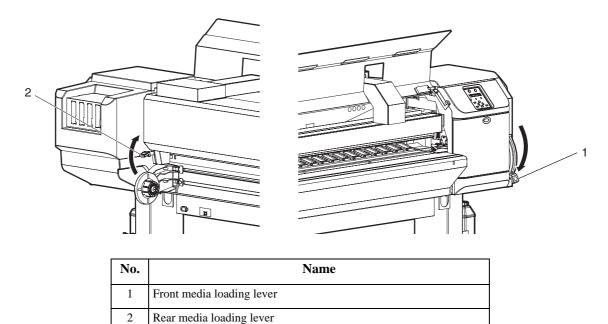
10. If the both edges of the media do not cover more than half of Pressurizing rollers, adjust the position of Media-feed table's rails.

When loading the rigid media so that it does not cover more than half of Pressuring rollers, make sure that the both edges of the media does not cover Pressurizing rollers.



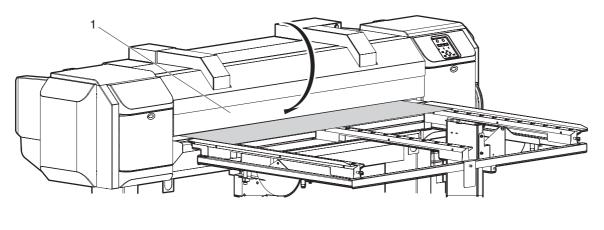
No.	Name
1	Rigid media
2	Pressurizing roller

- 11. Lower Front media loading lever. (Raise Rear media loading lever)
 - Media-feed table is excluded from the illustration for simplicity.



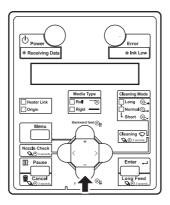
NOTE

- Push Front media loading lever down and lower it firmly. For Rear media loading lever, push it up firmly. If the lever is not firmly lowered or raised, the media may not be detected.
- 12. Close Front cover.

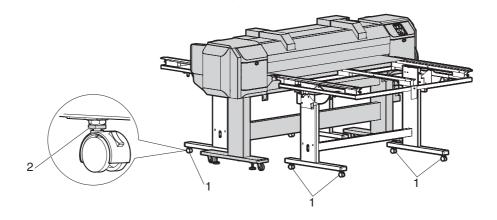


No.	Name
1	Front cover

13. Press down the [-] key on Operation panel for a while, and check that the rigid media can be fed no problem.

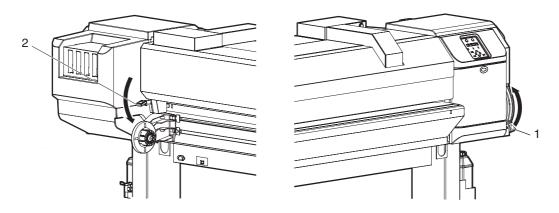


- Perform checking on the whole surface of the rigid media.
- 14. When feeding does not go smoothly, turn the screws of the front and back casters of Media-feed table (4 places each) with a spanner and raise the height slowly to adjust the position for smoother feeding.



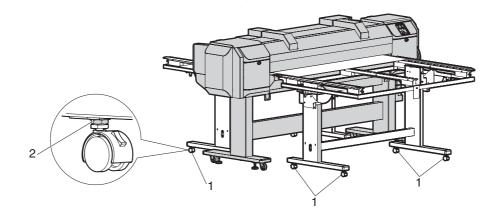
No.	Name
1	Caster
2	Screw

- 15. Raise Front media loading lever (lower Rear media loading lever), and put the rigid media back to the original position.
 - Media-feed table is excluded from the illustration for simplicity.



No.	Name
1	Front media loading lever
2	Rear media loading lever
3	Rigid media

- 16. Lower Front media loading lever (raise Rear media loading lever).
- 17. Use a spanner and tighten the hexagon nuts of the caster's height adjuster (4 places) toward the Media-feed table side.
 - The height of the caster is fixed.



No.	Name
1	Caster height adjuster
2	Hexagon nut

NOTE

- After fixing the caster height, even when Media-feed table is removed, you do not need to adjust Media-feed table's height in the following situation.
 - Printer has not been moved
 - Media type has not been changed
 - The procedure for setting the rigid media is complete.
 - Make setting for the media type. \$\tilde{\mathbb{L}}\tilde{\mathbb{Z}}\tilde{3.5.6}\$ Setting media type

3.5.3 Removing Media-feed table (optional)

This section explains how to remove Media-feed table.

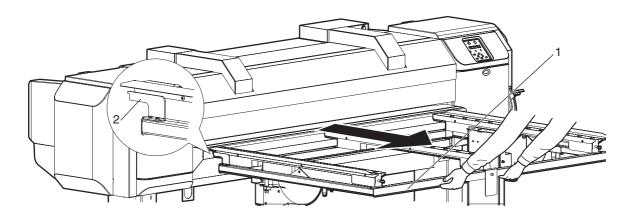
When Media-feed table (optional) is installed on the printer, remove it before using the roll media.

Follow the procedure below to remove Media-feed table.

- 1. Remove Media-feed table on the front side of the printer.
 - a. Pull Media-feed table forward, and remove the positioning guide from the hole of Paper guide F.

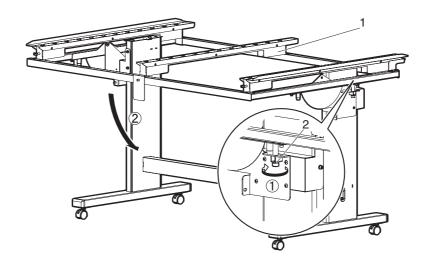
NOTE

When removing Media-feed table, make sure that you do not damage the printer with the
positioning guide.



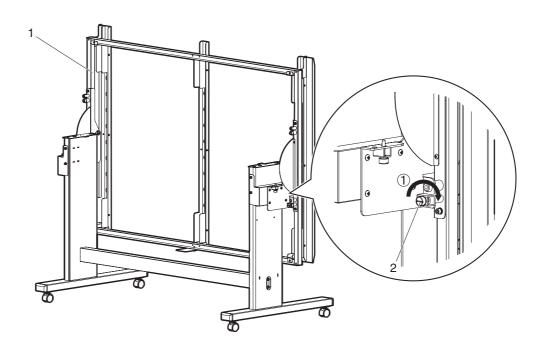
No.	Name
1	Media-feed table
2	Positioning guide

b. Loosen the leveling screws (2 places, both sides), and fold Media-feed table.



No.	Name
1	Media-feed table
2	Leveling screws

c. Tighten the vertical retaining screws and fix Media-feed table.

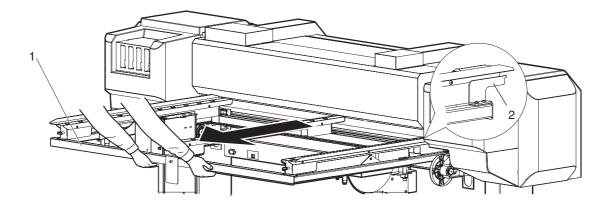


No.	Name
1	Media-feed table
2	Leveling screws

- 2. Remove Media-feed table on the rear side of the printer.
 - a. Pull Media-feed table forward, and remove the positioning guide from the hole of Paper guide R.



• When removing Media-feed table, make sure that you do not damage the printer with the positioning guide.



No.	Name
1	Media-feed table

- b. In the same way as the front side, fold Media-feed table.
 - This completes removing Media-feed table.
 - Load the roll media on the printer.

 13 3.5.4 Loading roll media

3.5.4 Loading roll media

This section explains how to load roll media. Put the roll media in the center.

NOTE

• The following roll media can be attached to the scroller supplied with this unit.

• Outer diameter: 150 mm or less

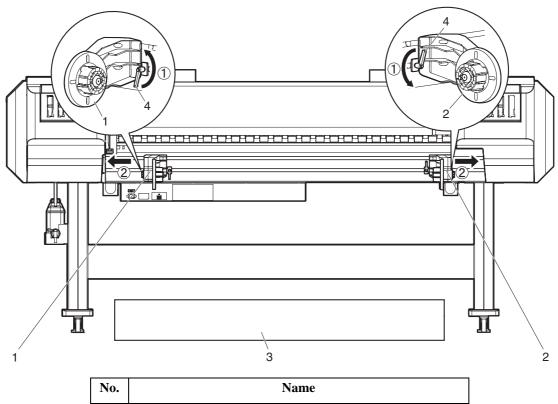
Tube diameter: 2 or 3 in.Weight: 30 kg or less

Length: 50 m or lessWidth: 1,625 mm or less

128.1.1 Printer specifications

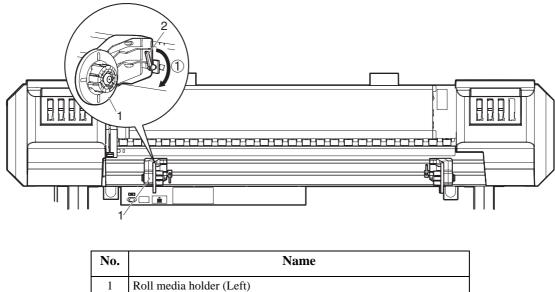
Follow the procedure below to load roll media.

1. Loosen the fixing levers on the right and left side of the rear. Set the distance between the roll media holders wider than the roll media width.



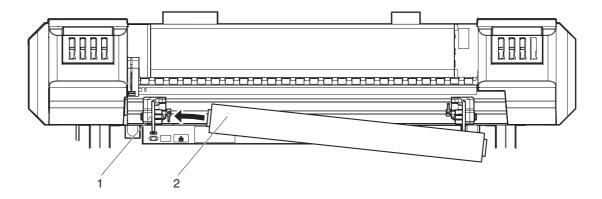
No.	Name
1	Roll media holder (Left)
2	Roll media holder (Right)
3	Roll media
4	Fixing lever

2. Tighten the fixing lever on the left of Roll media holder, and fix the Roll media holder (Left).



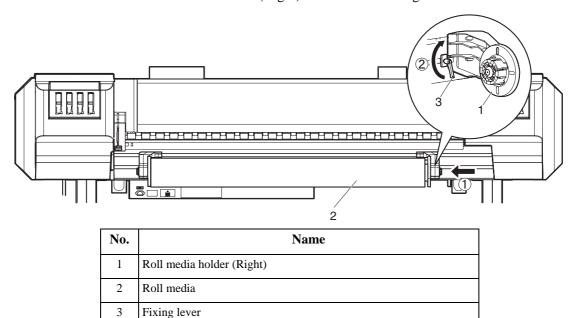
1 Roll media holder (Left)
2 Fixing lever

3. Set the roll media to the roll media holder (Left).



No.	Name
1	Roll media holder (Left)
2	Roll media

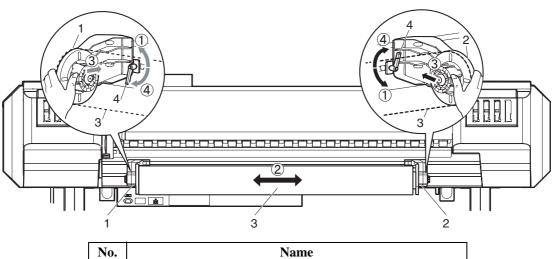
4. Set the roll media to the roll media holder (Right) and fixed the fixing lever.



5. Loosen the fixing levers of the right and left roll media holders, move the roll media to the center and tighten the levers.



• Fix the roll media holders by pressing the holders to the printer.



No.	Name
1	Roll media holder (Left)
2	Roll media holder (Right)
3	Roll media
4	Fixing lever

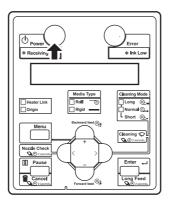
- The procedure for loading the roll media is complete.
- Set the roll media to the printer continuously as shown below. \$\tilde{2}3.5.5\$ Setting roll media

3.5.5 Setting roll media

This section explains how to set roll media.

Follow the procedure below to set roll media.

1. Turn the unit ON.





- Do not operate the media loading lever during initial operation and printing.
 The print head portion may touch the pressurizing roller portion, and cause a malfunction.
 - The printer starts the initializing operation.
 - "Media End" is displayed on the operation panel.
- 2. In Panel setup menu, check if the "media type" for the User type you're going to use is appropriately set.

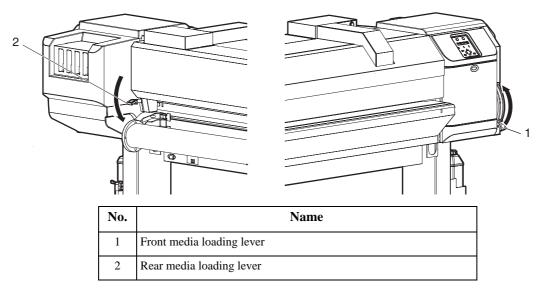
1374.3.2 Menu setup procedure

5.2.2.10 MediaType menu

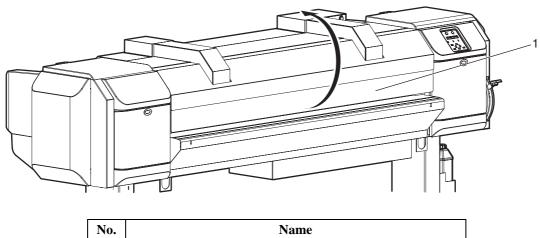
NOTE

• If the type of the media you have loaded differs from that of the user type you have set, the media may not be detected properly.

3. Raise Front media loading lever (lower Rear media loading lever).



- "Lever Up" is displayed on the operation panel.
- 4. Open the front cover.

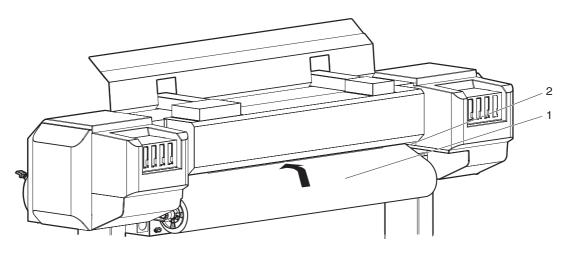


No.	Name
1	Front cover

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

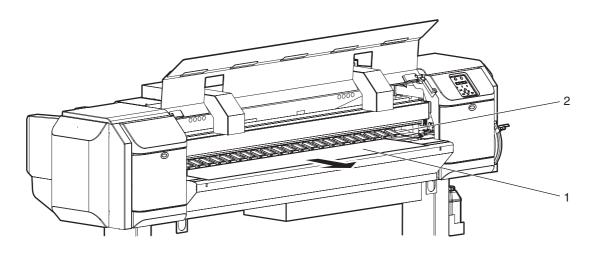


• If the end of the roll media is not wound tightly, wind it tightly again, and then load it.



No.	Name
1	Roll media
2	Media feed slot

6. Pull the roll media out about 1 m from the front media feed slot which is located inside of the front cover.

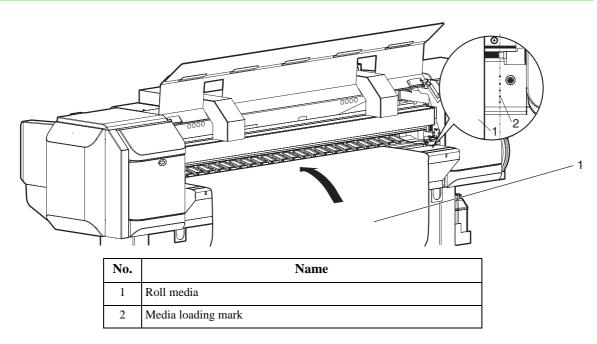


No.	Name
1	Roll media
2	Media feed slot

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

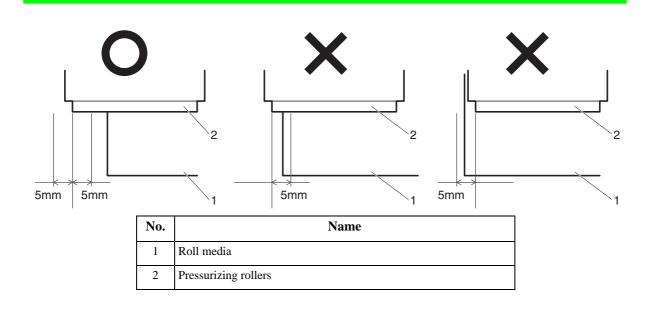


- If you rewind the roll media too much, the roll media may come off from Media feed slot and may fall on the rear side of the printer.
- If the right edge of the roll media is placed further right of the loading mark, media detection may fail, possibly affecting print quality.



NOTE

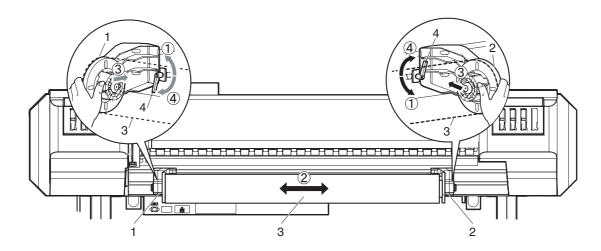
- When setting the roll media, set both sides of the media at least 5 mm away from the edge of the pressurizing roller.
 - Slippage or creases may occur during printing.



- 8. If the edge of the roll media is set less than 5 mm from the edge of the pressurizing roller, follow the procedure below to adjust the position of the roll media.
 - a. Loosen the fixing levers of the right and left roll media holders, and move the roll media to left or right.
 - b. After moving the roll media, fix it with fixing levers of the right and left roll media holders.

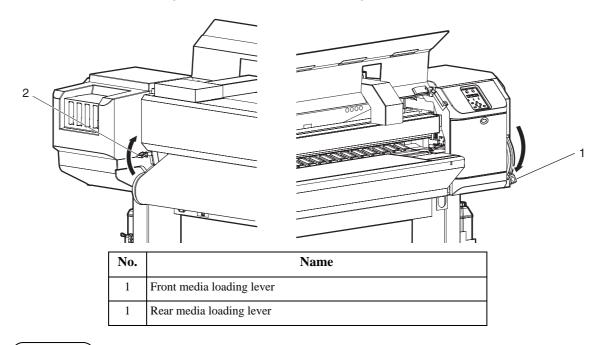
NOTE

- Fix the roll media holders by pressing the holders to the printer.
- If you have moved the roll media to the sides, repeat the steps 5 to 7.



No.	Name
1	Roll media holder (Left)
2	Roll media holder (Right)
3	Roll media
4	Fixing lever

9. Lower Front media loading lever (raise Rear media loading lever).



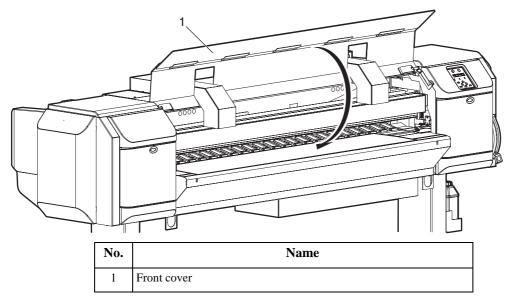
NOTE

- Push Front media loading lever down and lower it firmly.

 For Rear media loading lever, push it up firmly.

 If the lever is not firmly lowered or raised, the media may not be detected.
- When loading the new roll media, cut the front edge of the media if it is not straight. \(\subseteq 4.4.3\) Cutting media

10. Close the front cover.



- The procedure for setting the roll media is complete.
- Set the media type continuously as shown below. \$\tilde{\tilde

3.5.6 Setting media type

This section explains how to set the media type.

Follow the procedure below to set the media type.



- After changing the media type, reset the media feed compensation.
- 1. Turn ON the printer and load media.
- 2. In Panel setup menu, check if the "media type" for the User type you're going to use is appropriately set.

13.2 Menu setup procedure

5.2.2.10 MediaType menu



- If the type of the media you have loaded differs from that of the user type you have set, the media may not be detected properly.
- 3. Load the media



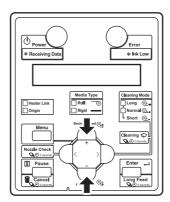
- •Refer to the following for loading the media.
- •Rigid media:

13.5.2 Loading rigid media

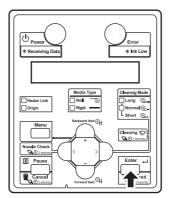
•Roll media:

3.5.3 Removing Media-feed table (optional) to 3.5.5 Setting roll media.

- After the media is loaded, "Media: Type 1 OK?" is displayed on Operation panel.
- 4. Press the [+] key or [-] key to select the type of the loaded media.



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



NOTE

- If the following operations are performed in the media type setup menu, the printer starts media initial operation with the media type displayed on the panel.
- Pressing the [Cancel] key on the operation panel.
- No keys on the operation panel are pressed for 10 seconds.
 - The media type is set.
 - "Head Height Initial" is displayed on the operation panel.
 - Head-height initial operation starts.
 - The media's thickness is detected and the optimum distance (setting value of the head height) of the print head from the platen is automatically adjusted.
 - "Change: *.* mm ->" is displayed on the operation panel.

A CAUTION

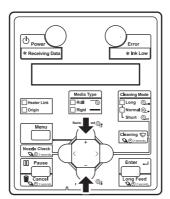
• If the media thickness detection menu is set to "Off", the head height initial operation is not performed.

If "Warning!*.* mm ->" is displayed on Operation panel, check if it matches the thickness of the media you have loaded, and if it's wrong, enter the correct value. If you set a value smaller than the actual media thickness, the media may touch and break Print head.



•"*.*" indicates the total of the head height value (thickness) and entered correction value (correction).

6. To change value of the head height, press the [+] key or [-] key on Operation panel.



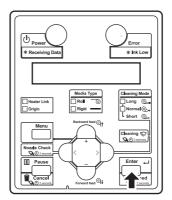
NOTE

- When using rigid media with a soft printing surface, the head height value displayed on Operation
 panel may differ from the actual media thickness.
 If this happens, see the following and enter the correction value so that the head height matches the
 actual media thickness.
- Media thickness detection is a function to keep the gap between Print head and the media, and to stabilize print quality; the measured value may differ from the actually media thickness.
 - a. Remove the rigid media from the printer.
 - b. Measure the media thickness with a tool such as slide gauge.
 - c. Load the rigid media again.
 - d. Enter the difference between the value displayed on Operation panel and the actual media thickness as a correction value.

TIP

- •The total amount of the head height setting value (thickness) and the input adjustment value (adjustment) is displayed in "*.*".
- •When you press the [>] key on the operation panel, the setting value (*.*) and the input adjustment value (O.O) are each displayed, as in "Thick. + Adj: *.* + O.O".

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



- "Media Initial" is displayed on the operation panel.
- Media initial operation restarts.
- After media initial operation is complete, "Ready to Print" is displayed on the operation panel and the display shifts to Normal.
- The procedure for setting media type is complete.

3.5.7 Media Type Change Procedure from Media Type Menu

This chapter describes the procedure to change the media type from the media type menu.

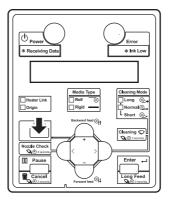
Check the media thickness detection setting for the User type you want to use, and then read the appropriate procedure.

5.2.2.7.1 Media thickness detection (media initial 1)

3.5.7.1 When the media thickness detection is ON

If the media thickness detection is set to ON, follow the procedure below.

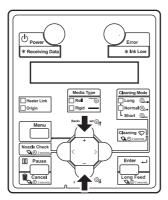
1. Press the [Menu] key on the operation panel.



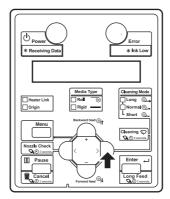
• "Menu1: Sleep Mode>" is displayed on Operation panel.

Menu1: Sleep Mode>

2. Press the [+] or [-] key on Operation panel to select "Menu2: User Type".



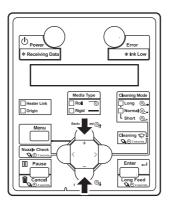
3. Press the [>] key on the operation panel.



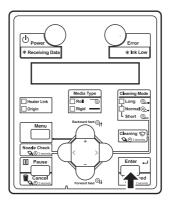
• "User: Type 1" is displayed on the operation panel.



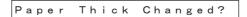
4. Press the [+] key or [-] key on the operation panel to select the user type to use.



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



• After the user type is changed, "Paper Thick Changed?" is displayed on the operation panel.

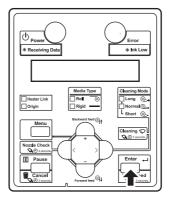


NOTE

• When the same media type as last time is selected, "**>1: Print Mode" is displayed on the operation panel. Exit this procedure, and then the setting of user media can be specified.

5.2.2 Various settings of User type

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



- The media thickness registered for the selected media type will be updated to the media thickness currently set.
- "*>1: Print Mode" is displayed on the operation panel.

**>1 Print Mode

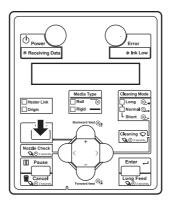
7. Then, various settings for user media can be specified.

5.2.2 Various settings of User type

3.5.7.2 When the media thickness detection is OFF

If the media thickness detection is set to OFF, follow the procedure below.

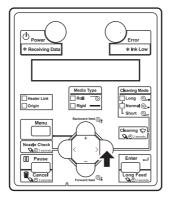
1. Press the [Menu] key on the operation panel.



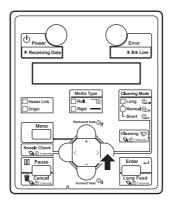
• "Menu 1: Sleep Mode>" is displayed on the operation panel.



2. Press the [+] or [-] key on Operation panel to select "Menu2: User Type".



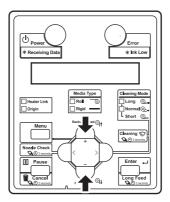
3. Press the [>] key on the operation panel.



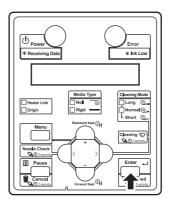
• "User: Type 1" is displayed on the operation panel.



4. Press the [+] key or [-] key on the operation panel to select the user type to use.



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



• When the media type is changed to a different media type (contents of user media is already set), "Warning! *.*mm ->" is displayed on the operation panel.



NOTE

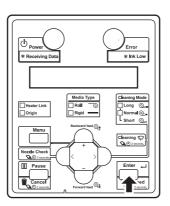
- When a new media type (content of user media is not set) is selected, the printer detects the media thickness. Go to the procedure 8 (b).
- When the same media type as previous is selected, "**>1: Print Mode" is displayed on the operation panel. Exit this procedure, and then the setting of user media can be specified.

5.2.2 Various settings of User type

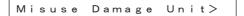


- •The total amount of the head height setting value (thickness) and the input adjustment value (adjustment) is displayed in "* *".
- •When you press the [>] key on the operation panel, the setting value (*.*) and the input adjustment value (O.O) are each displayed, as in "Thick. + Adj: *.* + O.O".

- 6. Check if the media thickness displayed on the operation panel is same as the specified media thickness.
 - a. If the media thickness is correct, press [Enter] key.

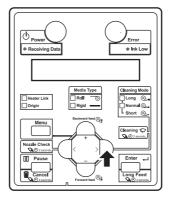


• "Misuse Damage Unit" is displayed on the operation panel.



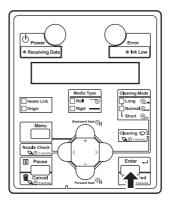


- If you set a value smaller than the actual media thickness, the media may touch and break Print head.
 - b. If it is wrong, press the [Cancel] key; media thickness is detected. Skip to step 8 (b).
- 7. Press and hold ">" key on the operation panel.



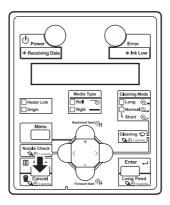
• "<E>Skip,<CAN>Detect" is displayed on the operation panel.

- 8. Select whether to detect the media thickness.
 - a. To skip the media thickness detection, press [Enter] key on the operation panel.

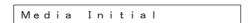


- The printer performs media initialization. (The media thickness will not be detected.)
- "Ready to Print" is displayed on the operation panel.

- Terminate the procedure to change the media type.
- b. To detect the media thickness, press [Cancel] key on the operation panel.



• "Media Initial" is displayed on the operation panel.

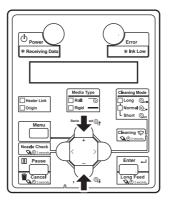


- Head-height initial operation starts.
- The media's thickness is detected and the optimum distance (setting value of the head height) of the print head from the platen is automatically adjusted.
- "Change: *.* mm ->" is displayed on the operation panel.





- \bullet The total amount of the head height setting value (thickness) and the input adjustment value (adjustment) is displayed in "*.*".
- •When you press the [>] key on the operation panel, the setting value (*.*) and the input adjustment value (O.O) are each displayed, as in "Thick. + Adj: *.* + O.O".
- 9. To change the setting value for the head height, press the [+] key or [–] key on the operation panel and change the setting value.

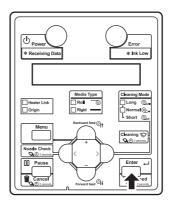


NOTE

- If the printing side of the thick media is soft, the head height setting value displayed on the operation panel and the actual thickness of the media may differ.

 In this case, follow the steps below to input the correct value so that the head height is aligned with the actual thickness of the media.
- Media thickness detection is a function to keep the gap between Print head and the media, and to stabilize print quality; the measured value may differ from the actually media thickness.
 - a. Remove the media from the printer.
 - b. Measure the media's thickness with calipers or similar tool.
 - c. Set the thick media again.
 - d. Input the difference of the setting value displayed on the operation panel and the actual thickness as the adjustment value.

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



• "Media Initial" is displayed on the operation panel.



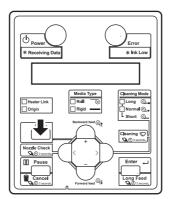
- Media initial operation restarts.
- After media initial operation is complete, "Ready to Print" is displayed on the operation panel and the display shifts to Normal.

• The procedure for setting media type is complete.

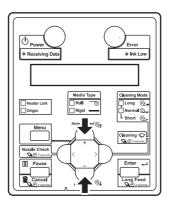
3.6 Test print

Follow the procedure below to perform Test printing to confirm that the printer works correctly.

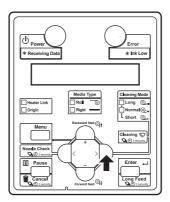
- 1. Turn ON the printer and load the roll media. \$\square\$3.5.5 Setting roll media
- 2. Confirm that the printer functions normally.
- 3. Display the Test print menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.



- "Menu 1: Setup>" is displayed on the operation panel.
- The operation panel shifts to the Setup menu display.
- b. Press the [+] key or [-] key on Operation panel to select "Menu4: Test Print".

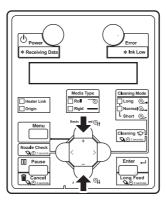


c. Press the [>] key on the operation panel.



- "Test1: Nozzle Check" is displayed on the operation panel.
- The display shifts to the Test print menu.

 13 5.4 TestPrint Menu
- 4. Press the [+] key or [-] key on the operation panel to select an item for printing from the following items.
 - Nozzle check
 - Nozzle check B
 - Mode print
 - Setup List
 - Palette
 - Color Verify

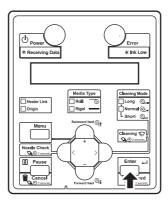


NOTE

• When "Banner 1" is set in the Print Mode menu, "PalettePrint" is not displayed in the Test Print menu.

135.4 TestPrint Menu

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



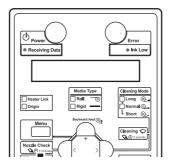
• Start performing Test Print for the selected item.



•Refer to the following for details on each of the print list items.

\$\mathbb{L}\mathbb{F}\ 3.6.1 \ Nozzle check to 3.6.6 \ Color verify

- 6. Repeat step 4 to step 5 when performing test print for other items.
- 7. Press the [Cancel] key on the operation panel to exit from test print.



- The operation panel returns to Normal.
- The procedure for test printing is complete.

3.6.1 Nozzle check

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



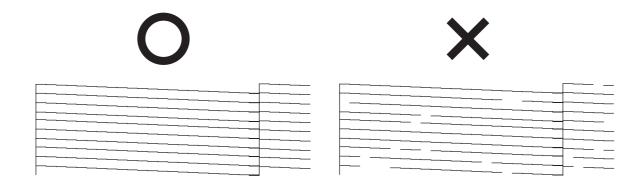
• If the nozzle check result indicates that the checked points are blurred or missing, clean the head. \$\tilde{16.5.3}\$ Head cleaning

Perform the nozzle check once again at the end of the work.



•Refer to the following for printing procedure.

13.6 Test print



3.6.2 Nozzle check B

This is nozzle check for white ink. The background of the nozzle check pattern will be colored so that white ink can be seen.



• If the nozzle check result shows that the checked points are blurred or missing, perform head cleaning.

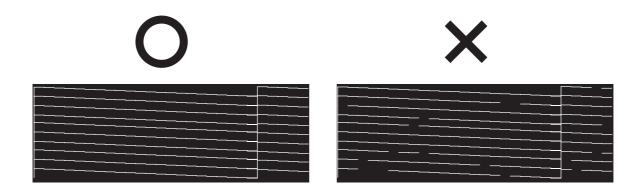
126.5.3 Head cleaning

Perform the nozzle check once again at the end of the work.



•Refer to the following for printing procedure.

3.6 Test print



3.6.3 Mode print

Used to confirm the following printing conditions.

- Print Mode
- Effect
- Adjustment value



•Refer to the following for printing procedure.

T3.6 Test print

2012/11/01 0:00 Q2(1440x1440N 16Pass Bi)-Fine&Fog/PF Adjust:0.00%

4 : None [] 5 : None []

Cleaning mode: Normal

3.6.4 Setup print

Used to check the current setup of the printer.



• Keep the created print setup parameters at hand.



Refer to the following for printing procedure.

Setup List

3.6 Test print



<Media Type List>

[16][*]Life Times

User Type	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7	Type 8	Type 9	Type10
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
Print Mode>Effect	None Variable	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz
PF>Initial Adjust	500. 9/500mm	501. 0/500mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm
Pf>Micro Adiust	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Vacuum Fan	High	High	High	High	High	High	High	High	High	High
Thickness	0. 3mm	4. Omm	0. Omm	O. Omm	O. Omm	O. Omm	0. Omm	O. Omm	O. Omm	O. Omm
Thickness Aist.	0. Smill 0. Omm	4. Omn	O. Omn	0. Omn	O. Omm	O. Omm	0. Omm	0. Omm	0. Omn	O. Omm
Media Initial>Height	On Umm	O. Umm	On On	On Unim	On On	On Umm	On On	On On	O. umm	O. Omm
Media Initial>Paper	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width
Media Width	1625mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm
Pass Wait	0.0sec	0. Osec	0 Osec	0. Osec	0. 0sec	0. Osec				
Rigid/Roll	Roll	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
* '		-	-		-	-		-		-
User Type	Type11	Type12	Type13	Type14	Type15	Type16	Type17	Type18	Type19	Type20
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
Print Mode>Effect	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz
PF>Initial Adjust	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm 0. 00%	250. 0/250mm					
Pf>Micro Adjust	0.00%	0.00%	0.00%		0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Vacuum Fan	High	High	High	High	High	High	High	High	High	High
Thickness	0. 3mm	4. Omm	0. 0mm	0. Omm	0. 0mm	O. Omm	0. Omm	0. 0mm	0. 0mm	0. 0mm
Thickness Ajst.	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm
Media Initial>Height	On	0n	0n	On	On	0n	On	On	0n	0n
Media Initial>Paper	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width
Media Width	1625mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm
Pass Wait	0. Osec	0. 0sec	0. Osec	0. 0sec	0. 0sec	0. 0sec	0. Osec	0. Osec	0. Osec	0. Osec
Rigid/Roll	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid
User Type	Type21	Type22	Type23	Type24	Type25	Type26	Type27	Type28	Type29	Type30
Print Mode	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2	Graphics 2
Print Mode>Effect	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz	Fine&Fuzz
PF>Initial Adjust	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm	250. 0/250mm
Pf>Micro Adjust	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Vacuum Fan	High	High	High	High	High	High	High	High	High	High
Thickness	0. 3mm	4. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm
Thickness Ajst.	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm	0. 0mm
Media Initial>Height	0n	0n	0n	0n	0n	0n	0n	0n	0n	0n
Media Initial>Paper	Width	Width	Width	Width	Width	Width	Width	Width	Width	Width
Media Width	1625mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm
Pass Wait	0. Osec	0. 0sec	0. Osec	0. 0sec	0. 0sec	0. Osec				
Rigid/Roll	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid	Rigid

3.6.5 Palette print

Palette print is executed for the color demonstration.



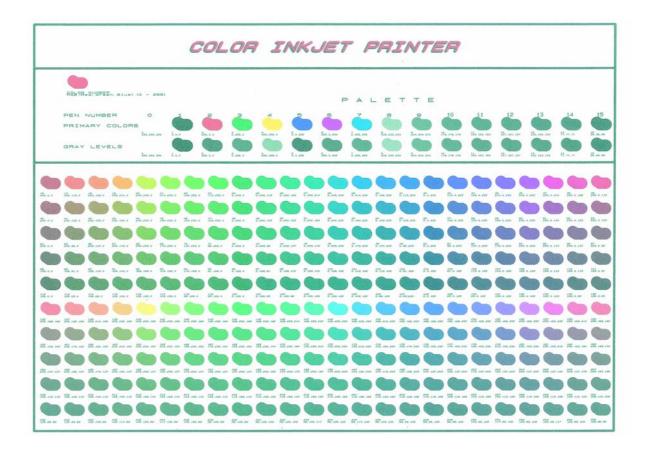
• When "Banner 1" is set in the Print Mode menu, "PalettePrint" is not displayed in the Test Print menu.

15.4 TestPrint Menu



•Refer to the following for printing procedure.

13.6 Test print



3.6.6 Color verify

The "Color Verify" feature can be utilized to aid the printer operator in checking for and isolating potential color reproduction variations before they become a visual detriment.

14 color patches are printed and then measured by using the optional Spectrophotometer (SPECTROVUE VM-10). If the Color Verify was performed before and the measured value was saved as the baseline, the color difference from the baseline will be printed as a result.



•Printer color reproduction can change over time due to various factors, including environmental (shop temperature and humidity), age and storage conditions of ink and media, possible lot-to-lot manufacturing variations of ink and media, and aging of the printer itself (due to mechanical wear). Individually, such factors may have minimal impact on color reproduction, but cumulatively over a span of time these factors can lead to color variations that become apparent and potentially detrimental to image quality.

Follow the 2 steps below to check the color reproducibility using the Color Verify.

- 1. Save the baseline
 - Perform the Color Verify under the condition* of comparison criterion, and save the measured value (only one baseline can be saved).
 - * e.g.: To use a new media, after an initial ink charge, before starting the continuous print job, etc.
- 2. Check the current color reproducibility (Comparison with the baseline)
 - When a media or ink is replaced, or when the job that has been printed in the past, is printed again, perform the Color Verify and compare the color with the baseline to check if there is no significant change in the color reproducibility.



- •When the Color Verify is executed, the color difference (dE) is printed on the top of each color patch. If the color difference (dE) is quite large, it means that the color reproducibility has varied from when the baseline was saved. In general, if the dE is more than 3.2, the color difference in the print result will be visible.
- •In this function, the color difference (dE) is calculated based on CIE 94*.
- * CIE94 is proposed by CIE (International Commission of Illumination) in 1994.

NOTE

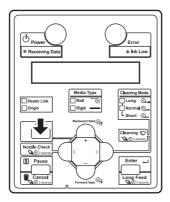
- The optional SPECTROVUE VM-10 is required to perform this function. For more information about the SPECTROVUE VM-10, contact your local MUTOH dealer.
- Before performing this function, make sure to print the nozzle check pattern to check if there is no missing nozzle.
- In order to perform the Color Verify correctly, make sure to specify the following settings same as the setting when the baseline was saved. If these settings are different, the color difference may become large.
 - Each Heater Temperature Setting, Effect Setting, CR Print Width Setting, Overwrite Setting
- Since the room environment (temperature, humidity) may affect the print color, create the environment in accordance with the environment condition described in the operating manual "8.1.1 Printer specifications". In addition, make sure to place the media and ink in the printing environment for 2 hours before use.
- In this function, the baseline cannot be saved for each media. To perform the Color Verify with a different media, the new baseline should be saved. (If the media is replace to the one previously used, the baseline should be saved again.)
- The "Color Verify" feature is intended to be utilized as an aid to the printer operator in checking for and isolating potential color reproduction variations that can arise over time due to various factors common to all printing environments; it is a tool intended to help facilitate implementation of onprinter process control.
 - As such, it is not in-and-of-itself a guarantee of color reproducibility or reproduction accuracy, nor does it negate the need for color workflow best practices.
- Please don't place the printer where the strong light (for example, sunlight) directly penetrate it. If strong light penetrates the measuring area, it may impact measurement accuracy.
- When using SPECTROVUE VM-10, the printer must be set as follows. Make sure to check the settings before use.
 - Media thickness detection: ON
 \$\sum_{5.2.2.7.1}\$ Media thickness detection (media initial 1)
 - Media detection: Height + Width or Height + T&W
 5.2.2.7.2 Media width/top edge detection (media initial 2)
 - Take-up unit: OFF

 5.3.3 Take-up unit menu
- If the media thickness is changed manually, it may impact measurement accuracy.
- Color measurement may not be accurate when Color target is printed on translucent, colored or ribbed media.

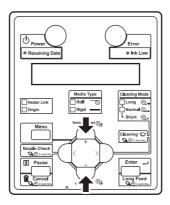
Follow the procedures below to perform the Color Verify.

- 1. Turn ON the printer and load the roll media. \$\tilde{2}3.5.5\$ Setting roll media
- Set the user type setting.
 \$\sum_{3.5.6}\$ Setting media type

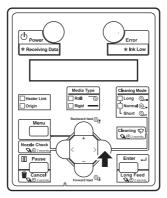
- 3. Check the setting of Blower heater. 12 4.5 Using Blower heater
- 4. Display the Test Print menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.



- "Menu 1: Setup>" is displayed on the operation panel.
- The operation panel shifts to the Setup menu display.
- b. Press the [+] key or [-] key to select "Menu4: Test Print>".



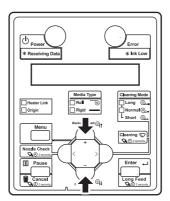
c. Press the [>] key on the operation panel.



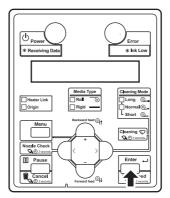
- "Test1: Nozzle Check" is displayed on the operation panel.
- The display shifts to the Test Print menu.

125.4 TestPrint Menu

5. Press the [+] key or [-] key on the operation panel to select "Test6 : Color Verify".



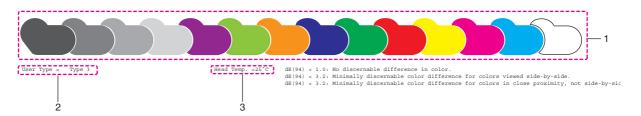
6. Press the [Enter] key on the operation panel.



- The printing of following items starts.
- a. Color Patches
- b. Media Type
- c. Head Temperature Information

NOTE

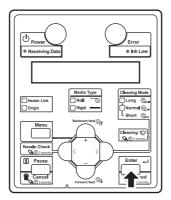
• Do not open the covers or move media loading lever during printing.



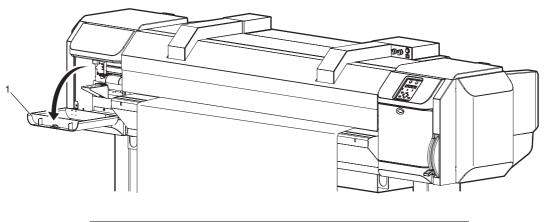
No.	Name		
1	Color Patches		
2	User Type		
3	Head Temperature Information		

• After printing is complete, "Attaching instrument [ENTER]" is displayed on the operation panel.

7. Press the [Enter] key.



- "Wait for a while..." is displayed on the operation panel.
- The print head moves to the left.
- "Open left mainte. cover." is displayed on the operation panel.
- 8. Open the maintenance cover on the left of the printer.
 - "Remove connector cap and attach instrument [ENTER]" is displayed on the operation panel.

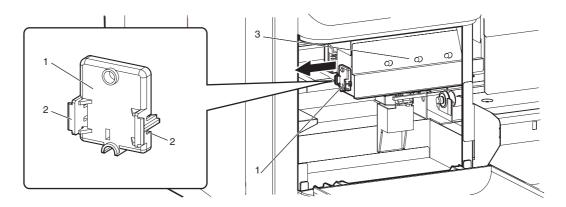


No.	Name
1	Maintenance cover

NOTE

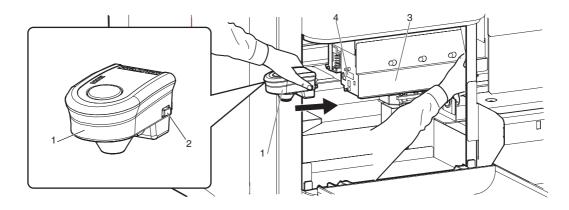
• When a certain time has passed without opening the maintenance cover, the print head returns toward the right side of the printer to protect the print head. "Attaching instrument [ENTER]" is displayed. Restart from the Step 7.

9. Firmly pinch the tabs on both sides of the connector cap with your fingers, pull the connector cap forward to remove it from the print head.



No.	Name
1	Connector cap
2	Tabs
3	Print head section

10. Press the release buttons on both sides of spectrophotometer, install it to the connector at the print head.

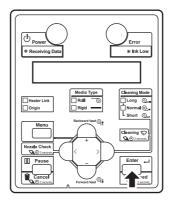


No.	Name
1	Spectrophotometer
2	Release buttons
3	Print head section
4	Connector

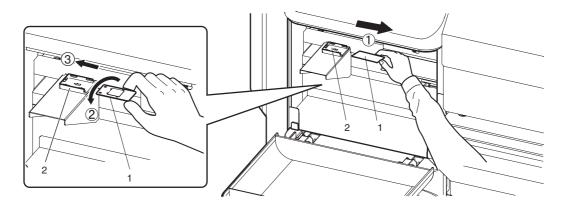
NOTE

• Make sure that spectrophotometer is NOT installed at an angle, and that there in no gap between the connector and spectrophotometer.

11. Press the [Enter] key.



- "Wait for a while..." is displayed on the operation panel.
- The printer checks the connection between the printer and spectrophotometer.
- "Set white plate then close left maintenance cover." is displayed on the operation panel.
- 12. Remove the white reference plate from the plate installation place, turn it over so that the white side faces up, and install it back to the original place.

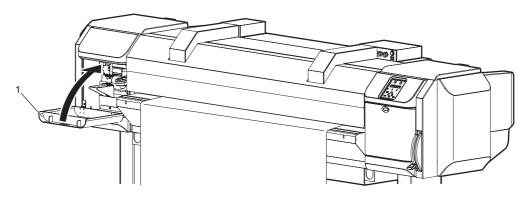


No.	Name			
1	White reference plate			
2	Plate installation place			

NOTE

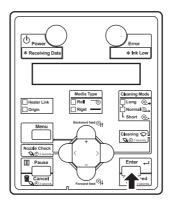
• Before measuring the color patches, make sure that the white side of the white reference plate is facing up. If the black side is facing up, it will not be measured accurately.

13. Close the maintenance cover.



No.	Name
1	Maintenance cover

- The print head moves to the right.
- "Wait for a while..." is displayed on the operation panel.
- 14. When "Start measurement [ENTER]" is displayed on the operation panel, press the [Enter] key.

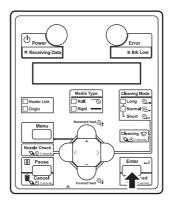


- Spectrophotometer starts measuring the color patches.
- "Measuring..." is displayed on the operation panel.
- After measuring is complete, "Detaching instrument [ENTER]" is displayed on the operation panel.

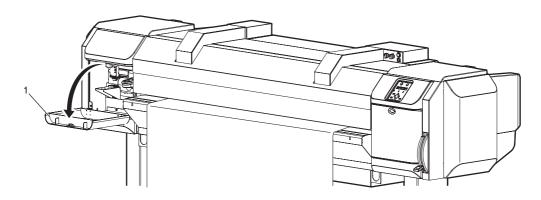
NOTE

• Do not open the covers or move media loading lever during measuring.

15. Press the [Enter] key.

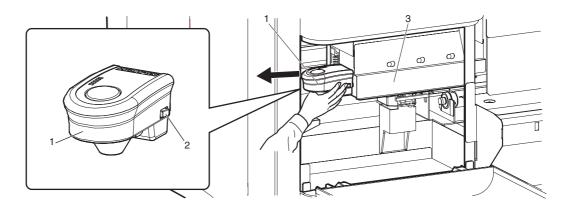


- "Wait for a while..."is displayed on the operation panel.
- The print head moves to the left.
- "Open left mainte. cover." is displayed on the operation panel.
- 16. Open the maintenance cover on the left of the printer.
 - "Detach instrument and Set connector [ENTER]" is displayed on the operation panel.



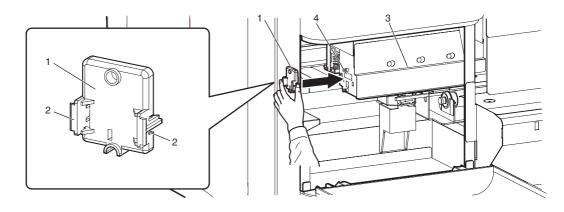
No.	Name
1	Maintenance cover

17. While pressing the release buttons on both sides of spectrophotometer, pull it forward to remove it from the print head.



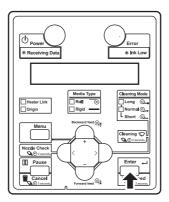
No.	Name		
1	Spectrophotometer		
2	Release buttons		
3	Print head section		

18. Firmly pinch the tabs on both sides of the connector cap with your fingers, and install it to the connector at the print head.

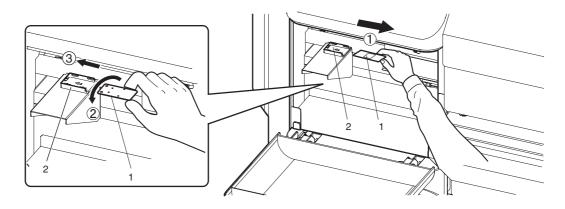


No.	Name
1	Connector cap
2	Tabs
3	Print head section
4	Connector

- 19. Press the [Enter] key.
 - "Wait for a while..." is displayed on the operation panel.
 - "Remove white plate then close mainte. cover." is displayed on the operation panel.



20. Remove the white reference plate from the plate installation place, turn it over so that the black side faces up, and install it back to the original place.

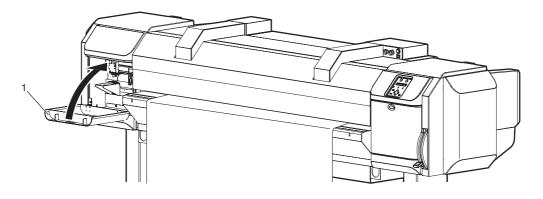


No.	Name
1	White reference plate
2	Plate installation place

NOTE

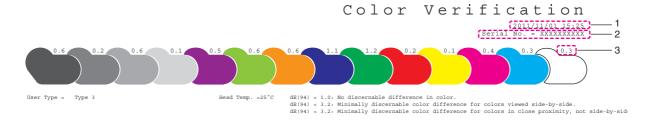
• When the white reference plate is not in use, make sure that it is turned over facing down to avoid any contamination.

21. Close the maintenance cover.



Ī	No.	Name	
	1	Maintenance cover	

- The printing of following items starts.
 - Date
 - Serial Number
 - Color Difference (dE)



No.	Name
1	Date
2	Serial Number
3	Color Difference (dE)

22. Check the color difference (dE).

Followings are the commonly recognized indications of color difference (dE).

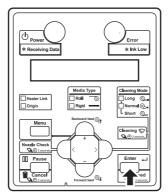
- dE < 1.0: No discernable difference in color.
- dE < 3.2: Minimally discernable color difference for colors viewed side-by-side.
- dE < 6.5: Minimally discernable color difference for colors in close proximity, not side-by-side.

NOTE

- In order to perform the Color Verify correctly, make sure to specify the following settings same as the setting when the baseline was saved. If these settings are different, the color difference may become large.
- Blower heater settings, Effect setting, CR Head Travel setting, Multi strike setting, Media thickness correction setting, and Media feed compensation setting
- Since the room environment (temperature, humidity) may affect the print color, create the environment in accordance with the environment condition described in the operating manual "8.1.1 Printer specifications" "Environment Condition". In addition, make sure to place the media and ink in the printing environment for 2 hours before use.
- "Color Verify" is a function to check the color variation in print color caused by various causes. This function is not to guarantee the color reproducibility.
- Since the judgment of color acceptance is largely dependent on the human eye, we recommend to perform the print to check the color.
 - The message "Update Result?" is displayed on the operation panel.
- 23. Press [Enter] key to save the measurement value of the currently printed color patches.

NOTE

- When the measurement value is saved, the baseline will be replaced by the currently measured value.
- Press [Cancel] key to not to save the measurement value.



• "Ready to Print" is displayed on the operation panel.

3.7 Adjust print

It is used for optimizing the quality of image prints. Adjustment methods for this printer are as follows.

Adjustment method	Description	Reference
Standard	Adjusts only the print mode in the user type setting which is currently set.	第3.7.1 Standard print quality adjustment
Custom	Perform adjustment for all print modes.	13.7.2 Custom print quality adjustment



- This printer was adjusted at the factory shipment so that it obtains the optimum printing quality. Adjust the quality if the print quality changes after the installation environment or the media is changed.
- When newly setting or changing the user type setting after adjusting Standard adjust print, make sure to adjust print.
- Since all print modes are adjusted at once after performing Custom adjust print, adjust print is not required even after changing the print mode.
- When specifying a print mode which is different from the mode set in the user type setting, adjust all print modes in the Custom adjust print first.

3.7.1 Standard print quality adjustment

Adjusts only the print mode in the user type setting which is currently set. This menu consists of the following menus.

Menu name	Description	Reference
Standard confirmation pattern	Print out the confirmation pattern and check the degree of misalignment.	3.7.1.1 Standard confirmation pattern
Standard rough adjustment pattern	Perform this when the degree of misalignment is big.	3.7.1.2 Standard rough adjustment pattern
Standard micro adjustment pattern	Perform this when the degree of misalignment is small.	3.7.1.3 Standard micro adjustment pattern

Follow the procedure below to perform adjustment.

1. Print out the confirmation pattern and check the degree of misalignment. \$\square\$3.7.1.1 Standard confirmation pattern

2. Perform rough adjustment when the degree of misalignment is big.

\$\mathbb{E}^3.7.1.2 Standard rough adjustment pattern

Perform micro adjustment when the degree of misalignment is small.

\$\mathbb{E}^3.7.1.3 Standard micro adjustment pattern



- Perform rough adjustment first when the degree of misalignment is difficult to determine.
- 3. Print out the confirmation pattern again and check if the printer has been adjusted properly. \(\subseteq 3.7.1.1\) Standard confirmation pattern
- 4. If it has not been adjusted yet, return to step 2.

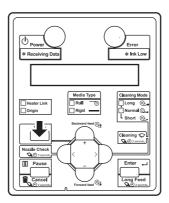


• Perform micro adjustment if the printer is not fully adjusted after rough adjustment.

3.7.1.1 Standard confirmation pattern

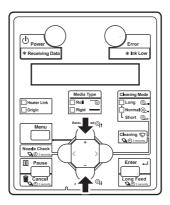
Print out the confirmation pattern of the print mode in the user type setting which is currently set.

- 1. Turn ON the printer and load the roll media. \$\times 3.5.5 \text{ Setting roll media}\$
- 2. Display the Printing mode menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.

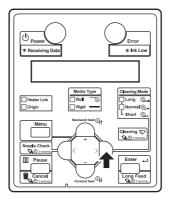


• "Menu 1: Sleep Mode>" is displayed on the operation panel.

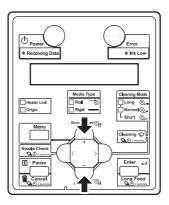
b. Press the [+] key or [-] key on the operation panel to select the "Menu 2: User Type".



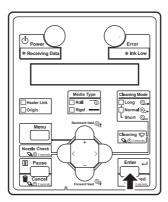
c. Press the [>] key on the operation panel.



- "User: Type XX" (XX is a number between 1 and 30) is displayed on the operation panel.
- d. Press the [+] key or [-] key on the operation panel to select the user type to use.



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

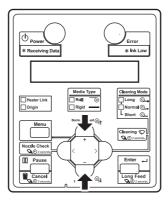


• "**>1: Print Mode" is displayed on the operation panel.

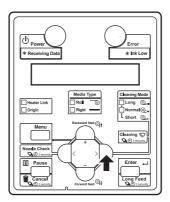


- The selected media (Type 1 to 30) is displayed in **.

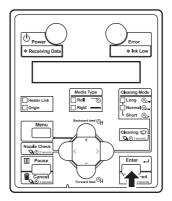
 15 5.2.1 Type menu
- If you set the User type different from the previous time when the Media detection is set to On, "Change Media Thickness?" is displayed on Operation panel.
 - Press the [Enter] key to overwrite the detected media thickness with the User type you have set here.
 - Press the [Cancel] key to return to the selection screen of User type.
 - f. Press the [+] key or [-] key on the operation panel to select the "**>2: Adjust Print>".



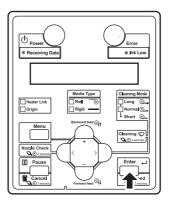
g. Press the [>] key on the operation panel.



- "Adj. Print1: Standard" is displayed on Operation panel.
- h. Press the [Enter] key on the operation panel.



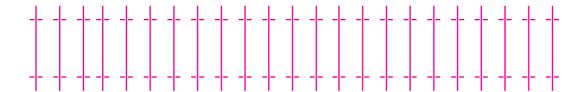
- "Adj.1: Confirm Ptn." is displayed on Operation panel.
- The diplay shifts to Adjust Print menu. \$\square\$5.2.2.2 Adjust Print menu
- 3. Press the [Enter] key on the operation panel.



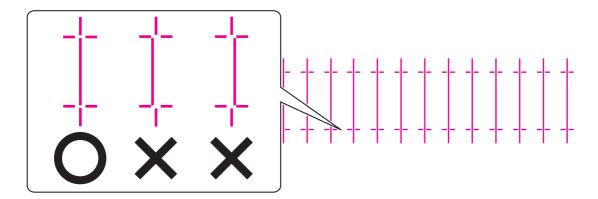
• "Warming Up Skip ->E" is displayed on Operation panel.

NOTE

- To start printing during warming up, press the [Enter] key on Operation panel.
- After warm-up, the printer starts printing a confirmation pattern for print quality adjustment.
- A confirmation pattern will be printed.



- After the confirmation pattern is printed, the operation panel shifts to "Adj.1 Confirm Ptn.".
- 4. Confirm that the confirmation pattern printing result is as follows.

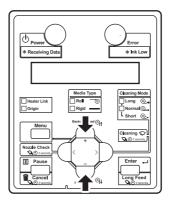


- a. When the printing result is O:
 You do not need perform Alignment.
 The procedure for Alignment is complete.
- b. When the printing result is ×: You need to perform Alignment.
 - Perform rough adjustment when the degree of misalignment is big.
 3.7.1.2 Standard rough adjustment pattern
 - Perform micro adjustment when the degree of misalignment is small.
 \$\sum_{3.7.1.3}\$ Standard micro adjustment pattern

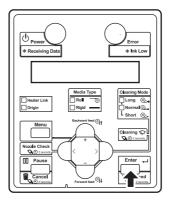
3.7.1.2 Standard rough adjustment pattern

Perform rough adjustment when the degree of misalignment is big. Print rough adjustment pattern and register the set values.

- 1. Display the Standard Adjust Print menu on Operation panel in the same way as step 2 of 3.7.1.1 Standard confirmation pattern.
- 2. Press the [+] key or [-] key on Operation panel to select "Adj.2: Rough Pattern".



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

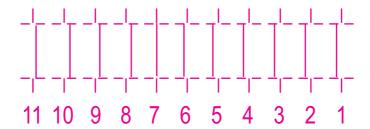


• "Warming Up Skip ->E" is displayed on Operation panel.

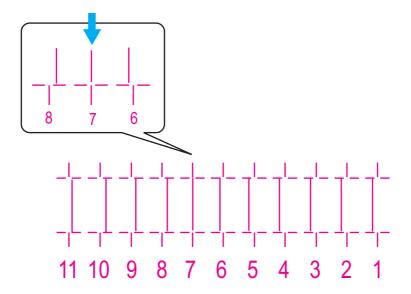


• To start printing during warming up, press the [Enter] key on Operation panel.

• After warm-up, the printer starts printing a confirmation pattern for print quality adjustment.



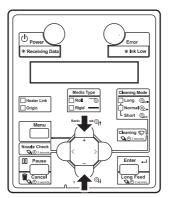
- For the rough adjustment pattern, the same petterns will be printed on both sides and center of the media.
- "PatternB: 6" is displayed on Operation panel.
- 4. Check the print results on both sides and center of the media and select the number that looks most aligned between 1 and 11.
 - "7" is selected in the next printing sample.



NOTE

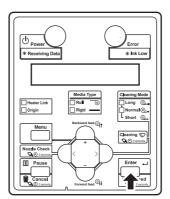
• "6" represents the current setting value.

5. Press the [+] key or [-] key to enter the number that you selected in Step 4.





- When you press the [Cancel] key on Operation panel, the display returns to "Adj.3: Fine Pattern".
- 6. Press the [Enter] key on the operation panel.

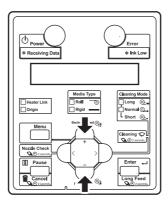


- Determines the setting.
- The operation panel returns to "Adj.3: Fine Pattern".

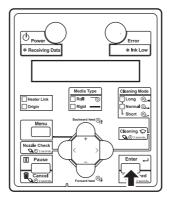
3.7.1.3 Standard micro adjustment pattern

Perform micro adjustment when the degree of misalignment is small. Print micro adjustment pattern and register the set values.

- 1. Display the Standard Adjust Print menu on Operation panel in the same way as step 2 of 3.7.1.1 Standard confirmation pattern.
- 2. Press the [+] key or [-] key on Operation panel to select "Adj.3: Fine Pattern".



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

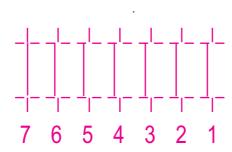


• "Warming Up Skip ->E" is displayed on Operation panel.

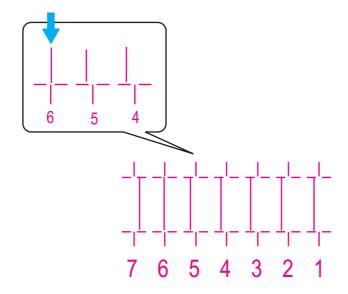


• To start printing during warming up, press the [Enter] key on Operation panel.

• After warm-up, the printer starts printing a confirmation pattern for print quality adjustment.



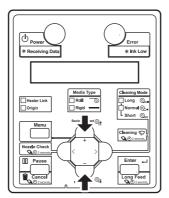
- For the micro adjustment pattern, the same petterns will be printed on both sides and center of the media.
- "PatternB: 4" is displayed on Operation panel.
- 4. Check the print results on both sides and center of the media and select the number that looks most aligned between 1 and 7.
 - "6" is selected in the next printing sample.



NOTE

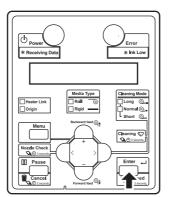
• "4" represents the current setting value.

5. Press the [+] key or [-] key to enter the number that you selected in Step 4.



NOTE

- When you press the [Cancel] key on Operation panel, the display returns to "Adj.3: Fine Pattern".
- 6. Press the [Enter] key on the operation panel.



- Determines the setting.
- The operation panel returns to "Adj.3: Fine Pattern".

3.7.2 Custom print quality adjustment

Perform adjustment for all patterns (A to F).

All print modes will be adjusted.

This menu consists of the following menus.

Menu name		Description	Reference
Custom confirmation pattern		Print out the confirmation patterns (A to F) and check the degree of misalignment.	3.7.2.1 Custom confirmation pattern
Custom rough adjustment pattern		Perform this when the degree of misalignment is big. All confirmation patterns (A to F) will be adjusted.	13.7.2.2 Custom rough adjustment pattern
Custom micro adjustment pattern	Adj. PatternALL	Perform this when the degree of misalignment is small. All confirmation patterns (A to F) will be adjusted.	3.7.2.3.1 Adj. Pattern ALL
	Individual Adj. pattern	Perform this when the degree of misalignment is small. One of the confirmation patterns (A to F) will be adjusted.	TF 3.7.2.3.2 Individual Adj. pattern

Follow the procedure below to perform adjustment.

- 1. Print out the confirmation pattern and check the degree of misalignment. \$\square\$3.7.2.1 Custom confirmation pattern
- 2. Perform rough adjustment when the degree of misalignment is big.

3.7.2.2 Custom rough adjustment pattern

Perform micro adjustment when the degree of misalignment is small.

3.7.2.3 Custom micro adjustment pattern



- Perform rough adjustment first when the degree of misalignment is difficult to determine.
- 3. Print out the confirmation pattern again and check if the printer has been adjusted properly. \(\mathbb{Z}\)\(\mathbb{Z}\)\(3.7.2.1\) Custom confirmation pattern
- 4. If it has not been adjusted yet, return to Step 2.

NOTE

- Perform micro adjustment if the printer is not fully adjusted after rough adjustment.
- In micro adjustment patterns, there are Adjust pattern ALL where all patterns will be adjusted and Individual Adj. pattern where the patterns A to F can be adjusted individually.

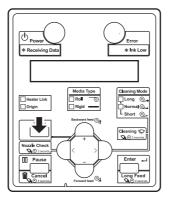
3.7.2.3.1 Adj. Pattern ALL

3.7.2.3.2 Individual Adj. pattern

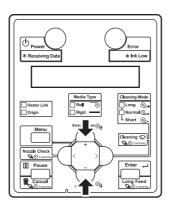
3.7.2.1 Custom confirmation pattern

Using this menu, you can print out all of the confirmation patterns (A to F) and check the degree of misalignment.

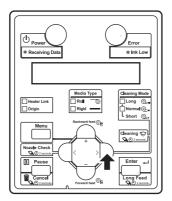
- 1. Turn ON the printer and load the roll media. \sum 3.5.4 Loading roll media
- 2. Display the Adjust Print menu on Operation panel.
 - a. Press the [Menu] key on Operation panel.



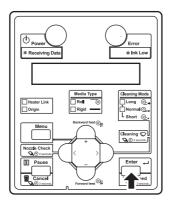
- "Menu1: Sleep Mode>" is displayed on Operation panel.
- b. Press the [>] key on Operation panel to select "Menu2: User Type".



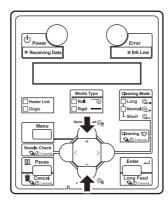
c. Press the [Enter] key on Operation panel.



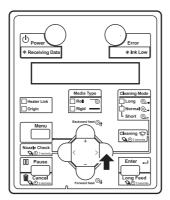
- "User: TypeXX" (XX is a number between 1 and 30) is displayed on Operation panel.
- d. Press the [+] key or [-] key on Operation panel to select the user type setting.
- e. Press the [Enter] key on Operation panel.



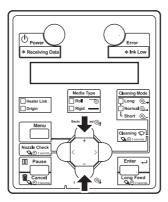
- "**>1: Print Mode" is displayed on Operation panel.
- f. Press the [+] key or [-] key on Operation panel to select "**>2: Adjust Print".



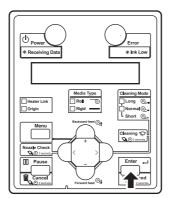
g. Press the [>] key on Operation panel.



- "Adjust print1: Standard" is displayed on Operation panel.
- h. Press the [+] key or [-] key on Operation panel to select "Adj Print2: Custom".

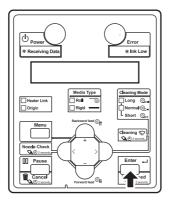


i. Press the [Enter] key on Operation panel.



- "Adj.1: Confirm" is displayed on Operation panel.
- The display enters the Adjust Print menu. 125 5.2.2.2 Adjust Print menu

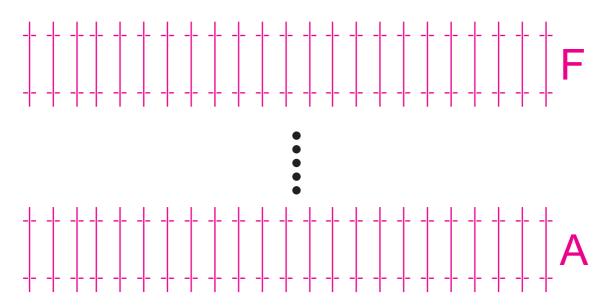
3. Press the [Enter] key on Operation panel.



• "Warming Up Skip ->E" is displayed on Operation panel.

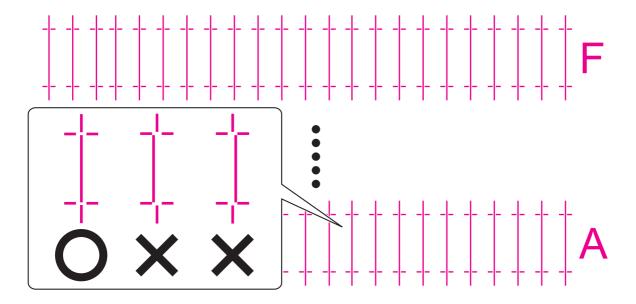


- Press the [Enter] key on Operation panel to start printing during warming up. \$\tilde{\mathbb{E}}\delta 4.4.6\$ Starting printing during warming up
 - A confirmation pattern for print quality adjustment is printed. Four confirmation patterns of A to F will be printed.



• After the confirmation pattern is printed, Operation panel returns to "Adj.1: Confirm".

- 4. Confirm that the confirmation pattern printing result is as follows.
 - Check each of the confirmation patterns A to F.



- a. When the printing result is OK;
 You do not need perform print quality adjustment.
 The procedure for print quality adjustment is complete.
- b. When the printing result is NG; You need to perform print quality adjustment.
 - Perform rough adjustment when the degree of misalignment is big.
 3.7.2.2 Custom rough adjustment pattern
 - Perform micro adjustment when the degree of misalignment is small.
 When adjustment is required for all patterns (A to F):
 \$\sum_3.7.2.3.1\$ Adj. Pattern ALL

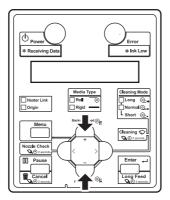
When adjustment is required for one of the patterns (A to F):

3.7.2.3.2 Individual Adj. pattern

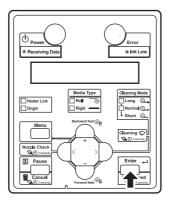
3.7.2.2 Custom rough adjustment pattern

Perform rough adjustment when the degree of misalignment is big. Print rough adjustment pattern and register the set values.

- 1. Display the Custom Adjust Print menu on Operation panel in the same way as Step 2 of 3.7.2.1 Custom confirmation pattern.
- 2. Press the [+] key or [-] key on Operation panel to select "Adj.2: Rough Pattern".

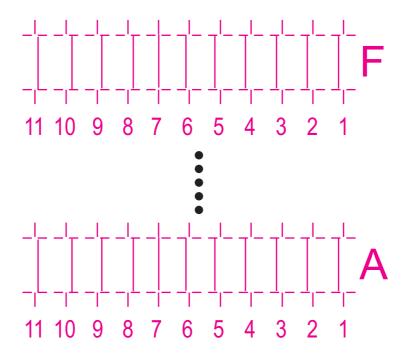


- "Warming Up Skip ->E" is displayed on Operation panel.
- 3. Press the [Enter] key on Operation panel.



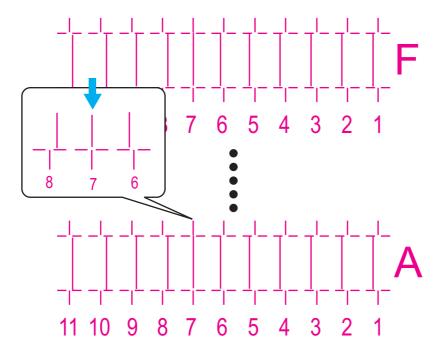


• Press the [Enter] key on Operation panel to start printing during warming up. \$\tilde{\mathbb{E}}\delta 4.4.6\$ Starting printing during warming up • Starts a rough adjustment pattern printing.



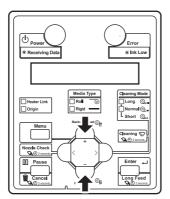
- For the rough adjustment pattern, the same petterns will be printed on both sides and center of the media.
- Four rough adjustment patterns (A to F) are printed.
- "PatternA: 6" is displayed on Operation panel.

- 4. Check the print results on both sides and center of the media and select the number that looks most aligned between 1 and 11.
 - "7" is selected in the following pattern A.



NOTE

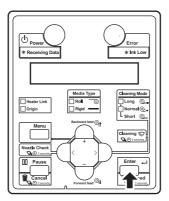
- 6 represents the current setting value.
- 5. Press the [+] key or [-] key on Operation panel to enter the number that you selected in Step 4.



NOTE

• When you press the [Cancel] key on Operation panel, the setting value is not enterd and the display returns to "Adj.2: Rough Pattern".

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



- Determines the setting.
- 7. Enter the values for patterns B to F in the same way.
 - Press the [Enter] key to set the value.
 - Once all set values have been entered, press the [Enter] key to register the set values of patterns A to F.
 - "Adj.2: Rough Pattern" is displayed on Operation panel.

3.7.2.3 Custom micro adjustment pattern

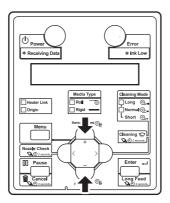
Perform micro adjustment when the degree of misalignment is small. This menu consists of the following menus.

Menu name		Description	Reference
Custom micro adjustment pattern	Adj. PatternALL	All confirmation patterns (A to F) will be adjusted.	第3.7.2.3.1 Adj. Pattern ALL
	Individual Adj. pattern	One of the confirmation patterns (A to F) will be adjusted.	下3.7.2.3.2 Individual Adj. pattern

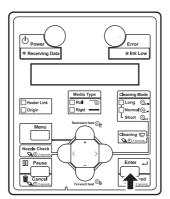
3.7.2.3.1 Adj. Pattern ALL

Print micro adjustment pattern ALL and register the set values.

- 1. Display the Custom Adjust Print menu on Operation panel in the same way as Step 2 of
- 2. Press the [+] key or [-] key on Operation panel to select "Adj.3: PatternALL".



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

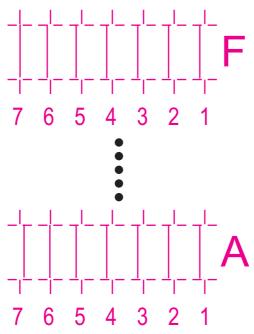


• "Warming Up Skip ->E" is displayed on Operation panel.

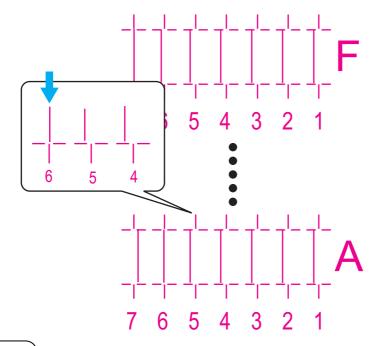


Press the [Enter] key on Operation panel to start printing during warming up.
 \$\sum_4.4.6\$ Starting printing during warming up

• An adjust print pattern is printed. For Adjust print pattern printing, four adjust print patterns (A to F) are printed.



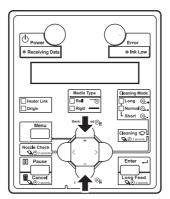
- For the Adjust print pattern, the same petterns will be printed repeatedly on both sides and center of the media.
- 4. Check the print results on both sides and center of the media and select the number that looks most aligned between 1 and 7.
 - "3" is selected in the following pattern A.



NOTE

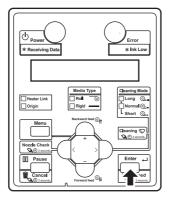
• 4 represents the current setting value.

- 5. "Pattern*1: 4" is displayed on Operation panel.
- 6. Press the [+] key or [-] key on Operation panel to enter the number that you selected in Step 4.



NOTE

- When you press the [Cancel] key on Operation panel, the display returns to "Adj.3: Adj. PatternALL".
- 7. Press the [Enter] key on Operation panel.

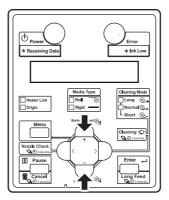


- Determines the setting.
- 8. Enter the values for patterns B to F in the same way.
 - Press the [Enter] key to set the value.
 - Once all set values have been entered, press the [Enter] key to register the set values of patterns A to F.
 - "Adj.3: Adj. PatternALL" is displayed on Operation panel.

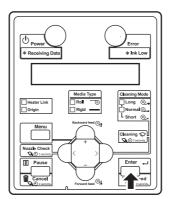
3.7.2.3.2 Individual Adj. pattern

Print one adjustment pattern from A to F and register the set value. The following describes how to adjust pattern A only.

- 1. Display the Custom Adjust Print menu on Operation panel in the same way as Step 2 of 3.7.2.1 Custom confirmation pattern.
- 2. Press the [+] key or [-] key on Operation panel to select "Adj4: Adj. PatternA".



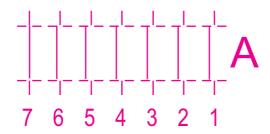
3. Press the [Enter] key on Operation panel.



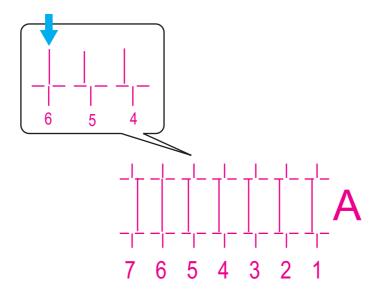
• "Warming Up Skip ->E" is displayed on Operation panel.



• Press the [Enter] key on Operation panel to start printing during warming up. \$\tilde{\mathbb{E}}\) 4.4.6 Starting printing during warming up • An adjust print pattern is printed.



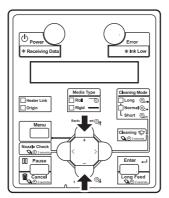
- For the Adjust print pattern, the same petterns will be printed repeatedly on both sides and center of the media.
- 4. Check the print results on both sides and center of the media and select the number that looks most aligned between 1 and 7.
 - "6" is selected in the next printing sample.



NOTE

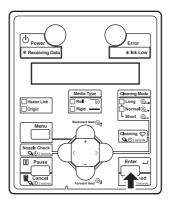
- 4 represents the current setting value.
- 5. "PatternA: 4" is displayed on Operation panel.

6. Press the [+] key or [-] key on Operation panel to enter the number that you selected in Step 4.



NOTE

- When you press the [Cancel] key on Operation panel, the display returns to "Adj4: Adj. PatternA".
- 7. Press the [Enter] key on Operation panel.



- Determines the setting.
- "Adj4: Adj. PatternA" is displayed on Operation panel.

3.8 Connecting the printer to PC

This section explains how to connect the printer and a PC.

3.8.1 System requirements

The operating systems with which this printer is compatible are as follows.

Operating system Windows 7, Windows Vista, Windows XP

NOTE

- The required memory varies depending on the application software or the print data type.
- A large hard disk and memory are recommended.
- For the system requirements for the operation of the software server RIP (option), refer to the operation manual of the software server RIP.

3.8.2 Preparing cables

The printer is equipped with a network interface for connecting with a PC. You need a network interface cable to connect a PC with this printer. Prepare the cable depending on the PC that it will be connected to.



- •About connecting a network interface cable, refer to "3.8.3 Connecting a network interface cable".
- •For the recommended cable specifications, refer to "8.2 Interface specification".

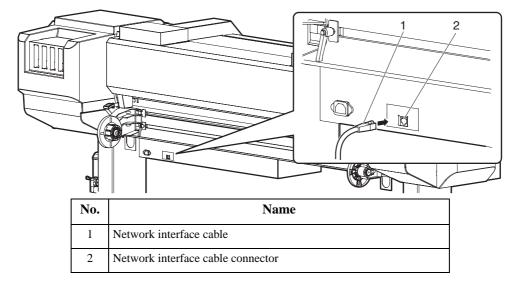
3.8.3 Connecting a network interface cable

This section explains how to connect a network interface cable.

Follow the procedure below to connect this printer to your PC.

1. Turn OFF both the printer and PC.

2. Insert the connector of the network interface cable into the network interface connector located in the back of the printer.



3. Connect the other connector of the network interface cable to your PC.



•About connecting to your PC, refer to the operation manual included with the PC.

3.8.4 Setting the IP address

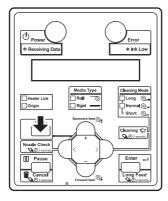
This section explains how to set the IP address of the printer side.

Follow the procedure below to set the IP address.

1. Confirm that the printer is turned ON.

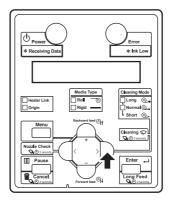
3.2.1 Turning the power ON

2. Press the [Menu] key on the operation panel to display the Setup menu.

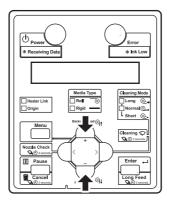


• "Menu 1: Sleep Mode>" is displayed on the operation panel.

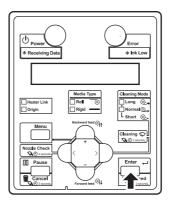
- 3. Use the [+] or [-] key on Operation panel to select "Menu 9: Initial".
- 4. Press [>] on the operation panel.



- "Initial1: Language" is displayed on the operation panel.
- 5. Press the [+] key or [-] key on Operation panel to select "Initial3: IP Address"

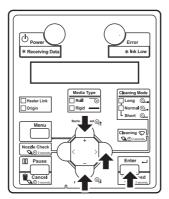


6. Press the [Enter] key on Operation panel.

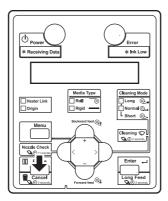


• "192.168.1.253" (default) is displayed on the operation panel.

7. Press the following keys on the operation panel and set the value.



- [+] key: increases the setting value.
- [–] key: decreases the setting value.
- [Enter] key and [>] key: change the setting for the next segment.
- 8. After setting is completed, press the [Cancel] key on the operation panel.



- The display enters the previous menu.
- 9. Reboot the printer.



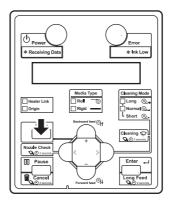
• After setting the IP address, be sure to reboot the printer. When the printer is not rebooted after setting the IP address, the setting value may return to the default.

3.8.5 Setting subnet mask

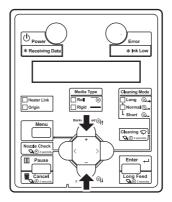
This section explains how to set the subnet mask of the printer side. Both the printer and the network connecting the printer must have the same subnet mask setting.

Configure the subnet mask following the procedure below.

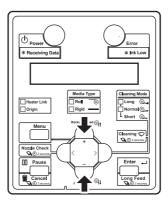
- 1. Confirm that the printer is turned ON. \(\subseteq 3.2.1\) Turning the power ON
- 2. Press [Menu] on the operation panel to display the configuration menu.



- "Menu 1: Sleep Mode>" is displayed on the operation panel.
- 3. Press the [+] key or [-] key to select "Menu 9: Initial".

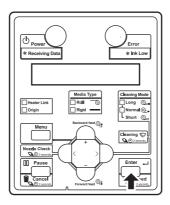


4. Press the [>] key on the operation panel.

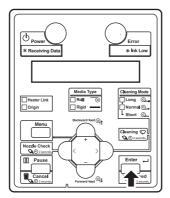


• "Initial1: Language" is displayed on the operation panel.

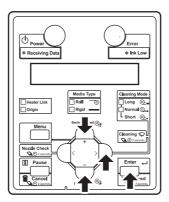
5. Press the [+] key or [-] key to select "Initial4: Subnet Mask".



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

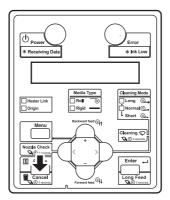


- "255.255.255.0" (default) is displayed on the operation panel.
- 7. Press the following keys on the operation panel and set the value.



- [+] key: increases the setting value.
- [–] key: decreases the setting value.
- [Enter] key and [>] key: change the setting for the next segment.

8. After setting is completed, press the [Cancel] key on the operation panel.



- The display enters the previous menu.
- 9. Reboot the printer.



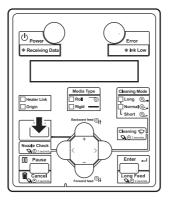
• After setting the subnet mask, be sure to reboot the printer. When the printer is not rebooted after setting the IP address, the setting value may return to the default.

3.8.6 Gateway setting

This section explains how to set the gateway on the printer side. Both the printer and the gateway connecting the printer must have the same setting.

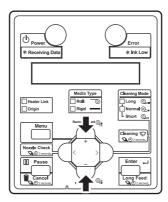
Follow the procedure below to set the gateway.

- 1. Confirm that the printer is turned ON. \(\subseteq 3.2.1\) Turning the power ON
- 2. Press the [Menu] key on the operation panel to display the Setup menu.

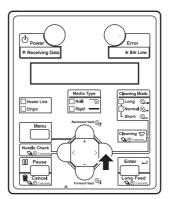


• "Menu 1: Sleep Mode>" is displayed on the operation panel.

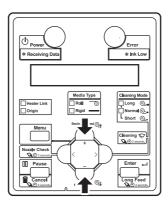
3. Press the [+] key or [-] key to select "Menu 9: Initial".



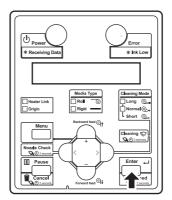
4. Press the [>] key on the operation panel.



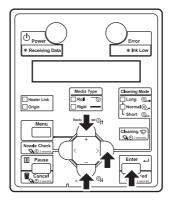
- "Initial1: Language" is displayed on the operation panel.
- 5. Press the [+] key or [-] key to to select "Menu 5: Gateway".



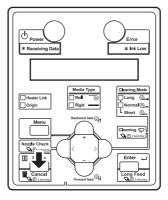
6. Press the [Enter] key on Operation panel.



- "192.168.1.254" (default) is displayed on the operation panel.
- 7. Press the following keys on the operation panel and set the value.



- [+] key: increases the setting value.
- [–] key: decreases the setting value.
- [Enter] key and [>] key: change the setting for the next segment.
- 8. After setting is completed, press the [Cancel] key on the operation panel.



• The display enters the previous menu.

9. Reboot the printer.



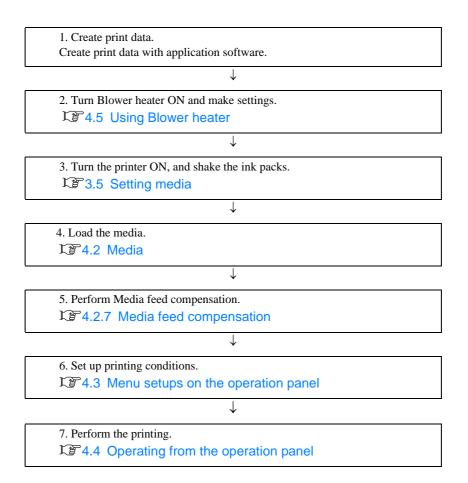
• After setting the gateway, be sure to reboot the printer. When the printer is not rebooted after setting the IP address, the setting value may return to the default.

4 Handling the printer

This chapter explains how to handle the printer.

4.1 Print flow chart

The following flow chart illustrates the procedure to perform printing with the printer. Refer to each section as required.





- Do not put combustible materials on the platen or media guide while performing the heater operation.
 It could lead to fire.
- Do not spill flammable liquid over the platen or media guide. This could lead to fire.

A CAUTION

- Before performing work, make sure to read the material safety data sheet (MSDS).
- Keep the work area well-ventilated.
 This prevents fire, and stops operators from feeling sick from bad air.

NOTE

Do not open the front cover during printing.
 If the front cover is opened, printing will be interrupted.
 Printing restarts if you close the front cover. However, you are not guaranteed to have high print quality.

4.2 Media

This section explains details of available media for this printer.

4.2.1 Loadable media

<Rigid media>

You can load the following rigid media *1 on this printer:

• Maximum width: 1,625 mm

• Minimum width: 182 mm

• Maximum depth: 1,200 mm

• Minimum depth: 200 mm

Thickness: 15 mm or less (including media warpage and unevenness)

Weight: 15 kg or less

• Media warpage: Less than 1 mm. (when the media thickness is uneven, make sure that the total of the warpage and unevenness is less than 1 mm. Also, do not print with the warpage facing up.)

*1: Hard media such as a board is described as "rigid media" in this manual.

<Roll media>

You can load the following roll media on this printer:

• 2 inch/3 inch tube roll media

• Diameter: 150 mm or less

• Maximum width: 1,625 mm

Minimum width: 182 mm

• Weight: 66.14lb or less

• Make sure that the media does not warp on the platen due to curls.

4.2.2 Recommended media

Various recommended media are prepared for this printer. Select the appropriate media according to the usage.



- For details of the recommended media, contact your local MUTOH dealer.
- If failures or malfunctions of the printer occur by the use of media that is not dedicated:
 - 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. \$\tilde{\mathbb{T}}7.1.3\$ Media-related troubleshooting
 - To request a repair, contact your local MUTOH dealer.



- · When printing on media that is not recommended,
 - •Refer to the media manual or ask where you purchased the media for information on media types and appropriate settings for this printer.
 - •Set the print quality according to "5.2.2 Various settings of User type".

4.2.3 Cautions on handling media

Note the following points when handling the media.



• Use recommended media under an appropriate environment.

The appropriate temperature and humidity for printing are as follows.

	Temperature	Humidity
Guaranteed range of printing accuracy	22°C to 28°C	40% to 60%
Change rate	Within 2℃ per hour	Within 5 % per hour

- Do not use media which is folded, cut, or torn.
- The size of media can change according to changes in 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 may cause media jams due to gaps or wrinkles in the media.

Print quality is also affected.

- Do not touch the print side.
 Moisture and oil on your hands may affect the print quality.
- Do not leave media set in the printer for a long time. Some media has a tendency to bend, causing media jams and degradation of print quality. Avoid using such media especially in winter and in dry conditions.
- Do not discard the individual box and bag. Use them for storing media.

4.2.4 Precaution on storing media

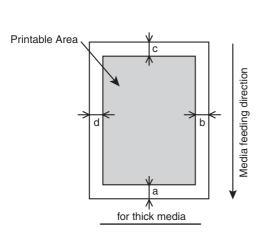
Note the following points on storing media.



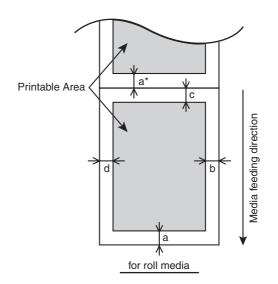
- Avoid high temperature, high humidity, and direct sunlight when storing media.
- After removing the unused roll media from the roll media holder, wind it properly. Then wrap it with an individual bag and store it in an individual box.
- Keep the media dry.

4.2.5 Printing area

The printable area of this printer is as follows.



a=Max. 15mm b=5mm to 25mm c=Max. 52mm d=5mm to 25mm



a=Max. 15mm
(a*= from the second pages onwards
in continuos printing=5mm)
b=5mm to 25mm
c=5mm(Maximum end edge of media is 52mm)
d=5mm to 25mm

4.2.6 Head height adjustment

Printing with high printing rate or using strongly-curved media can cause print heads to rub. Adjusting the distance from the print head surface to media (head height) may allow you to avoid head rub.

Follow the procedure below to adjust the head height.



- If the head height is raised, high print quality is not guaranteed.
- 1. Display the Media Thickness Adjust menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.
 - "Menu1: Sleep Mode>" is displayed on the operation panel.
 - The operation panel shifts to the Setup menu display.
 - b. Press the [>] key on the operation panel.
 - "Set1: MediaType" is displayed on the operation panel.

- c. Press the [Enter] key on the operation panel.
 - "Media: Type 1" is displayed on the operation panel.
- d. Press the [+] key or [-] key on the operation panel to select the media type to use.
 - Selected User type (Type 1 to 30) is displayed.
- e. Press the [Enter] key on the operation panel.
 - "**>1: Print Mode" is displayed on the operation panel.

TIP

• The selected media (Type 1 to 30) is displayed in "**".

13 5.2 User Type menu

- If you set the User type different from the previous time when the Media detection is set to On, "Change Media Thickness?" is displayed on Operation panel.
 - Press the [Enter] key to overwrite the detected media thickness with the User type you have set here.
 - Press the [Cancel] key to return to the selection screen of User type.
 - f. Press the [+] key or [-] key to select "**>6: Thickness Ajst.".
 - g. Press the [Enter] key on the operation panel.
 - "Change: *.* mm ->" is displayed on the operation panel.

TIP

- •The head height setting value detected for the media's thickness is displayed in "*.*".
- 2. Press the [+] key or [-] key to change the setting value for the head height.

NOTE

- The setting value range you can change is up to 1.5 mm plus the standard media thickness.
- 3. Press the [Enter] key on the operation panel.
 - The value set is saved.
 - "**>6: Thickness Ajst." is displayed on the operation panel.
 - Head height correction is complete.

4.2.7 Media feed compensation

This section explains the Media feed compensation.

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 on images.

Accuracy of media feeding may be improved by adjusting the media correction value in some cases.

When you have changed the media, perform media feeding correction.

Follow the procedure below to perform media feeding correction.

- 1. Display the Media feed compensation menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.
 - "Menu1: Sleep Mode>" is displayed on the operation panel.
 - The operation panel shifts to the Setup menu display.
 - b. Press the [+] or [-] key on Operation panel to select "Menu2: User Type".
 - c. Press the [Enter] key on the operation panel.
 - "User: TypeXX" (XX is a number between 1 and 30) is displayed on Operation panel.
 - d. Press the [+] key or [-] key on Operation panel to select the user type to use.
 - Selected User type (Type 1 to 30) is displayed.
 - e. Press the [Enter] key on the operation panel.
 - "**>1: Print Mode" is displayed on the operation panel.

TIP

• The selected media (Type 1 to 30) is displayed in "**".

13 5.2 User Type menu

- If you set the User type different from the previous time when the Media detection is set to On, "Change Media Thickness?" is displayed on Operation panel.
 - Press the [Enter] key to overwrite the detected media thickness with the User type you have set here.
 - Press the [Cancel] key to return to the selection screen of User type.
 - f. Press the [+] key or [-] key to select "**3: PF Adjust".
 - g. Press the [>] key on the operation panel.
 - "PF1: Initial Print" is displayed on the operation panel.

- 2. Performs initial adjust print.
 - a. Press the [Enter] key on the operation panel.
 - "Feed Length: 250 mm" is displayed on the operation panel.



- •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 the operation panel and change the set value.
- b. Press the [Enter] key on the operation panel.
 - "Printing" is displayed on the operation panel.
 - Starts Initial adjustment printing.



No.	Name
1	Feed Length
2	Media feeding direction

- When the initial adjustment printing is complete, the printer enters Normal.
- c. After the initial adjustment printing, cut the media.

1374.4.3 Cutting media

- 3. Measure the distance between the two pluses (+) in the initial adjustment print using a ruler.
- 4. Sets up Initial Adjust Change.
 - a. Press the [+] key or [-] key on the operation panel to select "PF2: Initial Change".
 - b. Press the [Enter] key on the operation panel.
 - "Init.: 250.0/250 mm" is displayed on the operation panel.
 - c. Press the [+] key or [-] key on the operation panel and enter the measured value in step 3.

- d. Press the [Enter] key on the operation panel.
 - The initial adjustment value is saved.
 - "PF2: Initial Change" is displayed on the operation panel.
- 5. Performs Confirm Print.
 - a. Press the [+] key or [-] key on the operation panel to select "PF3: Confirm Print".
 - b. Press the [Enter] key on the operation panel.
 - "Feed Length: 250 mm" is displayed on the operation panel.



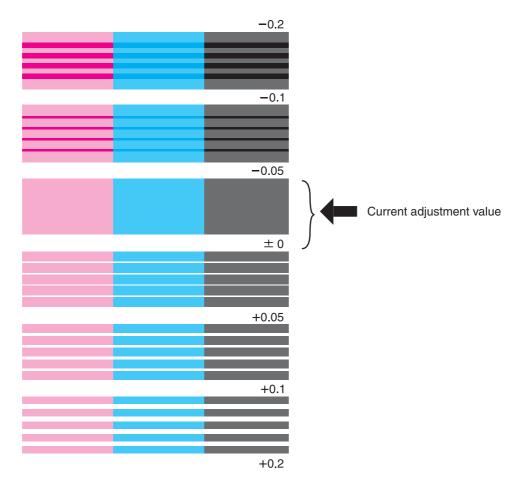
- •The length of media that is fed (feeding length) for confirmation adjustment printing is normally set at 250 mm.
- •If you increase the feeding length, the accuracy of the Media feed compensation improves.
- To change the feeding length, press the [+] key or [-] key on the operation panel and change the set value.
- c. Press the [Enter] key on the operation panel.
 - "Printing" is displayed on the operation panel.
 - Starts Confirmation adjustment printing.



No.	Name
1	Feed Length
2	Media feeding direction

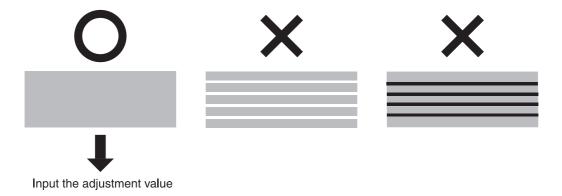
- When the Confirm Print is complete, the printer enters Normal.
- d. After the confirmation adjustment printing, cut the media. 124.4.3 Cutting media
- 6. Measure the distance between the two pluses in the confirmation adjustment print using a ruler. Then, confirm that the distance matches the feeding length when printing.
 - a. If the distance does not match the feeding length, follow the procedure from Step 1 to Step 5 and readjust.

- b. If the distance matches the feeding length, proceed to step 7.
- 7. Performs Micro adjustment print.
 - a. Display the Media feed compensation menu on the operation panel in the same way as in step 1.
 - b. Press the [+] key or [-] key on the operation panel to select "PF4:Micro Print".
 - c. Press the [Enter] key on the operation panel.
 - "Printing" is displayed on the operation panel.
 - Starts Micro adjustment printing.



• After the micro adjustment printing is completed, "PF4:Micro Print" is displayed on the operation panel.

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



- 9. Sets up Micro Adjustment Change.
 - a. Press the [+] key or [-] key to select "PF5:Micro Change".
 - b. Press the [Enter] key on the operation panel.
 - "Micro Change: 0.00%" is displayed on the operation panel.
 - c. Press the [+] key or [-] key 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 bottom right of the printing reslut as the adjusted value.

- d. Press the [Enter] key on the operation panel.
 - The micro adjustment value is saved.
 - "PF5:Micro Change" is displayed on the operation panel.
- 10. Press the [Menu] key on Operation panel.
 - The operation panel returns to Normal.
 - The adjustment of media feed compensation value is complete.

4.2.8 Installing media holder plates

When you use thin media (with a thickness of less than 0.5 mm) such as roll media, warpage may occur on both edges of the media depending on the media type or use conditions, resulting in damage to the media by the print head surface.

To prevent this, use the media holder plates to reduce the amount of curling in the media.

Follow the procedure below to install the media holder plates.

- 1. Display the Side margin menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.
 - "Menu1: Sleep Mode>" is displayed on the operation panel.
 - The operation panel shifts to the Setup menu display.
 - b. Press the [+] or [-] key oon the operation panel to select "Menu3: Setup".
 - c. Press the [>] key oon the operation panel.
 - "Set1: MediaType" is displayed on the operation panel.
 - d. Press the [+] key or [-] key to select "Set2: Side Margin".
 - e. Press the [Enter] key on the operation panel.
 - "Side Margin: ** mm" is displayed on the operation panel.
 - The display shifts to the Side Margin menu.
 \$\sum_{5.3.2}\$ Side Margin menu

NOTE

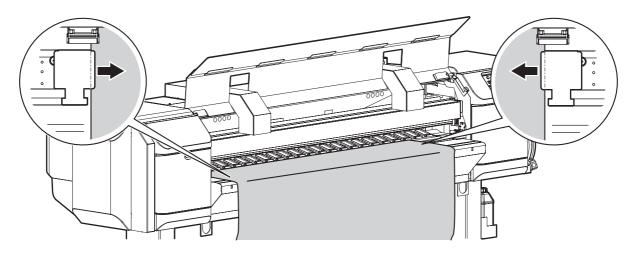
- The current setting value is displayed in the "**" of the Side Margin menu.
- 2. Set up the margins (side margins) to more than 6 mm during printing.
 - a. Press the [+] key or [-] key on Operation panel to set the side margins to more than 6 mm.
 - b. Press the [Enter] key on the operation panel.
 - After having saved the setting, "Set2: Side Margin" is displayed on the operation panel.
 - c. Press the [Cancel] key on the operation panel several times.
 - The operation panel returns to Normal.
- 3. Used to load the roll media.

3.5.5 Setting roll media

4. Set the media holder plates by sliding them from both sides of the platen.

NOTE

• Do not use the media holder plates for media whose thickness is $500 \mu m$ (0.5 mm) or thicker. The media holder plate may interfere with the print head.



No.	Name	
1	Roll media	
2	Media holder plate	
3	Media loading position	
4	Platen	

5. After installing the media holder plates, make sure that they do not interfere with the media as it is fed through the printer.



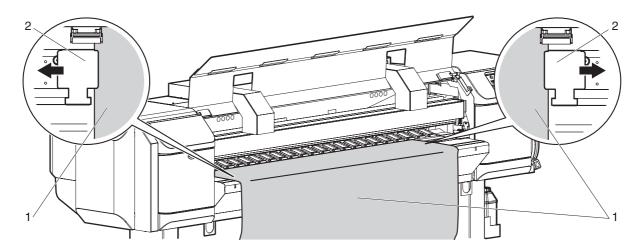
- If a media jams when using the media holder plates, the plates may be deformed. When the media holder plates are deformed,
 - Do not remove the clogged media by force.
 - · Stop using the printer.
- Using the printer with deformed media plates may damage the grid roller or print heads.

Contact your local MUTOH dealer.

NOTE

• If there is interference with the media as it is fed through the printer after the media holder plates have been installed, the media holder plates should not be used.

6. If the plates are not used, return the plates to their initial positions as shown in the following figure.



No.	Name
1	Roll media
2	Media holder plate

4.3 Menu setups on the operation panel

4.3.1 Panel setup menu overview

This sub-section explains the Panel setup menu of the printer.

There are the following items in the Panel setup menu.

Setup item	Description
Sleep Mode menu	Sleep mode settings are configured.
User Type menu	Media is configured.
Setup menu	Various settings of the printer are configured.
Test Print menu	Performs nozzle check of the print head and setup list.
Cleaning menu	Perform Head cleaning.
Menu option menu	Set up the contents of the Setup menu.
Head maintenance menu	Print head cleaning using cleaning fluid or maintenance operation before long storage is performed.
Version menu	Displays the versions of the firmware.
Default settings menu	Display language or unit for LCD is configured. IP addresses are also configured
Job status menu	Displays information about the previous printing result

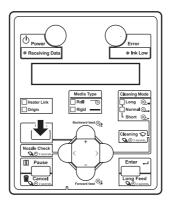


[•]For details of each setup item, refer to "5 Panel setup menu".

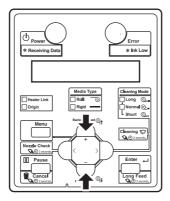
4.3.2 Menu setup procedure

Follow the procedure below to configure each setup menu.

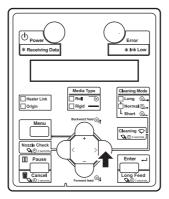
- 1. Confirm that the operation panel is Normal.
- 2. Press the [Menu] key on the operation panel.



- "Menu1: Sleep Mode>" is displayed on the operation panel.
- The operation panel shifts to the Setup menu display.
- 3. Press the [+] key or [-] key on the operation panel to select a setup item and press the [Enter] key.

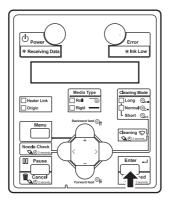


4. Press the [>] key on Operation panel.



• Shifts to the selected setting menu.

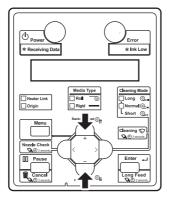
- 5. When there are multiple setting items, press the [+] or [-] key on Operation panel to select the item.
- 6. Press the [Enter] key.



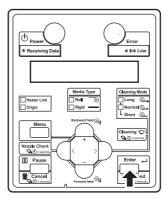
- Confirm the setting items to be changed.
- When setup items have a submenu, the display shifts to the next menu.

NOTE

- When a setup item has a submenu, ">" is displayed on the right end of the LCD monitor of Operation panel.
- For the general outline of each setup item, refer to "4.3.1 Panel setup menu overview".
- 7. The setting in the blinking part on the LCD monitor of the operation panel can be changed. Press the [+] key or [.] key to change the setting.



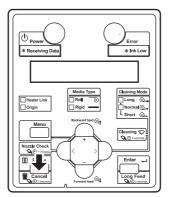
8. To save the changed setting, press the [Enter] key on Operation panel.



• The setting is saved and the next setup item is displayed.



- If you press the [Cancel] key, [+] key or [.] key without pressing [Enter] key after changing a setting, the change will not be saved.
- 9. Press the [Cancel] key on the operation panel to exit from the setup.



- The previous setup menu is displayed.
- When the main menu is displayed, the screen turns to Normal.

4.4 Operating from the operation panel

This section explains various functions that can be operated from the operation panel.



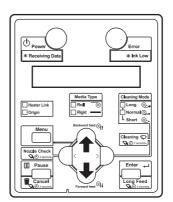
•For names and functions of each key, refer to "2.2.3 Operation panel".

4.4.1 Feeding media

You can feed roll media at a position that you want.

Follow the procedure below to feed media.

- 1. Confirm that the operation panel is Normal.
- 2. Make sure that Front media loading lever is lowered (Rear media loading lever is raised).
- 3. Press the [Forward \downarrow] key or the [Backward \uparrow] key on the operation panel.

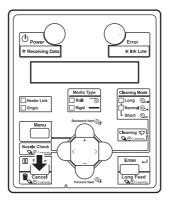


- Media is fed forward or backward.
- 4. Release the [Backward↑] key or [Forward↓] key on the operation panel after feeding media to the desired position.

4.4.2 Stopping printing operation

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

- 1. Stop sending printing data from the computer to the printer.
- 2. Press the [Cancel] key on the operation panel.



The printer operates as follows.

Printer status	Operation with the [Cancel] key pressed
During printing	Terminates the printing, and deletes one data remaining in the printer.
Receiving Data/Analyzing Data	Deletes the received/analyzed data and the subsequent data.



• If a large amount of data is saved on the printer, the operation panel may not return to Normal by a single [Cancel] key operation.

In such cases, wait for a few seconds and press the [Cancel] key again.

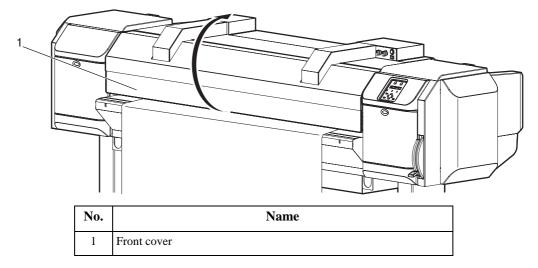
4.4.3 Cutting media

This sub-section explains how to cut roll media.

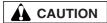
Follow the procedure below to cut roll media.

- 1. Verify the following regarding the operational condition of the product.
 - Printing or other operations are not in progress.
 - The operation panel display is Normal.
- 2. To change the position to cut the roll media, refer to "4.4.1 Feeding media" and advance the roll media to the desired cut position.

3. Open the front cover.

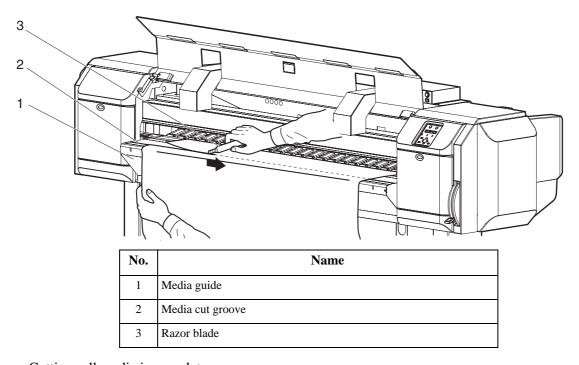


4. Place a razor blade on the media cut groove on the media guide, and cut the roll media.



- Pay attention to the following points when you cut roll media.

 Mishandling the razor blade may cause a cut on your finger or hand.
- When you hold media, do not place your finger on the media cut groove.
- Move the razor blade along the media cut groove.



• Cutting roll media is complete.



• When loading the new roll media, cut the front edge of the media if it is not straight.

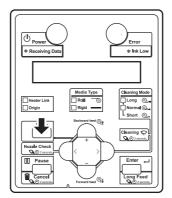
4.4.4 Changing and confirming settings while printing

While the printer is operating, you can change or confirm settings for the Panel setup menu.

4.4.4.1 Procedure for changing and confirming settings while printing

Follow the procedure below to change or confirm settings for the Panel setup menu.

- 1. Confirm that the printer is in one of the following conditions.
 - Receiving Data
 - Analyzing Data
 - Printing Data
- 2. Press the [Menu] key on the operation panel.



- "Menu 1: Sleep Mode>" is displayed on the operation panel.
- 3. Press the [+] key or [-] key to change or confirm settings.



• For the setting items whose settings can be changed or confirmed, refer to "4.4.4.2 Settings that can be changed or confirmed while printing".

4.4.4.2 Settings that can be changed or confirmed while printing

NOTE

- When you change a setting during operation, be sure to select "Backup" to save the setting that you changed.
 - If the printer returns to Normal without "Backup" being selected, the changed setting is not saved.
- Check the following before using the Job status items
 - The values displayed in the Job status items are rough indications. They do not guarantee the strict accuracy.
 - If the length information is not included in the print data, "0" is displayed for all items.
 - You can check the "remaining print" and "remaining time" in the way described in \$\tilde{\mathbb{L}}\delta 4.4.4.2\$ Settings that can be changed or confirmed while printing.
 - To check the information about the printed data, refer to the following. \$\sum_{5.10}\$ Job Status Menu

Setup item	Setting	Description
PF Adjust	-5.00% to 0.00% to 5.00%	Change the feed adjustment value.
Backup	-	• [Enter] key: Save the changed setting.
Job Statsus	ToDo Length	Check the whole length of the data (media feed direction) currently being printed.
	Done	Check the printed length of the data currently being printed.
	Remain	For the data currently being printed, check the length of the data that has not been printed.
	Remain Time	Displays the time remaining for printing.
_	_	[Cancel] key: The printer returns to Normal.

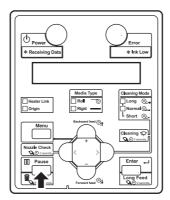
4.4.5 Pausing printing

It is possible to pause to print during printing.

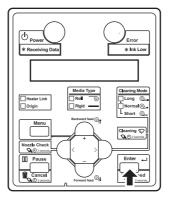
Follow the procedure below to pause or restart printing.



- If the printing is paused, the print quality will not be guaranteed.
- 1. Check that the printer is in operating.
- 2. Press the [–] key on the operation panel.



- The printer pauses printing.
- "PrintRestart -> ENTER" is displayed on the operation panel.
- 3. To restart printing, press the [Enter] key on the operation panel.



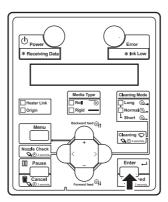
• The printer restarts printing.

4.4.6 Starting printing during warming up

You can start printing during warming up..



- Even when you start printing during warming up, warming up continues until the remperature reaches the set temperature.
- If you start printing during warming up, print quality will not be guaranteed.
- 1. Confirm that the printer is warming up.
 - "Warming Up" is displayed on Operation panel.
- 2. Print data will be sent.
 - "Warming Up" and "Skip ->E" is displayed on Operation panel.
- 3. To start printing during warming up, press the [Enter] key on Operation panel.



• The printer starts printing.

4.4.7 Normal Display while Printing

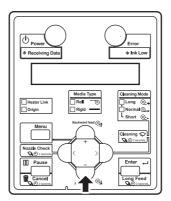
The remaining length and remaining time to complete the currently printing data can be displayed by an easy operation.



- The values displayed in this function are just standard values, not guarantee the accuracy.
- If the print data includes no length data, all information will be displayed as "0".
- To check more detailed information of currently printing data, please refer to the below. 13 4.4.4.2 Settings that can be changed or confirmed while printing
- To check the information of printed data, please refer to the below. \$\sum_{5.10}\$ Job Status Menu

Follow the procedures below to display the information.

- 1. Check if the printer is printing a data.
- 2. Press [-] key on the operation panel to display [Print Remain].



• The remaining length of data currently printing will be displayed.





- When the length display setting is set to inch, the length will be displayed in inch. \$\tilde{1}\) 5.9.2 Length menu
- The [+] key on the operation panel also can switch the display. In that case, [Remain Time] (Step 3) will be displayed first.

- 3. Press [-] key on the operation panel to display [Remain Time].
 - The remaining length of data currently printing will be displayed.

4. To return the display to [Printing], press [-] key on the operation panel.

4.5 Using Blower heater

Blower heater for this printer blows hot air from above the printing surface and dry the media. With the dedicated panel, the following operations can be performed.

- Whether or not to interlock the operations of Blower heater and the printer
- Hot air ON/OFF
- Heater temperature adjustment
- Air volume adjustment

Usage is described below.

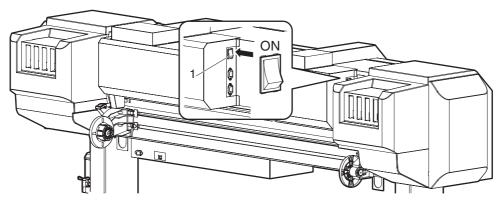
4.5.1 Turning Blower heater ON

(1) When interlocking with the printer

13.2.1 Turning the power ON

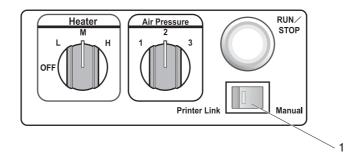
(2) When not interlocking with the printer

1. Turn ON the power switch of Blower heater on the rear side of the printer.



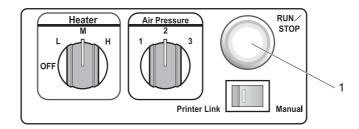
No.	Name
1	Power switch

2. Turn Link switch of Blower heater on the front of the printer to "Manual".



No.	Name
1	Link swtich

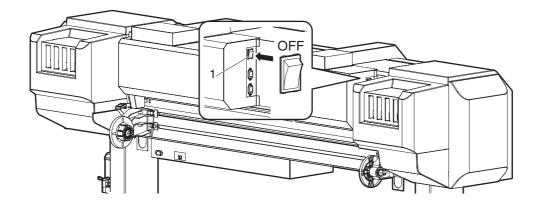
- Adjust the heater output and air volume of Blower heater. \$\tilde{\Sigma} 4.5.4\$ Adjusting Heater output and air volume
- 3. Press the RUN/STOP button on Operation panel of the heater to start the blast.



No.	Name
1	RUN/STOP button

4.5.2 Turning Blower heater OFF

1. Turn OFF the power switch of Blower heater on the rear side of the printer.



No.	Name
1	Power switch

NOTE

The power of Blower heater may not be turned off soon because of the cooling operation

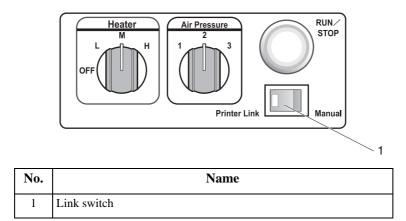
4.5.3 Interlocking/Not interlocking the printer and Blower heater

You can select whether or not to interlock Blower heater with the printer with Link switch by swtiching ON/OFF Link swtitch.

- When you want to use Blower heater along with the printer operation, set it to interlock.
- Do not interlock the operations if you want to start Blower heater separately from the printer.

(1) When interlocking with the printer

1. Turn Link switch of Blower heater to "Printer Link".



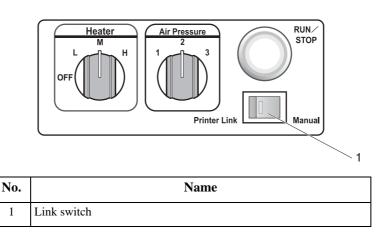
NOTE

• When using this printer under Printer Link, you can use the heater more efficiently by setting the standby heating.

5.3.6 Standby Heating menu

(2) When not interlocking with the printer

1. Turn Link switch of Blower heater to "Manual".



4.5.4 Adjusting Heater output and air volume

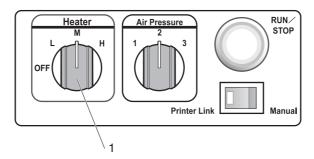
The recommended settings are as follows: The air temperature at this condition is 40 to 50°C.

HEATER adjustment tab: M

Air Pressure adjustment tab: 2

Follow the procedure below to adjust the settings.

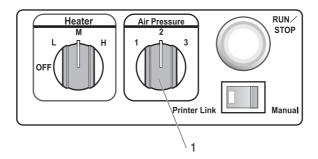
1. Change the heater temperature with HEATER adjustment tab of Blower heater.



No.	Name
1	HEATER adjustment tab

- OFF: Heater is not turned on.
- L: Heater temperature is set as "Low".
- M: Heater temperature is set as "Medium".
- H: Heater temperature is set as "High".

2. Adjust the air volume with Air Pressure adjustment tab of Blower heater.



No.	Name
1	Air Pressure adjustment tab

- 1: Air volume is set as "Low"
- 2: Air volume is set as "Medium".
- 3: Air volume is set as "High".

NOTE

• When using Blower heater in a low-temperature environment, the temperature of the air may not raise. Rise the room temperature and use the printer in an appropriate operation environment.

18.1.1 Printer specifications

Do not cover a part of the ventilation duct of Blower heater.
 Operation under such condition will not be guaranteed for print quality.

4.6 Using Spectrophotometer (SPECTROVUE VM-10)

The optional spectrophotometer (SPECTROVUE VM-10) can be attached to print and measure the color target.

Use SPECTROVUE VM-10-compliant RIP software when performing color calibration or color profiling for the printer to achieve accurate color printing.

Follow the instructions below.

NOTE

- Please don't place the printer where the strong light (for example, sunlight) directly penetrate it. If strong light penetrates the measuring area, it may impact measurement accuracy.
- When using SPECTROVUE VM-10, the printer must be set as follows. Make sure to check the settings before use.
 - Media thickness detection: On
 - Media detection: Height + Width or Height + T&W
 5.2.2.7 Media Initial menu
 - Take-up unit: OFF

 \$\tilde{F} 5.3.3 \text{ Take-up unit menu}\$
- If the media thickness is changed manually, it may impact measurement accuracy.
- Color measurement may not be accurate when Color target is printed on translucent, colored or ribbed media.
- When measuring colors, make sure that the color target is dry. If it is not dry enough, the ink may adhere to the pressurizing rollers of the printer.
- Before using this optional utility, perform test pattern printing.
- The room environment (temperature and humidity) can affect the printed colors. Use the printer under the conditions specified in "Environmental condition" of "8.1.1 Printer specifications" in the Operation Manual. Make sure to leave the media and ink for about two hours in the environment before use.
- Connect the printer and computer.
 \$\sum_{3.8}\$ Connecting the printer to PC
- 2. Turn the printer ON.
- 3. Set the media.

 13.5 Setting media
- 4. Set up the media type.

\$\mathbb{E}\mathbb{3}.5.6 Setting media type

• Once media type setting and media initial operation are complete, "Ready to Print" is displayed on Operation Panel.

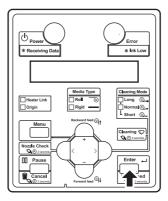
5. Launch RIP software and start printing and measuring Color target.



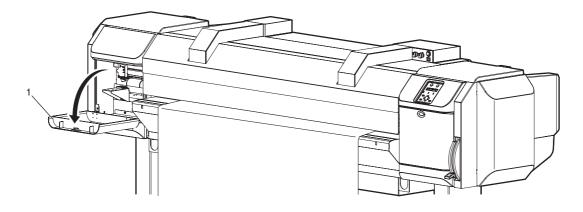
- For the settings and operating instructions on RIP software, refer to the instruction manual of RIP software.
 - The printer starts printing Color target.
 - "Printing..." is displayed on Operation Panel.
 - "Attaching instrument [Enter]" is displayed once printing is complete.



- Do not move covers or Media Set Lever while printing.
- 6. Press [Enter].
 - "Wait for a while..." is displayed on Operation Panel.
 - Print head shifts to the left of the printer.
 - "Open left mainte.cover." is displayed on Operation Panel.



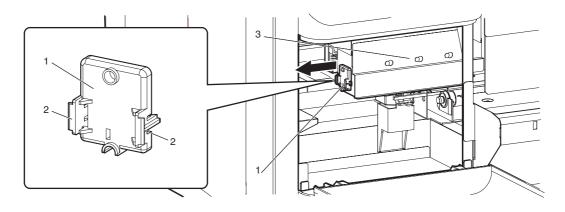
- 7. Open Maintenance Cover on the left side of the printer.
 - "Remove connector cap and attach instrument. [ENTER]" is displayed on Operation Panel.



No		Name
1	Maintenance Cover	

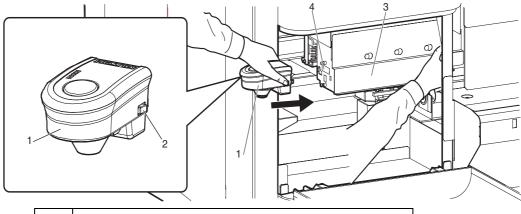
NOTE

- After a certain period of time without opening Maintenance Cover, Print Head moves back to the right side of the printer for head protection. "Attaching instrument [ENTER]" is displayed on Operation Panel. Restart from Step 6.
- 8. While pinching the tabs on both sides of Connector cap, pull Connector cap forward to remove it from Print Head.



No.	Name
1	Connector cap
2	Tabs
3	Print Head

9. While pressing Release buttons on both sides of Spectrophotometer (SPECTROVUE VM-10), install it on the connector of Print Head.



No.	Name
1	Spectrophotometer
2	Release button
3	Print Head
4	Connector

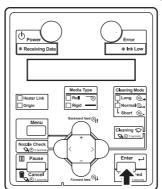
NOTE

• Make sure that Spectrophotometer is not installed obliquely and that there is no gap between Connector and Spectrophotometer.

10. Press [Enter].

- "Wait for a while..." is displayed on Operation Panel.

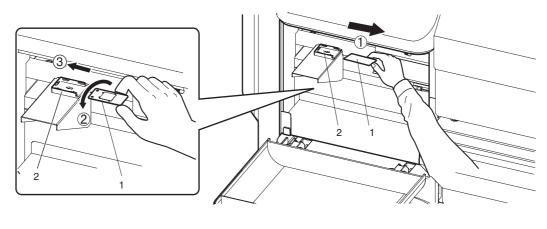
 The connection between the printer and Spectrophotometer is being checked.
- "Set white plate then close left maintenance cover." is displayed on Operation Panel.



NOTE

• Without pressing "Enter", it is able to move to the next procedure. This step is omissible. Move to step 11.

11. Remove White reference plate from the plate mounting position, turn it over so that the white side is facing up, and install it back to the original position.

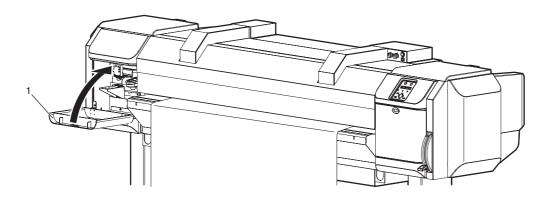


No.	Name
1	White reference plate
2	Plate mounting position

NOTE

• Before measuring Color target, make sure that the white side of White reference plate is facing up. If the black side is facing up, you cannot measure accurately.

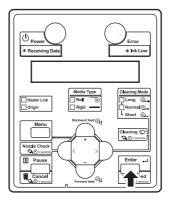
12. Close Maintenance Cover.



No.	Name
1	Maintenance Cover

- Print Head shifts to the right side of the printer.
- "Waite for a while..." is displayed on Operation Panel.

- 13. When "Start measurement [ENTER]" is displayed on Operation Panel, press [Enter].
 - Spectrophotometer starts measuring Color target.
 - "Measuring..." is displayed on Operation Panel.
 - When measuring is complete, "Detaching instrument [ENTER]" is displayed on Operation Panel.

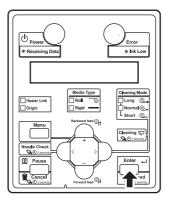


NOTE

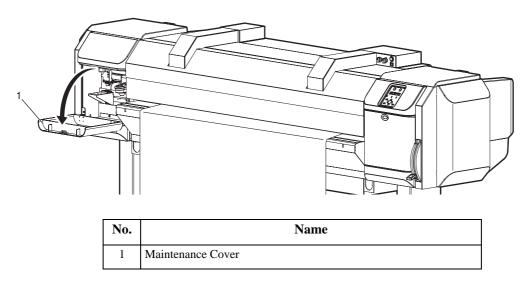
- Depending on the settings of RIP software, color measuring starts automatically or manually. The above instruction is for when starting manually.
- When starting automatically, "Ink Drying xxxxxs" (xxxxx is number) is displayed on Operation Panel.
- While measuring, do not move covers or Media Set Lever.

14. Press [Enter].

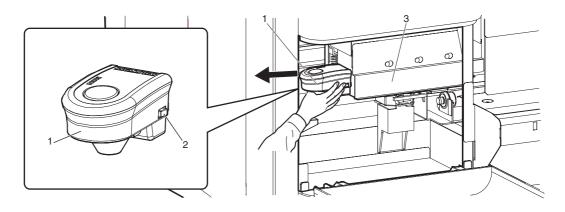
- "Wait for a while..." is displayed on Operation Panel.
- Print Head shifts toward the left side of the printer.
- "Open left mainte.cover." is displayed on Operation Panel.



- 15. Open Maintenance cover on the left side of the printer.
 - "Remove connector cap and attach instrument. [ENTER]" is displayed on Operation Panel.

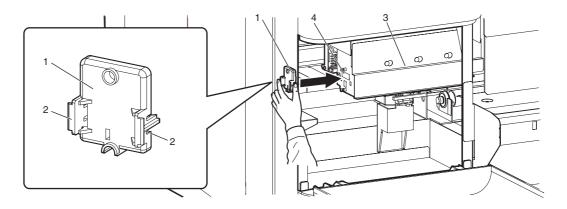


16. While pinching Release buttons on both sides of Spectrophotometer, pull Spectrophotometer forward to remove it from Print Head.



No.	Name
1	Spectrophotometer
2	Release button
3	Print Head

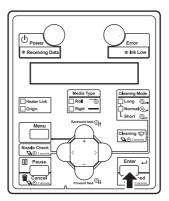
17. While strongly pinching the tabs on both sides of Connector cap, install it to Connector of Print Head.



No.	Name
1	Connector cap
2	Tabs
3	Print Head
4	Connector

18. Press [Enter].

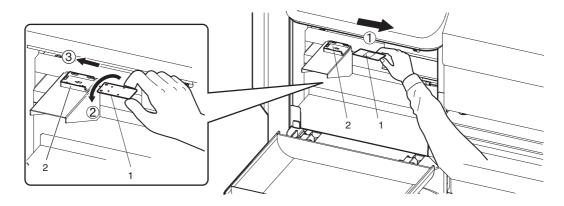
- "Wait for a while..." is displayed on Operation Panel.
- "Remove white plate then close left maintenance cover." is displayed on Operation Panel.



NOTE

Without pressing "Enter", it is able to move to the next procedure. Move to step 19.

19. Remove White reference plate from the plate mounting position, turn it over so that the black side is facing up to install it to the original position.



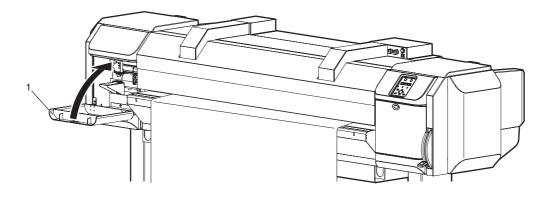
No.	Name	
1	White reference plate	
2	Plate mounting position	

NOTE

• To prevent the white reference plate from getting dirty, turn the white reference plate upside down when the color measurement is not performed.

20. Close Maintenance Cover.

- "Ready to Print" is displayed on Operation Panel.
- For the subsequent instructions, follow the directions of RIP software.



No.	Name
1	Maintenance Cover

5 Panel setup menu

The section explains the Setup menu of the printer.

Setup item	Description			
Sleep mode menu	Sleep mode settings are configured. 12 5.1 Sleep mode menu			
User Type menu	Media is configured. 12 5.2 User Type menu			
Setup menu	Various settings of the printer are configured. \$\tilde{\text{25}} 5.3 \text{ Setup menu}\$			
Test Print menu	Performs nozzle check of the print head and setup list. 5.4 TestPrint Menu			
Cleaning menu	Perform Head cleaning. \$\tilde{\text{25}} 5.5 \text{ Cleaning menu}\$			
Menu option menu Sets up the contents of the Setup menu. 5.6 Menu Option menu				
Head maintenance menu Print head cleaning using cleaning fluid or maintenance operation before long performed. **TS 5.7 Head maintenance**				
Version menu	Displays the versions of the firmware. 5.8 Version menu			
Default settings menu Display language or unit for LCD is configured. IP addresses are also configured. Default settings				
Job status menu	Displays information about the previous printing result. 13 5.10 Job Status Menu			



[•]The <> parts in each list are factory default settings (default).

[•]For details of the Setup menu, refer to the following manual.

[&]quot;Setup menu diagram"

5.1 Sleep mode menu

Sleep mode settings are configured.

When you activate sleep mode, the printer operates as follows.

For detailed operation, check "3.3.1 Set sleep mode on the printer".



•The cleaning mode reflects the settings in the operation panel.

136.5.3 Head cleaning



• You need to let the ink flow inside the printer regularly, therefore, do not turn OFF the printer after regular operation; make sure you use the sleep mode.

Setup item	Setting	Description
Sleep Mode	Set Timer	Set the auto cleaning interval of this printer for Sleep Mode. \$\mathbb{E}^{\mathbb{T}} 5.1.1 \text{ Timer Setting menu}\$
	Start	Activate Sleep Mode 12 5.1.2 Sleep Mode Start menu
	_	• [Cancel] key: shifts to the previous menu. 5.3 Setup menu

5.1.1 Timer Setting menu

Set the head cleaning interval of this printer for Sleep Mode.

When more than the set time has passed, the print head is cleaned automatically.

NOTE

- During Sleep Mode, even if the set amount of time has passed, print-head cleaning is not performed under the following circumstances.
 - Front cover or Maintenance cover is open.
 - Front media loading lever is raised (Rear media loading lever is lowered).
 - The waste fluid tank is full.
 - There is little remaining ink in the ink pack (or no ink).
 - The ink bag has been removed.
 - The inserted ink bag is not the genuine ink bag, etc.

When the printer returns to a normal state, head cleaning is restarted, and Sleep Mode continues.

7.2 Error messages

• If one of the above conditions occurs during head cleaning, cleaning is stopped. When the printer returns to a normal state, head cleaning is restarted.

7.2 Error messages

Setup item	Setting	Description
Set Timer	<off></off>	• Off:
	24 hours	• When the set time has elapsed, the head cleaning starts.
	48 hours	
	_	• [Cancel] key: shifts to the previous menu. 5.1 Sleep mode menu

5.1.2 Sleep Mode Start menu

Activate Sleep Mode

• CR maintenance starts before the printer goes into sleep mode; perform daily maintenance after the operation.

126.2 Daily maintenance

• During Sleep Mode, "Press Enter to restart" will be displayed in the operation panel. During Sleep Mode, pressing [Enter] key will return the printer to normal operation.



• Make sure you perform daily maintenance. If the printer goes into Sleep mode or the power is turned OFF without daily maintenance, nozzles may get clogged.

NOTE

- When the [Cancel] key is pressed in "CR mainte.: Start" screen, the printer does not shift to CR maintenance and shifts straight to Sleep mode.
- If the printer is under one of the following conditions while shifting to the Sleep Mode, "Don't Start Sleep Mode" is displayed, and will not shift to the Sleep Mode.
 - Front cover or Maintenance cover is open.
 - Front media loading lever is raised (Rear media loading lever is lowered).
 - The waste fluid tank is full.
 - There is little remaining ink in the ink pack (or no ink)
 - The ink bag has been removed.
 - The inserted ink bag is not the genuine ink bag, etc.

Activate Sleep Mode again after returning the printer to a normal state.

7.2 Error messages

• If the printer is under one of the conditions above during the Sleep mode, the printer will not return to the Normal condition even pressing the "Enter" key.

Return the printer to a normal state, and press [Enter] key to return the printer to normal operation.

127.2 Error messages

Setup item	Setting	Description
Start	_	• [Enter] key:
		LF

5.2 User Type menu

5.2.1 Type menu

Sets the user type setting for printing.

You can set up to 30 different user settings as "Type 1 to 30" depending on the media type.

Setup item	Setting	Description
Media	Type 1	Settings for the media type to print are configured.
	Type 2	It is possible to set 30 different user settings as "Type 1 to 30" for printing.
		[Enter] key: shifts to the sub menu. 5.2.2 Various settings of User type
	Type 29 Type 30	
	_	[Cancel] key: cancels the setting and shifts to the previous menu.



- If you set the User type different from the previous time when the Media detection is set to On, "Change Media Thickness?" is displayed on Operation panel.
 - Press the [Enter] key to overwrite the detected media thickness with the User type you have set here.
 - Press the [Cancel] key to return to the selection screen of User type.

 3.5.7.1 When the media thickness detection is ON

A CAUTION

When the media detection is set not to detect the media thickness (When the
media detection is set to any of "Off", "Top & Width" or "Width"), and the media
type is changed, "Warning! *.*mm ->" is displayed on the operation panel. check
if the value matches the thickness of the loaded media. If the value is wrong, enter
the correct setting value.

If a wrong value is set, the head and media collide and may damage the head. If you set a value smaller than the actual media thickness, the media may touch and break Print head.

3.5.7.2 When the media thickness detection is OFF

5.2.2 Various settings of User type

Various settings on the user media settings are configured.

In User media menu, 30 different settings can be set as Type 1 to 30 for the following printing operation.

NOTE

- If media other than recommended one is used, the following problems may occur.
- Media detection error
- Slant, torn and wrinkle of media
- · Media jams
- Favorable print quality cannot be obtained due to blots, blurs or 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.

For details, contact your local MUTOH dealer.

Setup item	Setting	Description
Type 1 to 30	Print Mode	Sets up the print mode according to the usage of print data or print speed. • [>] key: shifts to the sub menu. 5.2.2.1 Print mode menu
	Adjust Print	Sets up when adjusting the printer for the optimum quality of image print. • [>] key: \$\mathrice{\mathri
	PF Adjust	Sets up various settings on the Media feed compensation. • [>] key: shifts to the sub menu. 15 5.2.2.3 Dist.Adj menu
	Vacuum Fan	Sets up vacuum fan operation. • [>] key: shifts to the sub menu. 15.2.2.4 Vacuum Fan menu
	Media thickness	 If the media thickness detection at media initialization is set to OFF, enter the media thickness. Displays the detected media thickness if media thickness detection is performed during media initialization. [>] key: shifts to the sub menu. \$\mathbb{E}\$ 5.2.2.5 Media thickness menu
	Thickness Ajst.	Adjusts the media thickness. • [>] key: shifts to the sub menu. **E5.2.2.6 Media Thickness Adjust menu
	Media Initial	Sets whether or not to detect the media thickness, width, and edge during media initialization. • [>] key: shifts to the sub menu. **E5.2.2.7 Media Initial menu
	Media Width (width check)	 If the media width detection at media initialization is set to OFF, enter the media width between the loading mark and the left end of the media. Displays the detected media width if media detection is performed during media initialization. [>] key: shifts to the sub menu. \$\sum_{2.2}\$ 5.2.2.8 Media Width/Width check menu
	Strike wait time	Sets up the waiting time while overwrite printing. • [>] key: shifts to the sub menu. 5.2.2.9 Strike Wait menu
	MediaType	Set which of roll media or rigid media will be used. • [>] key: shifts to the sub menu. **\sum_5.2.2.10 MediaType menu
	Initialization	Initializes the settings. • [>] key: shifts to the sub menu. 13 5.2.2.11 Initialization menu
	_	• [Cancel] key: shifts to the previous menu.

5.2.2.1 Print mode menu

Settings for print quality (print mode) are set according to the usage of print data or print speed.



• When "Banner 1" is set in the Print Mode menu, "PalettePrint" is not displayed in the Test Print menu.

5.4 TestPrint Menu

Setup item	Setting	Description
Mode	Quality 1	Sets up print mode. • Quality 1 to 2:
	Quality 2	Sets up to perform high quality printing.
	Graphics 1	Graphics 1 to 2: Sets up to perform standard printing.
	<graphics 2=""> Banner 1</graphics>	 Banner 1 to 2: Sets up to perform high speed printing. Displays details of each print mode while pressing [>] ke
	Banner 2	Details of print mode
	_	[Enter] key: saves the setting and shifts to the previous menu.
		[Cancel] key: cancels the setting and shifts to the previous menu.
		5.2 User Type menu

Details of print mode

The settings for print quality registered in each print mode are as follows.

Print Mode	Resolution	Pass		
1 Thit Wode		Using 4 Colors	Using 5 Colors	Direction
Quality 1	1440×1440 dpi	16 times	32 times	Uni (unidirectional)
Quality 2	1440×1440 dpi	16 times	32 times	Bi (bidirectional)
Graphics 1	720×720 dpi	8 times	16 times	Uni (unidirectional)
Graphics 2	720×720 dpi	8 times	16 times	Bi (bidirectional)
Banner 1	540×720 dpi	6 times	12 times	Bi (bidirectional)
Banner 2	720×720 dpi	4 times	8 times	Bi (bidirectional)

5.2.2.1.1 Effect menu

Sets up the Effect menu.

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



• The print quality may not be improved depending on the printing condition.

Setup item	Setting	Description
Effect	None	The Effect function is not used.
	Wave	The printing joint will be the wave form. Print quality may be improved than 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.
	Fine&Fuzz	The printing joint will shade off as the wave form. Performs the printing at slower speed than Wave.
	<fine&fog></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.
	Fine&Wave	Performs the printing at slower speed than Wave. Set this menu to improve print quality compared with Wave.
	A-S.Fine&Wave	Performs Wave printing using the half of the print head nozzles. Since only half of the print head nozzles are used, printing speed becomes about half of Wave. Set this menu to improve print quality compared with Fine&Wave. This is not displayed if you are using the 5-color set.
	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 about a half of Wave. Set this menu to improve print quality compared with Fine&Wave. This is not displayed if you are using the 5-color set.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3}\$ Setup menu

5.2.2.2 Adjust Print menu

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



- This printer was adjusted at the factory shipment so that it obtains the optimum printing quality. Adjust the quality if the print quality changes after the installation environment or the media is changed.
- When newly setting or changing the user type setting after adjusting Standard adjust print, make sure to adjust print.
- Since all print modes are adjusted at once after performing Custom adjust print, adjust print is not required even after changing the print mode..
- When specifying a print mode which is different from the mode set in the user type setting, adjust all print modes in the Custom adjust print first.

Setup item	Setting	Description
Adjust Print	Standard	Adjusts only the print mode in the user type setting which is currently set. Standard Adjust Print menu
	Custom	Perform adjustment for all print modes. Custom Adjust Print menu
	_	[Cancel] key: shifts to the previous menu. 5.2.2 Various settings of User type

Standard Adjust Print menu

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

Setup item	Setting	Description
Adjustment	Confirmation pattern	Print the test pattern for the alignment. Check before adjusting. 3.7.1.1 Standard confirmation pattern
	Rough adjustment pattern	Perform this when the degree of misalignment is big. Print Adjust pattern and enter the set value. 3.7.1.2 Standard rough adjustment pattern
	Micro adjustment pattern	Perform this when the degree of misalignment is small. Print Adjust pattern and enter the set value. 3.7.1.3 Standard micro adjustment pattern
	_	• [Cancel] key: shifts to the previous menu. 13 5.5 Cleaning menu

Custom Adjust Print menu

Perform adjustment for all patterns (A to F). All print modes will be adjusted.

Setup item	Setting	Description
Adjustment	Confirmation pattern	The test patterns of A to F will be printed for Adjust print. Check before adjusting. 3.7.2.1 Custom confirmation pattern
	Rough adjustment pattern	Perform this when the degree of misalignment is big. Print Adjust patterns A to F and enter the set values. 3.7.2.2 Custom rough adjustment pattern
	Adj. PatternALL	Perform this when the degree of misalignment is small. Print Adjust patterns A to F and enter the set values. 3.7.2.3.1 Adj. Pattern ALL
	Adj. PatternA	When the degree of misalign is small, print out one of the
	Adj.PatternB	Adjust patterns and enter the set value. Adjust patterns and enter the set value. Adjust pattern
	Adj.PatternC	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Adj.PatternD	
	Adj.PatternE	
	Adj.PatternF	
	_	• [Cancel] key: shifts to the previous menu. 18 5.5 Cleaning menu

5.2.2.3 Dist.Adj menu

Sets up various settings on the Media feed compensation. After changing the media, perform media feed compensation.

Setup item	Setting	Description
PF	Initial Print	Performs initial adjust print. • [Enter] key: shifts to the sub menu. 13 (5.2.2.3.1 Initial Print menu
	Initial Change	Sets up Initial Adjust Change. • [Enter] key: shifts to the sub menu. 5.2.2.3.2 Init.Adj.Change menu
	Confirm Print	Performs Confirm Print. • [Enter] key: shifts to the sub menu. 5.2.2.3.3 Confirm menu
	Micro Print	Performs Micro Adjustment Print. • [Enter] key: shifts to the sub menu. 5.2.2.3.4 Micro Adj. Print menu
	Micro Adj.Change	Sets up Micro Adjustment Change. • [Enter] key: shifts to the sub menu. 5.2.2.3.5 Micro Adj.Change menu
	_	[Cancel] key: shifts to the previous menu. [Social Section 1.5] [Social Section 1.5] [Cancel] key: shifts to the previous menu. [Social Section 1.5] [Social Section 1.5] [Cancel] key: shifts to the previous menu. [Social Section 1.5] [Social Section 1.5]

5.2.2.3.1 Initial Print menu

Performs initial adjust print.

Print a "+" mark at the beginning, feed the media according to the setting value, and print another "+" mark.

Measure the length between the "+" marks. If the length differs from the setting value, enter the actual length in the Initial Print menu.

Setup item	Setting	Description
Feed Length	100 mm to <250 mm> to 500 mm	Changes the length (feed length) of the media feed direction for initial adjust print. • [Enter] key: Determines the setting. "Printing" is displayed on the operation panel and initial adjust print starts. After printing, the printer enters Normal.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [\$\sum_{5.2.2.3}\$ Dist.Adj menu

5.2.2.3.2 Init.Adj.Change menu

Sets up Initial Adjust Change.

If the initial print result shows that the setting value differs from the actual length, enter the compensation value (the actual length measured in the initial print).

Setup item	Setting	Description
Init.	<initial menu="" print="" setting="" value=""> ± 50.0 mm</initial>	Sets up Initial Adjust Change.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.2.2.3}\$ Dist.Adj menu

5.2.2.3.3 Confirm menu

Performs Confirm Print.

After entering the compensation value in the Initial Print menu, print again for confirmation.

Setup item	Setting	Description
Feed Length	100 mm to <250 mm> to 500 mm	Changes the length (feed length) of the media feed direction for Confirm Print. • [Enter] key: Determines the setting. "Printing" is displayed on the operation panel and initial adjust print starts. After printing, the printer enters Normal.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [3] 5.2.2.3 Dist.Adj menu

5.2.2.3.4 Micro Adj. Print menu

Performs Micro Adjustment Print.

Performs more detailed adjust print than the initial adjust print.

Setup item	Setting	Description
Micro Print	Printing	Prints the following PF pattern (micro adjustment) with a focus on the micro adjustment value. • 0%, ±0.05%, ±0.1%, ±0.2%
	_	[Cancel] key: shifts to the previous menu. Stops printing and returns to the previous menu if printing is in progress. 5.2.2.3 Dist.Adj menu

5.2.2.3.5 Micro Adj.Change menu

Sets up Micro Adjustment Change.

Refer to the print results of the micro adjustment printing to enter the micro adjustment value (in pulse).

Setup item	Setting	Description
Micro Adj.Change	-5.00% to <0 %> to 5.00%	Sets up Micro Adjustment Change.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \(\mathbb{E}\) 5.2.2.3 Dist.Adj menu

5.2.2.4 Vacuum Fan menu

Sets up vacuum fan operation.

Setup item	Setting	Description
Vacuum Fan	Low	Set when there is a possibility of a paper jam caused by failure in media loading when using soft media.
	Middle	Set this when using general media and the adsorption power is too strong if it is set to High.
	<high></high>	Set when using general media.
	Off	The vacuum fan is not used. Set when using thick media.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. LF 5.2 User Type menu

5.2.2.5 Media thickness menu

Functions of media thickness menu differ depending on the media thickness detection settings.

- If the media thickness detection menu is set to Off, use this to enter and set the media thickness. \$\tilde{\text{25}} \frac{5.2.2.5.2}{\text{ Media thickness confirmation menu}}\$
- If the media thickness detection menu is set to On, the detected media thickness is displayed. \$\sum_5.2.2.5.2\$ Media thickness confirmation menu

For media detection settings, refer to the following.

5.2.2.7.1 Media thickness detection (media initial 1)

5.2.2.5.1 Media thickness menu

When using the rigid media with a soft printing surface, the media thickness may not be detected correctly.

When this happens, set the media thickness detection menu to Off, measure the media thickness with a tool such as slide gauge, and then enter the media thickness in this menu.



If you set a value smaller than the actual media thickness, the media may touch and break Print head.

Setup item	Setting	Description
Thickness	0.1mm to 15.0mm	Sets the media thickness. • [+] key: increases the setting value. • [-] key: decreases the setting value.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.2}\$ User Type menu

5.2.2.5.2 Media thickness confirmation menu

Setup item	Setting	Description
Thickness	****mm	Displays the media width detected during media initialization.
	_	• [Cancel] key: shifts to the previous menu. 5.2 User Type menu

5.2.2.6 Media Thickness Adjust menu

Adjusts the media thickness.

Adjust the head height in accordance with the actual media thickness.

Setup item	Setting	Description
PF	Media thickness to media thickness + 1.5 mm	Change the media thickness adjustment setting value by operating the following keys. • [+] key: increases the setting value. • [-] key: decreases the setting value. • [Enter] key: saves the setting and shifts to the previous menu. **E*5.2 User Type menu
	_	• [Cancel] key: cancels the setting and shifts to the previous menu. **\mathref{Lem:5.2} User Type menu**



• If the compensation value is entered to raise the head height, print quality is not guaranteed.

5.2.2.7 Media Initial menu

Set the media detection type while initializing the media.

- Media detection setting has two types: "Media thickness" and "Media width/top edge"; You can make settings for each of them.
- Media thickness is saved per media type. Media thicknesses are saved by media type. When an
 unregistered media type is set, regardless of media detection setting, initial detection of the media
 thickness is conducted to save the thickness. From the second time, the printer operates according to
 media detection setting.
- When you want to keep using the media whose thickness and width have already been entered in the printer, if you set the media detection to Off, you can shorten the operation time.

Setup item	Setting	Description
Media Initial	Media initial 1	Height: set whether or not to detect the media thickness.
	Media initial 2	Media: Set whether or not to detect the media width and top edge.
	_	 [+] key and [-] key: select the menu. [Enter] key: shifts to the sub menu. [Cancel] key: shifts to the previous menu. 5.2 User Type menu

5.2.2.7.1 Media thickness detection (media initial 1)

Setup item	Setting	Description
Height	Off	Media thickness is not detected during media initialization. Set the media thickness in the media thickness menu. 5.2.2.5 Media thickness menu
	On	Media thickness is detected during media initialization.
	_	[Enter] key: [Cancel] key: To 5.2.2.7 Media Initial menu

NOTE

• Media thickness detection is for stabilizing print quality by keeping the clearance between Print head and media. Detected value may be differ from the actual media size.

A CAUTION

- If the media thickness detection menu is set to "Off", media thickness is not detected; follow the procedure below to set the media thickness (value).
- 1. When "Warning! *.* mm ->" (" * " stands for a numerical character) is displayed on the operation panel, check if the value matches the thickness of the loaded media. If the value is wrong, enter the correct setting value.
 - If you can't figure out the correct value, press the [Cancel] key. The printer starts detecting the media thickness.
 - If a wrong value is set, the head and media collide and may damage the head.
- 2. Press the [Enter] key.
- 3. When "Misuse Damages Unit>" is displayed on the operation panel, press [>] key for more than two seconds.
- 4. When "<E>Skip <CAN>Detect" is displayed on the operation panel, press the [Enter] key.
 - The printer starts performing media initial operation.
 - If you press the [Cancel] key, thickness of the media will be detected.

5.2.2.7.2 Media width/top edge detection (media initial 2)

Setup item	Setting	Description
Media	Off	The media width and top edge are not detected during media initialization. Set the media width in the media width menu. 5.2.2.8 Media Width/Width check menu
	Top&Width	Detect the media width and top edge during media initialization.
	<width></width>	Media width is detected during media initialization. Top edge of the media is not detected.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. X\$\overline{2}\$5.2.2.7 Media Initial menu

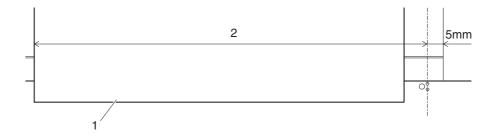
5.2.2.8 Media Width/Width check menu

Media width/Width check menu varies depending on the settings of Media width/top edge detection menu.

- When the media width/top edge detection menu is set to Off, you can enter the media width between 5 mm from the loading mark of Paper guide F and the left edge of the media

 13 5.2.2.8.1 Media Width menu
- If the media width/top edge detection menu is set to either Top&Width or Width, the detected media width is displayed.

5.2.2.8.2 MediaWidth check menu



No.	Name
1	Roll media
2	Media width

5.2.2.8.1 Media Width menu



• If a larger value than the actual media width is set in the Media Width menu, the ink may be leaked on the media or printer during printing.

Setup item	Setting	Description
Media Width	<1000 mm> to 1625 mm	Set the media width when media detection is set to Off.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. 5.2 User Type menu

5.2.2.8.2 MediaWidth check menu

Setup item	Setting	Description
MediaWidth	**** mm	Display the media width that is detected while initializing.
	_	• [Cancel] key: shifts to the previous menu.

5.2.2.9 Strike Wait menu

Set up the strike wait time while overwrite printing as well as regular printing.



• When using the media with a narrow width, the media cannot be warmed up adequately; therefore print quality may not be preserved.

Setup item	Setting	Description
Strike Wait	<0.0 sec.> to sec.0.1 sec. to 5.0 sec.	Sets up the waiting interval per print head travel during printing.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. 5.2 User Type menu

5.2.2.10 MediaType menu

Set which of roll media or rigid media will be used.



• When MediaType is set as Roll media and if you print on heavy rigid media, it may cause an error during printing. Also, when MediaType is set as Rigid media and if you print on the roll media, it may cause affect print quality. Make sure that you change the settings deepening on the media type, and then start printing.

Setup item	Setting	Description
MediaType	Roll	Set when using roll media.
	Rigid	Set when using rigid media.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \(\mathbb{E}\) 5.2 User Type menu

5.2.2.11 Initialization menu

Returns all settings of User type to factory default.

Setup item	Setting	Description
Initialization	_	[Enter] key: initializes the setting and shifts to the previous menu.
	l	 [Cancel] key: shifts to the previous menu. \(\mathbb{E}\) 5.2 User Type menu

5.3 Setup menu

Various settings of the printer are configured.

Setup item	Description
Spitting	Sets up the Spitting operation while printing. • [Enter] key: shifts to the sub menu. **\tilde{\text{T}} 5.3.1 Spitting menu
Side Margin	Specifies the right and left margins of printed media. • [Enter] key: shifts to the sub menu. **\tilde{\text{T}} 5.3.2 \text{ Side Margin menu}
Take-up	Set the operation of the optional take-up unit. • [Enter] key: shifts to the sub menu. 13 5.3.3 Take-up unit menu
Media loading position	Set the media loading position manually if you are using the media that cannot be detected, such as transparent media. • [Enter] key: shifts to the sub menu. **E*5.3.4 Media loading position*
Origin	Sets the beginning of printing (origin) of the print data. • [Enter] key: shifts to the sub menu. 15 5.3.5 Origin menu
Standby Heating	Sets the time to preheat Heater while the printer is in the standby mode. • [Enter] key: shifts to the sub menu. • 5.3.6 Standby Heating menu
Head Travel	Sets up the range that the print head moves while printing. • [Enter] key: shifts to the sub menu. **E*5.3.7 Head Travel menu
Multi Strike	Sets up the multi strike count per line. • [Enter] key: shifts to the sub menu. 13 5.3.8 Multi Strike count menu
Slant Check	Sets up slanting detection during media loading. • [Enter] key: shifts to the sub menu. 155.3.9 Slant Check menu
Auto Cleaning	Sets up the time for auto cleaning during printing. • [Enter] key: shifts to the sub menu. 155.3.10 Auto Cleaning menu
Roll Length	Sets up the roll media length. • [Enter] key: shifts to the sub menu. **E5.3.11 Roll Length menu*
FrontInterlace	Sets the media edge treatment function. • [Enter] key: shifts to the previous menu. 15 5.3.12 Paper Interlace Menu
BtmInterlace	Sets the BtmInterlace function. • [Enter] key: shifts to the previous menu. **\mathref{\mathref{E}} 5.3.13 BtmInterlace menu} **The state of the

Setup item	Description
CR Maint.	Performs maintenance. • [Enter] key: shifts to the sub menu. \$\tilde{\text{TS}} 5.3.14 \text{CR Maintenance menu}\$
Ink Status	Displays information of S/C card (ink status) installed in the ink bag slot. • [Enter] key: shifts to the sub menu. 5.3.15 Ink Status menu
Life Times	Displays the operational life time of each part. • [Enter] key: shifts to the sub menu. 5.3.16 Life Times menu
Header Dump	Sets whether to print the following information (damp data) when printing. • Data header • Data dot number (printed only when Header damp setting is ON) • Printer serial number • Firmware version [Enter] key: shifts to the sub menu. 12 5.3.17 Header Dump menu
Initialization	Returns each setting of the printer to default. • [Enter] key: shifts to the sub menu 13 5.3.18 Initialization menu
Temporary	displays informations set to Off or ALL Offt in Menu option menu temporary. • [Enter] key: returns to the previous menu with all set up items displayed. • [Cancel] key: returns to the mode set in Menu option menu with all setup items displayed. **E*5.6 Menu Option menu
_	• [Cancel] key: shifts to the previous menu. 5 Panel setup menu

5.3.1 Spitting menu

Sets up the spitting operation while printing.

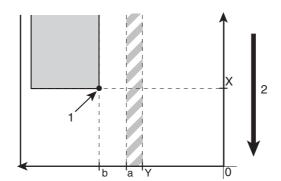
NOTE

- 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.
- When the spitting setting is "On Media", the maximum printable media width becomes 16mm shorter.

Therefore, the side margins become the value that you have set in Side Margin menu +8mm.

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

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



- 1. Print starting position
- 2. Media feed direction

X (media feeding distance)

Y (print head transferring distance)

a (0mm/8mm: Spitting setting is ON, Off/On Media)

b (5mm to 25mm: Side margin setting)

15.3.2 Side Margin menu

5.3.5 Origin menu

Setup item	Setting	Description
Spitting	<on></on>	Every time Print head moves back and forth for the set number of times, Print head performs the spitting operation at Spitting box. Set the number of shuttles in "5.3.1.1 Spitting Pass Count menu". • [Enter] key: saves the setting and shifts to the sub menu. 13 5.3.1.1 Spitting Pass Count menu
	On Media	Perform the spitting operation on the page margins. The printing speed will be improved since the number of time to return to Spitting box is reduced. • [Enter] key: saves the setting and shifts to the sub menu. 5.3.1.1 Spitting Pass Count menu
	Off	Spitting operation is not performed. • [Enter] key: saves the setting and shifts to the previous menu. 5.3 Setup menu
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [State of the setting and shifts to the setting a

5.3.1.1 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 every shuttle per the set number.



• 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.

Setup item	Setting	Description
ReturnCount	<1 time> to 999 times	Set the spitting return count.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3.1}\$ Spitting menu

Example of spitting operation

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

5.3.2 Side Margin menu

Set up the right and left margins (side margins) while printing.

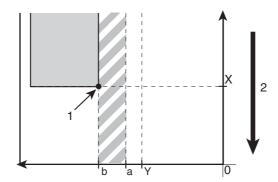
NOTE

• When the Spitting menu is set to "On Media", the maximum printable media width becomes 16mm shorter.

Therefore, the side margins become the value that you have set in Side Margin menu +8mm. \$\sum_5.3.1\$ Spitting menu

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

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



- 1. Print starting position
- 2. Media feed direction

X (media feeding distance)

Y (print head transferring distance)

a (0mm/8mm: Spitting setting is ON, Off/On Media)

b (5mm to 25mm: Side margin setting)

によります。 Spitting menu によります。 Origin menu

Setup item	Setting	Description
Side Margin	<5mm> to 25mm	Set the side margins.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\mathbb{E}\$ 5.3 Setup menu

5.3.3 Take-up unit menu

Set the operation of the optional take-up unit.



• When the take-up unit is not installed, do not set the take-up unit menu to "On". By doing so, the product will be unable to function properly.



•For details about the optional take-up unit, contact your local MUTOH dealer.

Setup item	Setting	Description
Take-up	<off></off>	The take-up unit is not used.
	On	Set to use the optional take-up unit.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. 5.3 Setup menu

5.3.4 Media loading position

Set the media loading position manually if you are using the media that cannot be detected, such as transparent media.



• This menu is only available when the media width/top edge detection (media initial 2) is set to Off or "Width".

5.2.2.7.2 Media width/top edge detection (media initial 2)

• This menu is only available for the media that is loaded.

If the media loading position is changed after replacing the media, set this menu again.

Setup item	Setting	Description
Media loading position	Side edge: -0 mm to +1,625 mm Top edge: -1,200 mm to +1,200 mm	 Side edge: set the right edge position of the media. The higher the entered value, the further toward the opposite of the origin side Print head moves. Top edge: set the top edge position of the media. The higher the entered value, the more media is fed. Change Print head position and media feeding distance with the following keys. [>] key: moves the cursor to the next digit. [-] key: moves the cursor to the previous digit. [+] key: increases the setting value. [-] key: decreases the setting value. 1. Side edge detection direction 2. Top edge detection direction [Enter] key: "Wait for a while" is displayed on Operation panel, and the LED pointer moves to the position of the entered value. If the LED pointer is not just at the edge of the media, change the entered value and press the [Enter] key. When the pointer is placed at the correct location, press the [Enter] key and confirm. Moves on to the next setting.
	Media width: 175 mm to +1,625 mm - Side edge setting value	Media width: set the media width. Enter the number for the media width.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [Solution 1] Setup menu

5.3.5 Origin menu

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

Set this when you want to print on the margin areas of the media that is already printed on, or when you want to print on the object that is set on the jig.



• When the Take-up menu is set to "On", the setting value for X (media feeding distance) is between 15 mm and 999.9 mm.

135.3.3 Take-up unit menu

• Depending on the setting value of the side margins, the maxium setting value of Y 'print head transferring distance) decreases.

15.3.2 Side Margin menu

Setup item	Setting	Description
Origin	<off></off>	The origin position is not set
	On	You can set the origin position.
	_	 [+] key and [-] key: select the menu. [Enter] key: enter the origin position. [Cancel] key: cancels the setting and shifts to the previous menu. \(\mathbb{E}\) 5.3 Setup menu

<Enter the origin position>

Setup item	Setting	Description
Origin	X (media feeding distance): 15.0mm to 999.9mm Y (print head transferring distance): 5.0mm to 1405.0mm	Change the print head position and media feeding distance with the following keys. [>] key: Decreases the print head transferring distance. [<] key: Increases the media feeding distance. [+] key: Decreases the media feeding distance. [-] key: Increases the media feeding distance. 1.Starting position 2.Media feeding direction 2.Media feeding direction (Enter] key: "Moving Origin Pos." is displayed on Operation panel and Print head moves to the starting position with the LED pointer on. After Print head has moved to the origin position, and if you want to change the position, adjust the position using Operation panel again.
	Confirm Position→Enter	• [Enter] key or after a certain period of time: Determines the setting. Print head returns to the original position. Save the setting and shift to the previous menu. **E*5.3 Setup menu*
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [5.3 Setup menu]

5.3.6 Standby Heating menu

Sets up the length of time to preheat the heater while the printer is in standby mode. If printing again during the set time of standby heat, warm-up time can be shortened.



• The Standby heating function is only available when Blower heater is in the "Printer Link" status.

Setup item	Setting	Description
StandbyHeating	10 min to <60 min> 2hours/ 3hours/4hours	Sets the length of time to preheat the heaters. When more than the set time has passed, each heater turns off.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. 5.2 User Type menu

5.3.7 Head Travel menu

Sets up the range that Print head moves while printing.

Setup item	Setting	Description
CR Movement	Data	Print head moves the range of the print data width. The printing speed will be improved since the moving range of Print head is optimized.
	Machine	Print head moves from origin to the maximum printable media width.
	<mediawidth></mediawidth>	Print head shifts within the media width.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3}\$ Setup menu

5.3.8 Multi Strike count menu

Sets up the overwrite count per line.

The printer prints over the printed result times the set number of time, making the print results darker.

Setup item	Setting	Description
Multi Strike	<1 times> to 9 times	Sets up the Muliti Strike count per line.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3}\$ Setup menu

5.3.9 Slant Check menu

Sets up slanting detection during media loading.

Setup item	Setting	Description
Slant Check	<off></off>	Slant Check is not performed.
	On	Slant Check is performed.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\mathbb{E}\$ 5.3 Setup menu

5.3.10 Auto Cleaning menu

Configure the settings for the auto cleaning operation.



The cleaning mode reflects the settings in Operation panel.

136.5.3 Head cleaning

Setup item	Setting	Description
Auto Cleaning	WaitingTime	Set the value for auto-cleaning in standby mode. 13 5.3.10.1 Idle Auto Cleaning
	Pringing time	Set the value for auto cleaning during printing. 125.3.10.2 Pre-printing Mode Auto Cleaning
	Before printing	Set the value for auto cleaning before printing. 5.3.10.3 Pre-printing Mode Auto Cleaning
	After printing	Set the value for auto cleaning after printing. 5.3.10.4 After Print Auto Cleaning Menu
	Power on	Make the settings for auto cleaning when the power is turned ON as well as after recovery from sleep mode. 135.3.10.5 Power on cleaning menu
	Power off	Make the settings for auto cleaning when the power is turned OFF. 13 5.3.10.6 Power Off Cleaning menu



• Even when Pre-printing Mode Auto Cleaning and Post-printing Mode Auto Cleaning are set, auto cleaning is not performed for test printing.

5.3.10.1 Idle Auto Cleaning

(1) Standby 1 (type)

Select the type for auto cleaning.

Setup item	Setting	Description
Norr	<short></short>	Short: Discharges smaller amount of ink compared to Normal.
	Normal	Normal: Select this mode normally.
	Long	Long: Discharges a larger amount of ink compare to Normal. Used when Print head does not improve by normal head cleaning.
		 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous
		menu. 5.3.10 Auto Cleaning menu

(2) Standby 2 (time)

Set the auto cleaning interval during printing.



• If you set the time for Idle auto cleaning longer than the default setting, nozzles may get clogged.

Setup item	Setting	Description
PrintingTime	1h to <6h> to 24 h (4-color set) 1h to <3h> to 24 h (5-color set)	Selects the time for auto cleaning while printing. • Perform head cleaning selected in Cleaning menu after the setting time has elapsed. **E6.5.3 Head cleaning**
		 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\mathbb{E}\$ 5.3.10 Auto Cleaning menu

5.3.10.2 Pre-printing Mode Auto Cleaning

Set the value for auto cleaning before printing.

(1) Printing 1 (type)

Select the type for auto cleaning.

Setup item	Setting	Description
Printing 1	<off></off>	Off: Auto cleaning is not performed during printing.
	Short	Short: Discharges smaller amount of ink compared to Normal.
	Normal	Normal: Select this mode normally.
	Long	Long: Discharges a larger amount of ink compare to Normal. Used when Print head does not improve by normal head cleaning.
	_	• [Enter] key: saves the setting and shifts to the previous menu.
		• [Cancel] key: cancels the setting and shifts to the previous menu.
		にで5.3.10 Auto Cleaning menu

(1) Printing 2 (time)

Select the type for auto cleaning.

Setup item	Setting	Description
Printing 2	1h to <6h> to 24h	Selects the time for auto cleaning while printing. • Perform head cleaning selected in Cleaning menu after the setting time has elapsed. LF 6.5.3 Head cleaning
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. LF 5.3.10 Auto Cleaning menu

5.3.10.3 Pre-printing Mode Auto Cleaning

Set the value for auto cleaning before printing.

Setup item	Setting	Description
Before Print	<off></off>	Off: Auto cleaning is not performed before printing.
	Short	Short: Discharges smaller amount of ink compared to Normal.
	Normal	Normal: Select this mode normally.
	Long	Long: Discharges a larger amount of ink compare to Normal. Used when Print head does not improve by normal head cleaning.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3.10}\$ Auto Cleaning menu

5.3.10.4 After Print Auto Cleaning Menu

This menu is used to set auto cleaning after print.

Setup item	Setting	Description
After Print	Off	Off: Auto cleaning is not performed after printing. Short: Discharges smaller amount of ink compared to
	<short></short>	Normal.
	Normal	Normal: Select this mode normally.
	Long	Long: Discharges a larger amount of ink compare to
		Normal. Used when Print head does not improve by normal head cleaning.
	_	[Enter] key: saves the setting and shifts to the previous menu.
		• [Cancel] key: cancels the setting and shifts to the previous menu.
		第5.3.10 Auto Cleaning menu

5.3.10.5 Power on cleaning menu

Set whether or not to perform cleaning automatically when the power is turned ON as well as after recovery from sleep mode.

Menu differs depending on the ink color set (4 or 5) you are using.

When using 5-color set, power on cleaning must be performed; therefore the setting is fixed to "On".

<When using 4-color set>

Setup item	Setting	Description
Power on cleaning	Off	Power on cleaning is not performed.
	<short></short>	Performs Minimum cleaning automatically when the power is turned ON as well as after recovery from sleep mode.
	Normal	Performs Normal cleaning automatically when the power is turned ON as well as after recovery from sleep mode.
	Long	Performs Long cleaning automatically when the power is turned ON as well as after recovery from sleep mode
		 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: saves the setting and shifts to the previous menu. \$\tilde{\text{25}} 5.3\$ Setup menu

<When using 5-color set>

Setup item	Setting	Description
Power on cleaning	On	Performs cleaning automatically when the power is turned ON as well as after recovery from sleep mode.
		 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: saves the setting and shifts to the previous menu. \$\mathbb{E}\$ 5.3 Setup menu

5.3.10.6 Power Off Cleaning menu

This menu is used to set whether to perform cleaning before shutting the printer down.

Setup item	Setting	Description
PoweroffClean.	<off></off>	Power off cleaning is not performed.
	Short	Power off cleaning is performed in short mode before shutting the printer down.
	Normal	Power off cleaning is performed in normal mode before shutting the printer down.
	Long	Power off cleaning is performed in long mode before shutting the printer down.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: saves the setting and shifts to the previous menu. \$\mathbb{E}\$ 5.3 Setup menu



• After pressing the [Power] key, the cleaning starts first, then CR maintenance is performed. \Sigma_3.2.2 Turning the power OFF

5.3.11 Roll Length menu

Select the setting for the roll media length you are using.

Setup item	Setting	Description
Roll media	<off></off>	Roll Length is not used. • [Enter] key: saves the setting and shifts to the previous menu. 13 Setup menu
	Roll 1 Roll 2	Sets up the roll media length. The Roll Length setting is set for three types as "Roll 1" to "Roll 3".
	Roll 3	• [Enter] key: saves the setting and shifts to the sub menu. \$\sum_{5.3.11.1}\$ Roll media length menu
		 [Cancel] key: cancels the setting and shifts to the previous menu. Setup menu

5.3.11.1 Roll media length menu

Sets up the roll media length.



• When replacing the roll media, adjust the roll media length again.

If the roll media length is not set, the residual quantity of roll media is not displayed correctly.

Setup item	Setting	Description
Length	1 m to <30 m> to 99 m	Set the roll media length.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3.11.1}\$ Roll media length menu

5.3.12 Paper Interlace Menu

This menu is used to set media edge treatment menu. Select AUTO under normal condition.

Setup item	Setting	Description
FrontInterlace	<auto></auto>	Performs media edge treatment automatically when required.
	Off	Media edge treatment is not performed.
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: shifts to the previous menu. \$\tilde{\text{25}} 5.3\$ Setup menu



• To set Paper Interlace OFF, set the "FrontInterlace" setting value as ON (display) in the Simple select menu, and then change the set values of "FrontInterlace" from the Setup menu.

13 5.6 Menu Option menu

5.3.13 BtmInterlace menu

Sets the BtmInterlace function.

If the print is missing or blurred, specify the end edge treatment to "Off".

Setup item	Setting	Description
BtmInterlace	Off	The BtmInterlace function is not used.
	<on></on>	The BtmInterlace function is used.
	_	[Cancel] key: saves the setting and shifts to the previous menu. 5.3 Setup menu



• Even if the end edge treatment is set to "Off", the treatment for end edge of media (media end) will be executed.

5.3 Setup menu

5.3.14 CR Maintenance menu

Performs maintenance.

Use this to clean the cleaning wiper unit and the outside of the print head.

126.2.1 Cleaning the cleaning wiper unit



• When the CR maintenance menu is displayed, even leaving the keys untouched for three minutes does not return to the printer to normal status.

12.3 Printer status

Setup item	Setting	Description
CR Maint.	Start	Performs maintenance. • [Enter] key: The print head moves to the left. The cleaning wiper raises.
	End	Completes maintenance. • [Enter] key: The print head returns to its original position. The cleaning wiper returns to its original position.
	_	[Cancel] key: shifts to the previous menu without maintenance. [5.3 Setup menu]

5.3.15 Ink Status menu

Displays the various information about S/C card (ink status) that are installed in High-capacity pack adapters.

NOTE

- To display the Ink Status menu, use the genuine ink bag.

 If you use an ink bag other than the genuine one, ink status is not displayed correctly.
- In ink status menu, ink colors are indicated by the following letters.

 When there are same colors next to each other, the ink pack on the left, seen from the rear side of the printer, is displayed with a capital letter.
 - <When using 5-color set>
 - K: Black (Slot K)
 - C: Cyan (Slot C)
 - M: Magenta (Slot M)
 - Y: Yellow (Slot Y)
 - W: White (Slot WH)
 - CL: Cleaning liquid (Slot CL)
 - cl: Cleaning liquid (Slot CL)
 - <When using 4-color set>
 - K: Black (Slot K)
 - C: Cyan (Slot C)
 - c: Cyan (Slot C)
 - M: Magenta (Slot M)
 - m: Magenta (Slot M)
 - Y: Yellow (Slot Y)
 - CL: Cleaning liquid (Slot CL)

<When using 5-color set>

Setup item	Setting	Description
Ink status	KCMY	Each remaining ink for K/C/M/Y is displayed in a range of 0 to 100 (%).
	W	Remaining white ink is displayed in a range of 0 to 100 (%).
	CLcl	Each remaining ink for CL/cl is displayed in a range of 0 to 100 (%).
	_	• [Cancel] key: shifts to the previous menu.

<When using 4-color set>

Setup item	Setting	Description
Ink status	MmCc	Each remaining ink for M/m/C/c is displayed in a range of 0 to 100 (%).
	KY	Each remaining ink for K/Y is displayed in a range of 0 to 100 (%).
	CL	Remaining cleaning liquid is displayed in a range of 0 to 100 (%).
	_	[Cancel] key: shifts to the previous menu. [\$\sum_{5.3}\$ Setup menu

5.3.16 Life Times menu

Displays the operational life time of each part.

Setup item	Setting	Description
Life Times	Head	Display the life of each part.
	Pump	• The lifetime of each part is indicated by the asterisks (Maximum 5 asterisks: 100% left).
	CR Motor	As the part deteriorates, the number of asterisks decreases one by one (20 %).
	PF Motor	The part should be changed when all of the asterisks have disappeared, and "Change" is displayed.
		Contact your local MUTOH dealer to ask for replacing parts.
		TT
	_	• [Cancel] key: shifts to the previous menu.
		₹ 5.3 Setup menu

NOTE

- When replacing a part that its operational life has ended,
 - No charge for replacing within the warranty period or under the contract.
 - You are liable for the cost of repairs under conditions other than mentioned above.
 - Do not keep using the part which has reached its life span. Problems caused by doing so will not be covered by the warranty.

5.3.17 Header Dump menu

Sets whether to print the following information (damp data) when printing.

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

The data will be useful when contacting technical support.



• Performing printing if the printer is connected to PC, the print settings of RIP soft you are using are printed on "data header.

Setup item	Setting	Description
	<off></off>	Prints only the data to be ptinted.Dump data is not printed.
	On	Dump data is printed after the original image is printed.
	Dump	 Prints only damp data. "Data dot number" is not printed. The original image is not printed.
	_	[Cancel] key: shifts to the previous menu without initialization. [Social Setup menu] [Social Setup menu]

5.3.18 Initialization menu

Returns the settings of the printer to default.

Use this if you enter a wrong setting value by mistake, or if you want to set the value back to the default.

Setup item	Setting	Description
Initialization	ALL	All settings can be returned to factory default.
	Setting menu	The setting of the Setup menu is returned to factory default.
	_	 [Enter] key: "Initializing" is displayed on the operation panel and the printer initializes the setting. [Cancel] key: shifts to the previous menu without initialization. \$\sum_{5.3}\$ Setup menu

5.4 TestPrint Menu

Performs nozzle check of the print head and setup list.



• When "Banner 1" is set in the Print Mode menu, "PalettePrint" is not displayed.

\[\subseteq 5.2.2.1 \] Print mode menu



•Refer to the following for the operation procedure of test print.

15.4 TestPrint Menu

Setup item	Description	
Nozzle check	Perform the nozzle check printing. It is used to check whether there are any clogged heads, or missing or blurred prints. **Solution** **	
Nozzle check B	Performs nozzle check printing for white ink. 3.6.2 Nozzle check B	
Mode print	Mode print can be performed. Used to confirm the following printing conditions. • Print quality • Effect • Adjustment value 3.6.2 Nozzle check B	
Setup List	Setup list printing is performed. Use it for checking the setup item of the printer. 13.6.4 Setup printt	
Palette	Palette printing is performed. It is used to compare pen colors of the computer the colors printed by this printer. 18 3.6.5 Palette print	
Color Verify	Print the color patches, then measure the color using the optional spectrophotometer (SPECTROVUE VM-10). Compare the currently printed color with the previously printed color to check the color difference. 3.6.6 Color verify	
_	 [Enter] key: "Printing" is displayed on the operation panel and test printing starts. [Cancel] key: shifts to the previous menu. For Panel setup menu 	

5.5 Cleaning menu

Perform Head cleaning.



•Head cleaning can be operated when the printer is Normal. Refer to the following for operation procedures.

126.5.3 Head cleaning

Setup item	Description
Short	Discharges smaller amount of ink compare to "Normal". • [Enter] key: "Cleaning **%" is displayed on the operation panel and Head cleaning starts. Progress on the Head cleaning is displayed in % on the operation panel.
Normal	Select this mode normally. • [Enter] key: "Cleaning **%" is displayed on the operation panel and Head cleaning starts. Progress on the Head cleaning is displayed in % on the operation panel.
Long	Discharges larger amount of ink compare to "Normal". Used when the print head does not improve by normal Head cleaning. • [Enter] key: "Cleaning **%" is displayed on the operation panel and Head cleaning starts. Progress on the Head cleaning is displayed in % on the operation panel.
Little charge	Refills a small amount of ink. Consumes a lot larger amount of ink than "Strong". The cleaning effect is much higher than "Strong". [Enter] key: "Ink Refill **%" is displayed on Operation panel and ink replenishment starts. Progress on Little charge is displayed in % on Operation panel.
Replacing ink	Initial ink charge • Performs the initial ink charge. • Consumes a lot larger amount of ink than "Little charge". • The cleaning effect is much higher than "Little charge". • [Enter] key: "Ink Refill **%" is displayed on Operation panel and initial ink charge starts. Progress on the initial ink charge is displayed in % on Operation panel.
_	• [Cancel] key: shifts to the previous menu. 125 Panel setup menu

5.6 Menu Option menu

Sets up the contents of the Setup menu.

You can make setup items that you do not normally use invisible.

Switch the setting "On (displayed)" to "Off (undisplayed)" using the [<] key or [>] key on the operation panel.

When the setting is On, "*" is displayed on the operation panel.

NOTE

• Even if you select "Off" in the Menu option menu, you can display the settings temporarily by selecting "Temporary" in the Setup menu.

5.3 Setup menu

- The following items are never displayed even when "ALL On" is selected.
 - Feeding equipment

Setup item	Setting	Description
Spitting	On	Sets up whether to display the Spitting menu.
	<off></off>	
Side Margin	On	Sets up whether to display the Side Margin menu.
	<off></off>	
Take-up	On	Sets up whether to display the Take-up unit menu.
	<off></off>	
Media loading position	<on></on>	Sets up whether to display the Media loading position menu.
	Off	
Origin	<on></on>	Sets up whether to display the MediaType menu.
	Off	
Standby Heating	<on></on>	Sets up whether to display the Standby Heating menu.
	Off	Standby Heating
Head Travel	<on></on>	Sets up whether to display the Head Travel menu.
	Off	
MultistrikeCnt	<on></on>	Sets up whether to display the Multistrike Cnt menu.
	Off	
Slant Check	On	Sets up whether to display the Slant Check menu.
	<off></off>	
Auto Cleaning	<on></on>	Sets up whether to display the Auto Cleaning menu.
	Off	
Roll Length	On	Sets up whether to display the Roll Length menu.
	<off></off>	

Setup item	Setting	Description
FrontInterlace	On	Sets up whether to display the FrontInterlace menu.
	<off></off>	
BtmInterlace	On	Sets up whether to display the FrontInterlace menu.
	<off></off>	
CR Maint.	<on></on>	Sets up whether to display the CR Maintenance menu.
	Off	
Ink Status	<on></on>	Sets up whether to display the Ink Status menu.
	Off	
Life Times	<on></on>	Sets up whether to display the Life Times menu.
	Off	
Header dump	<on></on>	Sets up whether to display the Header dump menu.
	Off	
Initialization	<on></on>	Sets up whether to display the Initialization menu.
	Off	
ALL On		Displays all items in the Setup menu. • Pressing the [Enter] key displays "*" for all items in the Menu option menu.
ALL Off		No items in the Setup menu are displayed. • Pressing the [Enter] key deletes "*" for all items in the Menu option menu. • Even if you select "ALL Off", you can display the items temporarily by selecting "Temporary" in the Setup menu.
	_	[Cancel] key: saves the setting and shifts to the previous menu. Panel setup menu

5.7 Head maintenance

Performs maintenance for Print head using cleaning liquid.

Use this function when you do not use the printer for a long time, or when you ship the printer.



• Be sure to use the dedicated cleaning fluid.

Setting	Description
Long storage	After washing Print head with the cleaning liquid, Print head is filled with the cleaning liquid. In the following situations, perform long storage and then turn the printer OFF. • When you do not use the printer for more than 24 hours. • When you do not use the printer for more than two weeks. See below for the procedure. See below for the procedure. Fig. 6.3.1.1 Before turning OFF the printer for long storage If you want to print after long storage, see the following. Fig. 6.3.2.1 Recovery procedure for the printer after long storage (when the printer was turned OFF)
Longstore	After washing Print head with the cleaning liquid, the cleaning liquid is discharged. Use this function when you sip the printer. 5.7.1 Longstore menu If you want to print after cleaning, see the following. 6.3.2.1 Recovery procedure for the printer after long storage (when the printer was turned OFF)
Ink replace (5-color set only)	Replace the ink in some of the ink tubes with the cleaning liquid. Use this when you're using 5-color set and you do not use the printer for more than 28 hours in sleep mode. See below for the procedure. 6.3.1.3 Before using sleep mode for a long time (for 5-color set)
Wash Replace (5-color set only)	Replace the cleaning ink in some of the ink tubes with ink. Use this when you are using 5-color set, in the recovery operation after replacing ink. See below for the procedure. Let 6.3.2.2 Recovery procedure for the printer after long storage (for sleep mode for 5-color set) [Cancel] key: cancels the setting and shifts to the previous
	Long storage Longstore Ink replace (5-color set only)

5.7.1 Longstore menu

Performs head washing using cleaning fluid.

Setup item	Setting	Description
Longstore	Start	[Enter] key: Performs head cleaning
	Remove Cartridges	Remove all High-capacity pack adapters. After removing High-capacity pack adapters, wipe off the ink attached to them. "3.2 When High-Capacity Ink Pack Adapter is removed from Printe" of High-Capacity Ink Pack Adapter OPERATION MANUAL.
	Empty WasteInk ->E	Check Waste fluid tank, and remove any waste fluid from the tank. • [Enter] key: shifts to the next procedure.
	Insert cleaning cart.	Install the cleaning cartridges to High-capacity pack adapters, and then insert them into the printer. "3.1 Installing Ink Packs" of High-Capacity Ink Pack Adapter OPERATION MANUAL.
	Busy-Washing	The printer fills the cleaning fluid.
	Remove Cartridges	Remove all High-capacity pack adapters.
	Discharging ink	Discharging the cleaning liquid from Print head. • When the first discharging finishes, "Insert CleaningCart" is displayed; repeat the cleaning procedure. • Once the second discharging is finished, cleaning is complete.
	[ALL] No cartridges	Cleaning is complete.
	_	• [Cancel] key: shifts to the previous menu without Head washing.

5.8 Version menu

Displays the versions of the firmware.

This is to be used by a service person during maintenance.

Setup item	Setting	Description
Ver.M/H	*.**(Main)/*.**(Controller)	Displays the versions of the firmware on the main (M) and controller (H) sides.
	_	• [Cancel] key: shifts to the previous menu. 125 Panel setup menu

5.9 Default settings

Display language or unit for LCD is configured. IP addresses are also configured.

Setup item	Setting	Description
Default settings	Language	Sets the language used in the menu items displayed on LCD monitor of Operation panel. 5.9.1 Longstore menu
	Length	Displays the length in centimeters or inches. 12 5.9.2 Length menu
	IP Address	Sets the IP address of the printer. 5.9.3 IP Address menu
	Subnet Mask	Sets the subnet mask of the printer. 5.9.4 Subnet Mask menu
	Gateway	Sets the gateway. 12 5.9.5 Gateway menu
	_	[Enter] key: shifts to the sub menu. [Cancel] key: cancels the setting and shifts to the previous menu.

5.9.1 Longstore menu

Performs head washing using cleaning fluid.

Setup item	Setting	Description
Language	<english></english>	Displays the menu items in English.
	Japanese	Displays the menu items in Japanese.
		 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu.

5.9.2 Length menu

Sets the unit to display the length.

Setup item	Setting	Description
Length	<mm></mm>	Displays the length in millimeters (mm).
	inch	Displays the length in inches (inch).
	_	 [Enter] key: saves the setting and shifts to the previous menu. [Cancel] key: cancels the setting and shifts to the previous menu. \$\sum_{5.3}\$ Setup menu

5.9.3 IP Address menu

Sets the IP address of the printer.

Use this menu when using printer connecting the network.



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

Setup item	Setting	Description
IP Address	0.0.0.0 to <192.168.1.253> to 255.255.255.255	Change the IP address by operating the following keys. • [+] key: increases the setting value. • [-] key: decreases the setting value. • [Enter] key: changes the setting for the next segment.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [State of the previous menu menu menu menu menu menu menu menu

5.9.4 Subnet Mask menu

Sets the subnet mask of the printer.

Use this menu when using printer connecting the network.



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

Setup item	Setting	Description
Subnet Mask	0.0.0.0 to <255.255.255.0> to 255.255.255.255	Change the subnet mask by operating the following keys. • [+] key: increases the setting value. • [-] key: decreases the setting value. • [Enter] key: changes the setting for the next segment.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [5.2.2 Various settings of User type]

5.9.5 Gateway menu

Sets the gateway.

Use this menu when using printer connecting the network.



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

Setup item	Setting	Description
Gateway	0.0.0.0 to <192.168.1.254> to 255.255.255.255	Change the gateway by operating the following keys. • [+] key: increases the setting value. • [-] key: decreases the setting value. • [Enter] key: changes the setting for the next segment. Save the set values in the 4th segment and returns to the previous menu.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. [State of the setting and shifts to the previous menu. [State of the setting and shifts to the previous menu. [State of the setting and shifts to the previous menu.]

5.10 Job Status Menu

Various information of previous print will be displayed.

The length of printed data and if the print is completed will be displayed. When the print is canceled, the information how much the print is completed will be displayed.

Setup item	Setting	Description
Job Status	JobStatus	Displays if the print is completed. When the print is completed: [Completed] When the print is canceled: [Canceled]
	ToDoLength	The total length of print data (media feeding direction) will be displayed.
	Done	The printed length will be displayed.
	Remain	The remaining length of print data will be displayed.
	_	[Cancel] key: cancels the setting and shifts to the previous menu. For a panel setup menu



• This function is to check the information of print data with the print operation is completed. For the details on data while printing, please refer to the below.

137 4.4.4.2 Settings that can be changed or confirmed while printing 1.4.4.7 Normal Display while Printing

- The values displayed in this function are just standard values, not guarantee the accuracy.
- If the print data includes no length data, all information will be displayed as "0".

6 Maintenance

This chapter describes daily maintenance of the product.

6.1 Shaking ink packs

To maintain color stability, you need to shake all ink packs before operation every day.

Shake the ink packs when the following message is displayed on Operation panel.

- "Shake W Cartridge": displayed every 24 hours
- "Shake KCMY Cartridge": displayed every 72 hours

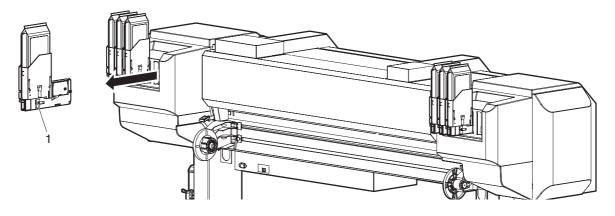
If you use the ink for a long time without shaking the cartridges, it may cause poor print quality or a malfunction.



• The contents in this section is the same as the "Precautions before using dedicated ink" sheet provided with the printer.

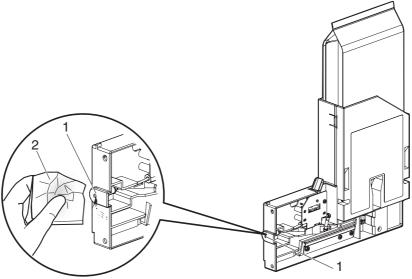
Follow the procedure below to shake ink packs.

- 1. Check that the printer is turned ON.
- 2. Wear plastic gloves, and remove High-capacity pack adapters from the ink cartridge slots.



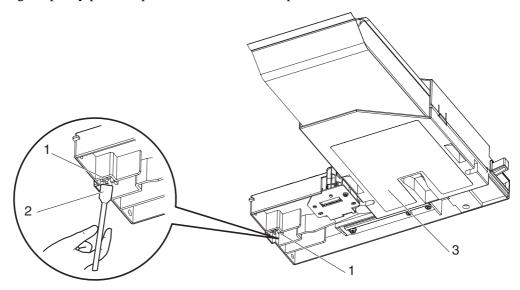
No.	Name
1	High-capacity ink pack adapter

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



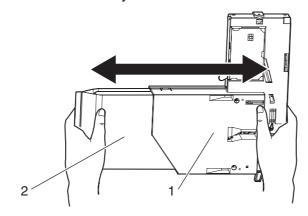
Ī	No.	Name
	1	Insertion point for the printer
	2	Paper towel

- 4. Tilt High-capacity pack adapters, use Cleaning stick provided with the printer, and absorb the ink collected around the tube connectors.
 - Tilt High-capacity pack adapter so that the caution label is facing down.
 - Tilt High-capacity pack adapter so that the insertion point is lowered a little.



No.	Name
1	Tube connector
2	Cleaning stick
3	Caution label

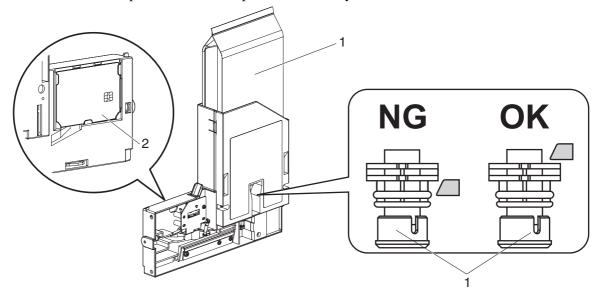
5. While making sure that Ink pack does not come off High-capacity pack adapter, hold the edge of Ink pack and shake it ten times horizontally.



	No.	Name
	1	High-capacity pack adapter
Ī	2	Ink pack

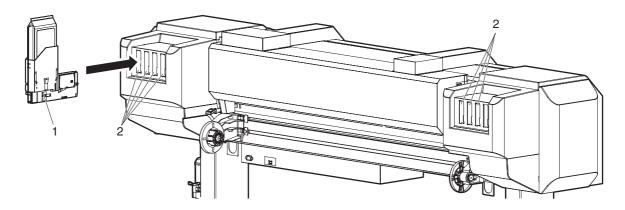


- For the new white ink as well as white ink that has not been used for a month, read "Precautions before using white ink" provided with the white ink packs, and then shake Ink pack. Inappropriate shaking may cause poor print quality or a malfunction.
- 6. Make sure that Ink pack and Smart chip card are securely installed.



No.	Name
1	Ink pack
2	Smart chip card

7. Install High-capacity pack adapters into Ink cartridge slots.



No.	Name
1	High-capacity adapter
2	Ink cartridge slot

6.2 Daily maintenance

Perform the following operation after the operation at the end of the day.



• The contents in this section is the same as the "User maintenance sheet" provided with the printer.

This section describes how to clean the cleaning wiper unit, surrounding area for the cleaning wiper unit, and around the print head.

(1) Cleaning time

Once a day, after operating for the day.

(2) Cleaning method

Follow the procedure below to clean the cleaning wiper and its surrounding area and around the print head.



 When cleaning the cleaning wiper and around the print head, the print head cap will be removed, and therefore cleaning must be completed before the print head dries. The recommended time for cleaning is about 5 minutes.
 If cleaning exceeds 5 minutes, suspend cleaning. Perform Head cleaning, and then start cleaning again.

126.5.3 Head cleaning

NOTE

- For the cleaning procedure, refer to the attached maintenance sheet.
- Use the following parts below to clean the cleaning wiper unit, surrounding area for the cleaning wiper unit, and around the print head.
- · Cleaning fluid
- Cleaning stick
- · Plastic cup
- Dropper
 \$\sum_{8.3}\$ Options/Supply list
- Paper towels (not included with the printer. Prepare them boforehand.)
- 1. Pour 50ml of cleaning fluid into the provided plastic cup and dip the cleaning stick in it.

- 2. Perform either of the followings until "CR Mainte.: Start" displays on Operation panel.
 - a. To set the printer status to sleep mode, follow the procedure below.

3.3.1 Set sleep mode on the printer

 $b. \ \ \, \text{To power off the printer, follow the procedure below}.$

3.2.2 Turning the power OFF

- "CR Mainte.: Start" is displayed on the operation panel.
- 3. Press the [Enter] key on the operation panel.
 - Maintenance starts.
 - The print head moves to the left.
 - The cleaning wiper raises.
 - "CR Maintenance: End" is displayed on the operation panel.
- 4. Clean the cleaning wiper unit.

126.2.1 Cleaning the cleaning wiper unit

5. Clean around the print head.

126.2.2 Cleaning around the print head



•Press the [Cancel] key if Daily maintenance is not performed.

- 6. After cleaning is completed, press the [Enter] key on the operation panel.
 - The cleaning wiper returns to its original position.
 - The print head returns to its original position.
 - The printer goes into Sleep mode or turns the power OFF.
- 7. After cleaning, leave the cleaning stick in the cleaning fluid to store.

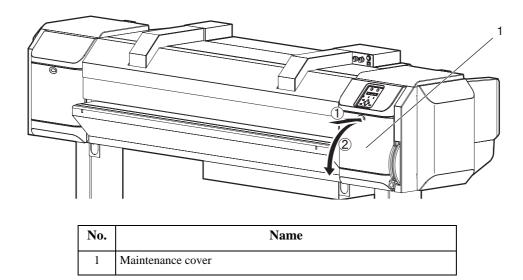
NOTE

- Replace the cleaning stick every week.
- Do not use a cleaning stick that has dried ink on it.
- Make sure to cover the plastic cup that has cleaning fluid with a plastic bag or wrap to avoid dust for storing.
- Replace the cleaning fluid poured into the plastic cup every week.

6.2.1 Cleaning the cleaning wiper unit

This sub-section describes how to clean the cleaning wiper and surrounding area. Follow the procedure below to clean the cleaning wiper and the surrounding area.

1. Open maintenance cover on the right side of the printer and remove it.



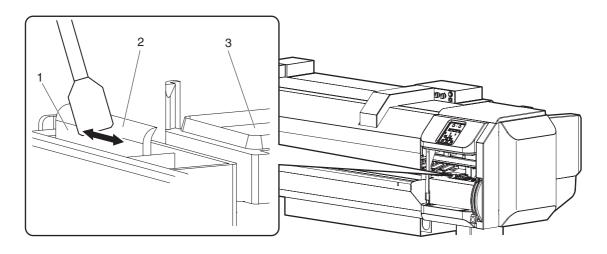


- · When cleaning the cleaning wiper
- Do not touch the cleaning wiper and head cap unit.

 Head cleaning may not be performed correctly because of oil from your hands.
- Make sure to use a cleaning stick, and dip it in the specialized cleaning fluid, and then clean around the print head.
 Wipe it with a fluid other than cleaning fluid can cause the print head to clog.
- Cleaning sticks can be used for about 1 week.

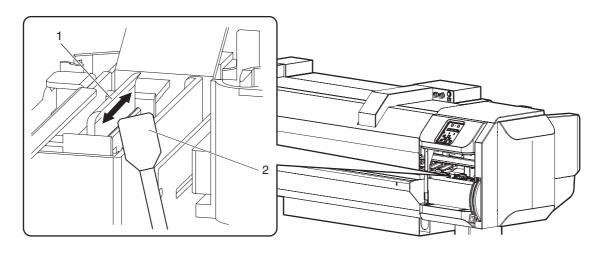
 After 1 week, or when you cannot remove ink clumps, replace the cleaning stick.

- 2. Dip the cleaning stick in the cleaning fluid, and remove the ink and dust on the cleaning wiper.
 - a. Cleaning wiper left side:Remove the ink and dust from the front and back.



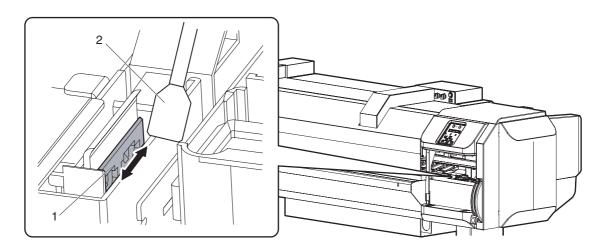
No.	Name
1	Cleaning wiper left side
2	Cleaning stick
3	Head cap unit

b. Cleaning wiper right side:Remove the ink and dust from the front and back.



No.	Name
1	Cleaning wiper right side
2	Cleaning stick

c. Cleaning wiper unit right side surface:Remove the ink and dust from the front and back.

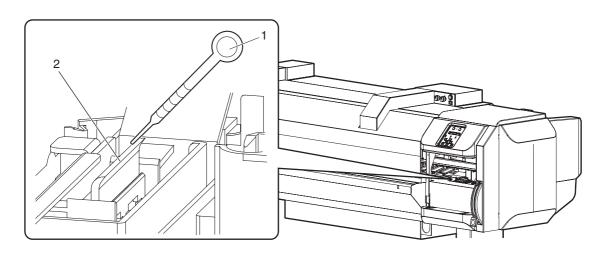


No.	Name
1	Cleaning wiper right side surface
2	Cleaning stick

3. Using the dropper included with the printer, drop uncontaminated cleaning fluid (0.5ml) on the cleaning wiper.

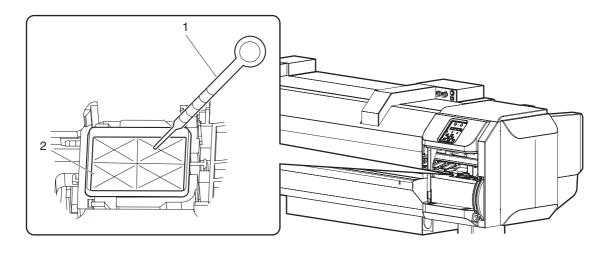
NOTE

- This operation is not required for 5-color set.
- If you have selected "Wash Exe? Yes" when using 4-color set, this operation is also not required.



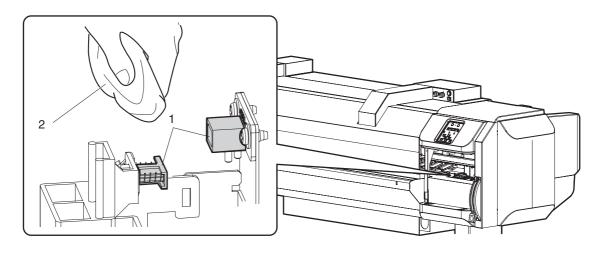
No.	Name
1	Dropper
2	Cleaning wiper

4. Use the dropper included with the printer and drip the new cleaning liquid (0.5ml) on Cleaning wiper.



No.	Name
1	Dropper
2	Head cap unit

5. Damp a paper towel with some drops of cleaning liquid to completely wipe off the ink attached on Air valve.

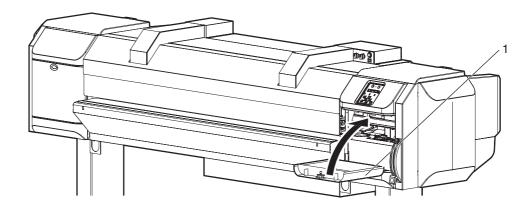


No.	Name
1	Air valve
2	Paper towel

NOTE

• Do not touch cleaning liquid directly with your hands.

- 6. Assemble the maintenance cover on the right side of the printer and close it.
 - Close the cover firmly until it is locked.



No.	Name
1	Maintenance cover

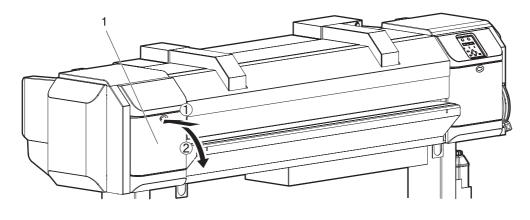
- Cleaning of the cleaning wiper and surrounding area is complete.
- Clean around the print head continuously as shown below.
 16.2.2 Cleaning around the print head

6.2.2 Cleaning around the print head

This section describes how to clean around the print head.

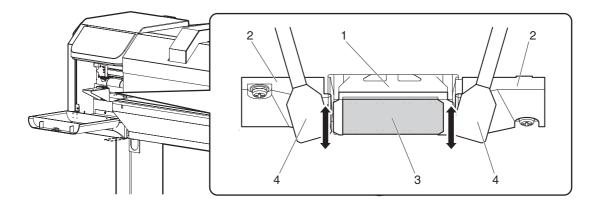
Follow the procedure below to clean around the print head.

1. Open maintenance cover on the left side of the printer and remove it.



No.	Name
1	Maintenance cover

2. Soak Cleaning stick with the cleaning liquid and remove any foreign substance.



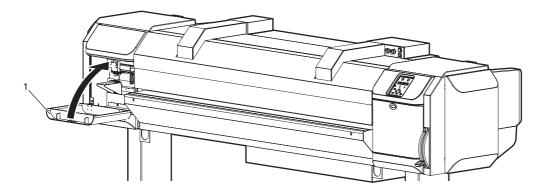
No.	Name
1	Around the print head
2	Head guide area
3	Nozzle
4	Cleaning stick



- · When cleaning around the print head
- Do not touch the nozzle of the print head. Doing so may damage the print head.
- Do not touch the head of the cleaning stick.
 Oil on your hands may attach to the cleaning stick, causing damage to the print head.
- Make sure to use a cleaning stick, and dip it in the specialized cleaning fluid, and then clean around the print head.
 Wipe it with a fluid other than cleaning fluid can cause the print head to clog.
- Cleaning sticks can be used for about 1 week.

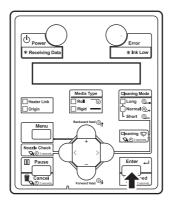
 After 1 week, or when you cannot remove ink clumps, replace the cleaning stick.

- 3. Assemble the maintenance cover on the left side of the printer and close it.
 - Close the cover firmly until it is locked.



No.	Name
1	Maintenance cover

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



- The cleaning wiper returns to its original position.
- The print head returns to its original position.
- Cleaning around the print head is complete.

6.3 Long storage

If you do not use this printer for a long time, you need to perform the following operations before and after long storage.

6.3.1 Operation procedure for long storage

The operations differ for turning OFF the printer and using Sleep mode; follow the procedure below.

- When turning OFF the printer:
 \$\tilde{\text{26}} 6.3.1.1\$ Before turning OFF the printer for long storage
- When using Sleep mode:

126.3.1.2 Before using sleep mode for a long time (common to 4-color set and 5-color set)
126.3.1.3 Before using sleep mode for a long time (for 5-color set)

6.3.1.1 Before turning OFF the printer for long storage

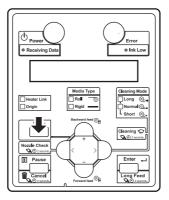
If you are keeping the printer OFF for more than 24 hours, perform the maintenance operation before turning the printer OFF, following the procedure below.

During this maintenance operation, you have to replace the ink in the ink tubes and Print head with the cleaning liquid.



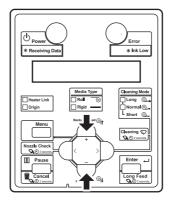
Do the same operation for both 4-color set and 5-color set.

- 1. Turn the printer ON.
 - 3.2.1 Turning the power ON
 - The printer starts the initial operation.
- 2. Press the [Menu] key on Operation panel.

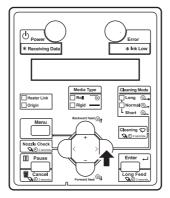


• "Menu 1: Sleep Mode>" is displayed on the operation panel.

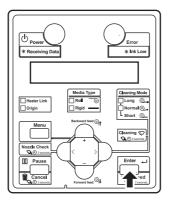
3. Use the [+] or [-] key on Operation panel to select "Menu 7: Head Mainte.".



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

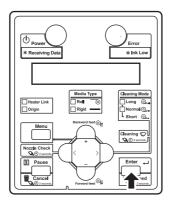


- "Mnt.1: Long Storage" is displayed on Operation panel.
- 5. Press the [Enter] key on Operation panel.

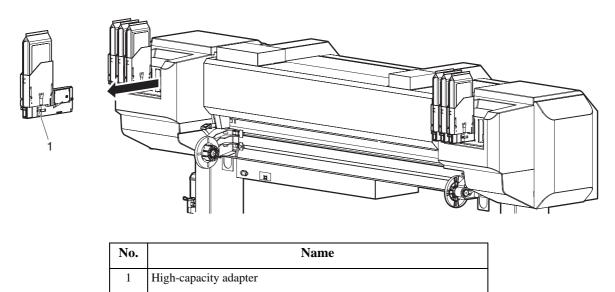


• "Long Storage: Start" is displayed on Operation panel.

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



- "Remove Cartridges" is displayed on Operation panel.
- 7. Remove all High-capacity pack adapters.



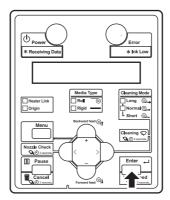
NOTE

- Before removing High-capacity pack adapters from the printer, make sure you do not remove Ink packs only. The information of the remaining IC chip card will be rewritten and Ink pack will not be usable.
 - "Check waste fluid" is displayed on Operation panel.

NOTE

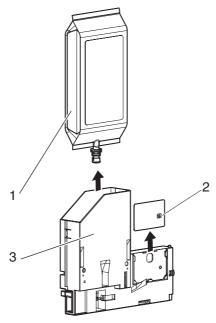
• If this message is displayed during operation, check Waste fluid tank and remove any waste fluid. If there is waste fluid inside the tank, the cleaning liquid is wasted.

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



- "Insert InkCartridges" is displayed on Operation panel.
- 9. Wipe off the ink attached to High-capacity pack adapters.

 "POperation manual for High-Capacity Ink Pack Adapter "3.2 When High-Capacity Ink Pack Adapter is removed from Printer"
- 10. Remove Ink packs from High-capacity ink pack adapters.

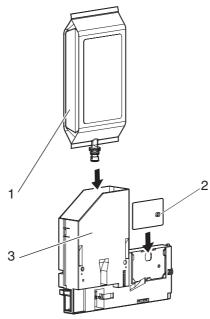


No.	Name
1	Ink pack
2	Smart chip card
3	High-capacity adapter

NOTE

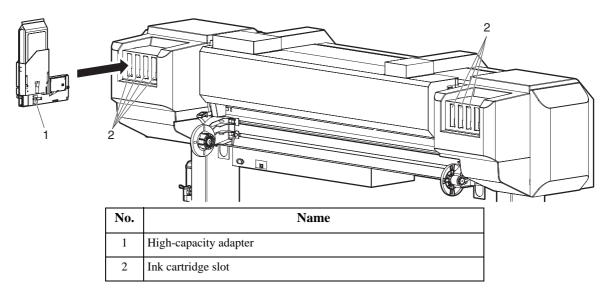
• When there is remaining Ink pack and IC chip card, clarify the corresponding pack and card, and store them as a set.

11. Install Cleaning fluid pack and IC chip card to High-capacity ink pack adapter.



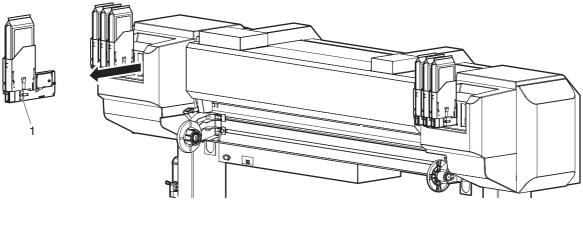
No.	Name
1	Cleaning fluid pack
2	Smart chip card
3	High-capacity adapter

- Required number of cleaning fluid packs: 7
- 12. Insert High-capacity ink pack adapters in0to all Ink cartridge slots.



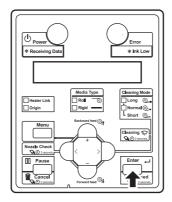
- Insert High-capacity ink pack adapters all the way in Ink cartridge slots.
- When all High-capacity ink pack adapters are installed, "Busy-Washing" is displayed on Operation panel, and the printer starts charging Cleaning liquid.
- When Cleaning liquid has been charged, "Remove Cartridges" is displayed on Operation panel.

13. Remove all High-capacity ink pack adapters.



No.	Name
1	High-capacity adapter

- Leave the cleaning fluid packs still installed on High-capacity pack adapters.
- "Ink Discharging" is displayed on Operation panel and the printer starts head cleaning.
- After head cleaning is complete, "Check waste fluid" is displayed on Operation panel.
- Check Waste fluid tank.
- 14. Press the [Enter] key on Operation panel.



- "Insert CleaningCart." is displayed on Operation panel again.
- 15. Insert High-capacity pack adapters, with the cleaning liquid packs still installed, into the ink cartridge slots again.
 - When all High-capacity ink pack adapters are installed, "Busy-Washing" is displayed on Operation panel, and the printer starts charging Cleaning liquid.
 - After charging the cleaning liquid, "[ALL]Discharged" is displayed on Operation panel.
 - Proceed to turn the printer OFF.
 3.2.2 Turning the power OFF

6.3.1.2 Before using sleep mode for a long time (common to 4-color set and 5-color set)

• Make sure that there is enough ink in Ink packs.

5.3.15 Ink Status menu

• Throw away the waste fluid inside Waste fluid bottle.

136.6 Disposal the waste fluids

A CAUTION

• Do not leave the printer in Sleep mode for more than two weeks. If the printer is going to be in Sleep mode for more than two weeks, perform "Long storage", and then turn the power OFF.

6.3.1.1 Before turning OFF the printer for long storage

• If the printer is going to be in Sleep mode for more than one week, shake the ink packs once one week has passed.

126.1 Shaking ink packs

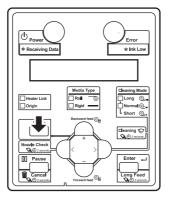
6.3.1.3 Before using sleep mode for a long time (for 5-color set)

When you are using 5-color set and you do not use the printer for more than 72 hours in sleep mode, see the procedure below and perform maintenance before using Sleep mode.

During this maintenance operation, you have to replace the ink in some of the ink tubes with the cleaning liquid.

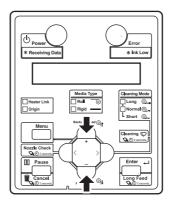


- This operation is not required for 4-color set. This menu is not displayed on Operation panel.
- 1. Turn the printer ON.
 - The printer starts the initial operation.
- 2. Press the [Menu] key on Operation panel.

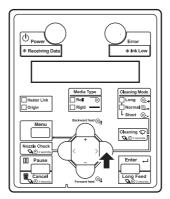


• "Menu 1: Sleep Mode>" is displayed on the operation panel.

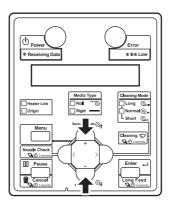
3. Use the [+] or [-] key on Operation panel to select "Menu 6: Head Mainte.".



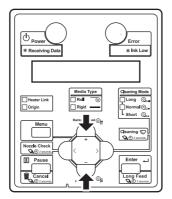
4. Press the [>] key on Operation panel.



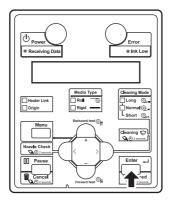
- "Mnt.1: Long Storage" is displayed on Operation panel.
- 5. Use the [+] or [-] key on Operation panel to select "Mnt.3: Ink Replace".



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



- "Ink Replace: Start" is displayed on Operation panel.
- 7. Press the [Enter] key on Operation panel.



- "Ink Replace" is displayed on Operation panel.
- Once the operation is complete, the printer goes back to the normal condition.
- Proceed to set Sleep mode.

6.3.2 Recovery procedure for the printer after long storage

The printer after long storage has the cleaning liquid inside before Sleep mode started or the printer was turned OFF. Therefore, the recovery operation is required before printing.

- When you have had the printer OFF for a long time:
 You need to perform the initial ink filling as a recovery operation.
 6.3.2.1 Recovery procedure for the printer after long storage (when the printer was turned OFF)
- When you did not use the printer for more than one week in Sleep mode when using 5-color set: Replace the cleaning ink in some of the ink tubes with ink as a recovery operation.

 136.3.2.2 Recovery procedure for the printer after long storage (for sleep mode for 5-color set)

6.3.2.1 Recovery procedure for the printer after long storage (when the printer was turned OFF)

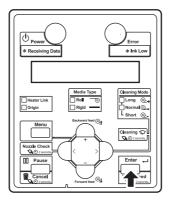
If you have had the printer OFF or had it in Sleep mode for a long time, the cleaning liquid is filled from the "Long storage" menu. Perform initial charge before printing. Because cleaning using the cleaning liquid is not required, the procedure is partially different from "3.4 Initial ink filling".

Follow the procedure below to perform initial ink filling at the time of recovery.

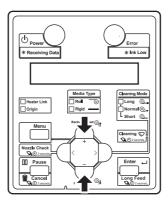
1. Turn the printer ON.

3.2.1 Turning the power ON

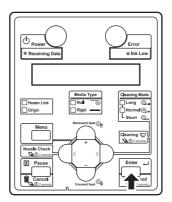
- The printer starts the initial operation.
- After the initial operation is complete, "Start Ink Charge E" is displayed on Operation panel.
- 2. Press the [Enter] key on Operation panel.



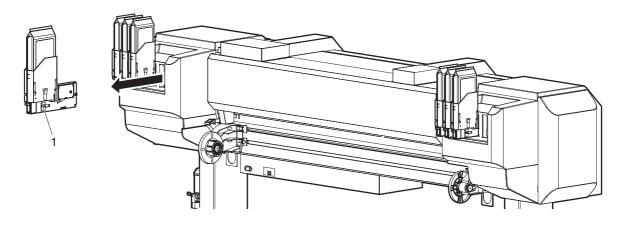
- "Wash Retry? Yes" is displayed on Operation panel.
- 3. Use the [+] or [-] key on Operation panel to select "Wash retry? No".



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

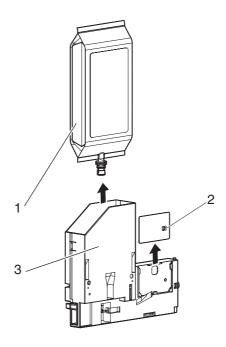


- When Cleaning fluid has been charged, "Remove Cartridges" is displayed on Operation panel.
- 5. Remove all High-capacity ink pack adapters.
 - "Busy-Washing" is displayed on Operation panel and the printer discharges the cleaning liquid.



No.	Name
1	High-capacity adapter

6. Remove Cleaning fluid pack and IC chip card from High-capacity ink pack adapter.



No.	Name
1	Cleaning fluid pack
2	Smart chip card
3	High-capacity adapter

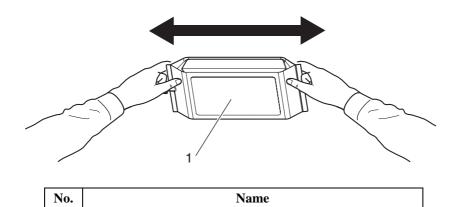
NOTE

• When there is remaining Cleaning fluid pack and IC chip card, clarify the corresponding pack and card, and store it as a set.

7. Hold Ink pack horizontally and shake it 10 times.

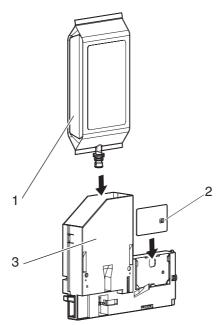


 For the new white ink as well as white ink that has not been used for a month, read "Precautions before using white ink" provided with the white ink packs, and then shake lnk pack. Inappropriate shaking may cause poor print quality or a malfunction.



8. Install Ink pack and IC chip card to High-capacity ink pack adapter.

Ink pack



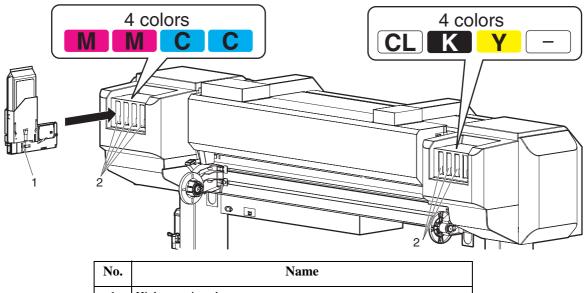
No.	Name
1	Cleaning fluid pack
2	Smart chip card
3	High-capacity adapter

• The number of Ink packs or Cleaning fluid packs to be used differs depending on the number of ink colors you have set.

- (1) When using 4-color set
 - Cyan (C): 2 packs
 - 1 Ink pack
 - Magenta (M): 2 packs
 - Yellow (Y): 1 pack
 - Black (K): 1 pack
 - Cleaning fluid (CL): 1 pack
- (2) When using 5-color set
 - Cyan (C): 1 packs
 - Magenta (M): 1 packs
 - Yellow (Y): 1 pack
 - Black (K): 1 pack
 - White (WH): 1 pack
 - Cleaning fluid (CL): 2 pack
- 9. Install High-capacity pack adapter into the ink cartridge slot on the rear side of the printer.

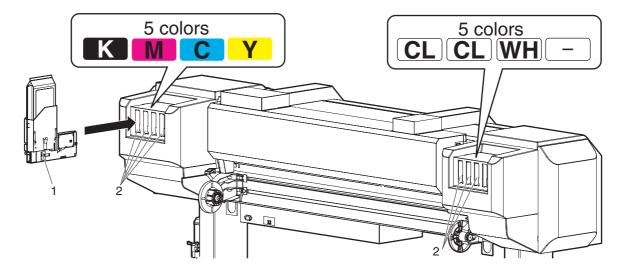
NOTE

- Note that the ink colors and corresponding ink cartridge slots differ depending on the number of ink colors you are using.
- (1) When using 4-color set



No.	Name
1	High-capacity adapter
2	Ink cartridge slot

(2) When using 5-color set



No.	Name
1	High-capacity adapter
2	Ink cartridge slot

- You can check the ink color labels for ink colors and its cartridge slots.
- Insert High-capacity ink pack adapters all the way in Ink cartridge slots.
- When a High-capacity ink pack adapter is installed, "Ink Refill **%" is displayed on Operation panel and ink replenishment starts.
- Initial ink filling takes about 10 minutes.
- Ink filling operation and pause operation are repeated during the initial ink replenishment.
- When 100% is displayed, the initial ink replenishment is complete.
- After the initial ink replenishment is complete, "Media End" is displayed on Operation panel.

A CAUTION

- Comply strictly with the following during ink filling. If filling is interrupted, ink will be lost when filling is resumed.
 - Do not turn OFF the printer.
 - Do not unplug the power cord set of the printer.
 - Do not open Front cover.
 - Do not open Maintenance cover.
 - Do not raise Front media loading lever (or lower Rear media loading lever).

NOTE

- If the printer performs the nozzle check printing immediately after the initial ink filling is complete, the following results may occur.
 - Printed lines become blurred.
 - The data is partially not printed.

In such cases, follow "5.5 Cleaning menu" and refill a small amount of ink, and then check the print result.

If there is no improvement in the print result even after refilling a small amount of ink, leave the printer unused for more than an hour. Then, refill a small amount of ink again and check the print result.

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

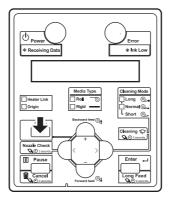
6.3.2.2 Recovery procedure for the printer after long storage (for sleep mode for 5-color set)

When you are using 5-color set and you do not use the printer for more than one week in sleep mode, see the procedure below and perform the recovery operation before printing.

During this maintenance operation, you have to replace the cleaning liquid in some of the ink tubes with ink.

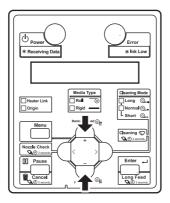


- This operation is not required for 4-color set. This menu is not displayed on Operation panel.
- 1. Press the [Enter] key.
 - The printer returns from the Sleep mode to the Normal condition.
- 2. Press the [Menu] key on Operation panel.

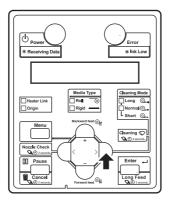


• "Menu 1: Sleep Mode>" is displayed on the operation panel.

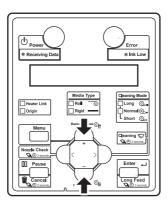
3. Use the [+] or [-] key on Operation panel to select "Menu 6: Head Mainte.".



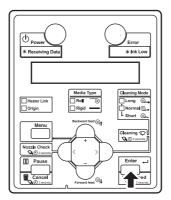
4. Press the [>] key on Operation panel.



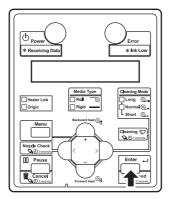
- "Mnt.1: Long Storage" is displayed on Operation panel.
- 5. Use the [+] or [-] key on Operation panel to select "Mnt.4: Wash Replace".



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



- "Wash Replace: Start" is displayed on Operation panel.
- 7. Press the [Enter] key on Operation panel.



- "Wash Replace" is displayed on Operation panel.
- Once the operation is complete, the printer goes back to the normal condition.

6.4 Replacing consumable components

This section describes when and how to replace the ink bags, roll media and flushing-box sponges.

6.4.1 Replacing ink bags

(1) Replacement time

- a. When "[******] InkNearEnd" is displayed on the operation panel
 - This message is displayed when there is a small amount of ink remaining in the ink bag.
 - The alarm buzzer sounds.

 To stop the buzzer, press the [Enter] key on the operation panel.
 - Replace with new ink bags and ink S/C cards.
- b. When "[******] InkEnd" is displayed on the operation panel
 - This message is displayed when there is no ink remaining in the ink bag.
 - Printing operation stops.
 - The alarm buzzer sounds.

 To stop the buzzer, press the [Enter] key on the operation panel.
 - Replace with new ink bags and ink S/C cards immediately.

NOTE

• [******] in the messages for ink cartridge replacement indicates the color that is almost empty or has run out, using the following characters.

When there are same colors next to each other, the ink pack on the left, seen from the rear side of the printer, is displayed with a capital letter.

<When using 5-color set>

- K: Black (Slot K)
- C: Cyan (Slot C)
- M: Magenta (Slot M)
- Y: Yellow (Slot Y)
- W: White (Slot WH)
- CL: Cleaning liquid (Slot CL)
- cl: Cleaning liquid (Slot CL)
- ALL: All ink

<When using 4-color set>

- K: Black (Slot K)
- C: Cyan (Slot C)
- c: Cyan (Slot C)
- M: Magenta (Slot M)
- m: Magenta (Slot M)
- Y: Yellow (Slot Y)
- CL: Cleaning liquid (Slot CL)
- · ALL: All ink
- If "Ink End" is displayed, printing operation is suspended even during printing.
- If "Ink End" is displayed, you cannot print until inserting the new ink bag.
- If there is no ink bag for replacement at hand, leave the empty ink bag inserted in the printer. Leaving the printer with the ink bag removed may cause the print head to clog.

(2) Type

For details about ink bag, contact your local MUTOH dealer.

NOTE

• Use genuine ink bags for replacement.

This printer is designed to use genuine ink bags.

If you use an ink bag that is not a product of the original manufacturer,

- Printing might become blurred, or the end of the ink in the bag might not be detected correctly.
- Any problems caused by using an ink bag other than those recommended above will not be covered by the warranty, and repair expenses will be paid by the customer.

(3) Replacing steps

Follow the procedure below to replace the ink bags.



• When handling ink bags, pay attention so that ink does not get into your eyes or stick to your skin.

If ink gets into your eyes or sticks to your skin, immediately wash it off with water. Failing to do so might cause irritation or light inflammation of eyes. In case of any abnormality, consult a physician immediately.

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

NOTE

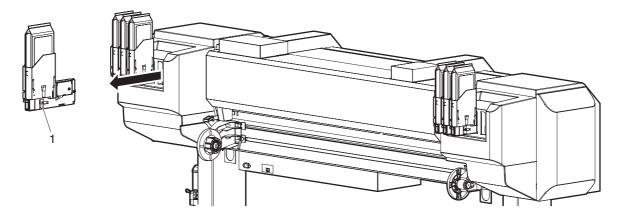
- Do not give ink bags strong shakes.
 Doing so may cause ink leakage.
- Do not disassemble the ink bags.
 A disassembled ink bags cannot be used.
- When an ink bag is moved from a cold place to warm place, keep the ink bag for three hours or more in the new printing environment before printing.
- Do not refill an ink bag with ink. It may result in abnormal printing.

1. Confirm that the printer is turned ON.



- Do not replace ink bags when the printer is turned OFF.

 The remaining ink may not be detected correctly, causing abnormal printing.
- 2. Remove all High-capacity pack adapters you want to replace.



No.	Name
1	High-capacity adapter

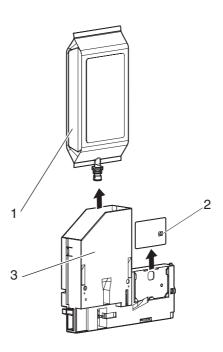
3. Wipe off the ink attached to High-capacity pack adapters.

"POperation manual for High-Capacity Ink pack Adapter "3.2 When High-Capacity Ink Pack Adapter is removed from Printer"

4. Remove Ink packs and S/C cards from Ink pack slots.

NOTE

• Put the used Ink packs in a plastic bag, etc, and dispose of it in compliance with local ordinance and instructions of local authorities.

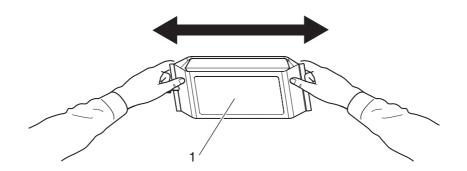


No.	Name
1	Ink pack
2	Smart chip card
3	High-capacity adapter

5. Hold Ink pack horizontally and shake it 10 times.

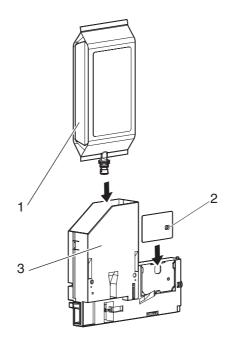


 For the new white ink as well as white ink that has not been used for a month, read "Precautions before using white ink" provided with the white ink packs, and then shake lnk pack. Inappropriate shaking may cause poor print quality or a malfunction.



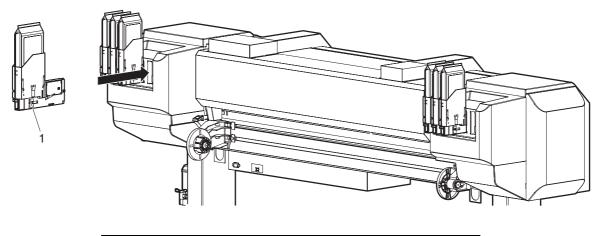
6. Install Ink pack and IC chip card to High-capacity ink pack adapter.

© Operation manual for High-Capacity Ink pack Adapter "3.1 Installing Ink Packs"



No.	Name
1	Ink pack
2	Smart chip card
3	High-capacity adapter

- d. Insert High-capacity pack adapters.
 - Insert High-capacity ink pack adapters all the way in Ink cartridge slots.



N	0.	Name
1	1	High-capacity adapter

7. Confirm that Operation panel is back to the Normal condition.



- If Ink cartridge is replaced during printing, printing resumes.
 - Ink pack replacement is complete.



• If you have replaced High-capacity pack adapters due to breakage or aged deterioration, make sure you perform "initial ink filling" from Cleaning menu of Panel setup menu after installing them.

If the printer is used without the initial ink filling, the air inside High-capacity pack adapter goes into Ink tubes, which may cause clog the nozzles.

5.5 Cleaning menu

6.4.2 Replacing Connector rubber

High-capacity ink pack adapter requires regular replacement of Connector rubber.

When "[******] Change Plug" is displayed on Operation panel, follow the procedure described in "3.3 Replacing Connector rubber" in the operation manual for High-capacity pack adapter and for the operation.

NOTE

• [******] in the message indicates the High-capacity pack adapter to be replaced, using the following characters.

<When using 5-color set>

- K: Black (Slot K)
- C: Cyan (Slot C)
- M: Magenta (Slot M)
- Y: Yellow (Slot Y)
- W: White (Slot WH)
- CL: Cleaning liquid (Slot CL)
- cl: Cleaning liquid (Slot CL)
- ALL: All ink

<When using 4-color set>

- K: Black (Slot K)
- C: Cyan (Slot C1)
- c: Cyan (Slot C2)
- M: Magenta (Slot M1)
- m: Magenta (Slot M2)
- Y: Yellow (Slot Y)
- CL: Cleaning liquid (Slot CL)
- ALL: All ink

6.4.3 Replacing roll media

This sub-section describes when and how to replace roll media.

(1) Replacement time

Replace roll media in the following situations.

- a. When the roll media loaded in the printer runs out
 - "End Of Roll" is displayed on the operation panel.
 - If media runs out during printing, the printer stops printing.
- b. When you want to change the media type to use

(2) Type

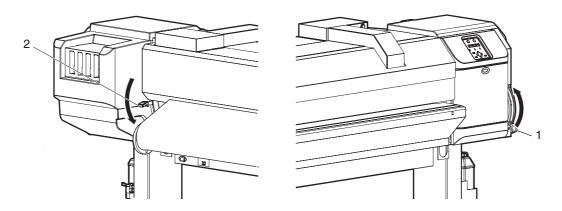


•For types and details of roll media, refer to "8.3 Options/Supply list".

(3) Replacing steps

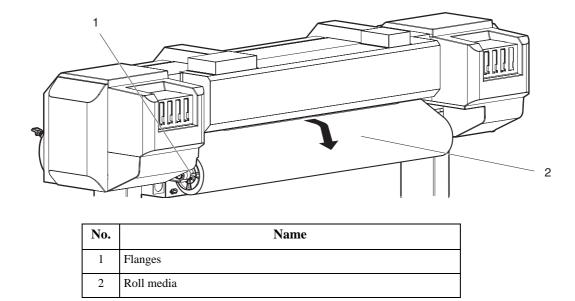
Follow the procedure below to replace roll media.

- 1. If the printer is turned ON, confirm that operation such as printing is not in progress.
- 2. Raise Front media loading lever (lower Rear media loading lever).

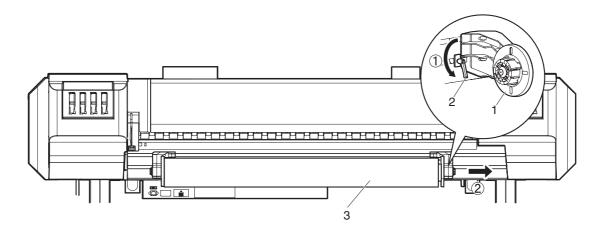


No.	Name
1	Media loading lever
2	Rear media loading lever

3. Turn the flanges of the roll media holders and take up roll media.

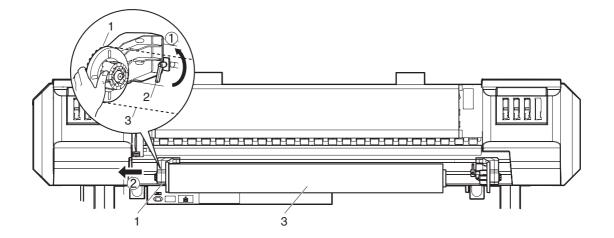


4. Loosen the lever of the right roll media holder and remove the media.



No.	Name
1	Roll media holder (Right)
2	Fixing lever
3	Roll media

5. Take the same procedure as in step 4, remove the roll media from the left roll media holder.



No.	Name
1	Roll media holder (Left)
2	Fixing lever
3	Roll media

6. To load another roll media, refer to the following.



- •For loading roll media, refer to "3.5 Setting media".
- •For storing roll media not in use, refer to "4.2.4 Precaution on storing media".
- Roll media replacement is complete.

6.4.4 Replacing the flushing-box sponges

This section explains how to replace the flushing-box sponges.



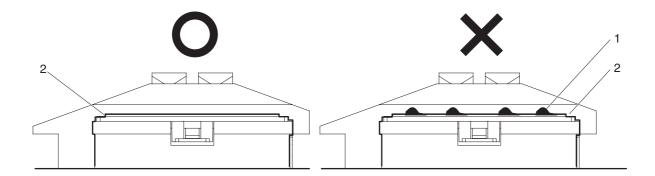
• Make sure to install the flushing-box sponges in the printer.

The flushing-box sponges are an essential part to make printing consistent.

(1) Replacement time

Replace the flushing-box sponges in the following situations.

• When ink clumps have accumulated on the flushing-box sponges beyond the flushing-box frame



No.	Name
1	Ink clump
2	Flushing-box frame

(2) Type



•For types and details of the flushing-box sponge, refer to "8.3 Options/Supply list".

(3) Replacing steps

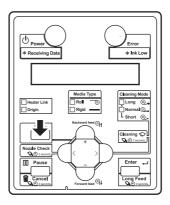
Follow the steps below to replace the flushing-box sponges.



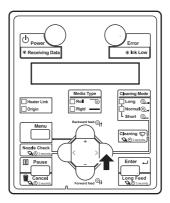
- Ink and waste fluid contain organic solvent.

 Make sure to wear the provided gloves during operation.
- 1. Verify the following regarding the operational condition of the product.
 - Printing or other operations are not in progress.
 - The operation panel display is Normal.

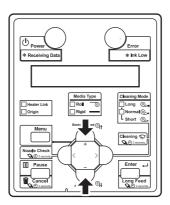
- 2. Display the CR Maintenance menu on the operation panel.
 - a. Press the [Menu] key on the operation panel.



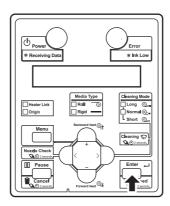
- "Menu 1: Setup>" is displayed on the operation panel.
- The operation panel shifts to the Setup menu display.
- b. Press the [+] or [-] key on Operation panel to select "Menu3: Setup".



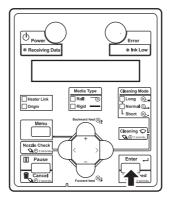
- "Set1: MediaType" is displayed on the operation panel.
- c. Press the [+] key or [-] key to select "Set20: CR Maintenance".



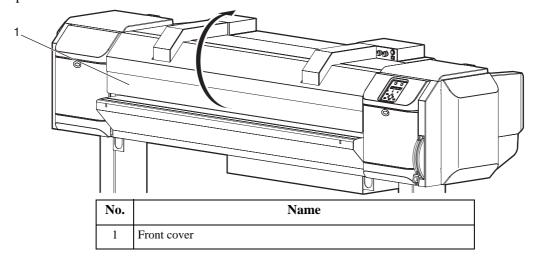
d. Press the [Enter] key on the operation panel.



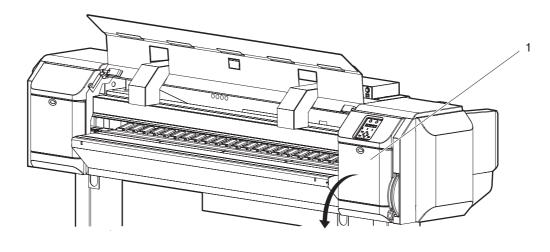
- "CR Mainte.: Start" is displayed on the operation panel.
- The display enters the CR Maintenance menu. \$\sum_{5.3.14}\$ CR Maintenance menu
- 3. Press the [Enter] key on the operation panel.



- Maintenance starts.
- The print head moves to the left.
- "CR Maintenance: End" is displayed on the operation panel.
- 4. Open the front cover.

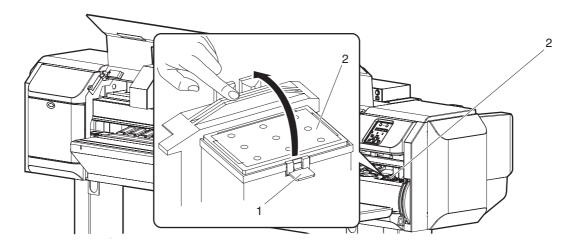


5. Open Maintenance cover on the right side of the printer.



No.	Name
1	Maintenance cover

6. Insert your left hand from the front cover side. While holding the flushing box from above, lift the flushing-box sponge hook and release the hook. Then, remove the flushing-box sponge holder.

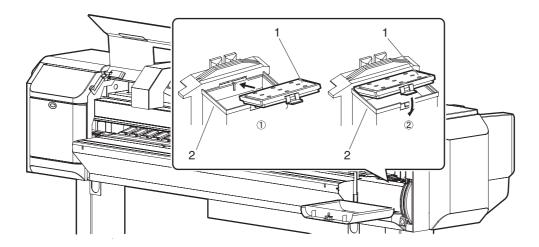


No.	Name
1	Flushing-box sponge hook
2	Flushing-box sponge holder



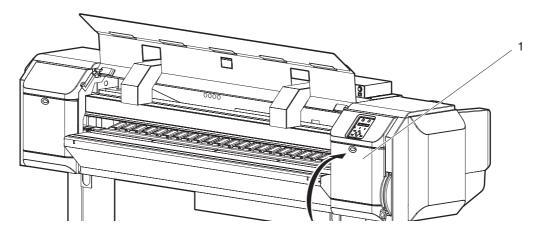
Do not drop waste fluid when replacing the flushing-box sponges.
 If waste fluid comes into contact with the grid roller, the surface of the grid roller will be damaged, and the media feed function may be affected.

7. Install the new flushing-box sponge holders to each flushing box.



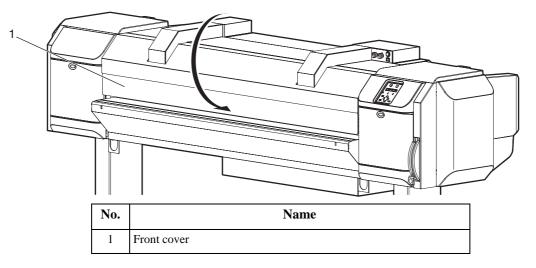
No.	Name
1	Flushing-box sponge holder
2	Flushing boxes

8. Close the maintenance cover.

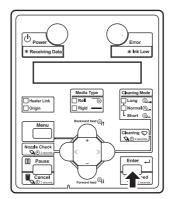


	No.	Name
Ī	1	Maintenance cover

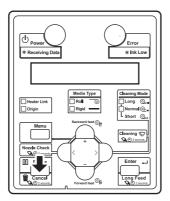
9. Close the front cover.



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



- The print head returns to its original position.
- "CR Mainte.: Start" is displayed on the operation panel.
- 11. Press the [Cancel] key on the operation panel several times.



- The printer enters Normal.
- This completes the replacement procedure of Absorber for Flushing box.

6.5 Cleaning the printer

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



- Do not insert or drop metal or flammable objects into the printer through openings such as a vent.
 - It could lead to an electric shock or fire.
- If 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 or fire.
 - Immediately turn OFF the power switch, disconnect the power plug from the electric socket, and contact your local MUTOH dealer.



- When cleaning the areas other than the print head and wiper, be sure to turn OFF the power and disconnect the power plug.
- Do not use volatile solvents such as thinner, benzene, or alcohol. These solvents could cause damage to the paint.
- Be careful that no moisture enters the printer.

 There is a possibility that the electric circuit inside the printer is short circuited.
- Do not open covers attached using screws under any circumstances. This may cause an electric shock or a malfunction.

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

6.5.1 Cleaning the outer case

This sub-section describes how to clean the outer case.

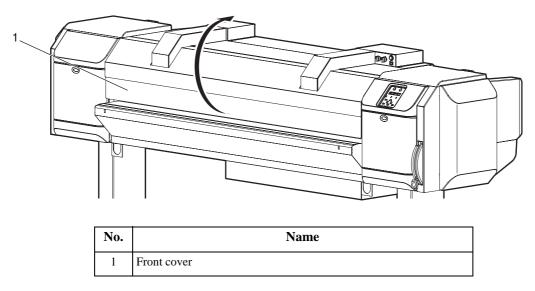
Wipe out dust and dirt attached to the outer case by using a soft cloth.

6.5.2 Cleaning the inside of the printer

This sub-section describes how to clean the inside of the printer.

Follow the procedure below.

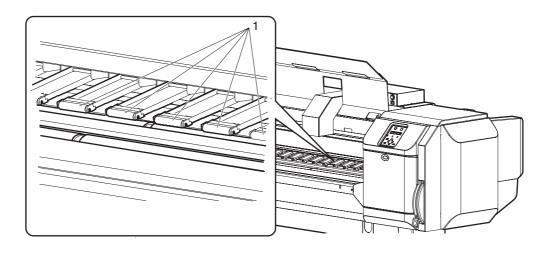
1. Open the front cover.



2. Remove paper powder and dust attached to the pressurizing rollers using a soft brush.

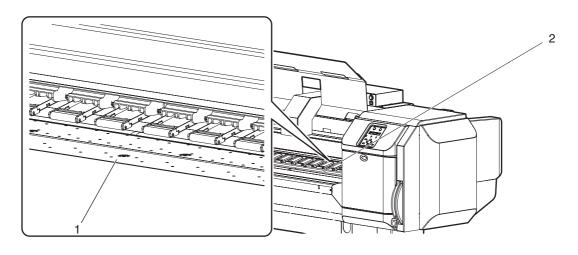


• Do not blow paper powder inside the printer using tools such as an air duster. It may cause an abnormal noise from the inside of the printer.



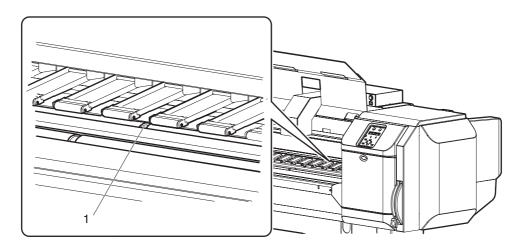
No.	Name
1	Pressurizing rollers

3. Apply a damp and tightly squeezed soft cloth to wipe out paper powder and ink attached to the platen and media guide.



No.	Name
1	Platen
2	Media guide

4. Apply a damp and tightly squeezed soft cloth to wipe off the dirt of the unpainted (silver color) area in the center of the grid roller.



No.	Name
1	Grid roller

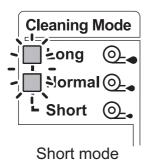
6.5.3 Head cleaning

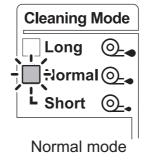
If printed data is blurred or lacks part of it, clean the print head surface and nozzle (Head cleaning). Follow the procedure below to perform Head cleaning.

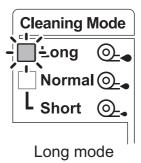


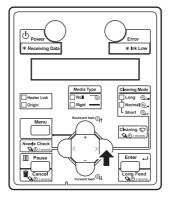
- Remove media when cleaning.

 Cleaning with media loaded may lead to contact between the print head and media.
- 1. Confirm that the operation panel is Normal.
- 2. Make sure that Front media loading lever is lowered (Rear media loading lever is raised).
- 3. Press the [>] key on the operation panel to select the cleaning mode.

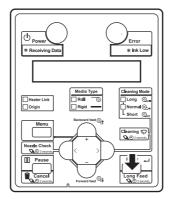








4. Press the [Cleaning] key on the operation panel for at least 2 seconds.



- Start Head cleaning.
- "Cleaning **%" is displayed on the operation panel.
- After Head cleaning is complete, the operation panel shifts to Normal.

NOTE

- If blurs or lacking parts in printed media do not disappear with one time of Head cleaning, perform Long cleaning.
- If blurs or lacking parts in print result do not disappear even after performing head cleaning several times, perform "Little charge" or "Initial ink filling" from Cleaning menu of Panel setup menu.

 13 5.5 Cleaning menu
- If blurs or lacking parts in printed media do not disappear with several times of Head cleaning, refer to 7 Troubleshooting, and take appropriate measures.

6.6 Disposal the waste fluids

The timing and method for the disposal of waste fluid are described below.

(1) Disposal timing

Dispose the waste fluids in the following cases:

- a. When the waste fluid tank is more than half full.
- b. When "Waste Ink Tank Full" is displayed on the operation panel.

(2) Disposal method

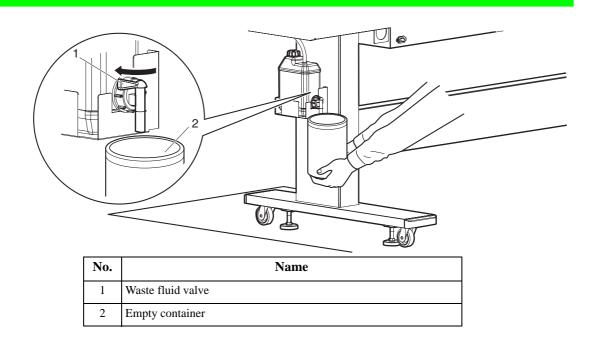
Follow the procedure below to dispose of waste fluid.



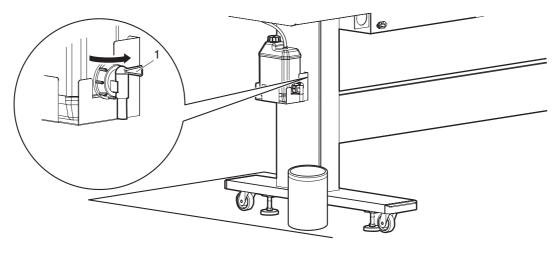
- The waste fluid from the printer is industrial waste.
 Proper waste fluid disposal according to industrial waste disposal laws and ordinances of your local government is required.
 Consign disposal of waste fluids to a specialized processor.
- 1. Ready an empty container such as a supply waste fluid bottle, to contain the waste fluid.
- 2. Lay a protective material on the floor under the waste fluid tank.
- 3. Open the waste fluid valve, and transfer the waste fluid to the container.

NOTE

• When pouring the waste fluid to the empty container, the waste fluid may splash, therefore put the container close to the waste fluid valve.



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



No.	Name
1	Waste fluid valve

- 5. Wipe the opening of the waste fluid valve with a cloth, etc.
- 6. Dispose of the waste fluid as an industrial waste product.
 - Disposal of waste fluids is completed.

6.7 Moving or transporting the printer

This section describes how to move or tranport the printer.

6.7.1 Moving the printer

This sub-section describes how to move the printer.



- Move the printer maintaining a horizontal position.
- Do not slant the printer, prop it against a wall or turn it 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) Preparation before moving

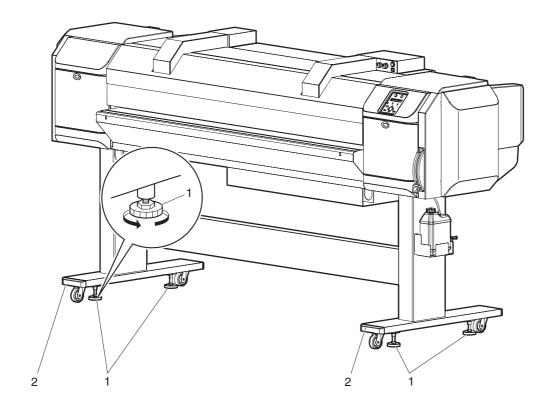
Follow the procedure below to move the printer.

- 1. Performs head cleaning using the cleaning liquid. \(\subseteq 3.2.2\) Turning the power OFF
- Confirm that the printer is OFF.
 \$\sum_{3.2.2}\$ Turning the power OFF
- 3. Dispose of waste fluid.
 - 16.6 Disposal the waste fluids
- 4. When Media-feed table (optional) is installed, remove it from the printer. \$\sum_3.5.3\$ Removing Media-feed table (optional)
- 5. Remove all the cables, such as the power cable.
- 6. Loosen the four adjusters of the stand as shown in the next illustration.

7. Move the printer.



• The casters supplied with the dedicated stand are manufactured for little movement in flat indoor areas, not for transporting equipment.



No.	Name
1	Adjusters
2	Stands

(2) Reinstalling

After moving the printer, follow the procedure below to set it ready for use.

1. Select a suitable place for installation.

Installation manual

- 2. Move and install the printer to the location.
- 3. Attach cables, such as the power cable.

13.1 Power cable connection

13.7 Adjust print

4. Perform the intial ink charge.

Steps 7 and after of 6.3.2.1 Recovery procedure for the printer after long storage (when the printer was turned OFF)

5. Perform Nozzle check, and then confirm that there is no clogging in the print head.

3.6.1 Nozzle check

6. Perform Alignment.

3.7 Adjust print

6.7.2 Transporting the printer

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



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

7 Troubleshooting

This chapter describes possible troubles during the use of this product and countermeasures.

If the error in any items of this section occurs, contact your local MUTOH dealer.



• If you want to receive product warranty, prepare the warranty certificate.

If the warranty certificate is not presented, the repair will not be covered by the warranty even if within the warranty period.

If you have signed a maintenance service contract, prepare that or a similar document.

7.1 Malfunctions and failures

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

7.1.1 Problems in installation and introduction

(1) Cannot perform the initial ink charge

No.	Possible cause	Remedy	Reference
1	Is Front cover open, or Front media loading lever raised (Rear media loading lever lowered)?	Close Front cover, and lower Front media loading lever (raise Rear media loading lever).	第3.5 Setting media
2	Is the maintenance cover open?	Close the maintenance cover.	ter 6.2.1 Cleaning the cleaning wiper unit ter 6.2.2 Cleaning around the print head
3	Are S/C cards and Ink packs inserted all the way into High-capacity pack adapters?	Fully insert all S/C cards and ink bags.	Operation manual for High- Capacity Ink Pack Adapter "3.1 Installing High- Capacity Ink Pack Adapter"
4	Are High-capacity pack adapters inserted all the way into the printer?	Make sure High-capacity pack adapters are all inserted properly.	12 6.4.1 Replaci
5	Is the waste fluid sensor cable inserted?	Fully insert the waste fluid sensor cable to the waste fluid sensor connector.	Installation manual

(2) Ink does not come out after ink replenishment

No.	Possible cause	Remedy	Reference
1	Is the ink bag cold and frozen?	Leave the ink bag at room temperature for at least 3 hours, and perform cleaning several times.	译 6.5.3 Head cleaning
2	Is the power turned OFF during ink replenishment?	Turn the power ON again and continue ink replenishment.	13.4 Initial ink filling
3	Occasionally, normal printing cannot be performed after ink replenishment.	Perform little charge.	13 5.5 Cleaning menu

7.1.2 Cannot print at all

(1) Does not work at all after power activation

No.	Possible cause	Remedy	Reference
1	Is the power cable connected to the plug?	Connect the power cable.	Cable connection
2	Does the AC power supply provide the specified voltage?	Connect the cable to another outlet.	Cable connection
3	Is the front cover open or media loading lever raised?	Close the front cover. Lower the media loading lever.	13.5 Setting media
4	Is the maintenance cover open?	Close the maintenance cover.	2.2 Names of parts and functions

(2) Does not work after loading the media

No.	Possible cause	Remedy	Reference
1	Is Front cover open, or Front media loading lever raised (Rear media loading lever lowered)?	Close Front cover, and lower Front media loading lever (raise Rear media loading lever).	第3.5 Setting media
2	Is the maintenance cover open?	Close the maintenance cover.	12 2.2 Names of parts and functions
3	Is the media loaded at an angle?	Load the media straight.	第3.5 Setting media
4	Are S/C cards and Ink packs inserted into High-capacity pack adapters?	Insert S/C cards and Ink packs.	Operation manual for High- Capacity Ink Pack Adapter "3.1 Installing High- Capacity Ink Pack Adapter"
5	Are High-capacity pack adapters inserted into the printer?	Insert High-capacity pack adapters.	L'E
6	Are you using the recommended media?	Use the recommended media.	LF 4.2.1 Loadab le media
7	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.	IF Installation manual

(3) When data is sent from the computer, an error occurs at the printer and nothing is printed

No.	Possible cause	Remedy	Reference
1	Is the type of printer selected correctly at the computer?	Check that the printer type settings on the computer side and printer side are the same.	13.8 Connecting the printer to
2	Are the interface requirements and command mode the same on the computer side and printer side?		PC

(4) Cannot use the computer online using LAN

No.	Possible cause	Remedy	Reference
1	Is the network interface cable connected correctly?	Confirm the types of the cross and straight cables, and connect the network interface cable correctly.	13.8.3 Connecting a network interface cable
2	Are the network settings configured correctly?	Configure the network settings correctly.	the IP address to 3.8.6 Gateway setting
3	Match the printer's network settings with the computer side environment.	Match this product's network settings with the computer side environment.	第3.8.1 System requirements
4	Does the Power lamp on the operation panel turn on after sending printing data from the computer?	If the Power lamp does not turn on, contact the computer manufacturer.	_

7.1.3 Media-related troubleshooting

(1) The media slips or is torn during initialization



• If the media is jammed or torn, remove it according to "7.3 The media is jammed".

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	上記4.2.1 Loadab le media
2	Is the loading position of the media correct?	Set the media correctly.	3.5.5 Setting roll media
3	Is the roll media set correctly?	Set the roll media correctly.	☐ 3.5.4 Loadin g roll media
4	Are there any foreign materials such as paper attached to the pressurizing roller?	Clean the pressurizing roller.	6.5.2 Cleanin g the inside of 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	Are you using folded, torn or rolled media?	Replace the media.	至4.2.3 Caution s on handling media
7	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	LF 4.2.1 Loadab le media LF 5.2.2.4 Vacu um Fan menu
8	Is the media thickness value correct?	Re-set so that media thickness detection will be conducted, and then re-set the media.	15.2.2.7 Medi a Initial menu

(2) The media is crumpled during initialization



• If the media is jammed or torn, remove it according to "7.3 The media is jammed".

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	上記4.2.1 Loadab le media
2	Is the loading position of the media correct?	Set the media correctly.	₹3.5.5 Setting roll media
3	Is the media loaded at an angle?	Set the media straight.	13.5.5 Setting roll media
4	Are there any foreign materials such as paper attached to the pressurizing roller?	Clean the pressurizing roller.	6.5.2 Cleanin g the inside of the printer
5	Is the 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	Are you using folded, torn or rolled media?	Replace the media.	4.2.3 Caution s on handling media
7	Is the heater temperature setting appropriate?	Set it to the appropriate temperature.	LF 4.5 Using Blower heater

(3) The wrong media size is set during initialization

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	
2	Is the media loaded at an angle?	Set the media straight.	で 3.5.5 Setting roll media
3	When the media is set, does it curl upward?	Straighten the media or set a new media.	了3.5.5 Setting roll media
4	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.	译3.5.4 Loadin g roll media
5	Are you using media that has been printed on already?	Use a new media.	13 4.2.1 Loadab le media
6	Is the media thickness value correct?	Re-set so that media thickness detection will be conducted, and then re-set the media.	了5.2.2.7 Medi a Initial menu

(4) Media jams frequently occur



• If media other than the recommended one is used, correct media feeding cannot be assured.

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	13 4.2.1 Loadab le media
2	Is the media used in an environment other than the one specified?	Use the media in a dedicated environment.	4.2.3 Caution s on handling media
3	Are you using the old media?	Replace it with new media.	126.4.3 Replaci
4	Are you using the folded or wrinkled media?		ng roll media
5	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	LF 4.2.1 Loadab le media LF 5.2.2.4 Vacu um Fan menu

(5) The media veers during printing

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	13 4.2.1 Loadab le media
2	Is the loading position of the media correct?	Set the media correctly.	了3.5.5 Setting roll media
3	Is the roll media set correctly?	Set the roll media correctly.	☐ 3.5.4 Loadin g roll media

7.1.4 Printing-related troubleshooting

(1) Printing is partially stained or incomplete



• Proper print quality may not be obtained with the media other than the recommended one.

No.	Possible cause	Remedy	Reference
1	Does the media include moisture?	Replace it with new media.	12 6.4.3 Replaci
2	Are you using the folded or wrinkled media?		ng roll media
3	Does the media bend?	Use the recommended media. When using media other than the dedicated one, set the Vacuum Fan menu.	LF 4.2.1 Loadab le media LF 5.2.2.4 Vacu um Fan menu

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

No.	Possible cause	Remedy	Reference
1	Is the loading position of the media correct?	Set the media correctly.	了3.5.5 Setting roll media
2	Did you set up the origin and print position?	Cancel or reset the settings of the origin and print position.	F 5 Panel setup menu

(3) Printing is blurred

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	13 4.2.1 Loadab le media
2	Are you using the thick or thin media?	Use the recommended media.	13 4.2.1 Loadab le media
3	Is the media printed on the printing surface?	Confirm the printing surface of the media and set it correctly.	で3.5 Setting media
4	Did you perform Alignment?	Perform Alignment.	增3.7 Adjust print
5	Did you perform Media feed compensation?	Perform Media feed compensation.	13 4.2.7 Media feed compensation
6	Is the heater temperature setting appropriate?	Set it to the appropriate temperature.	13 4.5.4 Adjusti ng Heater output and air volume

(4) White or black lines appear on printed media

No.	Possible cause	Remedy	Reference
1	Are you using the recommended media?	Use the recommended media.	12 4.2.1 Loadab le media
2	Is the roll media set correctly?	Set the roll media correctly.	3.5.4 Loadin g roll media
3	Is the nozzle in good condition?	Perform Head cleaning.	13 6.5.3 Head cleaning
4	Did you perform Alignment?	Perform Alignment.	第3.7 Adjust print
5	Did you perform Media feed compensation?	Perform Media feed compensation.	12 4.2.7 Media feed compensation
6	Is the heater temperature setting appropriate?	Set it to the appropriate temperature.	13 4.5.4 Adjusti ng Heater output and air volume

(5) Printing lines are not straight

No.	Possible cause	Remedy	Reference
1	Is the ink bag within the validity period?	Use a new ink bag.	126.4.1 Replacing ink bags
2	Are you using the recommended media?	Use the recommended media.	13 4.2.1 Loadab le media
3	Did you perform Alignment?	Perform Alignment.	23.7 Adjust print
4	Did you perform Media feed compensation?	Perform Media feed compensation.	4.2.7 Media feed compensation

(6) Printing lines are duplicated or patchy

No.	Possible cause	Remedy	Reference
1	Is the nozzle in good condition?	Perform Head cleaning.	足 6.5.3 Head cleaning

7.2 Error messages

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

7.2.1 Status messages

This section describes messages displayed during printer normal operation.

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

No.	Display	Description	Reference
1	Ready to Print	Standby (Media is loaded).	_
2	Media End	Standby (Media is not loaded).	第3.5 Setting media
3	Receiving Data	Receiving data.	_
4	Analyzing Data	Analyzing data.	_
5	Printing Data	Under printing.	_
6	Remain:XXX.Xm	Displays the length of the data that has not been printed in meters for the data currently being printed.	LT 4.4.7 Normal Display while Printing
7	Remain Time: Xmin	Displays the time remaining to print in minutes for the data currently being printed.	LF 4.4.7 Normal Display while Printing
8	Warming Up	Warming up Blower heater.	_
9	Skip -> Enter	You can print while warming up Heater. Press the [Enter] key to print.	_
10	Cleaning **%	Cleaning the head. Please wait a while.	15 6.5.3 Head cleaning
11	During Washing	 Initial filling, ejecting filler fluid. Washing the print head by cleaning fluid. Please wait a while. 	IP 3.4 Initial ink filling IP 6.3 Long storage
12	Moving Origin Pos.	The print head is moving to the original printing position in the Origin setup menu. Please wait a while.	下5.3.5 Origin menu
13	** Initializing **	Initializing the setting in the Initialization menu. Please wait a while.	5.3.18 Initiali zation menu
14	H Cooling mm:ss tt	If Print head is still hot when you turn OFF the printer, Print head is cooled down to avoid the nozzle clogging. After cooling down the head, "CR Mainte.: Start" is displayed on Operation panel.	T3.2.2 Turning the power OFF

No.	Display	Description	Reference
15	** Press 2sec. **	The [Cleaning] key or the [Nozzle Check] key is pressed for less than 2 seconds. Press the key for more than 2 seconds again.	CF 2.2.3 Operation panell
16	[******] S/C Reading	Reading the S/C card.	_
17	Ink Circulation	Ink is circulating inside the printer.	_
18	Shake W Cartridge	Remove High-capacity pack adapter for the white ink from the printer and shake it.	136.1 Shaking ink packs
19	Shake KCMY Cartridge	Remove High-capacity pack adapters for the KCMY ink from the printer and shake them.	136.1 Shaking ink packs
20	Shake All Cartridge	Remove all High-capacity pack adapters from the printer and shake them.	126.1 Shaking ink packs
21	Start Ink Charge ->E	Ink filling starts. Please wait a while.	了3.4 Initial ink filling 足子5.7 Head maintenance
22	Ink Comb.: *Color	Select the ink type you want to use from 4-color set or 5-color set.	13.4 Initial ink filling
23	Wash retry? Yes	Performs cleaning using the cleaning liquid. Press the [Enter] key.	第3.4 Initial ink filling 至5.7.1 Longst ore menu
24	Insert CleaningCart.	Washing Print head. Install S/C cards for the cleaning fluid and cleaning cartridges.	で 5.7.1 Longst ore menu
25	Remove Cartridges	Washing the head. Remove the cleaning fluid S/C cards and cleaning fluid packs.	5.7.1 Longst ore menu
26	Wash retry? No	Head washing is complete. Press the [Enter] key.	13.4 Initial ink filling 13.5.7.1 Longst ore menu
27	Insert InkCartridges	Filling the ink. Install the ink S/C cards and ink packs.	Operation manual for High- Capacity Ink Pack Adapter "3.1 Installing High- Capacity Ink Pack Adapter"
28	Ink Refill **%	Filling the ink. Please wait a while.	Operation manual for High- Capacity Ink Pack Adapter "3.1 Installing High- Capacity Ink Pack Adapter"

No.	Display	Description	Reference
29	Lever Up	Front Media set lever is up or Rear Media set lever is down. Set the media.	T 3.5.2 Loadin g rigid media T 3.5.5 Setting roll media
30	Media: Type ** OK?	Initializing the media. Please wait a while. (** represents the setup media type.)	T 3.5.2 Loadin g rigid media T 3.5.5 Setting roll media
31	Change: *.* ->	The head height setting value detected for the media's thickness is displayed.	
32	Thick. + Adj: *.* + O.O	The setting value (*.*) and the input adjustment value (O.O) are each displayed.	
33	Media Initial	Detecting media.	
34	Warning!*.* mm	Media thickness detection is set to Off. Check whether the thickness of the media loaded is as displayed; if it is wrong, enter the correct value.	media type La 3.5.7.2 When the media thickness detection is OFF
35	Misuse Damage Unit>	Warns that the wrong setting for the media thickness may damage Print head. • To proceed, press the [>] key on Operation panel for a while.	media type LF 3.5.7.2 When the media thickness detection is OFF
36	<e>Skip, <can> Detect</can></e>	Press the [Enter] key to skip the media thickness detection. Press the [Cancel] key to detect the media thickness.	media type La 3.5.7.2 When the media thickness detection is OFF
37	Cover Open	The front cover is open.	第3.5 Setting
38	Mainte.CoverL Open	The left maintenance cover is open.	media 18 6.2.1 Cleanin
39	Mainte.CoverR Open	The right maintenance cover is open.	g the cleaning wiper unit LF 6.2.2 Cleanin g around the print head
40	Start Sleep Mode?	Waiting to activate Sleep Mode. Press the [Enter] key to activate Sleep Mode.	135.1 Sleep mode menu

No.	Display	Description	Reference
41	CR Mainte.: Start	Waiting to activate CR maintenance. To perform daily maintenance, press the [Enter] key. When daily maintenance has already been performed, press the [Cancel] key.	T3.2.2 Turning the power OFF T3.3.1 Set sleep mode on the printer
42	"Wait for a while"	Indicates that the printer's status is being changed. Please wait a while.	_
43	CR Mainte.: End	Perform daily maintenance. After daily maintenance is complete, press the [Enter] key.	the power OFF The 3.3.1 Set sleep mode on the printer
44	Restart -> Enter	During Sleep Mode. Press the [Enter] key to return the printer to Normal operation.	X 3.3.1 Set sleep mode on the printer
45	"Power Off"	Turning OFF the printer. Wait for a while.	13 3.2.2 Turning the power OFF
46	Close right mainte. cover.	Indicates that five minutes have passed during daily maintenance. Close Maintenance cover,	3.2.2 Turning
47	Close left mainte. cover.	stop the operation, and then perform head cleaning.	the power OFF 13.3.1 Set sleep mode on the printer
48	Wash Exe? ***	Displayed only when you are using 4-color set. Select whether or not to wash Wiper and Flushing box with the cleaning liquid. If you select Yes, you can skip the process of using the dropper during daily maintenance.	TF 3.2.2 Turning the power OFF
49	Head Height Initial	Initializing the head height. Please wait a while.	13.5.6 Setting media type
50	Lift the lever.	Lift Media Set Lever.	Spectrophotomet er (SPECTROVUE VM-10)
51	Set color target, then lower the lever	Set a printed color target and lower Media Set Lever.	Spectrophotomet er (SPECTROVUE VM-10)
52	* Measurement Mode *	Printer is in the Measurement Mode to print and measure the color target.	Spectrophotomet er (SPECTROVUE VM-10)

No.	Display	Description	Reference
53	Attaching instrument [ENTER]	Installing Spectrophotometer (SPECTROVUE VM-10). Press [ENTER].	Spectrophotomet er (SPECTROVUE VM-10)
54	Wait for a while	The print head is moving. Wait for a while.	Spectrophotomet er (SPECTROVUE VM-10)
55	Open left mainte. cover.	Open Maintenance Cover on the left side of the printer.	Spectrophotomet er (SPECTROVUE VM-10)
56	Open mainte. cover, then check white plate.	White calibration failed. Open Maintenance Cover on the left side of the printer to check if White Reference Plate is installed correctly.	Spectrophotomet er (SPECTROVUE VM-10)
57	Remove connector cap and attach instrument. [ENTER]	Remove Connector Cap from the print head and install Spectrophotometer (SPECTROVUE VM-10).	Spectrophotomet er (SPECTROVUE VM-10)
58	Set white plate then close left maintenance cover.	Install White Reference Plate and close Maintenance Cover on the left side of the printer.	Spectrophotomet er (SPECTROVUE VM-10)
59	Ink Drying	Drying ink. Wait till this display is ended.	Spectrophotomet er (SPECTROVUE VM-10)
60	Start measurement [ENTER]	Start measuring the color target. Press [ENTER].	Spectrophotomet er (SPECTROVUE VM-10)
61	Measuring	Measuring the color target.	Spectrophotomet er (SPECTROVUE VM-10)

No.	Display	Description	Reference
62	Detaching instrument [ENTER]	Measurement completed. Press [ENTER].	Spectrophotomet er (SPECTROVUE VM-10)
63	Open left mainte. cover.	Open Maintenance Cover on the left side of the printer.	Spectrophotomet er (SPECTROVUE VM-10)
64	Detach instrument and set connector cap. [ENTER]	Remove Spectrophotometer (SPECTROVUE VM-10) and install Connector Cap.	Spectrophotomet er (SPECTROVUE VM-10)
65	Remove white plate then close left maintenance cover.	Turn over White Reference Plate to install and close Maintenance Cover.	Spectrophotomet er (SPECTROVUE VM-10)
66	Retry attaching instrument. [ENTER]	Spectrophotometer (SPECTROVUE VM-10) is not installed correctly. Install it again.	Spectrophotomet er (SPECTROVUE VM-10)



[•]The value of the Authorization Code may be displayed for the display of the option function.

[•] For details, contact your local MUTOH dealer.

7.2.2 Error message display and remedies

This section describes error messages and remedies.

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

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

If the printer stops operating, solve the error so that the printer restarts.

No.	Display	Description	Remedy	Reference	
1	Undefined Media	Failed in identifying the media. (Stops operation)	Reload the media.	第3.5 Setting media	
2	Media Slant	The media was not fed straight. (Stops operation)	Reload the media.	第3.5 Setting media	
3	End Of Roll	The roll media has run out. (Stops operation)	Load a new roll media.	12 6.4.3 Replaci	
4	[******] Ink NearEnd	The remaining amount of ink is low. (Continues operation)	Replace with a new S/C card and Ink pack.	序 6.4.1 Replaci ng ink bags	
5	[******] InkEnd	Ink has run out. (Stops operation)	Replace with a new S/C card and Ink pack.	13 6.4.1 Replaci	
6	[******] NoCartridge	High-capacity pack adapter is not inserted. (Stops operation)	Insert High-capacity pack adapters.	Operation manual for High- Capacity Ink Pack Adapter "3.1 Installing High- Capacity Ink Pack Adapter"	
7	[******] Discharged	Ink is not filled.	Perform initial ink filling.	L'E	
8	Full WasteInkTank	The waste fluid tank is full. (Stops operation)	Dispose of waste fluid.	126.6 Disposal the waste fluids	
9	Life Times [Head]	The operational life of the print head has almost expired. (Continues operation)	Contact your local MUTOH dealer.	r local MUTOH —	
10	Life Times [Pump]	The operational life of the pump motor has almost expired. (Continues operation) Contact your local MUTOH dealer.		_	
11	Life Times [CR Motor]	The life CR motor is almost expired. (Continues operation)	Contact your local MUTOH dealer.	_	
12	Life Times [PF Motor]	The operational life of the PF motor has almost expired. (Continues operation)	Contact your local MUTOH dealer.	_	
13	Life Times [C Motor]	The operational life of Circulation pump motor is almost expired. (Continues operation)	Contact your local MUTOH dealer.	_	

No.	Display	Description	Remedy	Reference	
14	[*] Change Plug	Connector rubber for High- capacity pack adapter is at the end of its life.	Replace Connector rubber of High-capacity pack adapter.	Operation manual for High- Capacity Ink Pack Adapter "3.1 Installing High- Capacity Ink Pack Adapter"	
15	Don't Start Sleep Mode	Sleep Mode cannot be performed because the printer is not normal condition. (Stops operation)	Return the product normally.	Setting menu 5.1.2 Sleep Mode Start menu	
16	Measurement Error (Take Up Roll)	The setting in Take-up Unit Menu is [Type1].	Change the setting to [Off].	13 5.3.3 Take- up unit menu	
17	Measurement Error (Media Detection)	The setting in Media Detection Menu is [Off].	Change the setting to [Height+Width] or [Height+Width].	至5.2.2.7 Medi a Initial menu	
18	Measurement Error (Media Width)	The width of the mounted media does not match the color target to be measured.	Remove the mounted media and set the correct color target.	第3.5 Setting media	
19	Measurement Error (Command)	The parameters sent from RIP software are abnormal.	Check the color calibration of the RIP software and its color profiling setting.	_	
20	Measurement Error (Out Of Media)	Media ran out during printing or measurement of the color target.	Set new media and start printing and measuring the color target again.	Spectrophotomet er (SPECTROVUE VM-10)	
21	Measurement Error (Cover Open)	Cover opened while the color target was being measured.	Make sure to close Front Cover and Maintenance Cover on the left side of the printer.	media LF 6.2.1 Cleanin g the cleaning wiper unit LF 6.2.2 Cleanin g around the print head	
22	Measurement Error (Lever Lifted)	Media Set Lever was lifted while printing or measuring the color target.	Printing or measuring will be cancelled. Start printing and measuring the color target again.	Spectrophotomet er (SPECTROVUE VM-10)	
23	Measurement Error (Communication)	There was a communication error with the computer while printing or measuring the color target.	Check the communication requirements between the printer and computer.	13.8 Connecting the printer to PC	

No.	Display	Description	Remedy	Reference
24	Measurement Error (Instrument)	There was a communication error with Spectrophotometer (SPECTROVUE VM-10) while printing or measuring the color target.	Check the connection between the printer and Spectrophotometer (SPECTROVUE VM-10).	Spectrophotomet er (SPECTROVUE VM-10)
25	Measurement Error (Cancelled)	Printing or measuring of the color target has been cancelled from the operation panel or RIP software. Start printing and measuring and measuring the color target against the color target against the color target against		Spectrophotomet er (SPECTROVUE VM-10)
26	Measurement Error (White Calibration)	White calibration failed.	Open Maintenance Cover on the left side of the printer and reinstall White Reference Plate correctly. If White Reference Plate is dirty, wring dry a soft damp cloth and clean it. Start printing and measuring the color target again. If you still have problems, contact your local MUTOH dealer.	Spectrophotomet er (SPECTROVUE VM-10)
27	[****] S/C ReadErr	Reading S/C Card has been failed.	Insert S/C Card again. If S/C Card still cannot be read, insert new S/C Card.	12 6.4.1 Replaci
28	[****] S/C Col.Err	S/C Cards are inserted in wrong slots.	Insert S/C Cards (and ink bags if necessary) correctly again.	13 6.4.1 Replaci
29	[*] S/C Ink Err	The S/C Card type cannot be used for this printer. Or plural types of S/C Cards are inserted.	Insert specified type of S/C Card without mixing plural S/C Card types.	12 6.4.1 Replaci ng ink bags
30	[*] S/C CodeErr	Inserted S/C Card is not a proper one.	Contact your local MUTOH dealer.	_
31	[*] Broken Chip	S/C Card has been broken.	Insert new S/C Card.	13 6.4.1 Replaci
32	Replace with ink	White ink tube still has the cleaning fluid inside.	Cancel printing, and then replace the cleaning liquid from Head maintenance menu.	F 6.3.2.2 Reco very procedure for the printer after long storage (for sleep mode for 5-color set)

No.	Display	Description	Remedy	Reference
33	Heater Error <e>Print <can>Cancel</can></e>	The Blower heater temperature has not reached the set temperature within the specified time.	 Press the [Enter] key to print. Print result is not guaranteed. Press the [Cancel] key to cancel printing. Turn Blower heater OFF and restart. If this still does not clear the problem, contact your local MUTOH dealer. 	er hearter operation panel
34	Ready to Print/PFErr	PF origin sensor could not detect the origin position for feeding.	You can still print, but print quality is not guaranteed. If this still does not clear the problem, contact your local MUTOH dealer.	

NOTE

- The color inside [******] in the error display represents the ink color with a problem. If the error applies to all ink bags, [ALL] is displayed.
- If the "No Ink" and "No Card" errors occur simultaneously, "No Card" is displayed.

7.2.3 Data error display and solutions

This section describes data error messages and remedies.

A data error appears if there is a failure in data communication between your PC and the printer. 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.		4.3 Menu setups on the operation panel

NOTE

• "***" in the error message is the code no. that indicates what type of error occurred.

7.2.4 Command error display and remedies

This section describes command errors and remedies.

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 error is solved, the printer starts operating again.

No.	Display	Description	Remedy	Reference
1	MH** Error []	An invalid command has been sent from the computer.	your PC and the printer are	4.3 Menu setups on the operation panel



- "***" in the error message is the code no. that indicates what type of error occurred.
- The command code representing the error occurred may be indicated in [].
- For the settings on your PC side, refer to the Operating Manual attached with your PC.

7.2.5 Error requiring restart

This section describes errors requiring restart and remedies.

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

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

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

- 1. The drive power automatically shuts down.
- 2. All lamps on the operation panel blink, and the buzzer rings continuously.
- 3. The error message is displayed on the operation panel.

Pressing any key on the operation panel stops the beeping.

For an error requiring restart, operation will return to normal after removing the cause of the error and restarting the printer.

If the same error continues to be displayed, contact the your local MUTOH dealer.

Be sure to tell us the code no. of the error message when you contact us.

NOTE

When "E153 Err FLBOX Height" is displayed on the operation panel, follow the procedure below to recover the error.

127.4 Recovering the flushing box height error

No.	Display	Description	Remedy	Reference
1	E** Error []	A problem that does not have a remedy has occurred.	1. Remove obstacles such as paper scraps in the drive system.	下7.3 The media is jammed
			2. Confirm that the replaced items are correctly attached.	13 6.4 Replacin g consumable components
			3. Turn OFF the printer power, and turn it ON again after 10 seconds or longer.	

NOTE

- "***" in the error message is the code no. that indicates what type of error occurred.
- The command code representing the error occurred may be indicated in [].
- For the settings on your PC side, refer to the Operating Manual attached with your PC.

7.3 The media is jammed

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

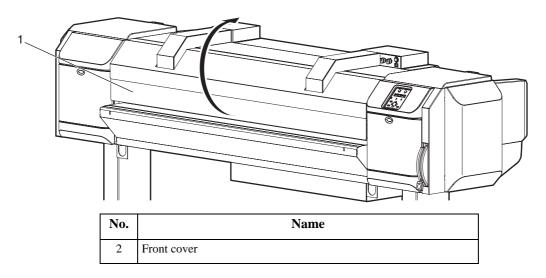
7.3.1 Removing Thick Media

If thick media becomes jammed, contact your local MUTOH dealer.

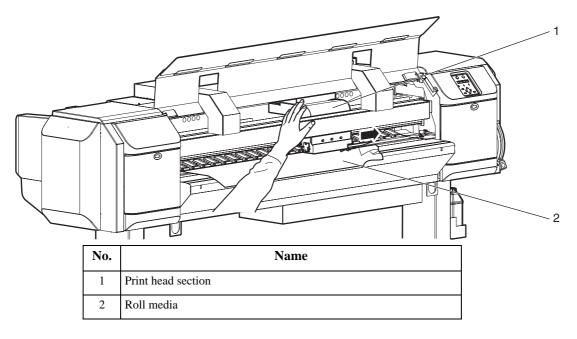
7.3.2 Removing Roll Media

- 1. Turn OFF the power of the printer.

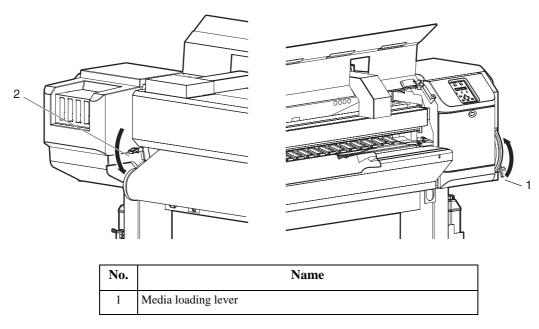
 **S3.2.2 Turning the power OFF
- 2. Open the front cover.



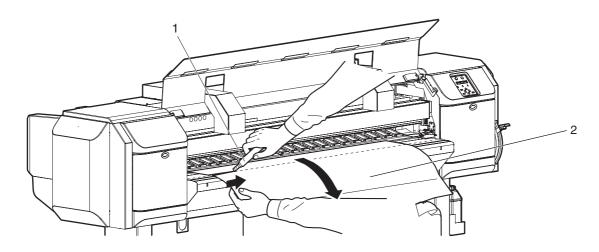
3. Move the print head section from the top of the media to the right.



4. Raise Front media loading lever (lower Rear media loading lever).

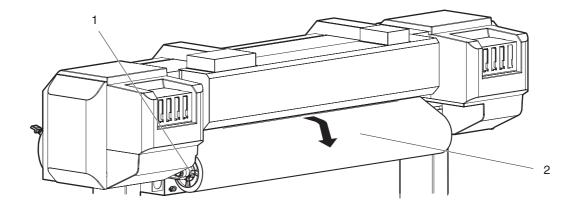


5. Pull the media to your side, and cut the torn part with cutting tools such as a razor blade.



No.	Name
1	Razor blade
2	Roll media

6. Turn the flanges of the roll media holder and take up the roll media.



No.	Name
1	Flanges
2	Roll media

7. If paper dust or pieces of paper remain inside the printer, remove them.

8 Appendix

This chapter describes specifications and optional componets with this printer.

8.1 Product specifications

8.1.1 Printer specifications

I	tem	Specification	
Model name		VJ-1617H	
Printing method		On-demand piezo drive system	
Drive system		Firmware servo/DC motor drive	
Media feed system		Multipoint pressurizing grid roller system	
Media fixing system		Pressurization roller down system by manual lever	
Media feed/ejection		Roll media: Rear feeding/Front ejecting Thick media: Rear feeding/Front ejecting	
Thick media	Weight	15kg or less	
	Maximum length	1200mm	
	Maximum width	1625mm	
	Maximum thickness	15mm (warpage of less than 1 mm)	
	Maximum print width	1615mm	
Roll media	Outer diameter	150mm or less	
	Tube diameter	3 inch	
	Weight	30 kg or less	
	Maximum width	1625mm	
	Maximum thickness	0.3mm	
	Maximum print width	1615mm	
Print margin		<thick media=""> Front: Max 5mm, Rear: Max 40mm, Left: 5mm to 25mm, Right: 5mm to 25mm <roll media=""> Front: Max 15mm, (For continuous print: 5mm), Rear: 5mm (Maximum end edge of media is 40mm), Left: 5mm to 25mm, Right: 5mm to 25mm</roll></thick>	
Media cut system		Horizontal manual cut system	
Head height adjustme	ent	Automatic height adjustment	
СРИ		64-bit RISC CPU	
Memory		384MB	
Command		MH-RTL (RTL-PASS)	
Interface		Ethernet (10BASE-T/100BASE-TX)	
Ink	Supply system	Supplied through tubes from independent color cartridges	
	Ink bag	Black, Cyan, Magenta, Yellow: 950ml +5/ -0ml for each color White: 500ml +5/ -0ml	

It	em	Specification		
Environmental condition	Operating condition	Temperature: 20 °C to 28 °C Humidity: 40% to 60%, No condensation		
	Printing accuracy coverage	Temperature: 22 °C to 28 °C Humidity: 40% to 60%, No condensation		
Change rate Archiving condition (Ink not filled)		Temperature: within 2 °C per one hour Humidity: within 5 % per one hour	r	
		Temperature: -20°C to 60°C Humidity: 20% to 80%, No condensat Storage life: six months	ion	
	Archiving condition (Ink filled)	Temperature: -10°C to 30°C Humidity: 20% to 80%, No condensat Storage life: 30 days (Perform the mai operation manual.)		
Power	Rated voltage	MAIN AC 100V-240V HEATER1 AC100-120V/200-240V HEATER2 AC100-120V/200-240V		
	Range of voltage input	MAIN 100V-240V \pm 10% HEATER1 AC100-120V \pm 10% / 200-240V \pm 10% HEATER2 AC100-120V \pm 10% / 200-240V \pm 10%		
Power consumption	Printing	(AC 100-120 V ± 10%) MAIN: Max. 300W HEATER1: Max. 1000 W HEATER2: Max. 1100 W	(AC 200 -240 V ± 10%) MAIN: Max. 300W HEATER1: Max. 2200 W HEATER2: Max. 0 W	
	At warming up	(AC 100-120 V ± 10%) MAIN: Max. 40W HEATER1: Max. 1200 W HEATER2: Max. 1200 W	(AC 200-240 V ± 10%) MAIN: Max. 40W HEATER1: Max. 2400 W HEATER2: Max. 0 W	
	Standby	MAIN: 40 W or less (When the idle heater1: 25 W or less (When the idle Heater2: 0.4 W or less (When the idle	heat is turned OFF)	
Reference for warming	g up time of the heaters	In the recommended setting (Heater: M, Air volume: 2), environmental temperature of 25°C: 10 minutes Environmental temperature 20°C: 15 minutes		
		1302mm (including the stand) 1416mm (Dedicated stand, High-capacity pack adapter, and Ink pack installed)		
	Width	2698mm		
	Depth	2486mm (including media-feed table) 818mm (main unit only) 931mm (Main body only, High-capaci	ty pack adapter and Ink pack installed)	
Weight		Approx. 200.5kg (including the stand)		

8.2 Interface specification

This section describes each type of interface specifications supported by this product.

8.2.1 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

8.3 Options/Supply list

For more information about the options and the supply items, contact your local MUTOH dealer.

9 Setup menu diagram

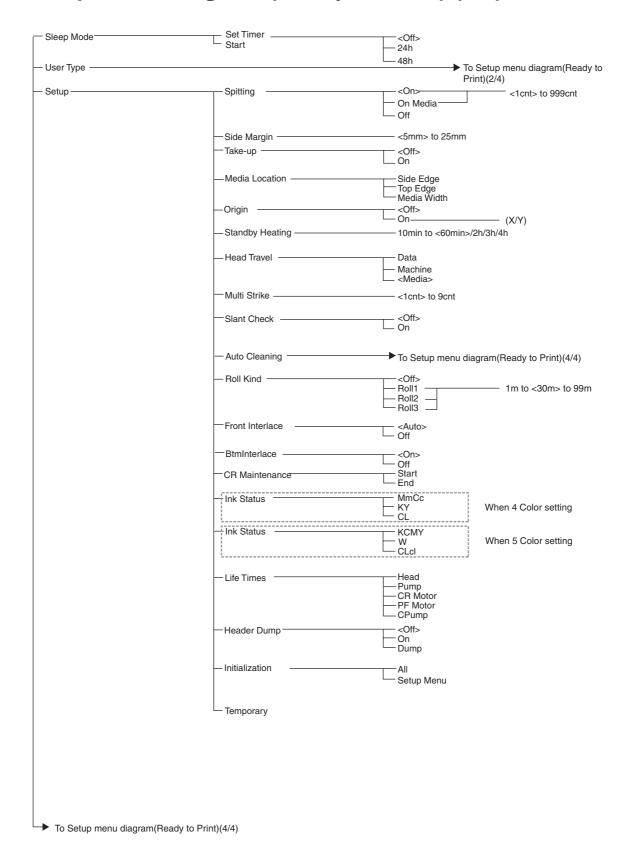
For details of the Setup menu configuration diagram, refer to the followings.

NOTE

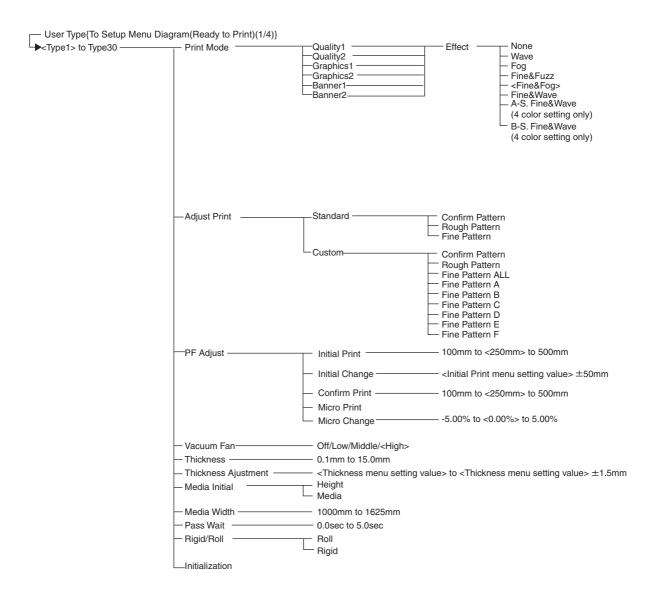
- For details of each setup item, refer to followings:
- Setup menu diagram (Ready to Print):

 15 Panel setup menu"
- Setup menu diagram (Receiving / Converting / Printing): \(\mathbb{E}\) 4.4.4 Changing and confirming settings while printing
- The <> parts in each list are factory default settings (initial values).

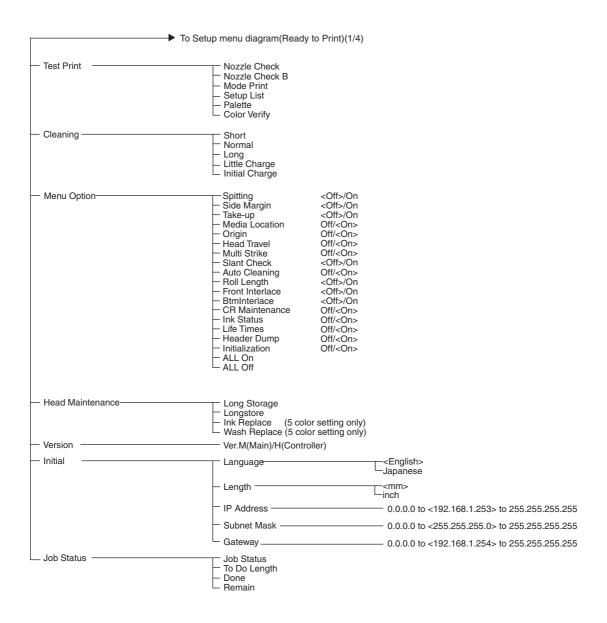
Setup menu diagram (Ready to Print) (1/4)



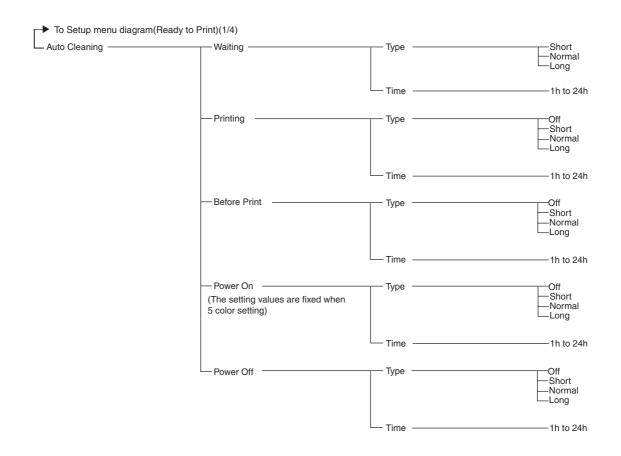
Setup menu diagram (Ready to Print) (2/4)



Setup menu diagram (Ready to Print) (3/4)



Setup menu diagram (Ready to Print) (4/4)



Setup menu diagram (Receiving/Converting/Printing)



Revision History

General Information

Date	Version	Manual code	Supported Firmware
2012.12	00	VJ1617HJ-A-00	V.1.00
2013.5	01	VJ1617HJ-A-01	V.1.04

Changes

Version	Reason	Chapter	Section	Description	Page	Errata
00	-	-	-	-	-	-
01	Change	Chapter 3	3.7.2 "Custom print quality adjustment"	Add adjustment pattern E, F	p.140 - p.155	00a
01	Correction	Chapter 4	4.4.4.1 "Procedure for changing and confirming settings while printing.	Correct "Menu 1: Print Start" to "Menu 1: Sleep Mode>".	p.191	00a
01	Change	Chapter 5	5.2.2.2 "Adjust Print menu"	Add adjustment pattern E, F to "Custom Adjust Print menu"	p.221	00a
01	Correction	Chapter 6	6.3 "Long storege"	Correct "Menu1: User Type" to "Menu 1: Sleep Mode>" is displayed on the operation panel.	p.279 - p.296	00a

MUTOH

MUTOH INDUSTRIES LTD. Tel.:81-(0)3-6758-7020 Fax:81-(0)3-6758-7025 E-mail:ibd@mutoh.co.jp http://www.mutoh.co.jp/en/ index.html

MUTOH AMERICA INC. Tel.:1-480-968-7772 Fax:1-480-968-7990 E-mail:sales@mutoh.com http://www.mutoh.com

MUTOH BELGIUM nv Tel.:32-(0)59-561400 Fax:32-(0)59-807117 E-mail:mutoh@mutoh.be http://www.mutoh.be

MUTOH DEUTSCHLAND GmbH Tel.:49-(0)211-385474-0 Fax:49-(0)211-385474-74 E-mail:vertrieb@mutoh-gmbh.de http://www.mutoh.de

MUTOH North Europe S.A. Tel.:352-445-906 Fax:352-447-093 E-mail:info@segroup.lu http://www.segroup.lu/

MUTOH HONGKONG LTD. Tel.:852-2377-3411 Fax:852-2377-3422 http://www.mutoh.co.jp/en/ index.html

MUTOH SINGAPORE PTE.LTD. Tel.:65-6325-3150 Fax:65-6220-4342 E-mail:sales_inq@mutoh-sg.com E-mail:sales@mutoh-au.com http://www.mutoh.co.jp/en/ index.html

MUTOH AUSTRALIA PTY. LTD. Tel.:61-2-9437-1366 Fax:61-2-9436-2871 http://mutoh-au.com/