

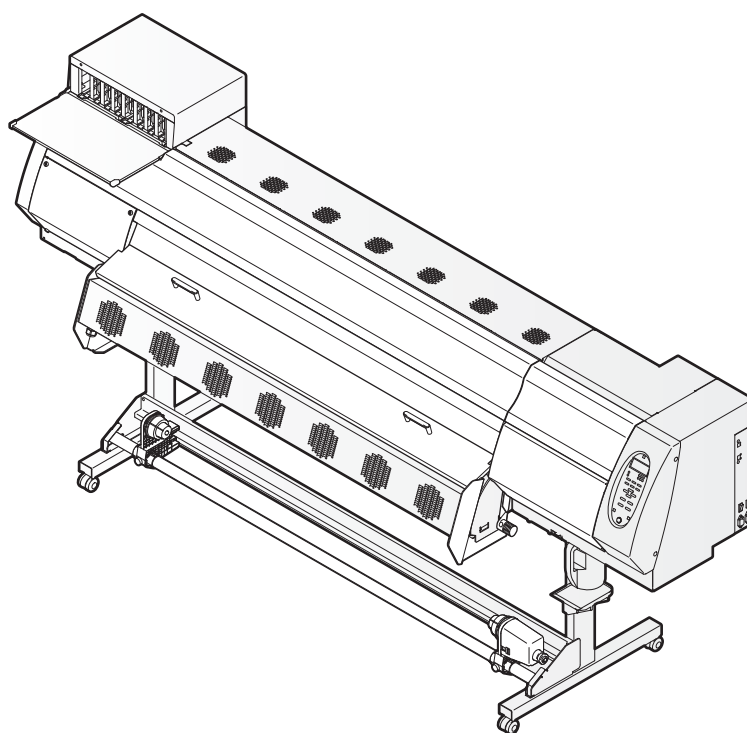
OPERATION MANUAL

COLOR INKJET PRINTER

JV400-*LX* Series

*JV400-130 **LX** / JV400-160 **LX***

OPERATION MANUAL



MIMAKI ENGINEERING CO., LTD.

URL: <http://www.mimaki.co.jp/>

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Original instructions

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DISCLAIMER OF WARRANTY

THIS LIMITED WARRANTY OF MIMAKI SHALL BE THE SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND MIMAKI NEITHER ASSUMES NOR AUTHORIZES DEALER TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY OR MAKE ANY OTHER WARRANTY OR MAKE ANY OTHER WARRANTY IN CONNECTION WITH ANY PRODUCT WITHOUT MIMAKI'S PRIOR WRITTEN CONSENT.

IN NO EVENT SHALL MIMAKI BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR LOSS OF PROFITS OF DEALER OR CUSTOMERS OF ANY PRODUCT.

Requests

- This Operation manual has been carefully prepared for your easy understanding. However, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Description contained in this Operation manual are subject to change without notice for improvement.

FCC Statement (USA)

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 Operation 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.

In the case where MIMAKI-recommended cable is not used for connection of this device, limits provided by FCC rules can be exceeded.

To prevent this, use of MIMAKI-recommended cable is essential for the connection of this printer.

Interference to televisions and radios

The product described in this manual generates high frequency when operating.

The product can interfere with radios and televisions if set up or commissioned under improper conditions.

The product is not guaranteed against any damage to specific-purpose radio and televisions.

The product's interference with your radio or television will be checked by turning on/off the power switch of the product.

In the event that the product is the cause of interference, try to eliminate it by taking one of the following corrective measures or taking some of them in combination.

- Change the orientation of the antenna of the television set or radio to find a position without reception difficulty.
- Separate the television set or radio from this product.
- Plug the power cord of this product into an outlet which is isolated from power circuits connected to the television set or radio.

Foreword

Congratulations on your purchase of MIMAKI color ink jet printer "JV400 Series" .
"JV400 Series" is a color inkjet printer that can print with LX ink realizing high image quality.

About usable ink

Usable ink for this machine is LX100 ink (four-color / six-color / six-color+white model).

- 4-colors version : 2 each of Cyan, Magenta, Yellow and Black color ink cartridge are use.
- 6-colors version : 1 each of Cyan, Magenta, Yellow, Black, Light cyan and Light magenta color ink cartridge (2 each of Yellow and Black only) are use.

6-colors + white version: 1 each of Cyan, Magenta, Yellow, Black, Light cyan and Light magenta, White color ink cartridge, 2 each of White are usable.

On This Operation manual

- This Operation manual is describing the operations and maintenance of "Color inkjet printer JV400 Series" (called as this machine hereafter)
- Read this Operation manual carefully and understand them thoroughly to use.
- It is also necessary to keep this Operation manual on hand.
- This Operation manual has been carefully prepared for your easy understanding, however, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Descriptions contained in this Operation manual are subject to change without any notice for improvement.
- In the case when this Operation manual should be illegible due to destruction or lost by fire or breakage, purchase another copy of the Operation manual from our office.
- You can also download the latest manual from our website.









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Safety Precautions

Symbols

Symbols are used in this Operation Manual for safe operation and for prevention of damage to the machine. The indicated sign is different depending on the content of caution. Symbols and their meanings are given below. Please follow these instructions as you read this manual.

Examples of symbols

Meaning	
	Failure to observe the instructions given with this symbol can result in death or serious injuries to personnel. Be sure to read it carefully and use it properly.
	Failure to observe the instructions given with this symbol can result in injuries to personnel or damage to property.
	Important notes in use of this machine are given with this symbol. Understand the notes thoroughly to operate the machine properly.
	Useful information is given with this symbol. Refer to the information to operate the machine properly.
	Indicates the reference page for related contents.
	The symbol "△" indicates that the instructions must be observed as strictly as the CAUTION instructions (including DANGER and WARNING instructions). A sign representing a precaution (the sign shown at left warns of hazardous voltage) is shown in the triangle.
	The symbol "⊘" indicates that the action shown is prohibited. A sign representing a prohibited action (the sign shown at left prohibits disassembly) is shown in or around the circle.
	The symbol "●" indicates that the action shown must be taken without fail or the instructions must be observed without fail. A sign representing a particular instruction (the sign shown at left instructs to unplug the cable from the wall outlet) is shown in the circle.

Warning for Use



WARNING



- Do not use the machine in a poorly ventilated room or a closed room.
- Take care not to damage, break or work upon the power cable. If a heavy material is placed on the power cable, or if it is heated or pulled, the power cable can break, thus resulting in fire or electric shocks.
- Avoid locating the machine in a damp environment. Do not splash water onto the machine. Use in such an environment can give rise to fire, electric shocks or breakdown of the machine.
- Use of the machine under an abnormal condition where it produces smoke or strange smell can result in fire or electric shocks. If such an abnormality is found, be sure to turn off the power switch immediately and unplug the cable from the wall outlet. Check first that the machine no longer produces smoke, and then contact your distributor or a sales office of MIMAKI for repair.
- Never repair your machine by yourself since it is very dangerous for you to do so.
- Never disassemble or remodel the main unit of the machine or the ink cartridge. Disassembly or remodeling can result in an electric shock or breakdown of the machine.
- Take care that no dust or dirt sticks to platen heaters. Dust and dirt sticking heaters can cause fire.











Hazardous Moving Parts

Keep Fingers and Other Body Parts Away


Precautions in Use




CAUTION


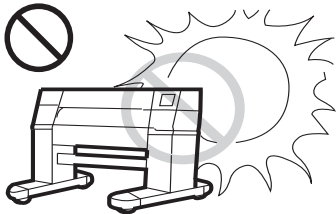


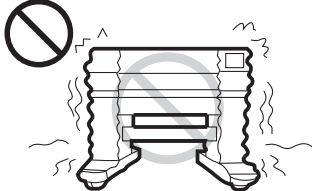
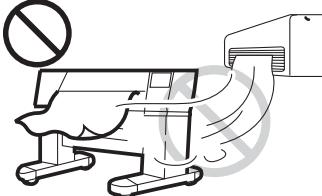
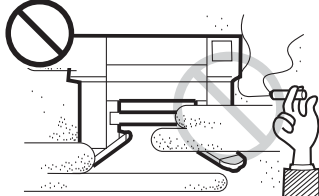
<div> CAUTION</div>	
Power supply	Handling of the power cable
<div></div> <ul style="list-style-type: none">• Leave the breaker turned ON.• Do not turn off the main power switch on the right side of this machine.	<div></div> <ul style="list-style-type: none">• Use a power cable attached to this unit.• Take care not to damage, break or work on the power cable. If a heavy matter is placed on the power cable, heated or drawn, the power cable can break to cause fire or electric shocks.• Connect to a socket-outlet with determinate polarity.
Heater	Handling of ink
<div></div> <ul style="list-style-type: none">• Do not spill liquid on the platen as this may cause failure of the heater or firing.• Do not touch platen heaters with bare hand while it is hot; otherwise, you can get burned.• When the machine is to be moved, wait until the heater temperature drops adequately. As a criterion, wait at least 30 minutes after you turn off the power to the heater. Moving the machine must be limited to on the same floor where there is no steps. When the machine is to be moved to any place other than on the same step-free floor, contact your distributor or a sales office of MIMAKI.	<div></div> <ul style="list-style-type: none">• If you get ink in your eyes, immediately wash your eyes with a lot of clean water for at least 15 minutes. In doing so, also wash eyes to rinse ink away completely. Then, consult a doctor as soon as possible.• If anyone drinks ink by mistake, keep him or her quiet and see a doctor immediately. Do not allow him or her to swallow the vomit. After that, contact the Poison Control Center.• If you inhale a lot of vapor and feel bad, immediately move to a location of fresh air and then keep yourself warm and quiet. Then, consult a doctor as soon as possible.
Note on maintenance	
<div></div> <ul style="list-style-type: none">• When cleaning the ink-station or the heads, make sure to wear the attached gloves.	

CAUTIONS and NOTES

 Warning	
Handling of ink cartridges <ul style="list-style-type: none"> • Use the JV400 genuine ink. Remember that the user shall be filled for a repair to correct any damage resulting from the use of ink other than the exclusive type. • The machine does not operate with any ink other than the JV400 genuine ink. • Do not use the JV400 genuine ink with other printers, as doing so may cause damage to such machines. • Never refill the ink cartridge with ink. Refilled ink cartridge can cause a trouble. Remember that MIMAKI assumes no responsibility for any damage caused by the use of the ink cartridge replenished with ink. • If the ink cartridge is moved from a cold place to a warm place, leave it in the room temperature for three hours or more before using it. • Open the ink cartridge just before installing it in the machine. If it is opened and left for an extended period of time, normal printing performance of the machine may not be ensured. • Make sure to store ink cartridges in a cool and dark place. • Store ink cartridges and waste ink tank in a place that is out of the reach of children. • Be sure to thoroughly consume the ink in the ink cartridge, once it is opened, within three months. If an extended period of time has passed away after opening the cartridge tank, printing quality would be poor. • Neither pound the ink cartridge nor shake it violently, as doing so can cause leakage of ink. • Do not touch or stain the contacts of the ink cartridge, as doing so may cause damage to the print circuit board. • Waste ink is equivalent to waste oil of industrial waste. Request an industrial waste disposal company for disposal of waste ink. 	Front cover and lever <ul style="list-style-type: none"> • Never open the front cover or raise the lever during printing. Opening the cover or raising the lever will abort printing. Handling of media <ul style="list-style-type: none"> • Use media recommended by MIMAKI to ensure reliable, high-quality printing. • Set the heater temperature to meet the characteristics of the media. Set the temperature of the Pre-heater, Print heater and Post-heater according to the type and characteristics of the media used. Automatic temperature setting can be made on the operation panel by setting the profile on the dedicated RIP. For setting on the RIP, refer to the instruction manual for your RIP. • Pay attention to the expansion and contraction of the media. Do not use media immediately after unpacking. The media can be affected by the room temperature and humidity, and thus it may expand and contract. The media have to be left in the atmosphere in which they are to be used for 30 minutes or more after unpacked. • Do not use curled media. The use of curled media can not only cause a media jam but also affect print quality. Straighten the sheet of media, if significantly curled, before using it for printing. If a regular-sized coated sheet of media is rolled and stored, the coated side has to face outside. Protection of media from dust <ul style="list-style-type: none"> • Store media in a bag. Wiping off dust accumulated on media will adversely affect the media due to static electricity. • When leaving the workshop after the working hours, do not leave any media on the roll hanger. If any media is left on the roll hanger, it can get dusty.

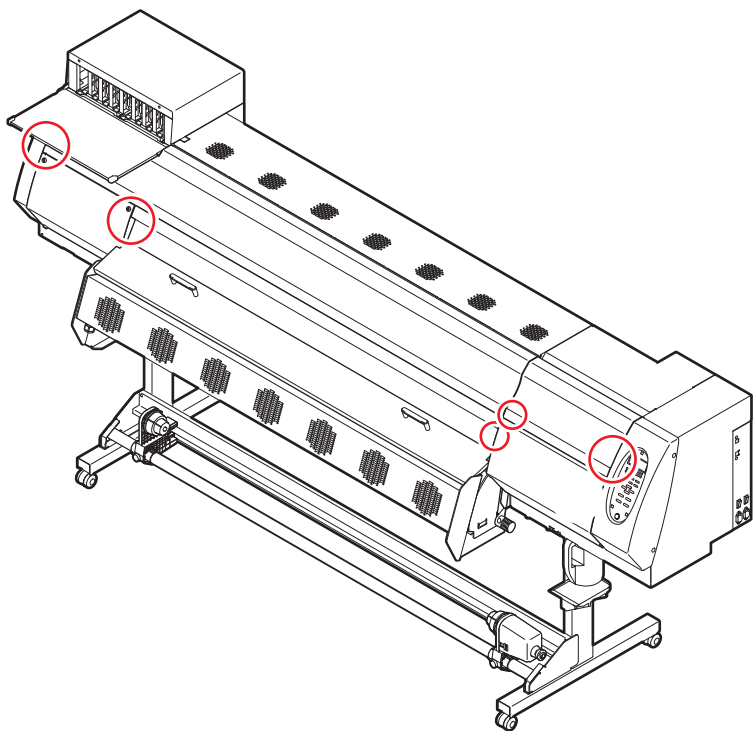
 Warning
Notes on maintenance <ul style="list-style-type: none"> • It is strongly recommended to use the machine in a room that is not dusty. • Keep the front cover closed even when the machine is not printing. If not, dust can accumulate on the nozzles in the heads. • Dust in the heads can also cause drops of ink to fall suddenly down on the media during printing. In such a case, be sure to clean up the heads. (P.4-12 "Cleaning the Ink Head and the Area around It") • When cleaning the ink-station or the heads, make sure to wear the attached gloves. • Perform wiping (removal of dust and paper powder) of the capping station and wiper frequently.
Periodic replacement parts <ul style="list-style-type: none"> • Some parts of this machine must be replaced with a new one periodically by service personnel. Be sure to make a contract with your distributor or dealer for After sale service to ensure a long life of your machine.
Disposition of this machine <ul style="list-style-type: none"> • When discarding this machine, request the treatment of it for an industrial waste disposal contractor. • Treat it properly in compliance with regulation in the local area.

Cautions on Installation

<div> CAUTION</div>		
A place exposed to direct sunlight	On an inclined surface	A place where temperature or humidity varies significantly
		<div><ul style="list-style-type: none">• Use the machine under the following environmental conditions:• Operating environment: 20 to 35 °C (68 to 95 °F) 35 to 65 % (Rh)</div>
A place that vibrates	A place exposed to direct air flow from an air conditioner or the like.	Around a place where fire is used
		

Safety interlock

This machine is equipped with interlocks to terminate the operation for your safety when the cover opens during printing etc. (red circle parts in the figure below).



Chapter 1

Before Use



This chapter

describes the items required to understand before use, such as the name of each part of the machine or the installation procedures.

Moving This Machine	1-2	Connecting Cables	1-10
Where to Install This Machine	1-2	Connecting USB2.0 Interface Cable	1-10
Working Environmental Temperature	1-2	Connecting the power cable	1-11
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Media sensor	1-7		
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Cutter blade and slot for cutting	1-8		
Capping station	1-9		
Pinch rollers and Feed rollers	1-9		

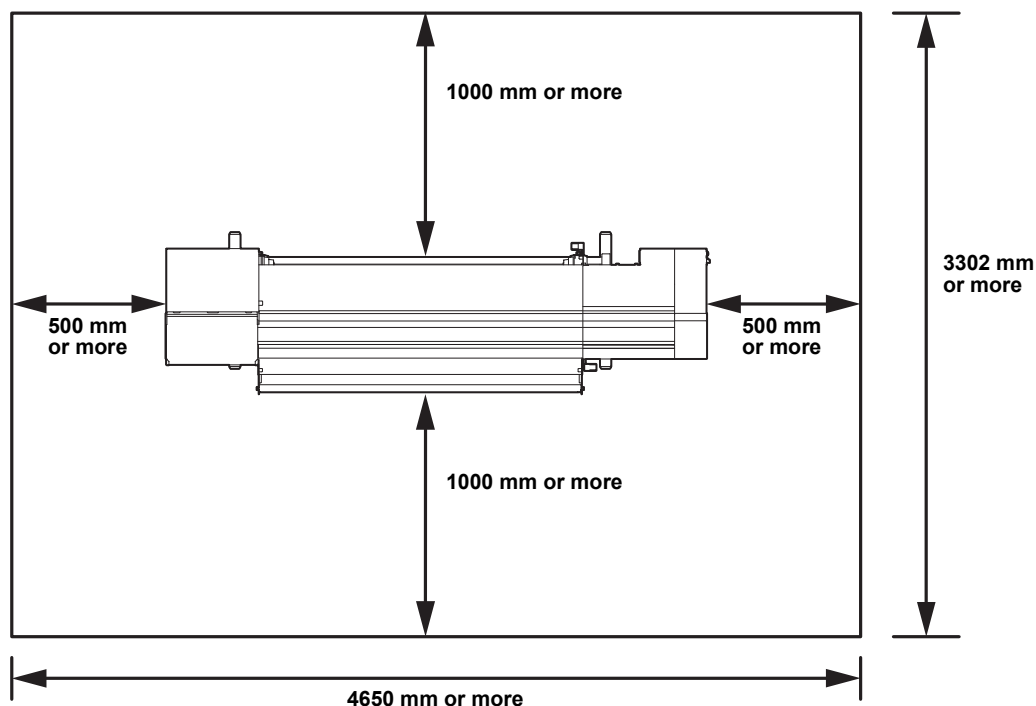
Moving This Machine

Where to Install This Machine

Secure a suitable installation space before assembling this machine.

The place of installation must have enough space for not only this machine itself, but also for the printing operation.

Model	Width	Depth	Height	Gross weight
JV400-130LX	2634mm	854mm	1435mm	216kg
JV400-160LX	2879mm	854mm	1435mm	231kg



Working Environmental Temperature

Use this machine in an environment of 20 to 35°C to ensure reliable printing.

The heater temperature may not reach the set value, depending on the ambient temperature.

Use this machine in an environment of 20 to 35°C to ensure reliable printing.

Moving This Machine

Move this machine according to the following steps when this machine needs to be moved on the same step-free floor.

Important!

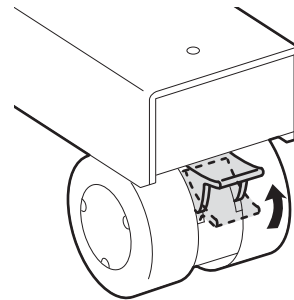
- When the machine is moved to any place other than on the same step-free floor, contact your distributor or our service office.
If you move it by yourself, failure or damage may occur.
Be sure to request your distributor or our service office to move this machine.



- When moving this machine, take care that it does not receive a significant impact.
- Be sure to lock the caster after moving of this machine.

1

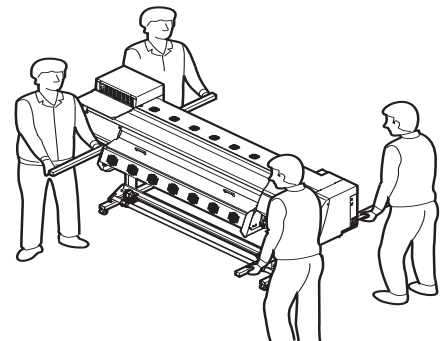
Release the lock of caster.



2

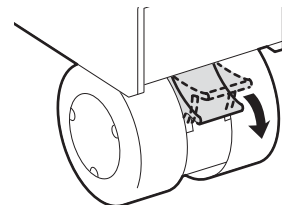
Move this machine as shown in the figure.

- For safety, be sure to operate it with 4 people or more.
- Do not push the cover to move this machine since the cover may be broken.



3

Lock the caster.



1

Before Use

Names of Parts and Functions

Front Side of the Machine

Left maintenance cover

Open the cover in maintenance.
Even when the power switch is off, keep all covers closed.

Ink cartridges

Each cartridge contains an ink of a particular color.

Cartridge protection cover

This prevents an injury or breakage of the machine due to a protrusion of the 440 cc cartridge.
(It is located under the ink cartridge.)

Front cover

Open the cover in setting of medias, taking of measures against jamming of medias or in maintenance inside the station.
Even when the power switch is off, keep this cover and the other covers closed.

Drying heater

Drying heater cover

Right maintenance cover

Operation panel

This panel has the operation keys required for operating the machine and the LCDs for displaying setting items, etc.

Power switch^{*1}

Turns on/off the power to the machine.

Narrow take-up device

Take up the output drawn with a narrow roll medium (less than 1.6m) automatically.

Waste ink tank

Waste ink gathers in this tank.

Clamp lever (front)

Moves the pinch rollers up and down to hold or release the media.

Stand

Supports the main body of the machine. It is provided with casters that are used to move this machine.

Platen


The printed media is sent out, sliding on the platen. Three heaters are installed inside the platen.

Print heater/ Post-heater

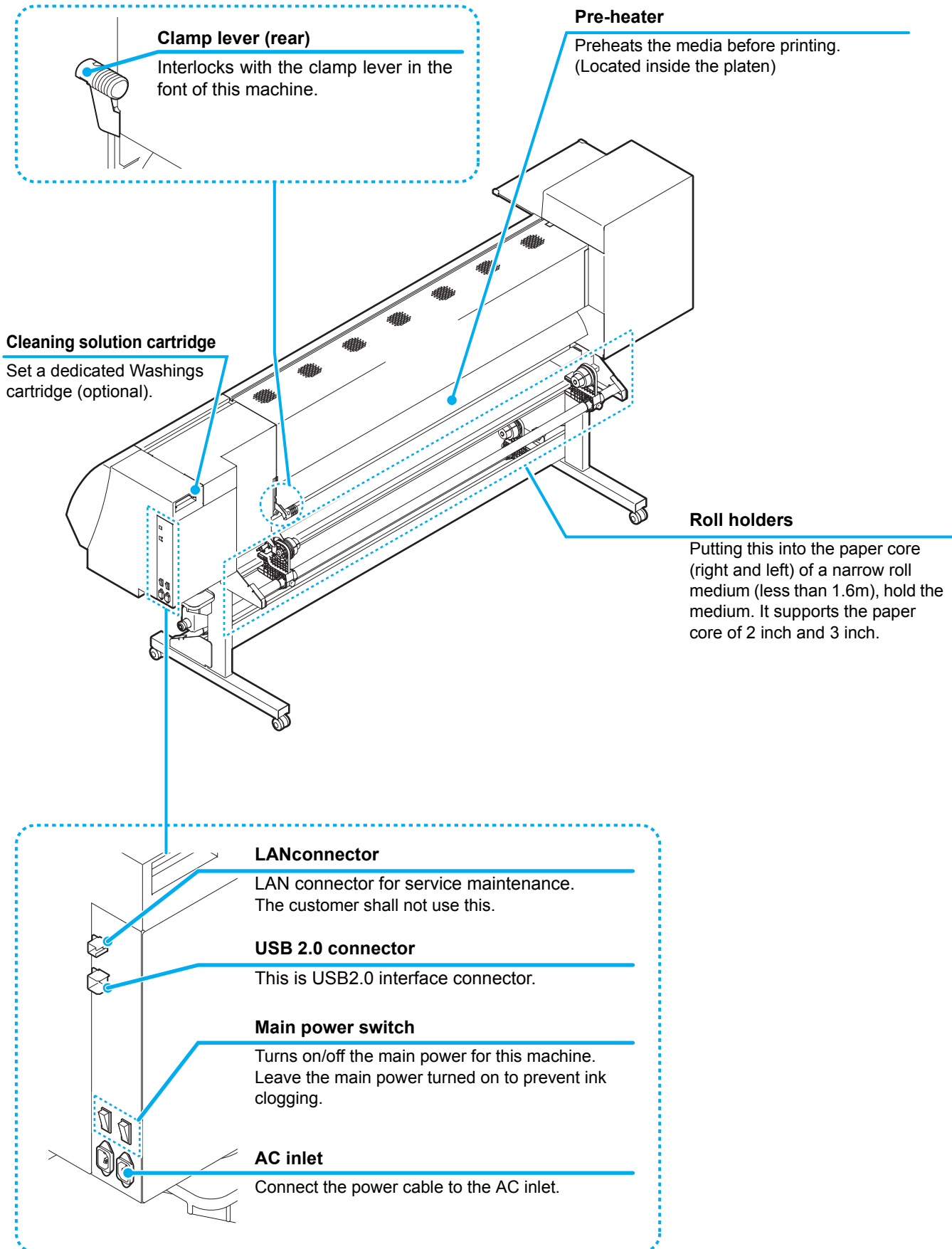
Fixes and dries the ink on the currently produced print. (Located inside the platen)

Electrostatic sheet

Prevents the media from sticking to the platen due to static.

^{*1} : The power switch under the operation panel lights in green when the power is turned on, and blinks when the power switch is turned off. The ink clogging prevention function is periodically operated even when the power switch is OFF if the main power switch keeps being ON. (Auto maintenance function)  P.1-5

Rear Side and Right Side of the Machine



Operation Panel

Use the operation panel to make settings for printing or operate this machine.

Display

Displays the status of the machine, set items and errors.

ACTIVE lamp

Blinks in receiving or drawing data.

ADJUST key

Performs the adjusting function such as "Drop.POScorrect" and "Feed COMP."

MAINT. key

Performs the maintenance function such as station maintenance.

DATA CLEAR key

Deletes the data that have been received.

CONSTANT lamp

Lights in green when the heater temperature reaches the set temperature.

HEAT lamp

Lights in orange during heating up of the heater.

CUT key

Use this key on cutting .

TEST PRINT/CLEANING key

Draws test patterns to check if there are any drawing failures such as ink clogging. Or executes Head cleaning at ink clogging.

HEATER key

Use this key to set the temperatures of the Pre-heater, Print heater and Post-heater or check the current temperature of the platen.

JOG key

Use these keys to shift the carriage or the media in [LOCAL]. Also use them to select an item of printing conditions.

Power switch^{*1}

Turns on/off the power to the machine.

FUNCTION key

Use this key to display function setting menu.

END key

Cancels the last input value or returns the setting menu to the immediate higher level of the hierarchy.

REMOTE key

Use this key to switch between [REMOTE] and [LOCAL].

ENTER key

Registers the last input value as the setting value or goes to the immediate lower level of the hierarchy.

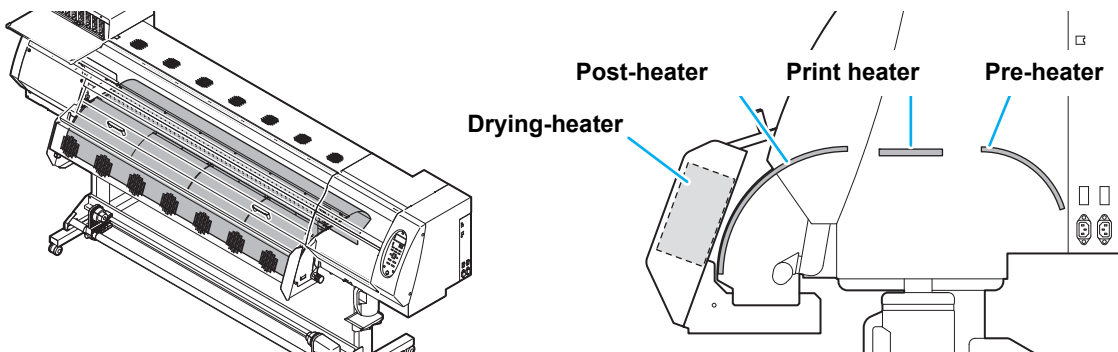
Heater

Pre-heater/Print heater/Post-heater are equipped on the platen.

The Pre-heater is used for pre-heating of the media prior to printing to prevent rapid changes in temperature. The Print-heater improves the image quality in printing. The Post-heater and drying-heater dries ink after printing.

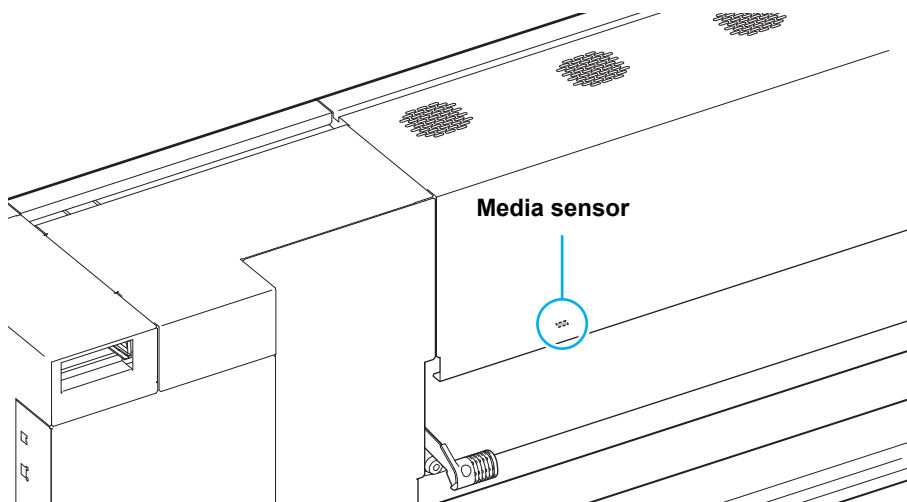


- While the heater is on, the platen is very hot. When the front cover is to be opened or media is to be replaced, lower the heater temperatures and wait until the platen temperature drops; otherwise, you can get burned.
- When the media is to be replaced with a thin one, lower the heater temperatures and wait until the platen temperature drops adequately. Setting a thin sheet of media while the platen is hot may cause the media to stick to the platen or cause wrinkling or curling of the media.



Media sensor

The media sensor detects the presence of the media and the media length. This machine has a media sensors on the platen (in the rear).

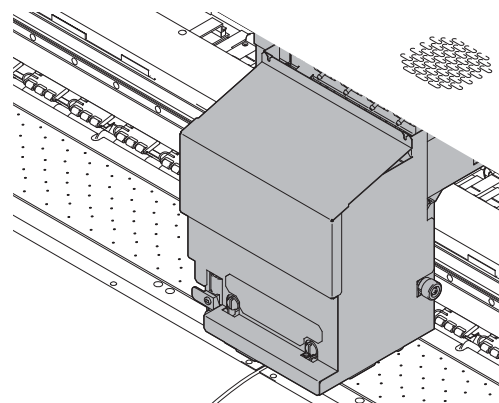


- When setting a medium, be sure to cover the medium sensors located on the rear of the platen. The media cannot be detected unless it is placed over the sensor.

Carriage

The carriage is provided with the ink heads for printing, the cutter unit for cutting off the sheet of media, etc.

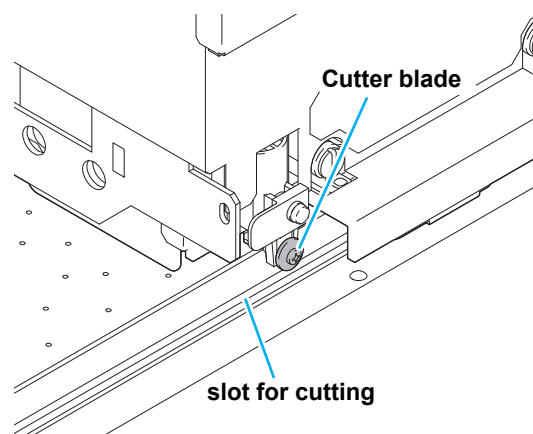
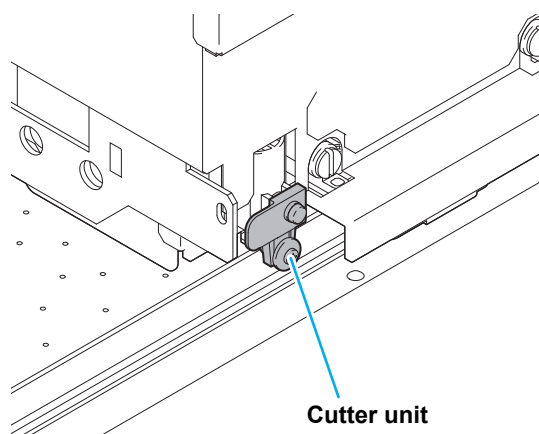
A lever is also provided to adjust the height of Head in 3 stages according to the thickness of media. (☞ P.2-5)



Cutter blade and slot for cutting

The carriage is provided with a cutter unit for cutting off the media that has been printed on.

The cutter cuts off the sheet of media along the slot for cutting on the platen.



Capping station

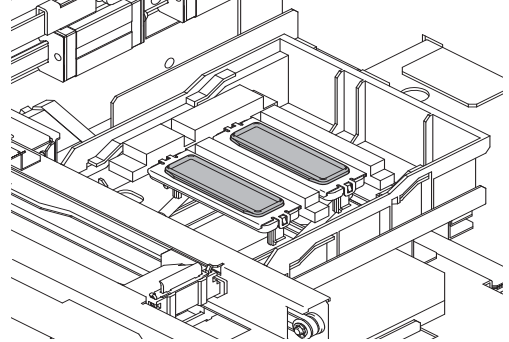


- Be sure to wear the attached goggles in cleaning within the capping station to protect your eyes against ink. Otherwise, you may get ink in your eyes.

The capping station consists of the ink caps, the wiper for cleaning the heads, etc.

The ink caps prevent the nozzles in the ink heads from drying up. The wiper cleans the nozzles in the heads.

The wiper is consumable. If the wiper is deformed or the media is stained, replace the wiper with a new one.

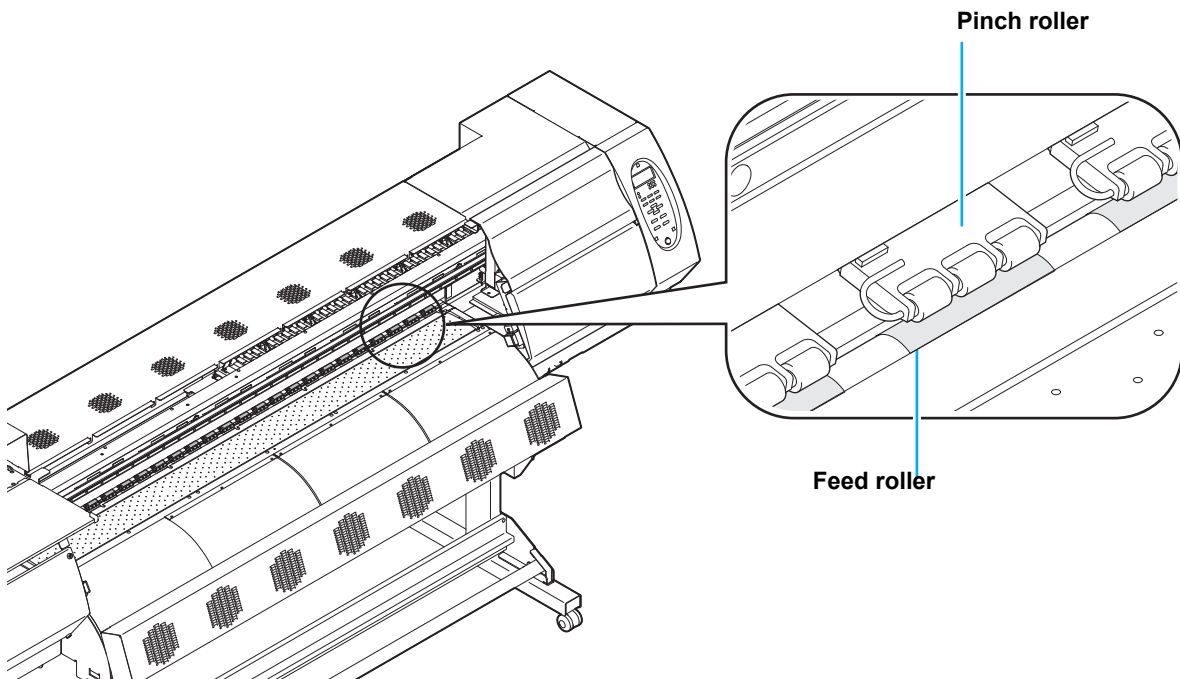


Pinch rollers and Feed rollers



- Keep the pinch rollers lifted up when this machine is not in use. If the pinch rollers are left lowered for an extended period of time, they can be deformed and fail to securely retain the media.

This machine retains the media with the pinch rollers and feed rollers. During printing operation, the feed rollers feed the media forward.



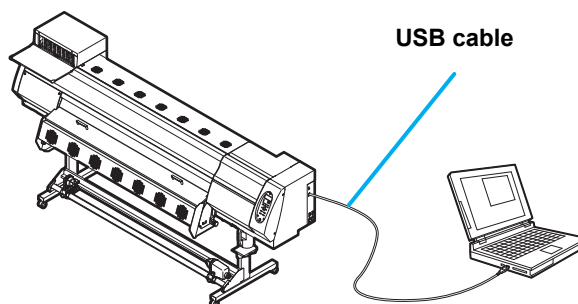
Connecting Cables

Connecting USB2.0 Interface Cable

Connect the PC and this machine with the USB2.0 interface cable.



- Your RIP must be compatible with USB 2.0.
- Contact a RIP maker near your location or our office when the USB2.0 interface is not attached to the PC.



Notes on USB 2.0 Interface

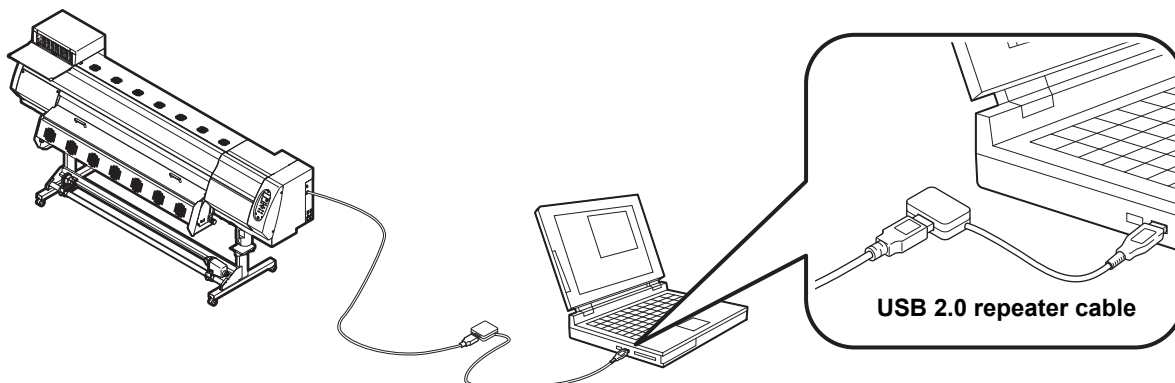


- Your RIP must be compatible with USB 2.0.

● When two or more JV400 machines are connected to one personal computer

When two or more JV400 machines are connected to one personal computer, the personal computer may not recognize all the JV400 machines normally.

Reconnect the unrecognized JV400 machine to another USB port, if available, and check to see if it is recognized. If the JV400 machine is not recognized by the newly connected USB port, use USB 2.0 repeater cables available on the market.



● Notes on peripheral devices in USB high speed mode

When a peripheral device (USB memory or USB HDD) to be operated in USB high speed mode is connected to the same personal computer that a JV400 machine is connected to, the USB device may not be recognized.

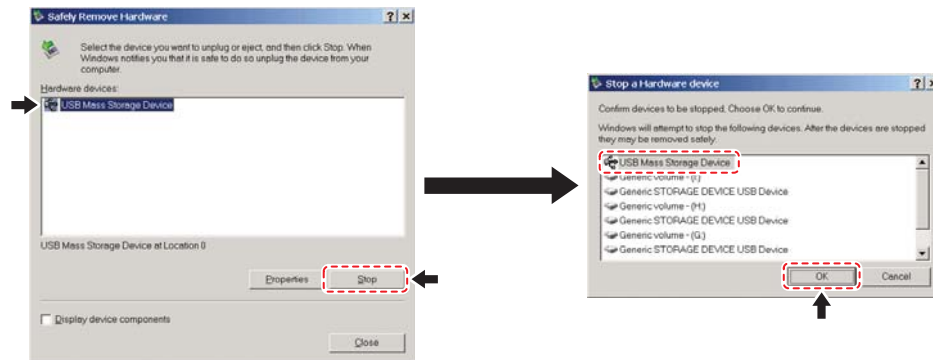
When JV400 is connected to the personal computer to which an external HDD is connected via USB, the speed of data output to JV400 may drop. That can cause the head unit to stop temporarily at the right or left end during printing.

● Removing USB memory

If a USB memory module is inserted in the personal computer to which a JV400 machine is connected, click "Stop" in the "Safely Remove Hardware" window by following the instructions given there first and then remove the module.

Leaving a USB memory module inserted can cause [ERROR 10 COMMAND ERROR].

Copy the data onto the hard disk before outputting it for printing.

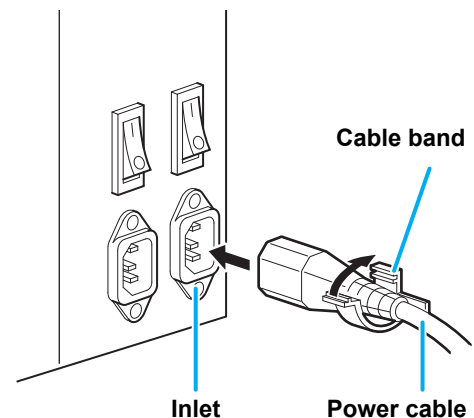


Connecting the power cable

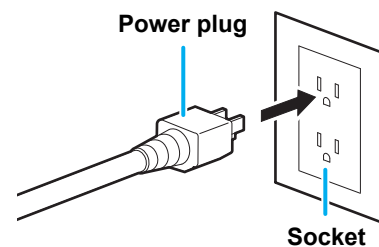
1 Insert the power cable into an inlet of the machine.

2 Secure a cable band.

- Secure the cable with the cable band attached to this machine.



3 Insert the power plug into a plug socket.



- Do not use any power cables other than the attached power cable.



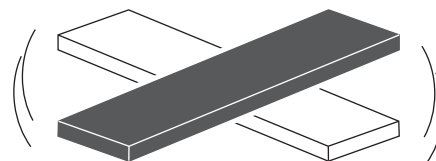
- Be sure to connect the power cable to the outlet near this machine, and make sure that the power cable can be easily removed.
- Connect the power cable to the grounded outlet. Otherwise, it may result in fire or an electric shock.

Inserting ink cartridges

Insert an ink cartridges.

1

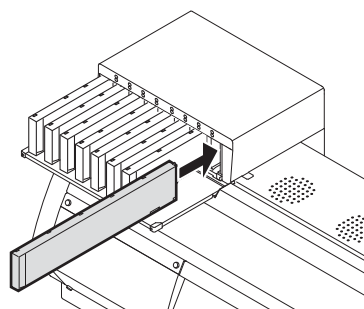
Shake the ink cartridge as shown on the right.



2

Insert the ink cartridge.

- Insert the ink cartridge lengthwise with the surface having IC chips pointing to the left side.
- For the setting orders of the ink cartridges, refer to P.6-4.



Changing an ink cartridge

Perform as follows when [INK END] or [INK NEAR END] is displayed on the display.

● When [INK END] is displayed

- (1) Pull out an ink cartridge to be replaced.
- (2) Insert a new ink cartridge, paying attention to the direction of IC chip.

● When [INK NEAR END] is displayed

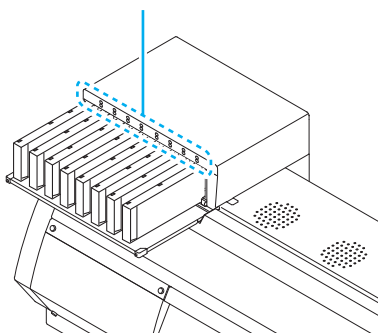
There is a little of ink left. It is recommended to replace the ink cartridge soon since ink may become empty in printing while printing is continuously enabled.

When you press the **ENTER** key in LOCAL, you can check the cartridge to be replaced in the local guidance.
(☞ P.3-17)

For Ink cartridge lamps

The condition of the ink cartridges set in the machine is confirmable with lamps located over the ink cartridges.

Ink cartridge lamps



Condition of Lamp		Description
Upper row Red lamp	OFF	No error
	Blinking	There is less ink in the ink cartridge (Near End), or ink has expired. It will become unusable soon.
	ON	There is no ink in the ink cartridge, or the ink cartridge cannot be used due to other ink error. (☞ P.5-5)
	Quick blinking	As ink has expired, the ink cartridge cannot be used.
Lower row Green lamp	OFF	No error
	ON	Indicates that ink is supplied. When you use four-color ink set, this machine first supplies ink from the ink cartridge whose ink expires soon.

About ink expiration date

The ink cartridge has its expiration date.

You can use the cartridge in two months after the expiration date indicated on it, however, you cannot use it when three months have passed from the expiration date.

As LED will blink quickly to inform you of it, replace the cartridge

Ex.) When the expiration date is April 2012

May: Usable

June: Usable (LED blinks)

July: Unusable (LED blinks quickly)

About cartridge ink end and ink near end

When ink near end (less ink) occurs, LED "red" blinks to inform you of it. It is recommended to replace it as soon as possible.

When ink end (no ink) occurs, LED "red" is lit to inform you of it. Replace the ink cartridge.

Caution in handling of ink cartridges



- If you get ink in your eyes, immediately wash your eyes with a lot of clean running water for at least 15 minutes. In doing so, also wash the eyes to rinse ink away completely. Then, consult a doctor as soon as possible.
- Use genuine ink cartridges for this machine. This machine functions by recognizing the genuine ink cartridges. In case of troubles caused by modified ink cartridges or the like, it shall be out of the warranty even within the warranty period.
- If the ink cartridge is moved from a cold place to a warm place, leave it in the room temperature for three hours or more before using it.
- Make sure to store ink cartridges in a cool and dark place.
- Store ink cartridges and waste ink tank in a place that is out of the reach of children.
- Request an industrial waste processor for processing of empty ink cartridges.



- Do not shake ink cartridges violently. This may result in ink leakage from the ink cartridges.
- Never refill the ink cartridges with ink. This may result in troubles.
MIMAKI will not bear any responsibility for any damage caused by the use of the ink cartridges refilled with ink.
- Do not touch or stain the contacts of the ink cartridge. This may cause damages on printed circuit boards.



- Do not disassemble the ink cartridges.

Usable media sizes and notes for handling are described.

Usable sizes of media

Model		JV400-130LX	JV400-160LX
Type of Recommended media		Thin coat paper/PET/Tarpaulin/Weatherproof PVC/Polyester cloth/Cotton	
Maximum width		1371mm	1620mm
Minimum width		210mm	
Maximum printing width		1361mm	1610mm
Roll media	Thickness	0.2mm or less	
	Roll outside diameter	φ180mm and less (for small-size media holder, φ180mm and less)	
	Roll weight	25kg and less (for small-size media holder, 25kg and less)	
	Roll inside diameter	3 or 2 inches	
	Side printed	Side facing outward	
	Roll end treatment	The roll end is gently fixed to the core with weak-adhesive tape or weak glue for easy removal.	

1

Before Use

Caution in handling of medias

Pay attention to the followings for handling of medias.

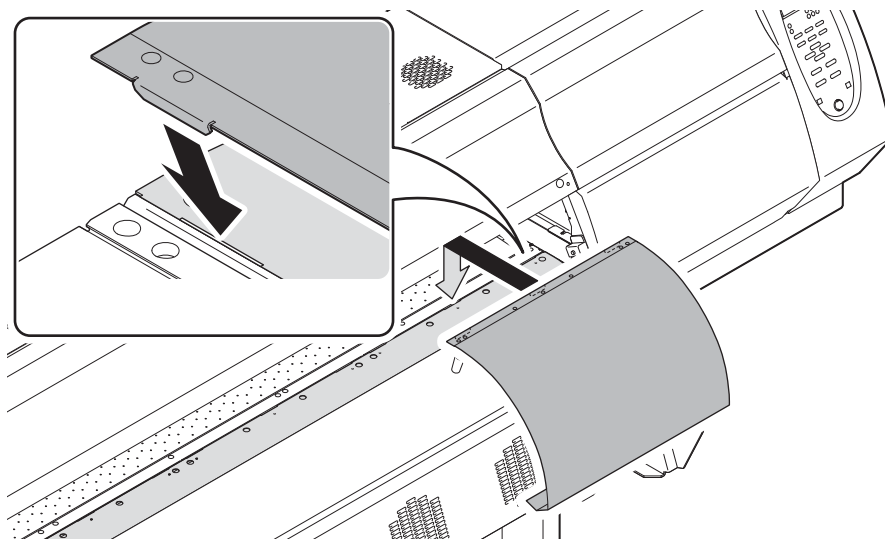
Important!

- **Use media recommended by MIMAKI to ensure reliable, high-quality printing.**
Set the heater temperature to meet the characteristics of the media.
- **Set the temperature of the Pre-heater, Print heater and Post-heater according to the type and characteristics of the media used.**
Automatic temperature setting can be made on the operation panel by setting the profile on the dedicated RIP. For setting on the RIP, refer to the instruction manual for your RIP.
- **Pay attention to the expansion and contraction of the media.**
Do not use media immediately after unpacking. The media can be affected by the room temperature and humidity, and thus it may expand and contract.
The media have to be left in the atmosphere in which they are to be used for 30 minutes or more after unpacked.
- **Do not use curled media.**
This may result in paper jamming.
If a regular-sized coated sheet of media is rolled and stored, the coated side has to face outside.
- **Be careful to dusts on the edge face of the medium.**
Some rolls have dusts contained in the package gathered on the edge surface of the roll. If you use as it is, the drawing quality may be degraded due to nozzle missing or ink drops. Be sure to set the roll after removing dusts adhering on the edge face of the roll.

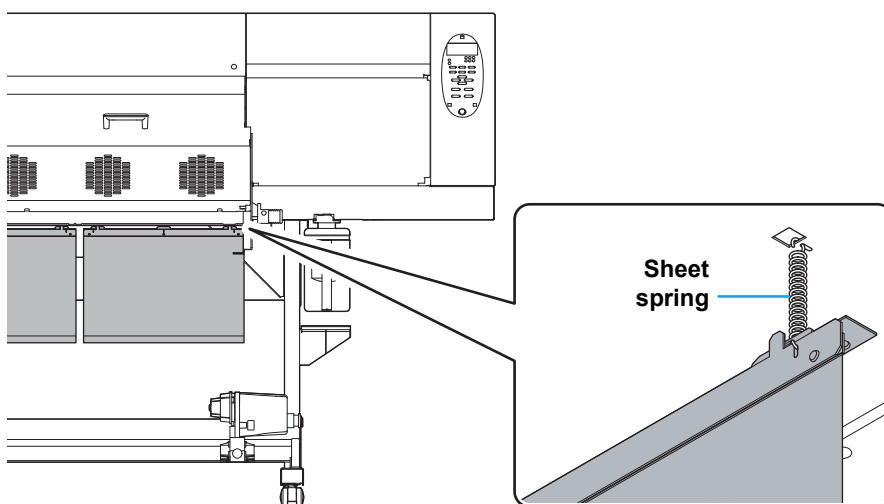
About antistatic sheet

The electrostatic sheet is used to prevent the media from clinging due to static. Use this when static or deflection of the media on the post heater occurs and affects the media feeding.

- **Fix the electrostatic sheet**



- **Remove the electrostatic sheet**



Chapter 2

Basic Operations



This chapter

describes procedures and setting methods for ink and media preparation, and printing.

Workflow	2-2	Test Feeding	2-19
Turning the Power ON/OFF	2-3	Test Printing	2-20
Turning the Power ON	2-3	Test Printing	2-21
Turning the Power OFF	2-4	Head Cleaning	2-22
Setting a Media	2-5	About head cleaning	2-22
Adjusting the Head Height	2-5	Perform head cleaning	
Note for media setting	2-7	depending on the test printing result	2-22
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Setting leaf media	2-14	Correct the ink drop position	
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Preparing for the Heaters	2-17	Printing Data	2-27
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Checking the Heater Temperature	2-18	Deleting Received Data (Data Clear)	2-28
Changing the Temperature Settings		Cutting a media	2-29
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Workflow

1 Turning the Power ON/OFF

Referring to “Turning the Power ON/OFF” (👉 P.2-3).

2 Setting a Media

Referring to “Setting a Media” (👉 P.2-5).

3 Preparing for the Heaters

Referring to “Preparing for the Heaters” (👉 P.2-17).

4 Test Printing

Referring to “Test Printing” (👉 P.2-20).

5 Set the media feeding amount

Referring to “Set the media feeding amount” (👉 P.2-23).

6 Correct the ink drop position for bidirectional printing

Referring to “Correct the ink drop position for bidirectional printing” (👉 P.2-25).

7 Printing Data

Referring to “Printing Data” (👉 P.2-27).

Turning the Power ON/OFF

Turning the Power ON

This machine is provided with the following two power switches:

Main power switch: It is located on the side of this machine. Keep this switch ON all the time.

Power switch : Normally, use this switch to turn the power ON/OFF.

The power switch lights in green when the power is ON.

1

Turn the main power switch ON.

- Set the main power switch located on the side of this machine to the "I" side.

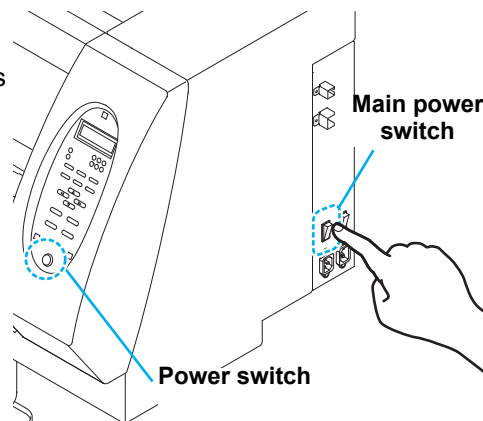
2

Turn the power switch ON.

- Push the power switch located on the operation panel.

- The firmware version is displayed when the power is turned ON.

- The machine performs its initial operation.



JV400-160 Start-up
Ver 1.00R0

3

The machine enters LOCAL.

<LOCAL>

4

Turn ON the power of the connected PC.

Important!

- Turn the power ON after the front cover and maintenance cover are closed.
- The head nozzle may result in nozzle clogging if the main power switch is left OFF for a long time.

2

Basic Operations

Turning the Power OFF

When having ended the operation of the machine, turn the power OFF by pressing the power switch located on the front side.

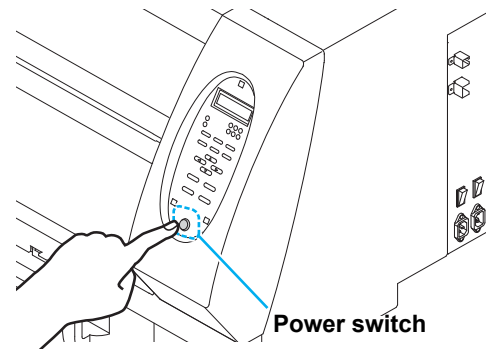
Check the following items when turning the power OFF.

- If the machine is receiving data from the PC or if there is any data that has not been output yet
- If the head has returned to the capping station
- If any error has occurred (☞ P.5-14 “Error messages”)

1 Turn OFF the power of the connected PC.

2 Press the power switch to turn the power OFF.

- The power switch blinks in green.
- Do not turn OFF the main power switch located on the side of the machine.
- To use this machine again, light the green lamp by pressing the power switch.



Cautions about Turning the Power OFF

● Do not turn the main power switch OFF.

When the main power switch is ON, the power periodically turns ON and the nozzle clogging prevention function (flushing function) and the pressure adjusting function operate.

When the main power switch has been turned OFF, the auto maintenance functions, such as flushing, do not operate, and this may cause nozzle clogging.

● Keep the front cover and the maintenance cover closed.

If the cover is opened, the auto maintenance function such as the flushing function does not work.

● Turn the power OFF after having checked the position of the head.

If the power is turned OFF in a state where the head has not returned to the capping station, the ink head dries, which may cause nozzle clogging.

In this case, turn the power ON again and check that the head has returned to the capping station, and then turn the power OFF.

● Do not turn the power OFF during printing.

The head may not return to the capping station.

● After having turned the power switch OFF, turn the main power switch OFF.

When turning the main power switch off for moving the machine or for solving the error or the like, press the power switch on the front of the machine, check the display is turned off on the operation panel, and then turn the main power switch off.

Setting a Media

This machine can be used with a roll media and leaf media.
For usable medias, refer to P.1-15 "Usable sizes of media".

Adjusting the Head Height

Adjust the head height according to the thickness of the media you use.

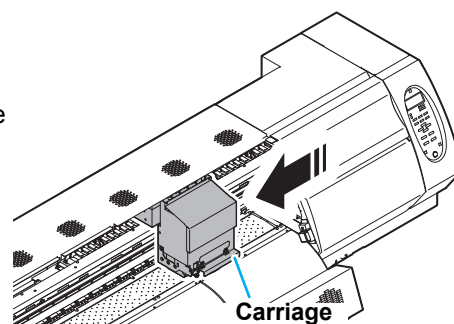
Important!

- Adjust the head height prior to setting the media. If the head height is adjusted after the media is set, this may cause a media jamming, deterioration of the print quality or head damage.
- The range of the initial head height is adjustable by 3 levels according to the purpose of use.
- The range of the printing height of JV400 is from L (1.8 mm), M (2.3 mm), H range (2.8 mm). (Set to L range 1.5 mm at shipping)

1

Move the carriage to the platen.

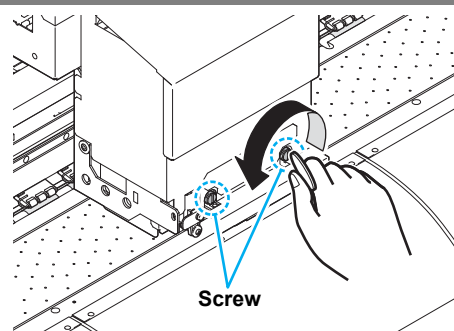
- When the device is turned ON :Execute [STATION - CARRIAGE OUT] of the Maintenance functions. (P.4-5 Step1,2)
- When the device is turned off : Open the front cover, then move the carriage by hand.



2

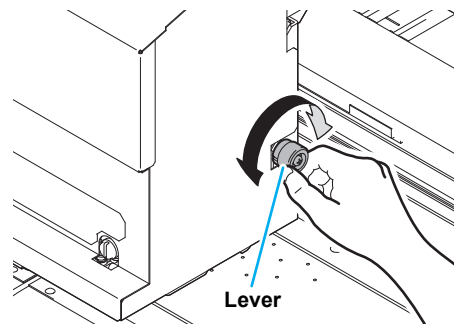
Loosen two screws located at the front.

- Loosen the screws, rotating each by one turn of a standard screwdriver.



3

Rotating the lever of the right side of the carriage.

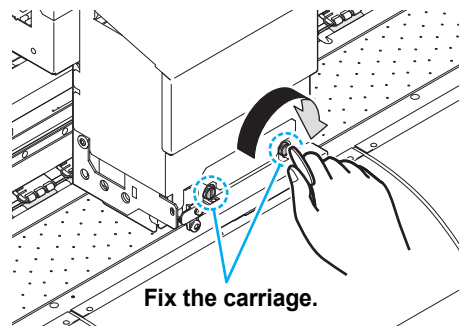


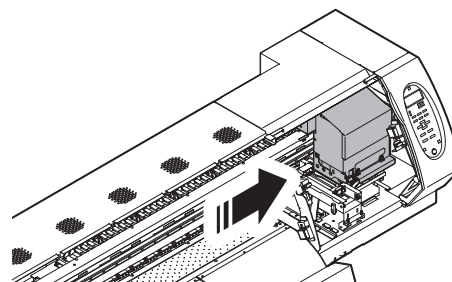
2

Basic Operations

4**Fix the carriage.**

- Fastening the screw in front, you can fix the carriage.
- Fasten the screw securely.



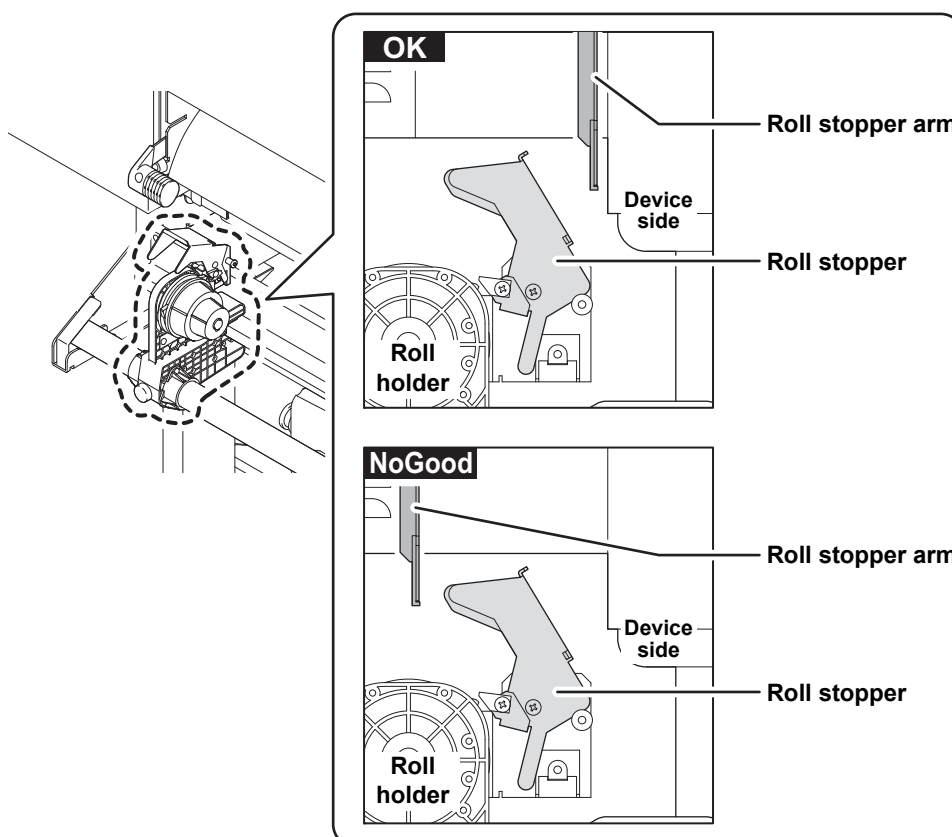
5**Return the carriage to the station position.**

Note for media setting

When setting media, read the following notes carefully.



- Take care not to drop the media on a foot or so when the media is set. It may cause an injury due to the media.
- The roll stopper arm works with the clamp lever. Do not push the clamp lever down while roll stopper is caught between the roll stopper arm and this machine. The roll stopper arm might be broken and roll stopper function ^{*1} might be disabled.



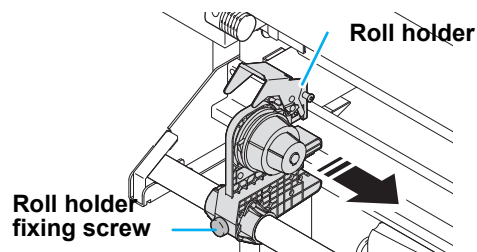
*1. The function that once pulled out a certain amount of media, media pullout is temporarily locked.

Setting a roll media

1

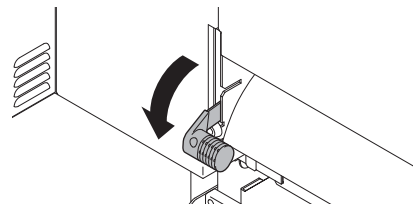
Move the roll holder located in the back of the device to the direction of the middle of the device.

- Loosen the roll holder fixing screw and then move it.



2

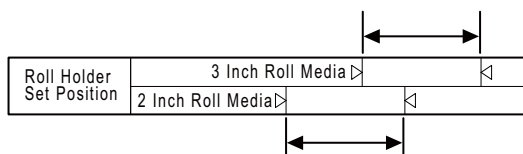
Check the clamp lever is lowered.



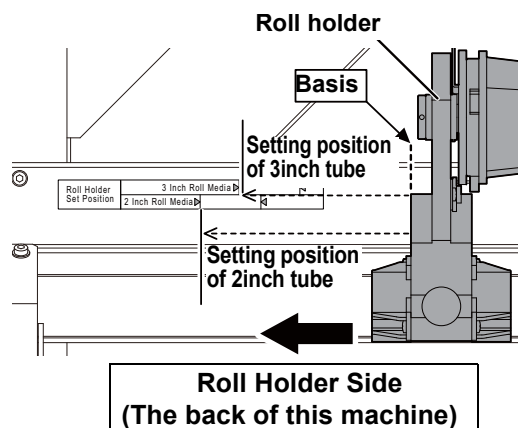
3

Move the roll holder to the roll setting position.

Set the base position of roll holder within this range.



- There are two types of the internal diameter of the roll media paper tube: 2 inch and 3 inch.



- Check the roll stopper is not caught between the roll stopper arm and this machine.

4

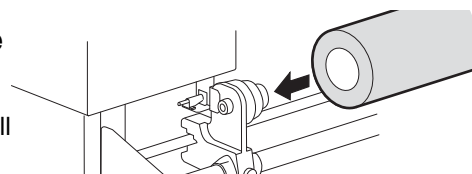
Tighten the roll holder fixing screw.

- Check the Step 2 to 3 again.

5

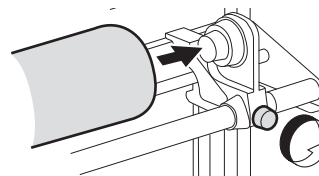
Set the left end of the core of the roll media on the left roll holder.

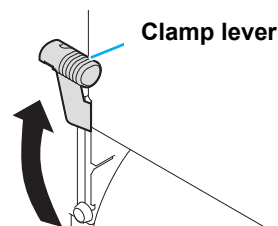
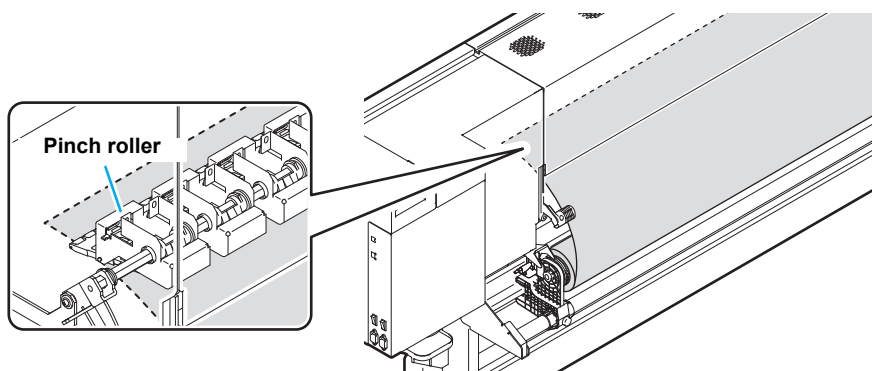
- Push the roll media onto the roll holder until the roll core is all the way seated.



6

Loosen the screw of the right side roll holder then insert the holder into the core of the roll media.

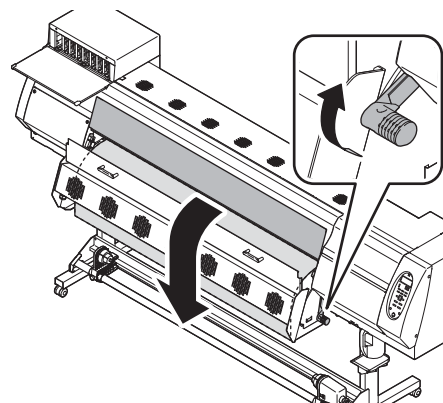


7**Raise the clamp lever in the front of this machine.****8****Insert the roll media in this machine.**

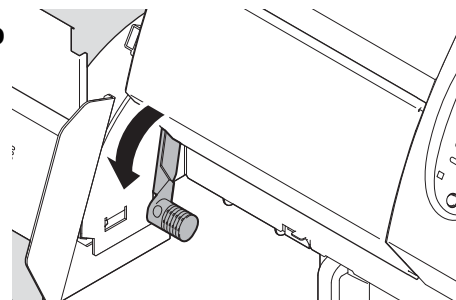
- The roll media can be smoothly inserted by slanting the media.
- (1) Pull the media out of the roll to the head of the platen.
- (2) Insert the media between the platen and the pinch roller.
 - Pull the media out of the roll so that the media can be grasped from the front of the machine.
- (3) Push down the clamp lever from the back of this machine.
 - The media is held.

9**Pull out the roll media out.**

- (1) Open the front cover.
- (2) Raise the clamp lever from the back of this machine.
- (3) Pull out the roll media gently and then stop pulling when locked lightly.

**10****Make the roll media even then lower the clamp lever.**

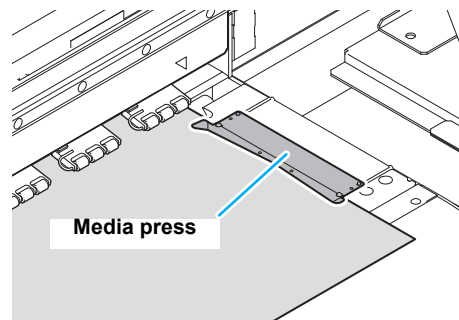
- Pulling several positions of the media lightly, Lower the clamp lever after confirming that the amount of the roll media pulled out is almost even.


**2****Basic Operations**

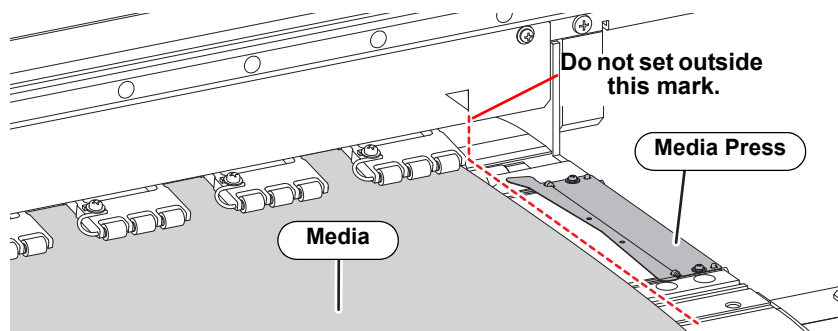
11

Hold the media with the media press gently.

- Set the media so that no media sticks out from the right end pinch roller to the right side.
- When using a thick media, remove the media press from the media before printing.



- Do not set the media outside . As media may tilt and be lifted, it could break the head.

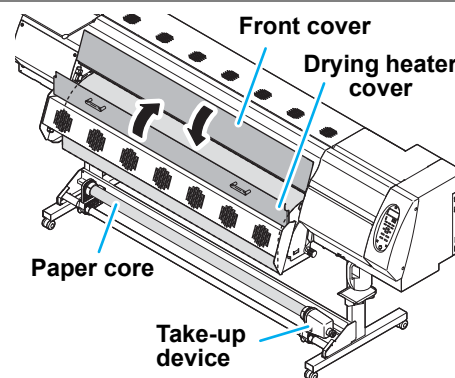


- If a media is misaligned to the right more than fixed position, a warning is displayed. Set the media again.



ERROR 516
MEDIA SET POSITION L

12 Prepare for the take-up device.

- (1) Set an empty core of the roll media on the take-up device.
- (2) Close the front cover.
- (3) Close the drying heater cover.




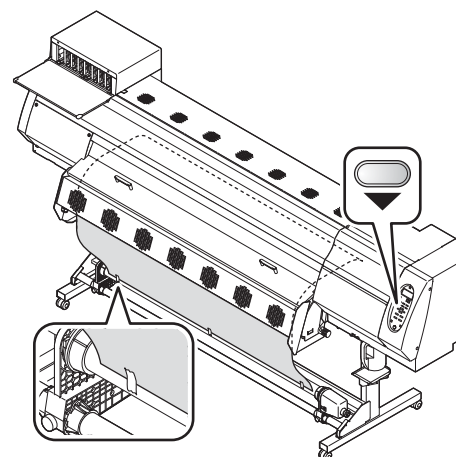
13 Press the key to select "ROLL" .

- Detects the media width.
- When [MEDIA RESIDUAL] of the maintenance function is "ON" ( P.3-9), the screen for entering media remaining amount is displayed after detecting the media width. ( P.2-12)

MEDIA SELECT	
ROLL <	> LEAF

14 Fix the media on the take-up device. (P.2-13)

- (1) Feed the media up to the core of the roll media of the take-up device by pressing the  key.
 - Check the media end is not caught into the slot on the post-heater, and then feed the media.
- (2) Fix the middle of the media with adhesive tape.
- (3) In the same manner, fix the left side and right side of the media.
 - Make sure that there is no slack or wrinkle on the media in such condition that the roll media is pulled to right and left evenly, and then stick the tape.



- Depending on the media to use, attach/ remove the antistatic sheet.

Entering the media remaining amount

When [MEDIA RESIDUAL] of the maintenance function is "ON" (☞ P.3-9), the screen for entering media remaining amount is displayed after detecting the media width.

1

Display the screen for entering media remaining amount.

Input of MediaLength
MEDIA LENGHT =xxx.xm

2

Press  and  key to enter the media remaining amount.

Input of MediaLength
MEDIA LENGHT = 50.0m

3

Press the  key.

Take-up device

With the switch of the take-up device, select the take-up direction of the media or others.

Lever in top position (REVERSE) :

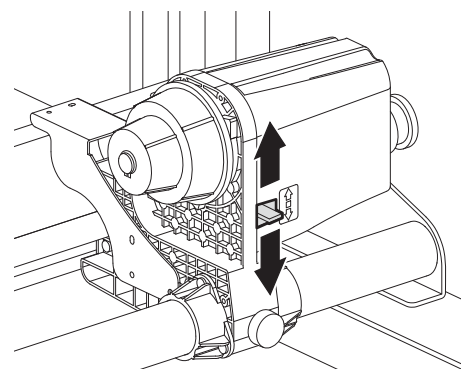
The take-up device winds the media with the printed side facing in.

Lever in middle position (OFF) :

The take-up device does not wind the media.

Lever in bottom position (FORWARD) :

The take-up device winds the media with the printed side facing out.



Setting the torque limiter

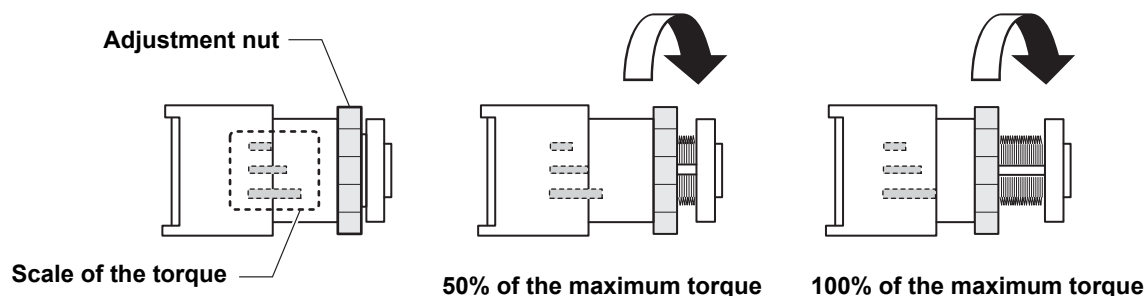
The take-up device is provided with a torque limiter.

The take-up torque can be adjusted with the torque limiter.

(The torque limiter is set at the maximum value when shipped from the factory.)

If the tension is too strong to use a thin sheet of media, lower the take-up torque with the torque limiter.

- Clockwise turn :
Increases torque (a heavy and thicker media such as tarpaulin or the like)
- Counterclockwise turn :
Decreases torque (For light media)



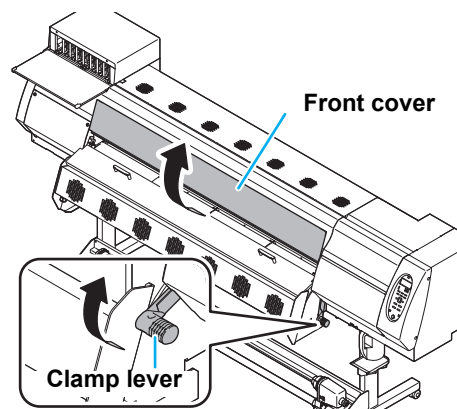
Important!

- **When the torque limiter is adjusted too weak ;**
The media can not be taken up firmly.
- **When the torque limiter is adjusted too strong ;**
The slack may occur depending on the media and cause influence on the image quality.

Setting leaf media

Unlike roll media, leaf media does not need to be retained with the roll holders.

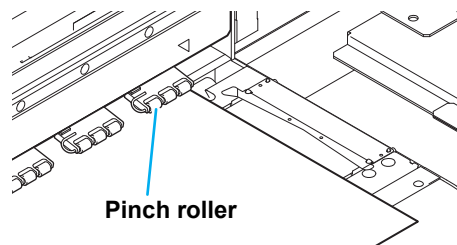
1 Open the front cover.



2 Raise the clamp lever.

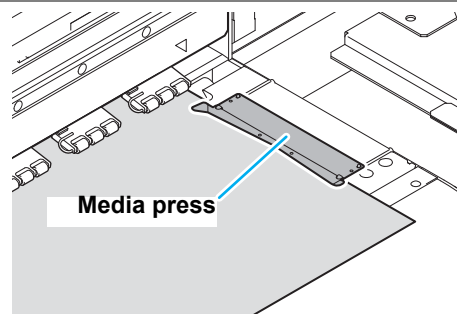
3 Insert the leaf media between the platen and the pinch rollers.

- Set the media so that no media sticks out from the right end pinch roller to the right side.
- Set the media so that the media end does not reach the slot of the post-heater.



4 Hold the media with the media press gently.

- Set the media so that no media sticks out from the right end pinch roller to the right side.
- When using a thick media, remove the media press from the media before printing.

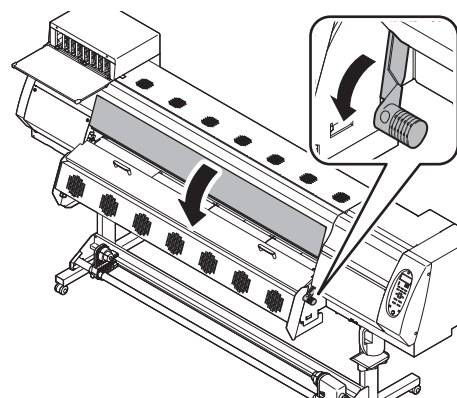
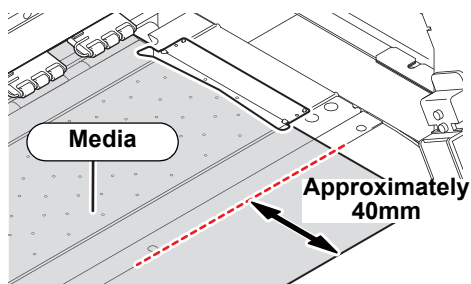


5 Push down the clamp lever.

- Set the media straight.



- Set the media on the black part of the platen so that it comes out approximately 40mm. If it is shorter than that, it may not be able to perform the media detection.



6 Close the front cover.

- Close the drying heater cover.

7

Press the **ENTER** key.

8

Press the **▶** key to select "LEAF" .

MEDIA SELECT
ROLL< >LEAF

9


The media detection is started.

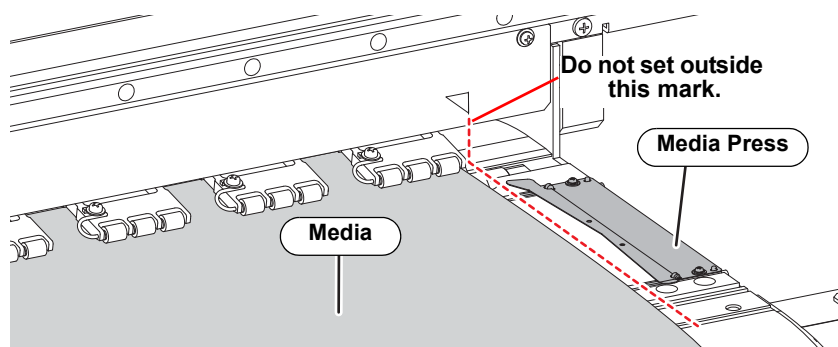
** MEDIA DETECT **

- (1) The media width is detected.
- (2) The media is fed then the rear end of media is detected.
- (3) It returns to the local mode when the detection is completed.

Notes when using media press



- Do not set the media outside . As media may tilt and be lifted, it could break the head.



- If a media is misaligned to the right more than fixed position, a warning is displayed. Set the media again.

ERROR 516
MEDIA SET POSITION L

2

Basic Operations

Changing the printing origin

The position of the printing origin can be changed.
Moving the LED pointer to the changing position and deciding the position.

When the heavy-duty feeding / take-up device is not used

1

In Local, Press    .






- It enters into the origin setting mode.



ORIGIN SETUP
0.0 - - -

2

Set a light point of the LED pointer to the changing position by pressing

   .

- Select the carriage and media, moving the point with    .
- When you press the  key here, you can perform media cutting.

ORIGIN SETUP
 
Origin (Length) Origin (Width)

3

After determining the origin, press the  key.

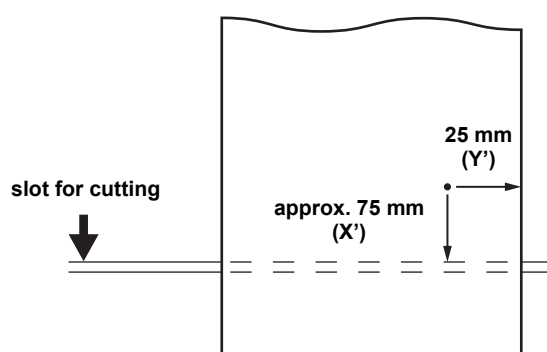
- The printing origin is changed.

ORIGIN SETUP
** ORIGIN **

Typical setting position of printing origin

The printing origin in the depth direction (X') is positioned at about 75 mm rearward from the slot for cutting on the platen. The printing origin in the scanning direction (Y') is positioned at 15 mm from the right end of the media. The value in the scanning direction (Y') can be changed using [MARGIN] in FUNCTION mode.

(☞ P.3-1) This can be changed by using the Jog key.



Preparing for the Heaters

Changing the Temperature Settings for the Heaters

Set the heater temperature.
Depending on the media and the profile to use, set the heater temperature.

- It may take several minutes to tens of minutes for the set temperature to be reached, depending on the ambient temperature.



• You can change the temperature set here also in [HEATER] of the [SETUP] menu. (☞ P.3-2)

1 Press the **HEATER** key.

PRE	PRT	POST
35 °C	40 °C	50 °C

Heater temperature confirming display

2 Press the **HEATER** key.

40 °C	40 °C	50 °C
(OFF	OFF	OFF)

Current heater temperature

3 Press **▲ ▼ ◀ ▶** to set the temperature of each heater.

Heater selecting: Select with **◀ ▶**
Temperature setting: Set with **▲ ▼**

The set temperature: 20 to 70°C

40 °C	40 °C	50 °C
(OFF	OFF	OFF)

- The heater starts to get hot. (The [HEAT] lamp lights in orange.)
- When the heater temperature reaches the set temperature, the [HEAT] lamp goes off and the [CONSTANT] lamp lights in green.

4 Press the **ENTER** key to end the setting.

- The screen returns to LOCAL.



• The Heater temperature is controllable at the RIP side if the RIP in use has a function controllable. (For the setting procedures, refer to the instruction manual of the RIP in use.)



• Use this machine under 20 to 35°C. The temperature may not reach the set value due to the environmental temperature condition.

Checking the Heater Temperature

1

Press the **HEATER** key.

- The current heater temperature is displayed.

PRE	PRT	POST
35 °C	40 °C	50 °C

2

Press the **END** key at the end of confirmation.

- The screen returns to LOCAL.

Changing the Temperature Settings for the Drying Fan Heater

1

Press the **HEATER** key twice.

40 °C	40 °C	50 °C
(OFF	OFF	OFF)

2

Press the **ENTER** key.

FAN HEATER
: READY (10 °C)

3

Press **▲** **▼** to select a set value.

- °C Set value : HOST / ON / MEDIA LENGTH / MACHINE LENGTH

FAN HEATER
: READY (20 °C)

4

Press the **ENTER** key to end the setting.

- The screen returns to LOCAL.

Test Feeding

Since heater is used at high temperature, cockles may occur in some of your media. (P.5-11)
Perform this function before printing, and check whether the media can be fed normally.

1

Press the **TEST PRINT/CLEANING** key in LOCAL twice.

TEST FEED
[ENT]

2

Press the **ENTER** key.

BACKWARD FEED
: ON

3

Press **▲** **▼** to select ON/OFF.

BACKWARD FEED
: ON



- When setting "ON", rewind the roll media to take up the slack before printing.

4

Press the **ENTER** key.

TEST FEED
START [ENT]

5

Press the **ENTER** key.

- Start test feeding.

** TEST FEED **
PLEASE : WAIT

2

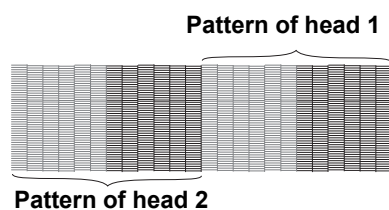
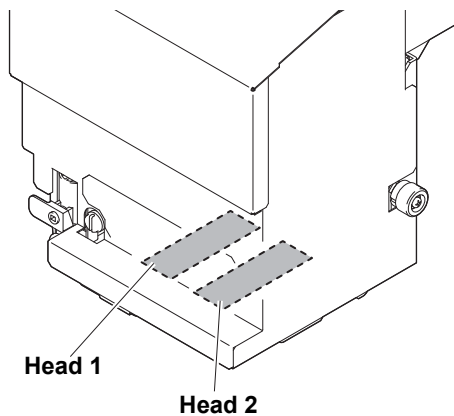
Basic Operations

Test Printing

Print a test pattern to check that there are no discharging defects such as nozzle clogging (slight touching of ink or nozzle missing).

Relationship between head row and test pattern

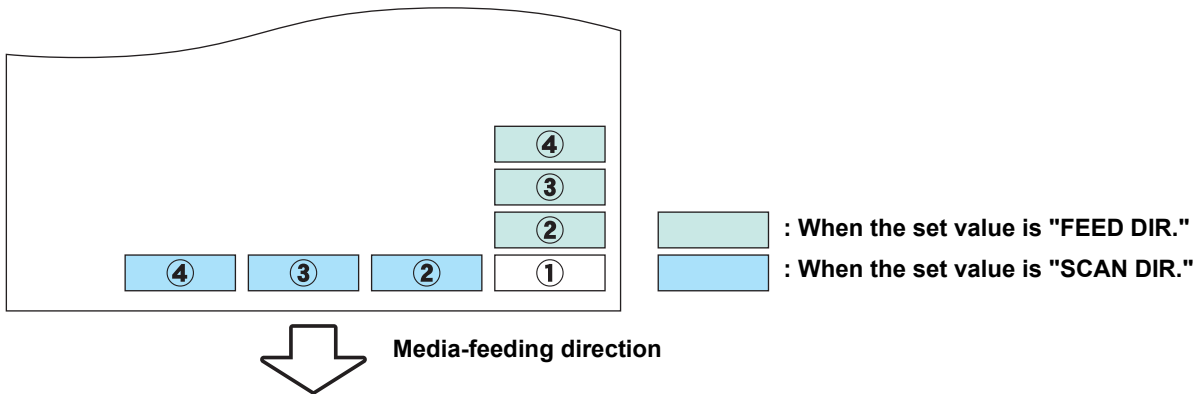
The relations between head row and test pattern print position are as follow.



Test Printing

Print a test pattern to check that there are no discharging defects such as nozzle clogging (slight touching of ink or nozzle missing).

In addition, you can select the orientation of the test pattern to print from two types in order to perform test printing repeatedly. Select one depending on your use.



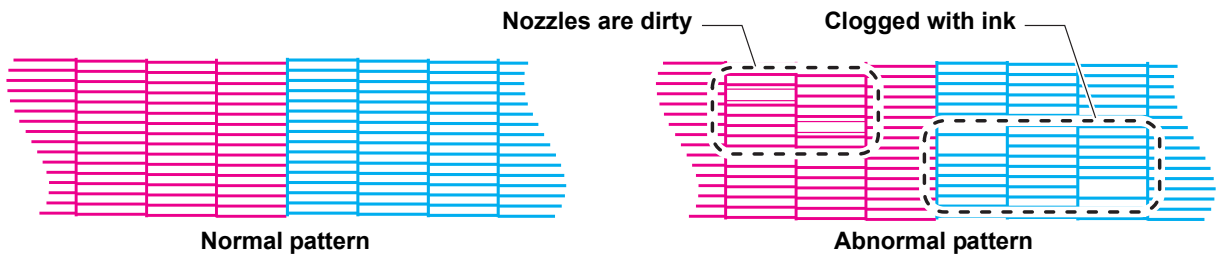
Check before test printing.	• If a media has been set (P.2-5)	• If the origin position has been set
	• If the head gap has been adjusted (P.2-5)	

- 1 Press the **TEST PRINT/CLEANING** key in LOCAL.**
 - Press **▲** **▼** to change the test pattern orientation.

TEST PRINT
(FEED DIR.) [ENT]
- 2 Press the **ENTER** key.**
 - Test printing starts.
 - When the printing has been completed, the screen returns to LOCAL.

** PRINTING **
PLEASE WAIT

<LOCAL>
WIDTH: ****mm
- 3 Check the printed test pattern.**
 - When the result is normal, end the operation.
 - When the result is abnormal, perform head cleaning. (P.2-22)



Head Cleaning

About head cleaning

Check the printed test pattern result and perform cleaning depending on the status.
Select one from the three types below:

- SOFT** : When lines are bent, when any line is missing
NORMAL : When any line is missing, when colors are mixed
HARD : When poor image quality cannot be improved even by NORMAL or SOFT cleaning

Perform head cleaning depending on the test printing result

There are three types of head cleaning. Use one by checking the test pattern.

1

In Local, Press the **CLEANING** key three times.

CLEANING
SOFT L [ENT]

2

Press **▲** **▼** to select the cleaning type.

- SOFT** : When lines are bent, when any line is missing
NORMAL : When any line is missing, when colors are mixed
HARD : When poor image quality cannot be improved even by NORMAL or SOFT cleaning

CLEANING
HARD [ENT]

3

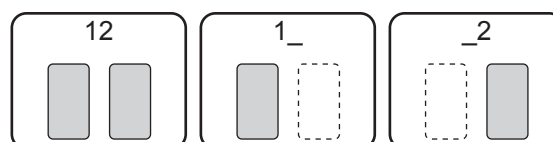
Press the **ENTER** key.

SELECT HEAD
: 12

4

Press **▲** **▼** to select a head to use.

- Set Value : 12 (Use both heads.)
1_ (Use Head 1 only.)
_2 (Use Head 2 only.)
- When "HARD" is performed, you cannot select a head. Both heads are cleaned.



SELECT HEAD
: 1_

5

Press the **ENTER** key.

- The rest of the cleaning time is indicated at the lower of the display.
- On completion of cleaning, this machine returns to LOCAL.

** CLEANING **
PLEASE : WAIT

6

Perform test printing again, and check the result.

- Repeat the cleaning and the test printing until the drawing result becomes in normal.



When the image quality is not improved after the head cleaning.

- Clean the wiper and ink cap. (☞ P.4-5)
- Wash the head nozzle. (☞ P.4-14)
- Solve the failure of the image quality, referring to When Nozzle Clogging Cannot Be Solved.

2

2-23

6**Press the **ENTER** key.**

- Print a correction pattern again and check it.
- When media correction is needed, perform the operation in Step 5 to make correction.

FEED COMP .	
PRINT	[ENT]

7**Press the **END** key several times to end the setting.**

Performing the station maintenance without **ADJUST** key

You can select "FEED COMP." by using the **FUNCTION** key in the Local without pressing the **ADJUST** key.

Press the **FUNCTION** key in Local.

Press **▲** **▼** to select [SETUP].

Press the **ENTER** key twice.

- It becomes the same condition as the key is pressed from Local.

Correcting Media-feeding during Printing

A media-feeding rate can be corrected even in the remote mode or when image data is printed.

1**Press the **FUNCTION** key in the Remote.**

REMOTE	** . **mm
----------	-----------

FEED COMP .	0
-------------	---

Current [FEED COMP.] value

2**Press **▲** **▼** to enter a corrected feeding rate.**

- Corrected feeding rate: -255 to 255
- The value entered here is reflected in the corrected feeding rate soon.

3**Press the **ENTER** key.**

- When you press the **ENTER** key instead of the **END** key, the value entered here will be invalid.

FEED COMPENSATION .	
SAVE	[ENT]

4**Press the **ENTER** key.**

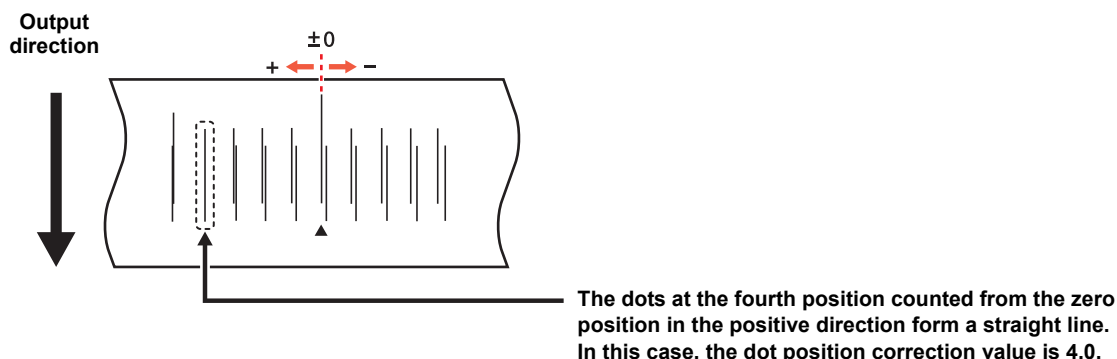
- key. The changed value is registered.

REMOTE	** . **mm
----------	-----------

Correct the ink drop position for bidirectional printing

When the condition for printing (media thickness/head height/etc.) has been changed, perform the following operation to correct the ink drop position for bidirectional (Bi) printing and obtain the proper printing result.

Example of a Drop Position correct Printed Pattern



1 Set a media on the machine and set a printing origin. (👉 P.2-5)

2 Press the **ADJUST** key twice in LOCAL.

DROP.POScorrect [ENT]

3 Press the **ENTER** key.

DROP.POScorrect
PRINT [ENT]

4 Press the **ENTER** key to start pattern printing.

- Multiple test patterns are printed. (The printed patterns are called Pattern 1, Pattern 2, Pattern 3... in the order of printing.)

** PRINTING **
PLEASE WAIT

5 Press **▲** **▼** to correct the dot position of Pattern 1~.

PATTERN1
= 0

- Corrected feeding rate: -40 to 40
- Check the test patterns. The position where an outward feeding line and a return feeding line become one straight line is the correction value.
- When the correction value is not between -40 and 40, adjust the height of the printing heads and then perform the operations in Step 2 and later.

2

Basic Operations

6Press the **ENTER** key.**7**Press the **END** key several times to end the setting.

Performing to correct the dot position without **ADJUST** key

You can select "DROP.POScorrect" by using the **FUNCTION** key in the Local without pressing the **ADJUST** key.

Press the **FUNCTION** key in Local.

Press **▲** **▼** to select [SETUP], and press the **ENTER** key.

Press **▲** **▼** to select [DROP.POScorrect], and press the **ENTER** key twice.

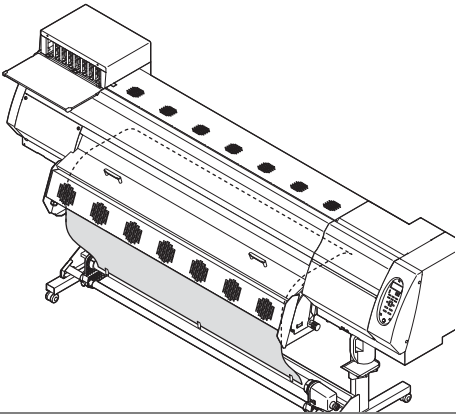
- It becomes the same condition as the key is pressed from Local.

Starting a Printing Operation

Important!

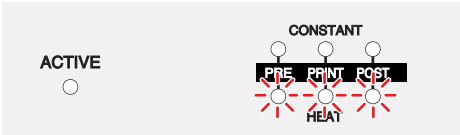
- When using a roll media, rewind the media by hand before printing so that it is not loose. When the roll media has not been rewound tightly, it may cause the image quality to deteriorate.

1 Setting a Media (👉 P.2-5)



2 Checking the Heater Temperature

- Check the CONSTANT lamp lights in [PRE], [PRINT], and [POST] below the display.



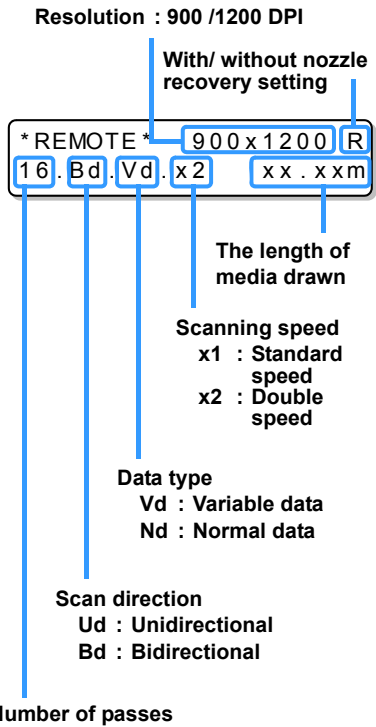
3 Press the **REMOTE** key in LOCAL.

- If the heater temperature has not reached the setting value, the right screen is displayed. Even if it has not reached, you can move to REMOTE when pressing the **ENTER** key.
- The screen changes to REMOTE, and data can be received from the PC.

TEMPERATURE CONTROL!
PLEASE WAIT

4 Transmit data to be printed from the PC.

- The ACTIVE lamp blinks and the printing conditions are displayed.
- For the method of data transmission, see the instruction manual for the output software.



5 Start printing.

Stopping a printing operation halfway

Perform the following operation when stopping a printing operation halfway.

1

Press the **REMOTE** key during printing.

- The printing operation stops.
- Interrupt data sending at the PC side during the data is sent from the PC.
- Printing restarts from the interrupted data by repressing the **REMOTE** key.

<LOCAL>
width: 1272mm

Deleting Received Data (Data Clear)

When you want to stop printing, delete the already received data.

1

Press the **DATA CLEAR** key in **LOCAL**.

DATA CLEAR
[ENT]

2

Press the **ENTER** key.

- The ACTIVE lamp goes out.
- The received data is erased then it returns to the local mode.

** DATA CLEAR **

Cutting a media

For a roll media, two ways are available to cut the media after printing is completed, as follows.



- When a media is cut, be careful that the printed side does not touch the floor or the printed side of other already cut media.
- When using the narrow take-up device, take up a cut medium using the switch of the take-up device.

1

Press the **FUNCTION** key.

MEDIA CUT
[ENT]

2

Press **▲** **▼** to specify the cutting position.

MEDIA CUT
CUT POSITION [▲▼]

CUT POSITION
0.0 ----

3

Press the **ENTER** key.

** CUTTING **
PLEASE WAIT

- The media is cut.
- When the cutting has been completed, the current mode returns to LOCAL.



- During the origin setting with the jog keys, you can also perform media cutting by pressing the **CUT** key. (☞ P.2-16)

Auto cut

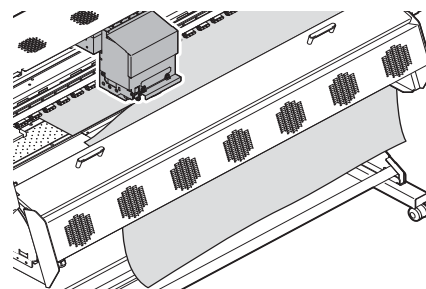
A media is automatically cut after printing is completed.



- In order to activate the automatic cutting function, the setting for it needs to be configured. (For the detailed setting method, refer to P.3-6. The automatic cutting function is set to "HOST" as default.)
- When the automatic cutting function is "OFF", perform the operation in "Manual cut" described later to cut a media.

1

When printing has been completed, the media is cut automatically.



2

Basic Operations

Chapter 3

Extended Functions



This chapter

describes the operation procedures for using the machine more conveniently and each setting procedure.

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List of Functions

This section describes the overview of each function to be set and set values that can be registered in user types.



• About default “HOST” function

You can operate this by the setting value specified in RIP software.

When you set to other than “HOST”, it operates by that setting value, not by the instruction from RIP software.

Depending on RIP software, there are some functions that cannot be instructed by software. In such a case, it operates by the setting value of “When no instruction from RIP exists”.

- For the specifying method with the RIP software, refer to the operation manual of the RIP software.

Function name			Set value	Default	When no instruction from RIP exists ^a	Outline
FEED COMP. (🖨️ P.3-4)			-9999 ~ 0 ~ 9999	0	————	Used to print a pattern for correcting a media-feeding rate and correct it.
DROP. POS CORRECT			-50.0 ~ 0 ~ 50.0	0	————	Used to adjust the dot position in go and return printing.
HEATER (🖨️ P.3-6)	SET TEMP	Pre-Heater	OFF/ 20 ~ 70°C (OFF/ 68 ~ 122°F)	OFF	————	Sets heater conditions.
		Print Heater	OFF/ 20 ~ 70°C (OFF/ 68 ~ 122°F)	OFF	————	
		Post Heater	OFF/ 20 ~ 70°C (OFF/ 68 ~ 122°F)	OFF	————	
FAN HEATER(🖨️ P.2-18)			OFF/ POST+0 ~ 20°C ^b	OFF	————	Sets drying heater conditions.
LOGICAL SEEK(🖨️ P.3-2)			HOST / ON / OFF	HOST	OFF	Sets the scan movable area during printing.
INK LAYERS (🖨️ P.3-6)			HOST /1 ~ 9	HOST	1	Sets the number of layers in which ink is to be applied.
DRYING TIME (🖨️ P.3-2)	SCAN		HOST /0.0 ~ 9.9 sec	HOST	0.2 sec	Sets the time to wait for ink drying.
	PRINT END		HOST /0 ~ 999 sec	HOST	0 sec	
AUTO CUT (🖨️ P.3-6)			HOST /ON / OFF	HOST	OFF	Cuts the media automatically after printing.
MARGIN (🖨️ P.3-4)	LEFT		HOST / -10 ~ 85mm (1mm unit)	HOST	0 mm	Sets a non-printing area along the right and left edges of the media.
	RIGHT		HOST / -10 ~ 85mm (1mm unit)	HOST	0 mm	
VACUUM (🖨️ P.3-6)			HOST / STANDARD / STRONG / OFF	HOST	STANDARD	Sets the absorbability of the media.
FEED SPEED (🖨️ P.3-6)			HOST / 10 ~ 200%	HOST	100%	Changes the media feeding speed in printing. ^c
INTERVAL WIPING (🖨️ P.3-5)			AUTO, Seconds, OFF		————	Sets the wiping operation during printing.

^aa. This is the setting value to be used for printing when setting value is not specified at the RIP software (host) side, or, you give priority to the setting value at the machine side, even if you set “Host” to the type registration of this machine.

^bb. The setting value range shall be within the POST heater setting value +20 °C .

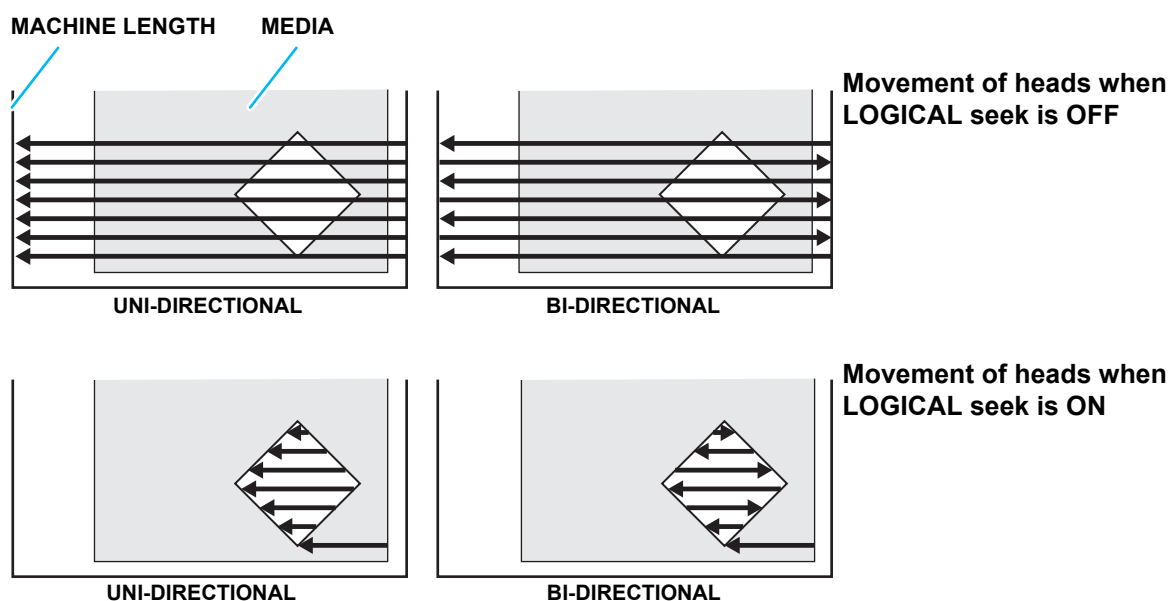
^cc. When you set this to “100%” or more, required time for completion of printing will be shortened. However, enough drying time cannot be ensured and it may affect the image quality.

Setting Logical Seek

The motion of Head varies depending on the set of Logical-seek.

Important!

- You cannot specify the logical seek at the RasterLinkPro side. When you set this machine to "Host", printing will be performed in "LOGICAL SEEK=OFF" status.
- When you set this to "ON" or "HOST"**
Required time for completion of printing will be shortened. However, enough drying time cannot be ensured and it may affect the image quality.



1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press the **ENTER** key.

SETUP
FEED COMP. [ENT]

3

Press **▲** **▼** to select [LOGICAL SEEK].

SETUP
LOGICAL SEEK [ENT]

4

Press the **ENTER** key.

LOGICAL SEEK
:HOST

5

Press **▲** **▼** to select a set value.

• Set value : HOST / ON / MEDIA LENGTH / MACHINE LENGTH

LOGICAL SEEK
:OFF

6

Press the **ENTER** key.

SETUP
LOGICAL SEEK [ENT]

7

Press the **END** key several times to end the setting.

3

Convenient use

Setting Drying Time

In the drying time setting, the following items for ink drying time are set.

- **SCAN** : Ink drying time for each scanning is set. (During bidirectional printing, the machine stops for a certain period of time specified for each of the outward and return scanning.)
- **PRINT END** : Ink drying time after printing has been complete is set.

Important!

- When you give priority to the setting at the RasterLinkPro side, make the setting value "Host".
- "SCAN" set in this machine is displayed as "Pause Time per Scan" in the RasterLinkPro.
- You cannot specify the print end at the RasterLinkPro side. When you set this machine to "Host", printing will be performed in "PRINT END= 0 sec." status.

1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press the **ENTER** key.

SETUP
FEED COMP. [ENT]

3

Press **▲** **▼** to select [DRYING TIME].

SETUP
DRYING TIME [ENT]

4

Press the **ENTER** key.

SCAN
= HOST

5

Press **▲** **▼** to set drying time for scanning.

- To enable the drying time specified in your RIP, select "Host".
- **Scanning setting value** : Host or 0.0 sec. to 9.9 sec.

SCAN
= HOST

6

Press the **ENTER** key.

PRINT END
= HOST

7

Press **▲** **▼** to set drying time for after printing is completed.

- To enable the drying time specified in your RIP, select "Host".
- **Print end setting value** : Host or 0 sec. to 999 sec.

PRINT END
= HOST

8

Press the **ENTER** key.

SETUP
DRYING TIME [ENT]

9

Press the **END** key several times to end the setting.

Setting Margins

Set a non-printing area along the right and left edges of the media.
The offset value against the standard margin 15mm is set hereupon.



- When you give priority to the setting at the RIP software side, make the setting value “Host”.
- You cannot specify the margins at the attached RIP software (RasterLinkPro). When you use the RasterLinkPro, if you set this machine to “Host”, printing will be performed in “Margins for right and left off set value= 0 mm” status.

1	Press the FUNCTION key in LOCAL.	FUNCTION SETUP [ENT]
2	Press the ENTER key.	SETUP FEED COMP . [ENT]
3	Press ▲▼ to select [MARGIN].	SETUP MARGIN [ENT]
4	Press the ENTER key.	LEFT = 0mm
5	Press ▲▼◀▶ to set the left margins. • Set the margins for the left of the media. To enable the margins specified in your RIP, select “Host”. Set Value :HOST or -10 to 85mm (in 1mm increment)	LEFT = HOST
6	Press the ENTER key.	RIGHT = 0mm
7	Press ▲▼◀▶ to set the right margins. • Set the margins for the right of the media. To enable the margins specified in your RIP, select “Host”. Set Value :HOST or -10 to 85mm (in 1mm increment)	RIGHT = HOST
8	Press the ENTER key.	SETUP MARGIN [ENT]
9	Press the END key several times to end the setting.	



- Pay attention to that printing may start on the media press if a right and left margin is set to 5 mm or less when the media press is used in printing.

Setting nozzle face cleaning time

When the set time has passed, nozzle face of the head is cleaned automatically to remove ink droplets on the nozzle face.

In case that deflection, nozzle missing, or symptom which ink droplets fall down occurred, make the interval between each operation shorter.

1	Press the FUNCTION key in LOCAL.	FUNCTION SETUP [ENT]
2	Press the ENTER key.	SETUP FEED COMP. [ENT]
3	Press ▲ ▼ to select [INTERVAL WIPING].	SETUP INTERVAL WIPING [ENT]
4	Press the ENTER key.	INTERVAL WIPING : AUTO
5	Press ▲ ▼ to set intervals. <ul style="list-style-type: none">• Set Value : AUTO, Seconds, OFF• When [OFF] is set, periodical wiping is not executed.	INTERVAL WIPING : AUTO
6	Press the ENTER key.	SETUP INTERVAL WIPING [ENT]
7	Press the END key several times to end the setting.	

Other Settings

Change the settings according to the types of use.

1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press the **ENTER** key.

SETUP
FEED COMP. [ENT]

3

Press **▲** **▼** to select an item for setting.

- Select it, referring to P.3-1 "List of Functions".

4

Press the **ENTER** key.

5

Press **▲** **▼** to select the setting value.

- Select it, referring to P.3-1 "List of Functions".

6

Press the **ENTER** key.

7

Press the **END** key several times to end the setting.

Important!


- The set value is retained even when the power is turned "OFF".

3

Convenient use

Machine Settings

Common settings are functions for using this machine easily.
The following items can be set in Machine settings.

Item		Set value	Default	Meaning
AUTO Power-off		NONE/ 10 ~ 600min	30min	When no operation has been performed for the set time, the power supply is automatically turned "OFF".
MEDIA RESIDUAL		ON / OFF	OFF	You can control the remaining amount of media.
TIME		+4h ~ -20h	Japan time	Time difference is corrected.
UNIT	TEMP.	°C (Centigrade) /°F (Fahrenheit)	°C	A unit for displaying temperature is set.
	LENGTH	mm / inch	mm	A unit for displaying length and area is set.
KEY BUZZER		OFF / ON	ON	A buzzer sound when keys are pressed is set.
LANGUAGE		English / ニホンゴ	English	Displayed language is changed.
RESET( P.3-15)		————	————	All setting values are returned to the status before shipment.

Setting a AUTO Power-off

When no operation has been performed for the set time, the power supply is automatically turned "OFF".

1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press **▲** **▼** to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]

3

Press the **ENTER** key twice.

AETO Power - off
= 30min

4

Press **▲** **▼** to set time to turn OFF the power supply.

• Set Value : none, 10 to 600min

AETO Power - off
= 60min

5

Press the **ENTER** key.

MACHINE SETUP
AUTO Power - off [ENT]

6

Press the **END** key several times to end the setting.

Setting the Display of Media Residual

Whether the screen displays the remaining amount of a media is set.

When the media remaining amount display is turned to "ON"	the remaining amount of a media is displayed in Remote. (However, when a leaf media is used, the length of the media to be printed is displayed.)
When the media remaining amount display is turned to "OFF"	the remaining amount of a media is not displayed in the Remote.



- The amount of a media that has been fed by the printing and jog keys is reflected in the remaining amount of a media.
- The length of a media (initial value of the remaining amount) is entered when a roll media is detected. (P.2-12)
- The setting configured here does not become effective unless media detection is performed after the setting has been complete.

1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press **▲** **▼** to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]

3

Press the **ENTER** key.

MACHINE SETUP
AUTO Power-off [ENT]

4

Press **▲** **▼** to select [MEDIA RESIDUAL].

MACHINE SETUP
MEDIA RESIDUAL [ENT]

5

Press the **ENTER** key.

MEDIA RESIDUAL
: OFF

6

Press **▲** **▼** to select ON/OFF.

MEDIA RESIDUAL
: ON

7

Press the **ENTER** key.

MACHINE SETUP
MEDIA RESIDUAL [ENT]

8

Press the **END** key several times to end the setting.

Printing the Remaining Amount of a Media

The present remaining amount of a media can be printed.



- Set "Remaining amount of a media to display" to "ON".
- When you replace the media you use now with another, it is recommended that you print the remaining amount of the media on it. With the remaining amount of a media having been printed beforehand, when you use the replaced media again, you can enter an accurate value in the screen for entering the remaining amount of a media (P.2-12) that appears after media detection.

1










In LOCAL, Press    .

- LOCAL changes to the origin setting mode.

ORIGIN SETUP
0.0 ----

2






    Press to set a light point of the LED pointer to the changing position.

- Move the carriage and media with     and set the origin.
- When you do not change the origin, do not press     and proceed to Step 3.
- When you press the  key here, the origin is changed, and the screen returns to LOCAL.

ORIGIN	SETUP
0.0	0.0
Origin (Length)	Origin (Width)

3

Press the  key.

- When you press     , the screen returns to Step 2.
- When you press the  key, the screen returns to LOCAL.

MEDIA RESIDUAL DRAW
<ENT>

4

Press the  key.

- The remaining amount of a media starts to be printed.
- When the printing has been completed, the screen returns to LOCAL.

Important!

- When the remaining amount of a media has been printed with the origin changed, the origin set here is effective even when subsequent data are printed.

3

Convenient use

Setting Time

You can set time of your country (time difference).

- 1** Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]
- 2** Press **▲▼** to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]
- 3** Press the **ENTER** key.

MACHINE SETUP
AUTO Power - off [ENT]
- 4** Press **▲▼** to select [TIME].

MACHINE SETUP
TIME [ENT]
- 5** Press the **ENTER** key.

TIME SET
2011.10.05 21:30:00
- 6** Press **▲▼◀▶** to enter time.
Year/Month/Day/Time selecting:by the **◀▶** keys.
Year/Month/Day/Time inputting:by the **▲▼** keys.
- 7** Press the **ENTER** key.
• The entered date is displayed.

TIME
2011.10.05 15:30:00
- 8** Press the **END** key several times to end the setting.



- -20 hours to +4 hours can be set.

Setting Units

Units used by this machine are set.

- 1

Press the key **FUNCTION** in LOCAL.

FUNCTION
SETUP [ENT]
- 2

Press **▲** **▼** to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]
- 3

Press the **ENTER** key.

MACHINE SETUP
AUTO Power-off [ENT]
- 4

Press **▲** **▼** to select [UNIT].

MACHINE SETUP
UNIT [ENT]
- 5

Press the **ENTER** key.

TEMP
: °C
- 6

Press **▲** **▼** to select a unit of the temperature.
• Set value : °C / °F
- 7

Press the **ENTER** key.

LENGTH
: mm
- 8

Press **▲** **▼** to select a unit of the length.
• Set value : mm / inch
- 9

Press the **ENTER** key.

MACHINE SETUP
UNIT [ENT]
- 10

Press the **END** key several times to end the setting.

Setting a KEY BUZZER

You can turn off the buzzer sound when pressing the key.

- 1** Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP <ENT>
- 2** Press **▲▼** to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]
- 3** Press the **ENTER** key.

MACHINE SETUP
AUTO Power - off [ENT]
- 4** Press **▲▼** to select [KEY BUZZER].

MACHINE SETUP
KEY BUZZER [ENT]
- 5** Press the **ENTER** key.

KEY BUZZER
: ON
- 6** Press **▲▼** to select ON/OFF.

KEY BUZZER
: OFF
- 7** Press the **ENTER** key.

MACHINE SETUP
KEY BUZZER [ENT]
- 8** Press the **END** key several times to end the setting.



- When the key buzzer is set to "OFF", the buzzer sound for errors, warnings, operation completion, etc. cannot be shut off.

Setting a LANGUAGE

You can change the displayed language.

1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press **▲** **▼** to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]

3

Press the **ENTER** key.

MACHINE SETUP
AUTO Power-off [ENT]

4

Press **▲** **▼** to select [LANGUAGE].

MACHINE SETUP
LANGUAGE [ENT]

5

Press the **ENTER** key.

LANGUAGE
:English

6

Press **▲** **▼** to select language.

MEDIA S IDUAL
:ニホンコ*

7

Press the **ENTER** key.

MACHINE SETUP
LANGUAGE [ENT]

8

Press the **END** key several times to end the setting.

Initializing the Settings

You can return the setting of "SETUP", "MAINTENANCE" and "MACHINE SETUP" to the status before shipment.

1	Press the FUNCTION key in LOCAL.	FUNCTION SETUP [ENT]
2	Press ▲ ▼ to select [MACHINE SETUP].	FUNCTION MACHINE SETUP [ENT]
3	Press the ENTER key.	MACHINE SETUP AETO Power-off [ENT]
4	Press ▲ ▼ to select [RESET].	MACHINE SETUP RESET [ENT]
5	Press the ENTER key.	Resetting to factory default? [ENT]
6	Press the ENTER key. • The already configured settings are initialized.	RESET EXECUTE [ENT]
7	Press the END key several times to end the setting.	

Confirming Machine Information

The information of this machine can be confirmed.
The following items can be confirmed as machine information.

Item	Description
USAGE	WIPING
	WASTE INK TANK
	FILTER
	PRINT LENGTH
	PRINT AREA
	USE TIME
VERSION	This displays the firmware version of the machine.

Displaying the Information

1

Press the **FUNCTION** key in LOCAL.

FUNCTION
SETUP [ENT]

2

Press **▲** **▼** to select [INFORMATION].

FUNCTION
INFORMATION [ENT]

3

Press the **ENTER** key.

INFORMATION
USAGE [ENT]

4

Press **▲** **▼** to select a type of information.

5

Press the **ENTER** key.

- The Information you need is displayed.

3

Convenient use

About Displayed Information

This section describes how to read displayed information.

WIPING Displays wiping information. <div>WIPING = 0</div>	WASTE INK TANK Displays waste ink tank information. <div>WASTE INK TANK = 0%</div>
FILTER Displays filter information. <div>FILTER = 0</div>	PRINT LENGTH Displays printed length up to now. <div>PRINT LENGTH = 0m</div>
PRINT AREA Displays printed area up to now. <div>PRINT AREA = 0m²</div>	USE TIME Displays used time information of machine. <div>USE TIME = 0h</div>

Displaying the Information of this machine

1

Press the **ENTER** key in LOCAL.

*** INK MMCCYYKK
REMAIN 99999999

2

The information is displayed sequentially with the **ENTER** key .

- The information shown on the below appear.

Remaining amount of ink

*** INK MMCCYYKK
REMAIN 99999999

Error (when ink error occurs)

NON - ORIGINAL INK
MMCCYYKK

Warning (when warning occurs)

WARNING
!Replace Wiper [MNT]

Media width

MEDIA WIDTH
= 1000mm

Serial No.

SERIAL No.
: *****

Version

JV400 - 160 V1.00
MRL - III V1.80

RECOVERY NOZZLE

RECOVERY NOZZLE
CONFIRM DETAILS [MNT]

Press the **MAINT.** key and confirm the description

3

Press the **ENTER** key to return to LOCAL.

Chapter 4

Maintenance



This chapter

describes the items required to use this machine more comfortably, which are the methods for the daily care, the maintenance of the ink unit etc.







Maintenance	4-2	Cleaning the Ink Head and the Area	
Precautions for Maintenance	4-2	around It	4-12
About Cleaning Solution	4-2	When Nozzle Clogging Cannot Be Solved ..	4-14
Cleaning the Exterior Surfaces	4-3	Washing of Head nozzle	4-14
Cleaning the Platen	4-3	Alternative nozzles for printing,	
Cleaning of after heater cover		when nozzles missing can not be improved	4-17
and pre heater cover	4-3	Automatic Maintenance Function	4-20
Cleaning the Media Sensor	4-4	Setting the Refreshing Intervals	4-20
Cleaning the Media Holder	4-4	Setting the Cleaning Intervals	4-21
Maintaining the Capping Station	4-5	Replacing consumables	4-22
Cleaning the Wiper and Cap	4-5	Replacing the wiper	4-22
Washing the Ink Discharge Passage		If a Waste Ink Tank Confirmation Message	
(DISWAY WASH)	4-8	Appears	4-23
When the Machine Is Not Used		Replacing the Cutter Blade	4-26
for a Long Time (CUSTODY WASH)	4-10		

Maintenance

Maintain the machine regularly or as necessary so that its accuracy will be maintained and it can continue to be used for a long time.

Precautions for Maintenance

Pay attention to the following items when maintaining this machine.

	<ul style="list-style-type: none">• When using cleaning solution for maintenance, be sure to wear the supplied protective glasses.
	<ul style="list-style-type: none">• The ink contains organic solvent. When cleaning the machine, be sure to wear gloves so that no ink will make direct contact with your skin.
	<ul style="list-style-type: none">• Never disassemble the machine. Disassembling it can result in electric shock hazards or damage to the machine. Before maintenance, be sure to turn off the power switch and unplug the power cable; otherwise, an unexpected accident may occur.
	<ul style="list-style-type: none">• Prevent moisture from entering the machine. Moisture inside the machine can cause electric shock hazards or damage to the machine.
	<ul style="list-style-type: none">• To ensure stable ink jetting, it is necessary for the machine to eject a small amount of ink (flushing) regularly when a printing (outputting) operation has not been performed for a long time.• When the machine is not to be used for a long time, turn off only the power switch on the front side, leave the main power switch at the rear turned ON (in the position of), and leave the power cable connected.
	<ul style="list-style-type: none">• If organic solvent ink is mixed with water or alcohol, coagulation is generated. Do not wipe the nozzle face of the heads, wiper, caps, etc. with water or alcohol. Doing so can cause nozzle clogging or machine failure.• Do not use benzene, thinner, or any chemical agent containing an abrasive. Such materials can deteriorate or deform the surface of the cover.• Do not apply a lubricant, etc. to any parts inside the machine. Doing so can cause printing failure.• Be careful that the cleaning solution, ink, etc. not to stick to the cover because this may cause the surface of the cover to deteriorate or deform.

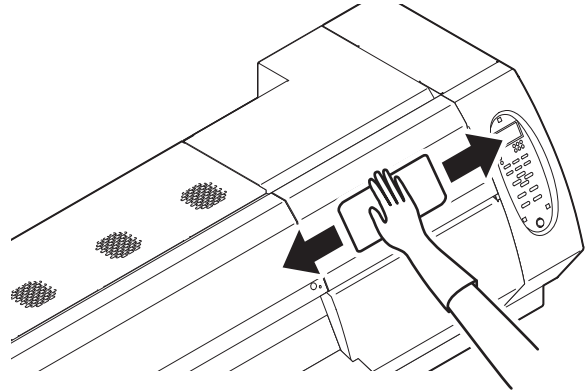
About Cleaning Solution

Use the cleaning liquid dedicated for the ink being used.

Type of Ink	Applicable maintenance washings
LX100 ink	Cleaning Solution LX kit (ML001-Z-K1) Cleaning liquid 01 cartridge (FL001-Z-22) [Sold separately]

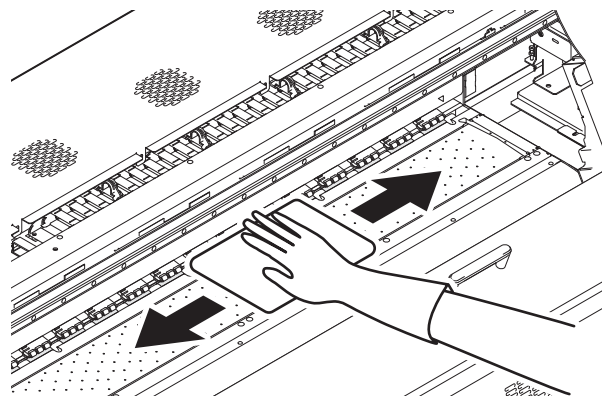
Cleaning the Exterior Surfaces

When the exterior surfaces of the machine are stained, dampen a soft cloth with water or a neutral detergent diluted with water, squeeze it, and wipe the surfaces with the cloth.



Cleaning the Platen

The platen easily gets dirty with lint, paper dust, etc. generated when a media is cut. Wipe off conspicuous stains with a soft-hair brush, a dry cloth, a paper towel, etc.



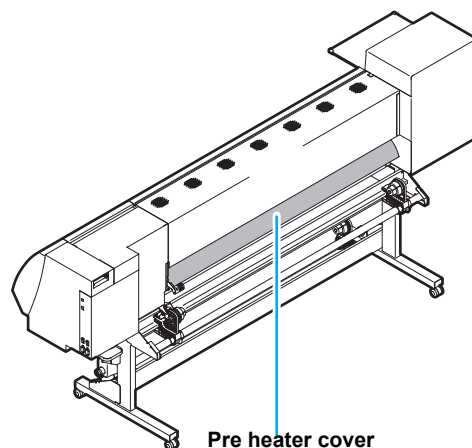
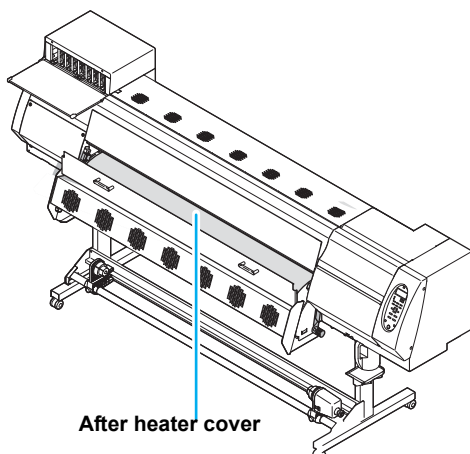
- When the platen is stained with ink, wipe it off with a paper towel containing a small amount of cleaning solution for maintenance.



- Before cleaning the platen, make sure that the platen has cooled adequately.
- Because dust and dirt are easily accumulated in the slots for holding a media and cutting paper (cutter line), be sure to clean these parts carefully.

Cleaning of after heater cover and pre heater cover

The after heater cover and the pre heater cover are easy to be dirty because of the powder of the medium etc. If it shows dirt, wipe it with a soft cloth soaked in water or waterish mild detergent and wrung.



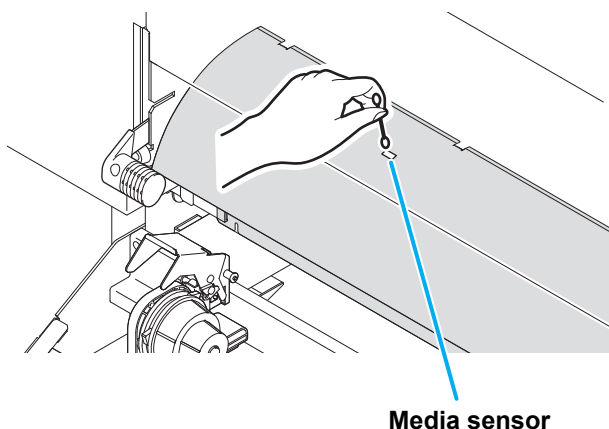
Cleaning the Media Sensor

The media sensors are located on the platen in the backside and the bottom surface of the head. When the sensor is covered with dust, etc., it may cause false detection of media.

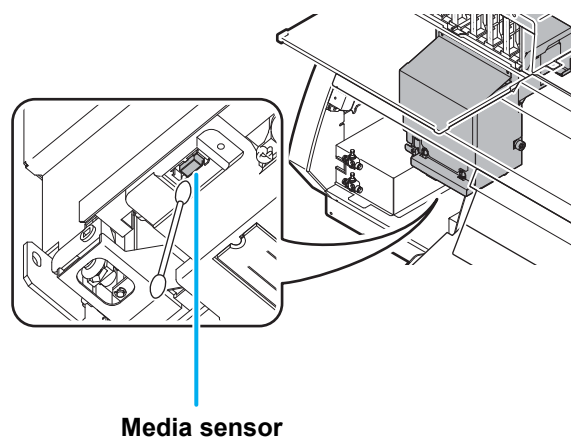
Using a cotton swab, remove the dust, etc. accumulated on the surface of the sensor.

When cleaning the sensor on the lower surface of the head is cleaned, move the carriage to the left end by the operations of step 1 of P.4-12 "Cleaning the Ink Head and the Area around It", and then clean it.

The backside of the machine



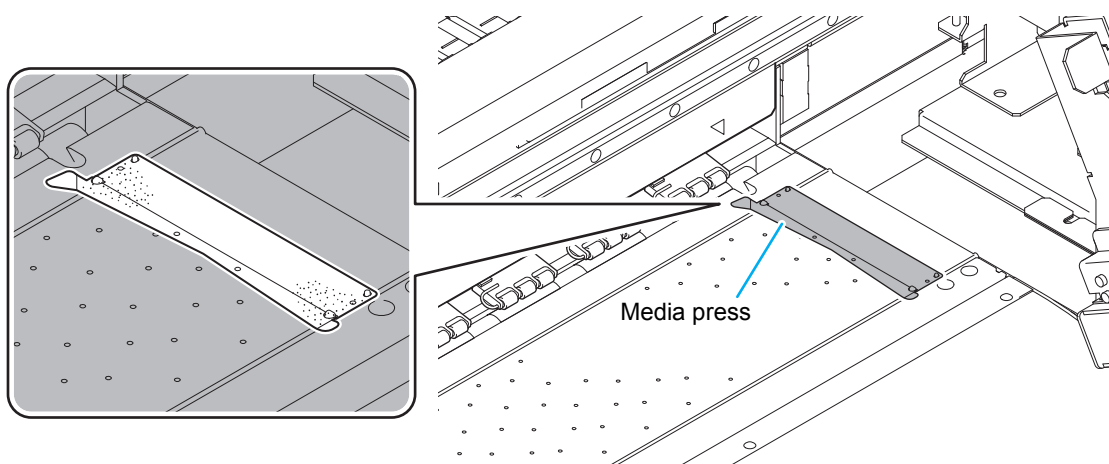
The lower surface of the head



Cleaning the Media Holder

When the media holder is covered with lint, dust, etc., a media cannot be fed normally during printing or dust sticks to the nozzles, which may result in abnormal printing.

Clean the media holder regularly.



Maintaining the Capping Station

Maintain the ink cap, wiper, etc. located in the capping station. (SATION MAINT.)

The ink cap and wiper function as follows.

- **Wiper** : It wipes off ink sticking to the head nozzles.
- **Ink cap** : It prevents the head nozzles from clogging due to dryness.

As the machine is used repeatedly, the wiper and ink cap gradually become dirty with ink, dust, etc.
If nozzle missing cannot be corrected even after head cleaning (☞ P.2-22) has been performed, use a cleaning kit and clean stick.

Tools required for Maintenance	• Cleaning solution When LX ink is used: Cleaning Solution LX kit (ML001-Z-K1)		
	• Clean stick (SPC-0527)	• Gloves	• Goggles



- Be sure to wear the supplied goggles and gloves when maintaining the capping station. Otherwise, you may get ink in your eyes.
- Do not move the carriage out of the capping station by hand. When it is desirable to move the carriage, press the **MAINT.** key to execute the carriage-out. (☞ P.4-5 Steps 1 to 2)

Cleaning the Wiper and Cap

It is recommended that the wiper and cap be cleaned frequently in order to maintain the high image quality of the machine and keep the machine itself in good working order.

Important!

- When LX ink is used, the ink sticks around the wiper easily. Clean the wiper and the area around it about twice a week (it varies, depending on frequency in the use of the machine).
- Replace the wiper with a new one when it is extremely dirty or bent. (☞ P.4-22)
- When cleaning the wiper, be careful that lint from the clean stick does not get left on the wiper. Remaining lint may cause image quality to deteriorate.

1

Press the **MAINT.** key in LOCAL.

STATION
CARRIAGE OUT [ENT]

2

Press the **ENTER** key.

MOVEMENT PLACE
: STATION MAINT.

3

Press **▲ ▼** to select [STATION MAINT.].

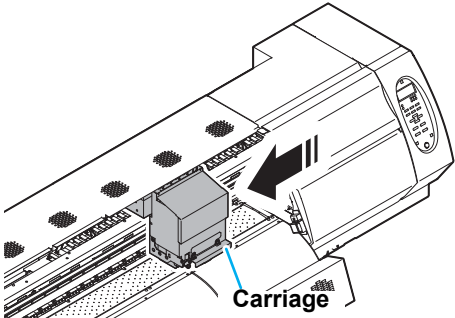
MOVEMENT PLACE
: STATION MAINT.

4

Press the **ENTER** key.

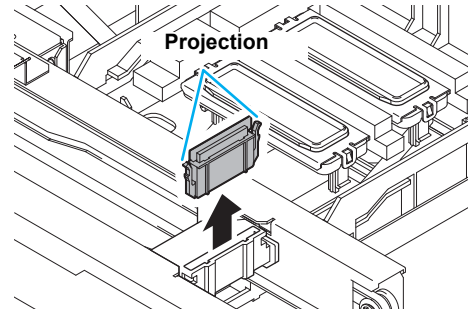
• The carriage moves onto the platen.

MOVEMENT PLACE
: STATION MAINT.

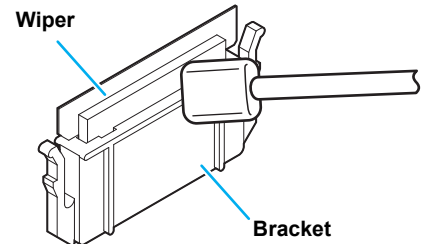


5**Open the front cover then remove the wiper.**

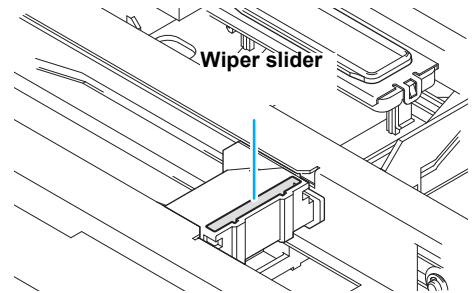
- Pull out the wiper by holding the protrusions at its both ends.

**6****Clean the wiper and bracket.**

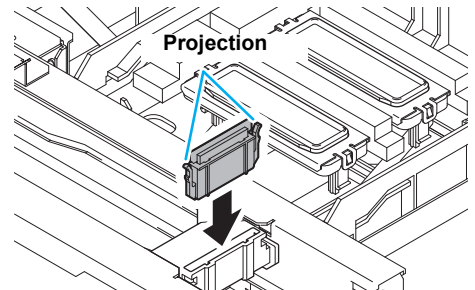
- Wipe off the ink sticking to the wiper and bracket with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.

**7****Clean the wiper slider.**

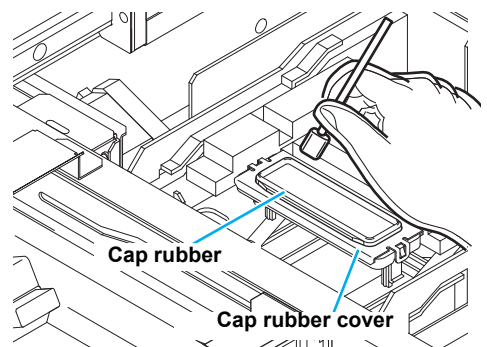
- Wipe off the ink sticking to the wiper slider with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.

**8****Set the wiper at the original position.**

- Insert the wiper by holding both ends of the wiper.

**9****Clean the cap rubber and cap rubber cover.**

- Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.



10

Close the front cover then press the **ENTER** key.

- After its initial operation, the machine returns to LOCAL.

Close a cover



Being Initialized
PLEASE WAIT

Performing the station maintenance without **MAINT.** key

You can select station maintenance by using the **FUNCTION** key in the Local without pressing the **MAINT.** key.

Press the **FUNCTION** key in Local.

Press **▲** **▼** to select [MAINTENANCE].

Press the **ENTER** key twice.

- It becomes the same condition as the **MAINT.** key is pressed from Local.

Washing the Ink Discharge Passage (DISWAY WASH)

Wash the ink discharge passage regularly to prevent the head nozzles from clogging due to ink coagulation inside the passage.

1

Press the **MAINT.** key in LOCAL.

STATION
CARRIAGE OUT [ENT]

2

Press **▲** **▼** to select [DISWAY WASH].

STATION
DISWAY WASH [ENT]

3

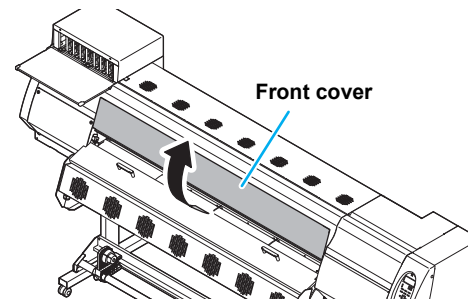
Press the **ENTER** key.

- The carriage moves onto the platen.
- Dry suction operation is performed repeatedly until the washing work is completed.
- If the cleaning solution cartridge is usable, automatic washing is performed and the operation is completed. If the cleaning solution cartridge is not usable, the procedures in the Step 4 and after are performed.

DISWAY WASH
COMPLETED [ENT]

4

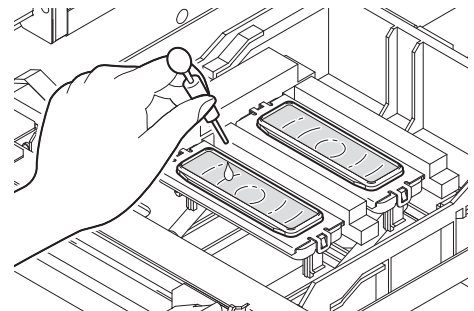
Open the front cover.



5

Fill up the cap with cleaning solution for maintenance, using a dropper.

- Fill the cap with the cleaning solution just before the solution overflows from the cap.



6

Close the front cover and press the **ENTER** key.

Being Initialized
PLEASE WAIT



<LOCAL>

- After the idle absorbing operation has been performed for 30 seconds, the screen returns to LOCAL.

Important!

- Perform the followings unless the cleaning solution has been filled in the machine.
 - (1) Perform the operations until the step 4.
 - (2) Fill the cap with the cleaning solution by using a syringe.
 - (3) Perform the operations from the step 6.

When the Machine Is Not Used for a Long Time (CUSTODY WASH)

When the machine is not going to be used for a week or more, use the cleaning function for custody to clean the head nozzles and ink discharge passage. After this, keep the machine in custody.

Check the items on the right beforehand.

Is [NEAR END] or [INK END] displayed?

- The cleaning solution or ink is absorbed when the nozzles are washed. At this time, if the state of "no ink" or "almost no ink" is detected, the nozzle washing operation cannot start.
- Replace the cartridge with another from which the state of "almost no ink" or "no ink" is not detected.



- When the following messages are indicated, check the waste ink tank, and then operate it, referring to P.4-23 "If a Waste Ink Tank Confirmation Message Appears" according to the situation.

Check waste ink [ENT]

1

Press the **MAINT.** key in LOCAL.

STATION
CARRIAGE OUT [ENT]

2

Press **▲** **▼** to select [CUSTODY WASH].

STATION
CUSTODY WASH [ENT]

3

Press the **ENTER** key.

- The carriage moves onto the platen.

WIPER CLEANING
COMPLETED (NEXT) [ENT]

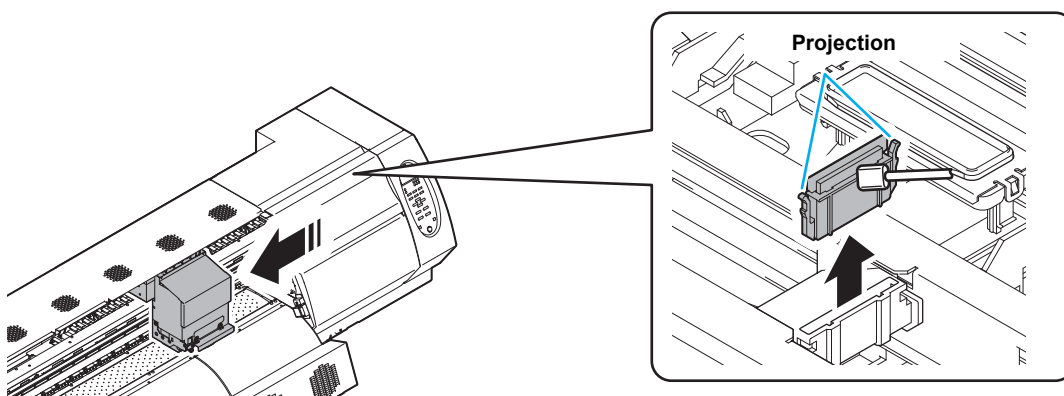
Important!

- Until wiper/ bracket cleaning is completed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 4 is completed, press the **ENTER** key. If you press the **ENTER** key before cleaning is completed, the machine moves to the next washing procedure.

4

Clean the wiper and the bracket.

- (1) Open the front cover then pull out it by holding projections at both ends of the wiper.
- (2) Clean the wiper and bracket with a clean stick dipped in cleaning solution for maintenance. (ML001-Z-K1) Wipe off so that cleaning solution for maintenance will not remain.
- (3) Insert it in the original position by holding the projections at both ends of the wiper.



5

Press the **ENTER** key.

Fill the liquid
COMPLETED (NEXT) [ENT]

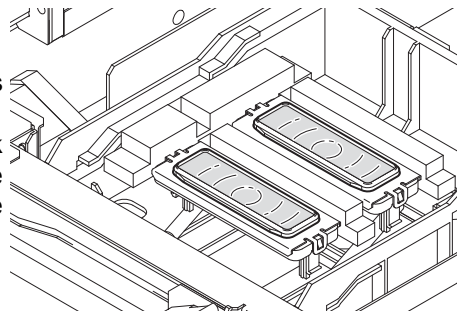
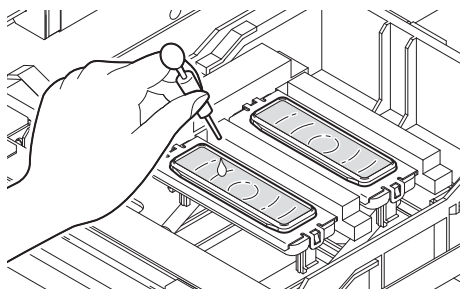
Important!

- Until washing liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the Step 6 is completed and you close the front cover, press the **ENTER** key. If you press the **ENTER** key before washing liquid is filled, the carriage returns to the original position.

6

Fill up the cap with cleaning solution for maintenance.

- If the cleaning solution cartridge is usable, cleaning solution is automatically filled.
- If the cleaning solution cartridge is not usable, suck maintenance cleaning solution into a dropper and fill up the cap with it. Fill up the cap with cleaning solution on the verge of overflow from the cap.



7

Close the front cover and press the **ENTER key.**

LEAVING TIME
= 1min

8

Press **▲ **▼** to set the time for the cleaning solution to be left as it is.**

- Set Value: 1 to 99 min (by the unit of 1 min)

LEAVING TIME
= 2min

9

Press the **ENTER key.**

- The nozzles are washed.
- When the nozzles have been completely washed, the head moves onto the platen.

Close a cover

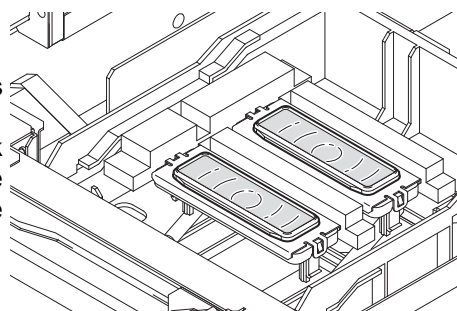
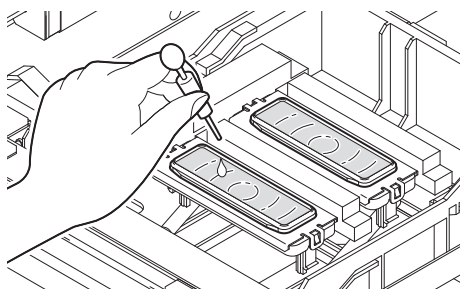
10

Open the front cover.

11

Fill up the cap with cleaning solution for maintenance.

- If the cleaning solution cartridge is usable, cleaning solution is automatically filled.
- If the cleaning solution cartridge is not usable, suck maintenance cleaning solution into a dropper and fill up the cap with it. Fill up the cap with cleaning solution on the verge of overflow from the cap.



12

Close the front cover and press the **ENTER key.**

- After its initial operation, the machine returns to LOCAL.

Being Initialized
PLEASE WAIT

4

Routine Maintenance

Cleaning the Ink Head and the Area around It

Because the ink head employs a very precise mechanism, due care needs to be taken when it is cleaned. Using a clean stick, etc., rub off gelatinous ink or dust that may stick to the lower part of the slider and the area around the ink head. In doing so, never rub the nozzles of the head.

Tools required for cleaning

• Clean stick (SPC-0527)

• Gloves

• Goggles



- Be sure to wear the attached goggles and gloves when cleaning the area around the ink head. Otherwise, you may get ink in your eyes.
- The ink contains organic solvent. If you get the ink on your skin or in your eyes, wash it away with plenty of water immediately.

1

Press the **MAINT.** key in **LOCAL**.

STATION
CARRIAGE OUT [ENT]

2

Press the **ENTER** key.

MOVEMENT PLACE
: STATION MAINT.

3

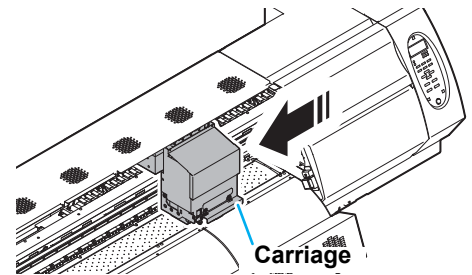
Press **▲** **▼** to select **[HEAD MAINT.]**.

MOVEMENT PLACE
: HEAD MAINT.

4

Press the **ENTER** key.

- Carriage will move to the left end of this device.

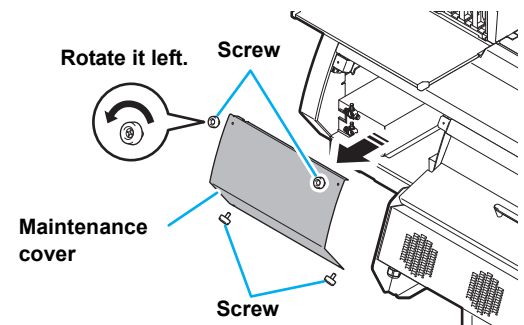


5

Open the maintenance cover.

- (1) Turn four screws that fix the maintenance cover to the left, and remove them.
- (2) Remove the maintenance cover.

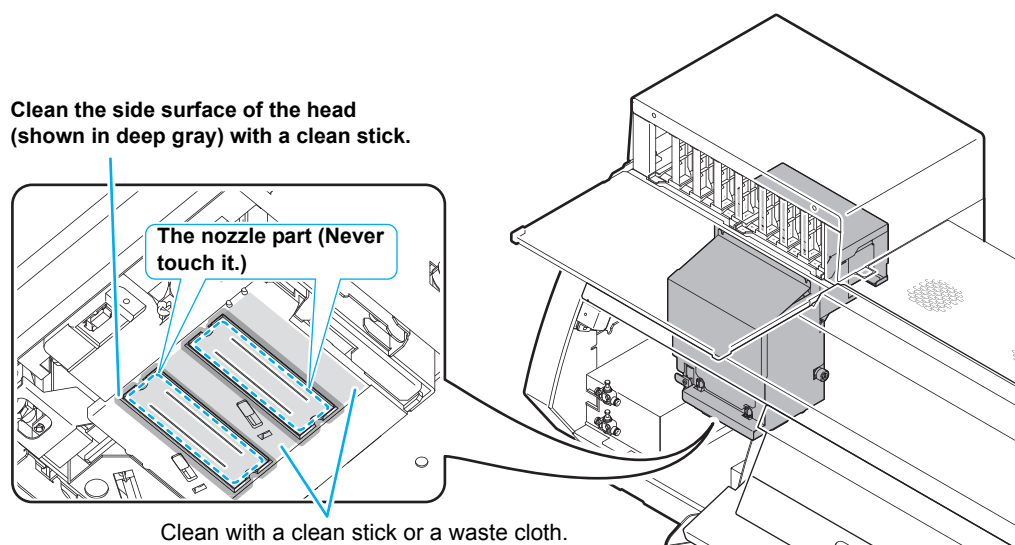
- If the maintenance cover is hard to remove, use the supplied screwdriver.



6

Wipe ink sticking to the side of the head off with a clean stick.

- Never rub the nozzles.



7

Press the **ENTER** key after the cleaning.

Close a cover

8

Close the maintenance cover then press the **ENTER** key.

(COVER OPEN)
PRESS <ENT> KEY



Being Initialized
PLEASE WAIT

- After its initial operation, the machine returns to LOCAL.

When Nozzle Clogging Cannot Be Solved

When nozzle clogging cannot be solved even after the ink head cleaning (☞ P.2-22) has been done, perform the following two functions:

NOZZLE WASH	• Wash the head nozzle. (☞ P.4-14)
NOZZLE RECOVERY	• Alternative nozzles for printing, when nozzles missing can not be improved. (☞ P.4-17)

Washing of Head nozzle

Perform cleaning of the nozzles in the heads to prevent them being clogged with coagulated ink.

Check the items on the right beforehand.

Is [NEAR END] or [INK END] displayed?

- The cleaning solution or ink is absorbed when the nozzles are washed. At this time, if the state of "no ink" or "almost no ink" is detected, the nozzle washing operation cannot start.
- Replace the cartridge with another from which the state of "almost no ink" or "no ink" is not detected.

1

Press the **MAINT.** key in LOCAL.

STATION
CARRIAGE OUT [ENT]

2

Press **▲** **▼** to select [NOZZLE WASH].

STATION
NOZZLE WASH [ENT]

3

Press the **ENTER** key.

- The carriage moves onto the platen.

WIPER CLEANING
COMPLETED (NEXT) [ENT]

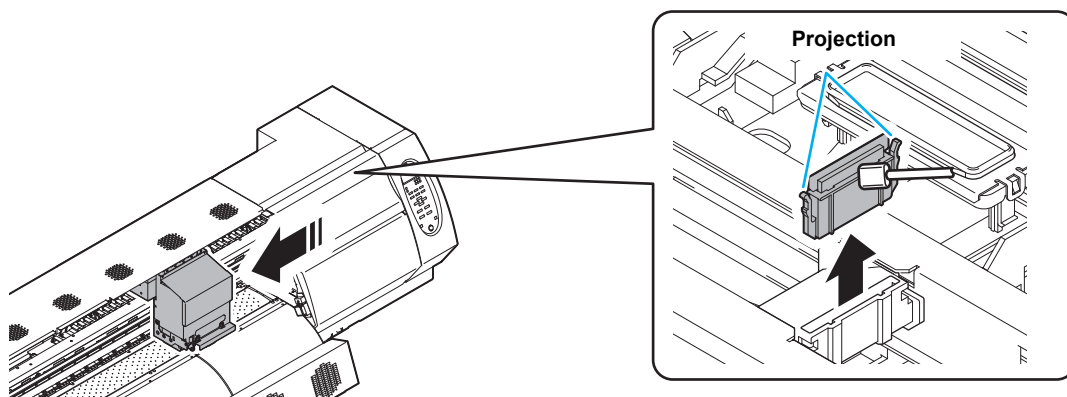
Important!

- Until wiper cleaning is completed, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the step 4 is completed, press the **ENTER** key. If you press the **ENTER** key before cleaning is completed, the machine moves to the next washing procedure.

4

Clean the wiper and the bracket.

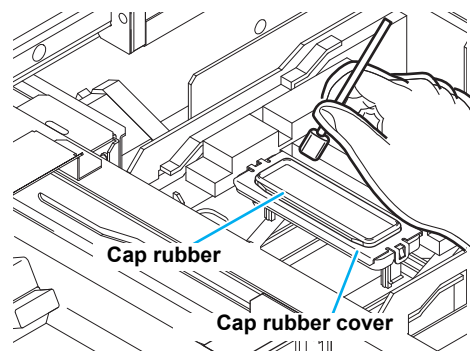
- (1) Open the front cover then pull out it by holding projections at both ends of the wiper.
- (2) Clean the wiper and bracket with a clean stick dipped in cleaning solution for maintenance. (ML001-Z-K1) Wipe off so that cleaning solution for maintenance will not remain.
- (3) Insert it in the original position by holding the projections at both ends of the wiper.



5

Clean the cap rubber and cap rubber cover.

- Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in cleaning solution for maintenance. Wipe off so that cleaning solution for maintenance will not remain.
- At this time, the discharge passage is cleaned automatically.



6

Press the **ENTER key.**

Fill the liquid
COMPLETED (NEXT) [ENT]

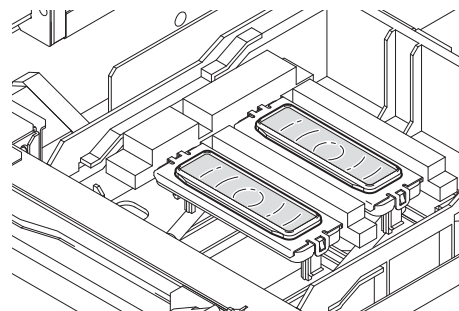
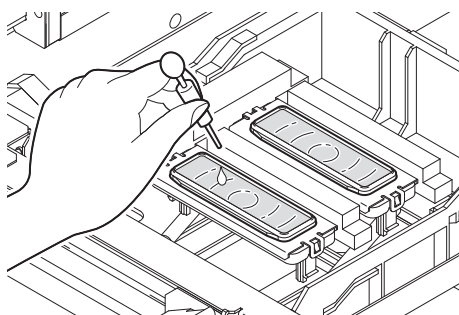
Important!

- Until washing liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After the work up to the Step 6 is completed and you close the front cover, press the **ENTER** key. If you press the **ENTER** key before washing liquid is filled, the carriage returns to the original position.

7

Fill up the cap with cleaning solution for maintenance.

- If the cleaning solution cartridge is usable, cleaning solution is automatically filled.
- If the cleaning solution cartridge is not usable, suck maintenance cleaning solution into a dropper and fill up the cap with it. Fill up the cap with cleaning solution on the verge of overflow from the cap.



8

Close the front cover then press the **ENTER key.**

LEAVING TIME
= 1min

9

Press **▲ **▼** to set the time for the cleaning solution to be left as it is.**

LEAVING TIME
= 2min

- Set value : 1 to 99 minutes (Unit: minute)

4

Routine Maintenance

10

Press the **ENTER** key.

- The cleaning solution filled in the cap is absorbed.
- The screen on the right is displayed only for the duration set in the step 9.
- It returns to the Local after the duration.

C l o s e a c o v e r



<LOCAL>

Important!

- When nozzle missing is not cleared even after this washing is carried out several times, contact the distributor in your region or our service office.
- When this machine is not filled with cleaning solution for maintenance, do the following:
 - (1) Perform the operations in Steps 1 to 5.
 - (2) Fill up the cap with cleaning solution for maintenance, using a syringe.
 - (3) Perform the operations in Step 7 and later.

Alternative nozzles for printing, when nozzles missing can not be improved

NOZZLE RECOVERY: When nozzles missing can not be improved at specific points, other good nozzles can be used as alternatives for printing.

1

Select **[NOZZLE RECOVERY]** of the maintenance menu.

- (1) Press the **[FUNCTION]** key in LOCAL.
- (2) Press **[▲]** **[▼]** to select **[MAINTENANCE]** and press the **[ENTER]** key.
- (3) Press **[▲]** **[▼]** to select **[NOZZLE RECOVERY]**.
- (4) Press the **[ENTER]** key.

2

Select the **[PRINT]** by pressing **[▲]** **[▼]** key. Then press **[ENTER]** key.

- Select t“ENTRY” then “Move to select of the Nozzle line (Step 4) without drawing a patern”

NOZZLE RECOVERY
:PRINT



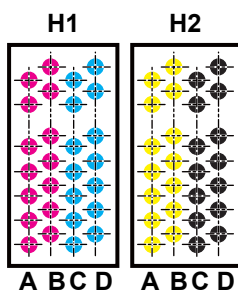
NOZZLE RECOVERY
PRINT [ENT]

3

Press the **[ENTER]** key.

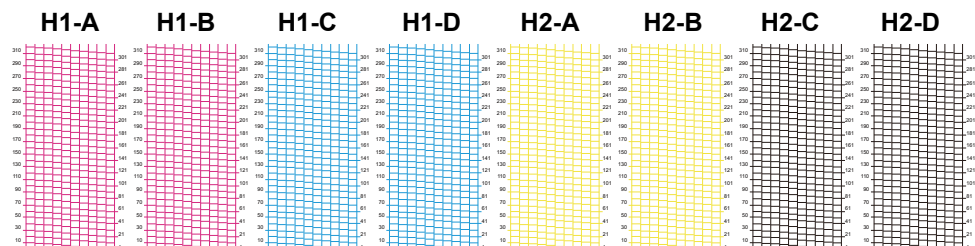
** PRINTING **
PLEASE WAIT

Overhead view



Nozzle line

Nozzle pattern



4

Select the Nozzle line that needs **NOZZLE RECOVERY** by pressing **[▲]** **[▼]** key. Then press **[ENTER]** key.

SELECT NOZZLE
:H1-A

Ink color:
M,C,Y,K,Lc,Lm,W

Head No.: H1 to H2

4

Routine Maintenance

5

Register the Nozzle number that needs **NOZZLE RECOVERY** and then press **ENTER** key.

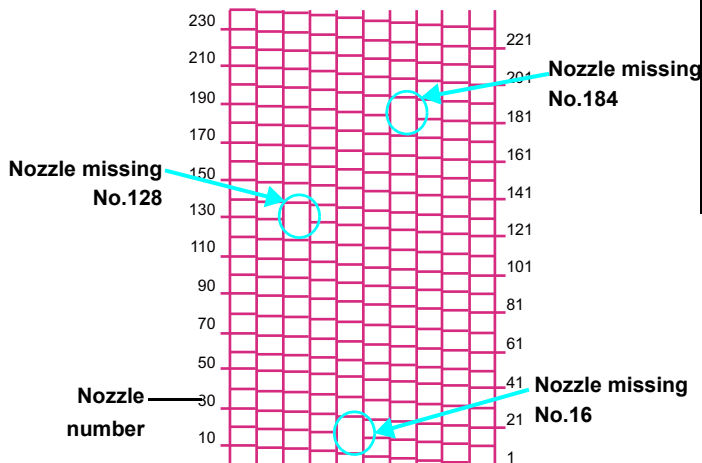
- Select the registration number from 1 to 10 by pressing **▲** **▼** key and press the **ENTER**.
- Register the nozzle number that needs recovery by pressing **▲** **▼** key and press the **ENTER**.
-

H1 - A
 No. 1 184

Recovery nozzle No.:
or OFF

Registration number:
1 to 10

Example of nozzle to be recovered



Registration number	Recovery Nozzle No.	State
1	16	Target for nozzle recovery
2	128	Target for nozzle recovery
3	184	Target for nozzle recovery
4	OFF	No registration
5	OFF	No registration

6

Press **END** the key several times to end the setting.

Important!

- Up to 10 nozzles can be registered per 1 nozzle line.
- Even if you use this function, time required for drawing does not change.
- For the lowest number of paths of the drawing mode, the NOZZLE RECOVERY function is invalid.



- When you use white ink, print on the clear film to check.

Clear the set value

1

Select [HD.MAINTENANCE] of the maintenance menu.

- (1) Press the **FUNCTION** key in LOCAL.
- (2) Press **▲** **▼** to select [MAINTENANCE] and press the **ENTER** key.
- (3) Press **▲** **▼** to select [HD. MAINTENANCE].
- (4) Press the **ENTER** key.

2

Select the [CLEAR] by pressing **▲** **▼** key. Then press **ENTER** key.

NOZZLE RECOVERY
: CLEAR

3

Press the **ENTER** key.

SELECT CLEAR NOZZLE
: H1 - A

4

Select the Nozzle line that needs clear the setting value by pressing **▲** **▼** key. Then press **ENTER** key.

SELECT CLEAR NOZZLE
: H1 - A



H1 - A CLEAR?
EXECUTE [ENT]

5

Press the **ENTER** key.

6

Press **END** the key several times to end the setting.

Automatic Maintenance Function

To use this machine comfortably, you can set various maintenances to be performed automatically.

Here, set performing intervals of various automatic maintenances.

You can prevent troubles such as ink clogging by performing automatic maintenance periodically (automatic maintenance function).

For the auto maintenance functions, the following items can be set:

Important!

- When you perform maintenance manually, after manual maintenance is completed and when time set with the automatic maintenance function has passed, maintenance starts automatically.

Function name	Descriptions
REFRESH	The interval between each refreshing operation is set.
PUMP TUBE WASH	The interval between each PUMP tube washing operation is set.
CLEANING	The interval between each cleaning operation is set.

Important!

- During the right message is displayed, the operation set in the auto maintenance function is not carried out. Perform the operations of P.4-24 if required.
- When the power switch on the front of the machine is turned off, check the waste ink tank.

<LOCAL>
!WASTE TANK

Setting the Refreshing Intervals

The interval between each operation of ejecting a small amount of ink from the nozzles to prevent nozzle clogging is set.

1

Select [AUTO MAINT.] of the maintenance menu.

- (1) Press the **FUNCTION** key in LOCAL.
- (2) Press **▲** **▼** to select [MAINTENANCE] and press the **ENTER** key.
- (3) Press **▲** **▼** to select [AUTO MAINT.].

2

Press the **ENTER** key.

AUTO MAINT .
REFRESH [ENT]

3

Press the **ENTER** key.

REFRESH
: LEVEL 1

4

Press **▲** **▼** to set the refreshing interval.

- Set value : LEVEL1, LEVEL2, LEVEL3
- As the LEVEL increases, the interval between each operation gets shorter.

REFRESH .
: LEVEL 1

5

Press the **ENTER** key.

AUTO MAINT .
REFRESH [ENT]

6

Press **END** the key several times to end the setting.

Setting the Cleaning Intervals

The cleaning type and the interval between each cleaning operation are set.

1

Select [AUTO MAINT.] of the maintenance menu.

- (1) Press the **FUNCTION** key in LOCAL.
- (2) Press **▲** **▼** to select [MAINTENANCE] and press the **ENTER** key.
- (3) Press **▲** **▼** to select [AUTO MAINT.].
- (4) Press the **ENTER** key.

2

Press **▲** **▼** to select [CLEANING].

AUTO MAINT.
CLEANING [ENT]

3

Press the **ENTER** key.

CLEANING
: LEVEL 1

4

Press **▲** **▼** to set the interval between each cleaning operation.

CLEANING
: LEVEL 1

- Set value : LEVEL1, LEVEL2, LEVEL3
- As the LEVEL increases, the interval between each operation gets shorter.

5

Press the **ENTER** key.

- The cleaning type selection screen appears.

TYPE
: NORMAL

6

Press **▲** **▼** to select a cleaning type.

- Set value : NORMAL, SOFT, HARD

TYPE
: SOFT

7

Press the **ENTER** key.

AUTO MAINT.
CLEANING [ENT]

8

Press the **END** key several times to end the setting.

4

Replacing consumables

Replacing the wiper

The wiper is consumable. When the display indicates that it is necessary to replace the wiper, immediately replace the wiper with a new one. Also, wipe ink sticking to the lower surface of the slider off.

<LOCAL>
!Replace Wiper [MNT]

Important!

- A cleaning wiper is an option. Buy one through the dealer in your region or at our service office.

1

Press the **MAINT.** key in LOCAL.

REPLACE WIPER
EXECUTE [ENT]

2

Press the **ENTER** key.

- The carriage moves onto the platen.

REPLACE WIPER
COMPLETED [ENT]

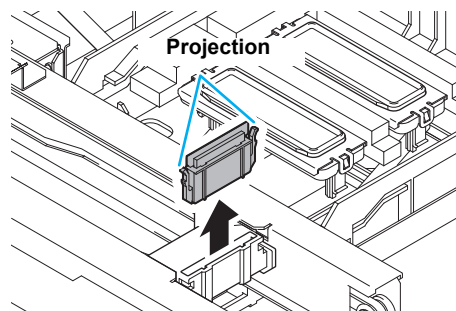
Important!

- Until the replacement work is completed, [COMPLETED: ent] is displayed on the screen. After the work up to the Step 5 is completed and you close the front cover, press the **ENTER** key.

3

Open the front cover then remove the wiper.

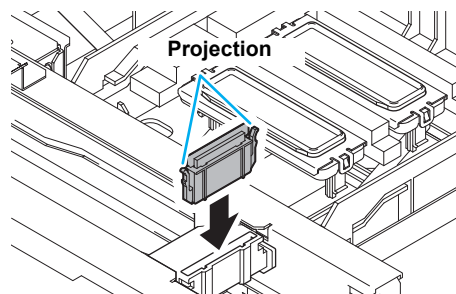
- Pull out the wiper by holding the protrusions at its both ends.



4

Insert a new wiper.

- Insert a new wiper by holding its both ends.



5

Close the front cover then press the **ENTER** key.

- After its initial operation, the machine returns to LOCAL.

Close a cover



Being Initialized
PLEASE WAIT

If a Waste Ink Tank Confirmation Message Appears

Ink used in head cleaning, etc. is stored in the waste ink tank on the lower right side of the machine. This machine counts the accumulated amount of discharged ink. When that reaches a specified amount, the machine displays a confirmation message. (When this message is displayed, consider the replacement of the waste ink tank.)



- The message is displayed when it reaches 80% (1.6L) of the 2L tank.

Confirmation Message in LOCAL




1

The message on the right is displayed.

```
<LOCAL>
!Waste Inktank [MNT]
```

2

Check the state of the waste ink tank

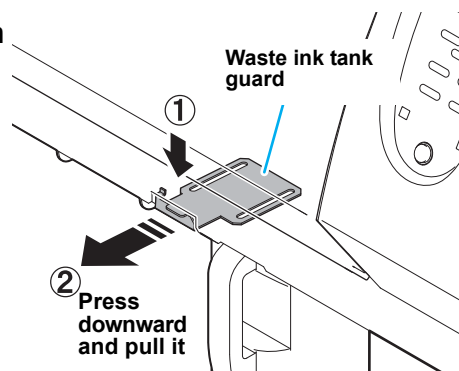
- When it is different from the actual amount, press   and correct.
- When you correct (80%), press the  key to return to LOCAL.
- When you replace (disposal) and clear the count, perform the procedures in "Replace the waste ink tank with another".

```
Confirm a waste tank
Level: 80%(1.6L)
```

Replace the waste ink tank with another

1

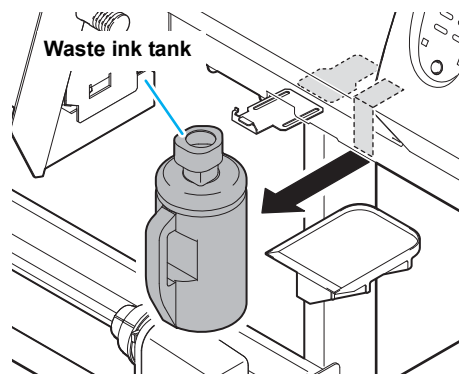
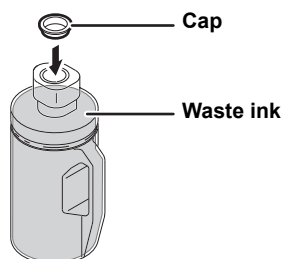
Press the waste ink tank guard downward to open to the front.



2

Pull it frontward to remove by holding the waste ink tank handle.

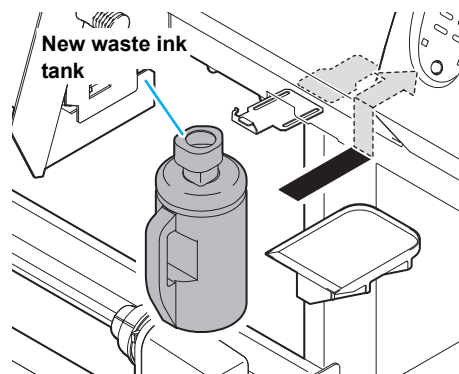
- Put a cap on the waste ink tank removed.

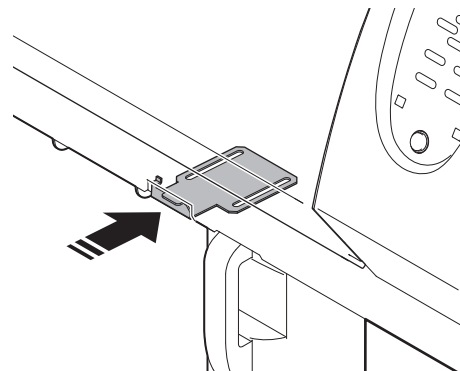


3

Replace the waste ink tank.

- (1) Prepare a new waste ink tank (SPC-0117).
- (2) Insert the waste ink tank by holding a handle of the tank.



4**Close the waste ink tank guard.****5****Press the **ENTER** key.**

- The ink discharging amount that is controlled by the machine is reset and the message is cancelled.

COUNT	CLEAR
EXECUTE	[MNT]

Replacing the Cutter Blade

The cutter blade is consumable. When the cutter blade gets dull, replace it with a new one (SPA-0107).



- The blade is sharp. Be careful not to hurt yourself or anyone else.
- Store the cutter blade in a place that is out of the reach of children. In addition, dispose of used cutter blades according to regional laws and regulations.

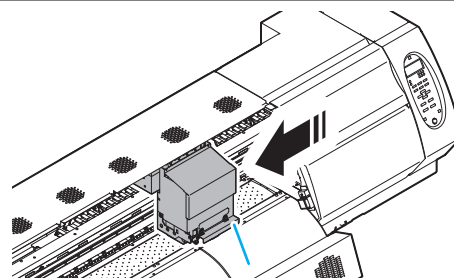


- When replacing the cutter blade, it is recommended to place a sheet of paper under the cutter blade. This will help pick up the cutter blade if it drops.

1

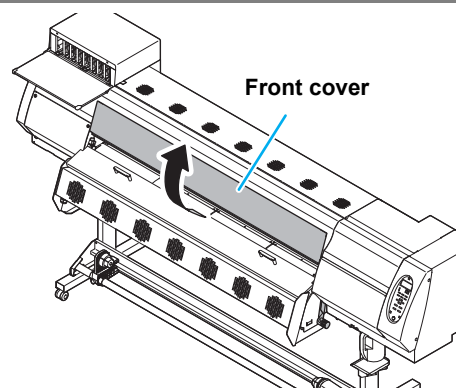
Press the **MAINT.** key then press the **ENTER** key.

- The carriage moves onto the platen.



2

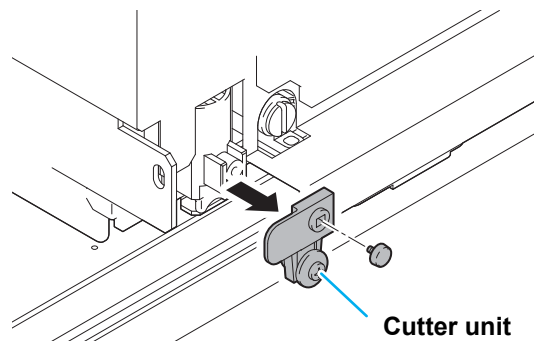
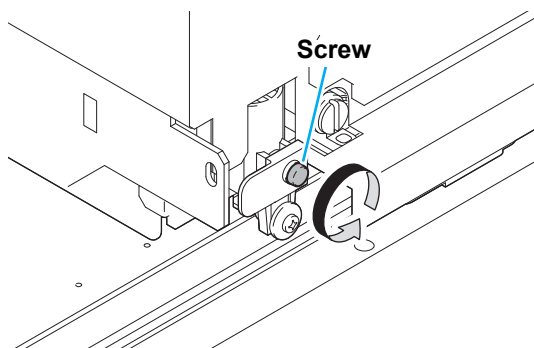
Open the front cover.



3

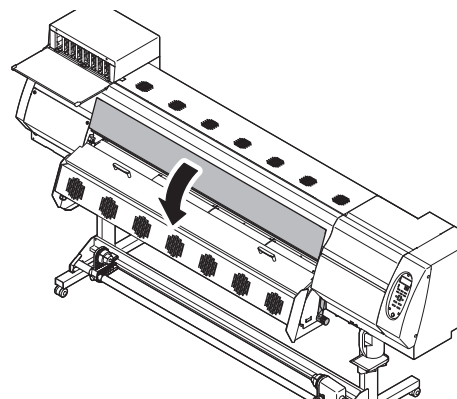
Replace the cutter unit by the carriage.

- (1) Loosen the screw of the cutter unit.
- (2) Remove the cutter unit.
- (3) Mount a new cutter unit.
- (4) Fasten the screw of the cutter unit to secure the cutter unit.



4

Close the front cover.

**5**

Press the **ENTER** key.

- The screen returns to LOCAL.

Chapter 5

Troubleshooting



This chapter

describes the corrective measures to be taken for a phenomenon suspected to be trouble and the procedures to clear the error number displayed on the LCD.

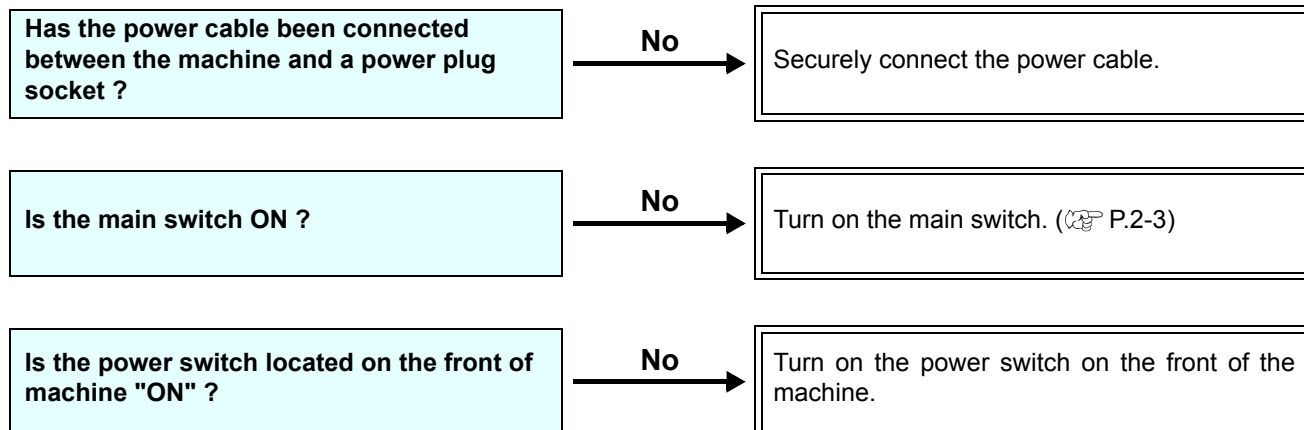
Troubleshooting	5-2
Power does not turn on	5-2
The machine does not start printing	5-2
Media get jammed / media is soiled	5-3
[HEAT] or [CONSTANT] LED does not light up	5-3
Image quality is poor	5-4
Nozzle is clogged	5-4
Ink cartridge warning appears	5-5
When Error 611 to 614 occur	5-6
Regular maintenance of white ink	5-7
If negative pressure abnormality occurs	5-10
When media heaves up at feeding	5-11
Warning / Error Messages	5-12
Warning messages	5-12
Error messages	5-14

Troubleshooting

Take appropriate actions as described below before taking the trouble as a failure.
If still the problem is not solved after troubleshooting, contact your dealer or an office of MIMAKI.

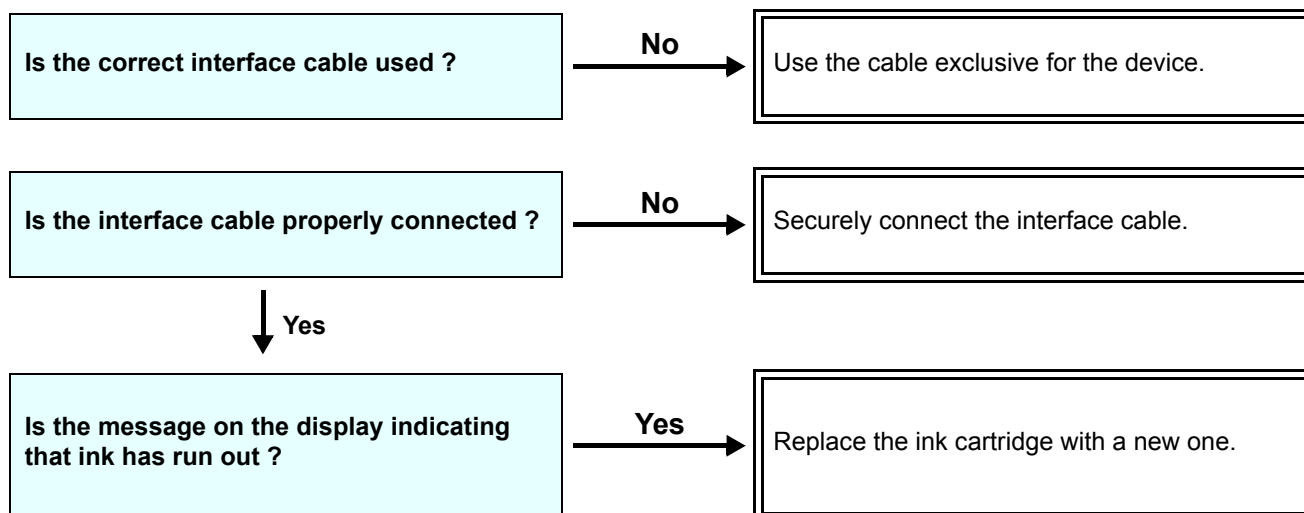
Power does not turn on

In most cases, this is due to improper connection of the power cable for the machine or computer. Check that the power cable is connected properly.



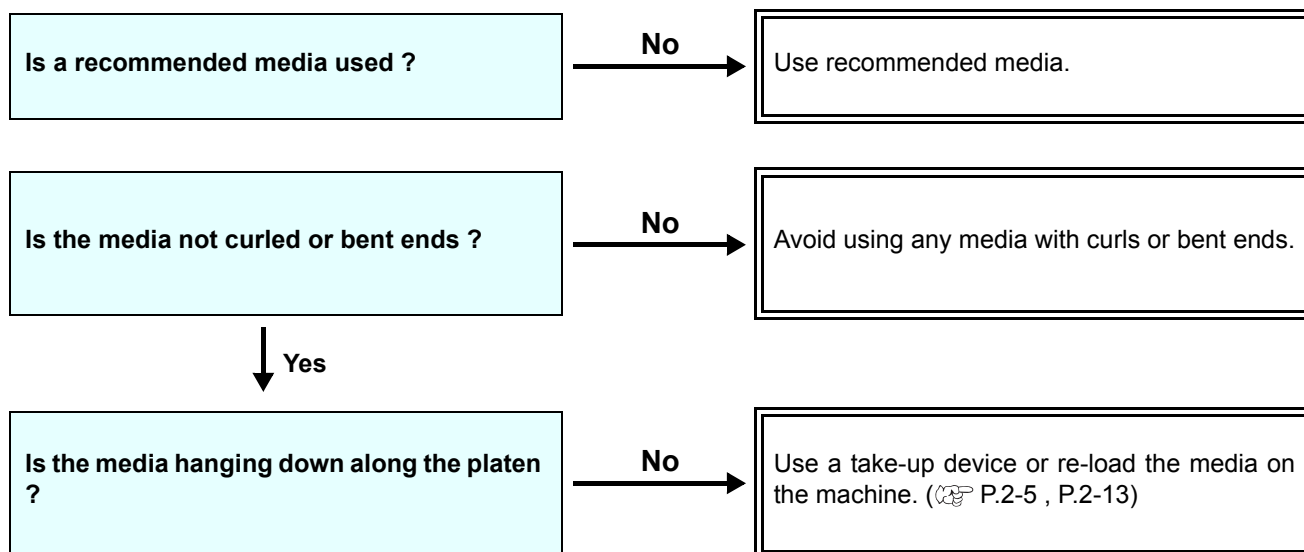
The machine does not start printing

This occurs when the data is not being transmitted to the machine properly.
It can also occur when the printing function does not work properly or the media is not set correctly.



Media get jammed / media is soiled

Media jamming or stained media is considered to be due to the use of an unsuitable media or improper setting of media.



[HEAT] or [CONSTANT] LED does not light up

Check the basic operation.

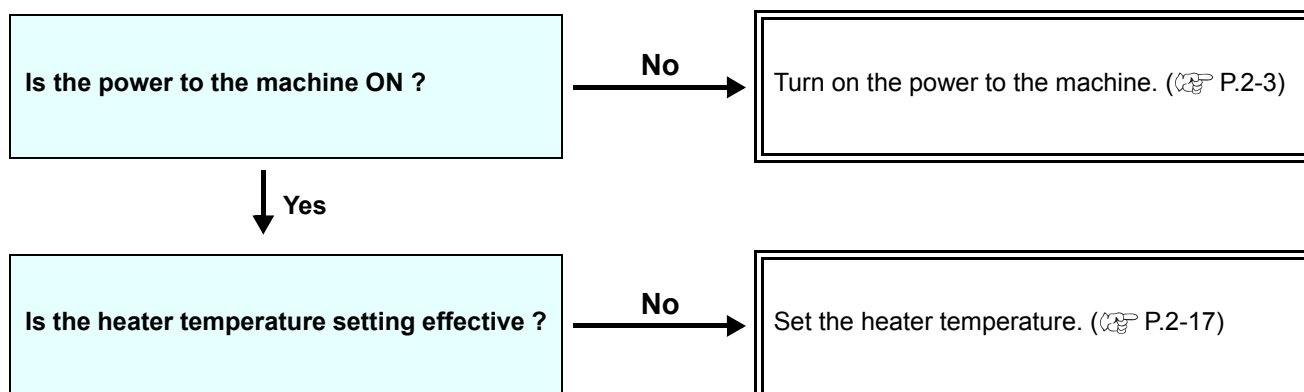


Image quality is poor

This section describes the corrective actions to be taken in case the image quality is not satisfactory. Take remedy for particular problems with image quality. If the remedy does not work, contact your dealer or an office of MIMAKI.

Phenomenon	Measures
White lines / blur / dark stripes (in the direction of travel of the heads)	(1) Execute the head cleaning. (☞ P.2-22) (2) Perform maintenance of the inside of the station. (☞ P.4-5) (3) Execute the [MEDIA COMP.] function. (☞ P.2-23) (4) If any pieces of paper or dust is attached on the path of the heads such as media press, remove it.
Characters are double- or triple-printed in the media feed direction	(1) Execute the [MEDIA COMP.] function. (☞ P.2-23)
Disagreement in print positions between outward trip and homeward trip	(1) Execute the [DROP POSITION] function. (☞ P.2-25)
Ink drops falling on media during printing	(1) Execute the wiper cleaning. (☞ P.4-5) (2) Execute the ink cap cleaning. (☞ P.4-5) (3) Clean around the head. (☞ P.4-14) (4) Execute the head cleaning [NORMAL]. (☞ P.2-22)

Nozzle is clogged

When nozzle clogging is not dissolved even after the head cleaning referring to P.2-22, make sure the following operations.

- Wash the head nozzle by the operations of P.4-14.
- Recovery the nozzle by the operations of P.4-17.

Ink cartridge warning appears

If an ink cartridge trouble is detected, the cartridge LED “red” is lit, and a warning message appears. None of printing, cleaning and all the other operations that use ink is available. In this case, replace the ink cartridge in question immediately.

Important!

- Once cartridge trouble is displayed, do not leave the ink cartridge without replacing it for a long time; otherwise, the machine will lose the nozzle clogging prevention function. If nozzles are clogged, the machine must be repaired by MIMAKI's service engineer.

Displaying the description of ink cartridge trouble

The contents of cartridge error are confirmable by the following operations.

1

Press the **ENTER** key in LOCAL.

LX100 - INK	MMCCYYKK
REMAIN	34567899

2

Press the **ENTER** key.

NON-ORIGINAL INK
MMCCYYKK

- When multiple cartridge defects occur and if you press the **ENTER** key or **◀▶**, they are displayed by turns.

When Error 611 to 614 occur

Execute following procedures when an error about subtank occurs, or when the nozzle is not unclogged after cleaning.

1

Select [SUB TANK] of the maintenance menu.

- (1) Press the **FUNCTION** key in LOCAL.
- (2) Press **▲▼** to select [MAINTENANCE] and press the **ENTER** key.
- (3) Press **▲▼** to select [SUB TANK].

2

Press the **ENTER key.**

SELECT HEAD
: 12

3

Set execution of subtank maintenance

- (1) Select the head with the **◀▶** key
- (2) Select execution of subtank maintenance with the **▲▼** key.
 - If Error 614 occurs, an appropriate head is selected. Press **ENTER** key.

SELECT HEAD
: 1_

4

Press the **ENTER key.**

SUB TANK
EXECUTE [ENT]

5

Press the **ENTER key.**

- The automatic discharging operation and the filling operation are performed.

** FILLING **
PLEASE WAIT

- Then, cleaning is performed.

** CLEANING **
PLEASE WAIT

6

Press **END the key several times to end the setting.**

Regular maintenance of white ink

White ink precipitates easier than other inks.

- If not printing more than two weeks, white ink may precipitate in the ink cartridge or inside of this machine.
- When an ink precipitates, the nozzle may be clogged and it can not draw normally.
- Make sure to perform periodical maintenance to avoid precipitation and to keep white ink in good condition.



- Perform the maintenance below before working once a week.
- Use the specified ink cartridge.

1

Select [WHITE MAINT.] of the maintenance menu.

- (1) Press the **FUNCTION** key in LOCAL.
- (2) Press **▲** **▼** to select [MAINTENANCE] and press the **ENTER** key.
- (3) Press **▲** **▼** to select [WHITE MAINT.].

2

Press the **ENTER** key.

WHITE MAINT.
EXECUTE [ENT]

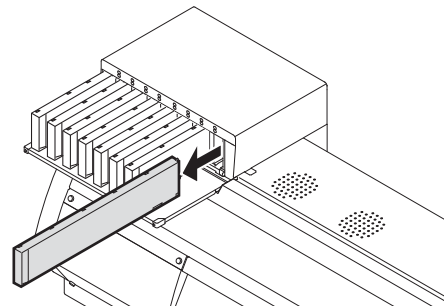
3

Press the **ENTER** key, and start maintenance.

REMOVE CARTRIDGE
: _____ 78

4

Pull out the white ink cartridge from the ink station.



5

When the cartridge is pulled out, the discharging operation starts.

- White ink discharge starts.

** DISCHARGE **
PLEASE WAIT

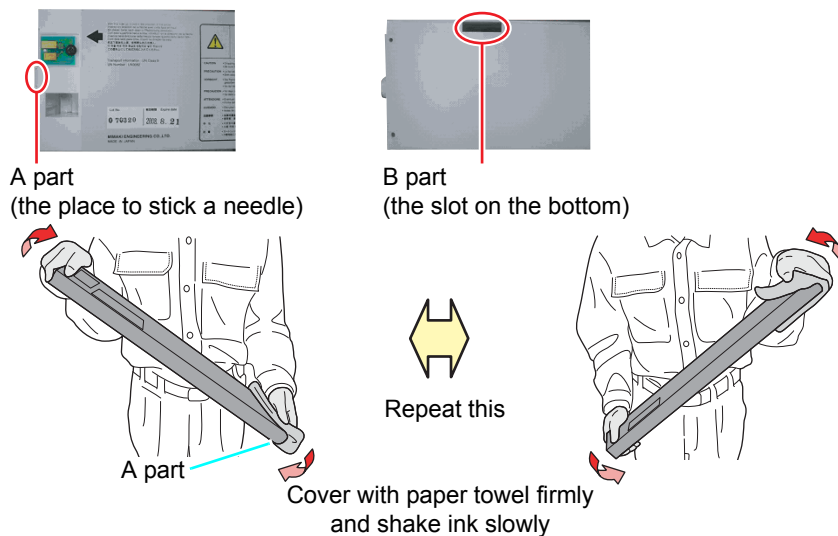
6

Slowly shake the white ink cartridge more than twenty times right and left.

- To prevent ink from leaking when you shake the cartridge, wear gloves and firmly cover the A part of the upper surface of the cartridge and the B part of the bottom surface of the cartridge with paper towels. Then, shake it more than twenty times right and left so that ink flows inside the cartridge.



- If you shake it too strong, the pack inside may be damaged and it may cause ink leakage. Therefore, perform this carefully.
- If the remaining amount of ink is less, ink in the cartridge cannot be beaten enough. Tilt the cartridge until it becomes vertical.



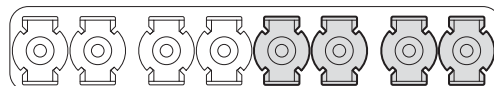
7

When the next screen is displayed, remove air from the port.

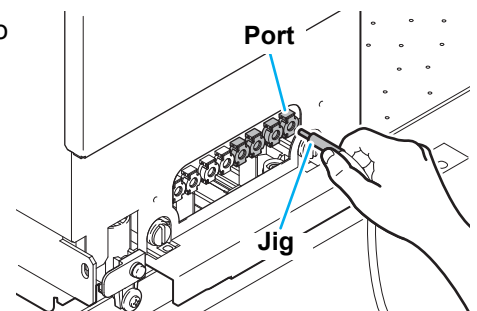
- (1) Press the **ENTER** key to start.
- (2) Remove the maintenance cover, and insert the jig into the port.



- Insert for three to five seconds per port.
- The four ports at the right side is the target for removing air.



AIR PG
START [ENT]



8

When removing air of the target port is completed, close the maintenance cover.

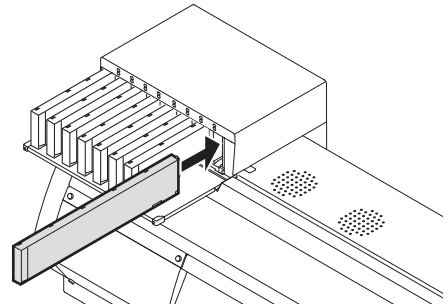
- Press the **ENTER** key.

AIR PG
COMPLETED [ENT]

9

When the next screen is displayed, set the white ink cartridge to the ink station again.

SET CARTRIDGE
: _____ 78



10

When you insert the cartridge, ink filling starts.

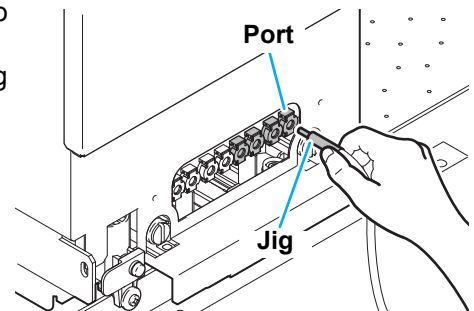
** FILLING **
PLEASE WAIT

11

When the next screen is displayed, fill ink into the port.

AIR PG
START [ENT]

- (1) Press the **ENTER** key to start.
- (2) Remove the maintenance cover, and insert the jig into the port.
- (3) When ink flows in the jig by about 30cm, insert the jig into the next port.



12

When removing air of all ports is completed, close the maintenance cover.

AIR PG
COMPLETED [ENT]

- Press the **ENTER** key.

13

Wait until cleaning is completed.

** CLEANING **
PLEASE WAIT

14

Press **END** the key several times to end the setting.

If negative pressure abnormality occurs

By the environment or aging, the pressure controlled in this machine may exceed the control range.

Important!

- When error display of (1) appears, immediately adjust the pressure as the following procedures to reset to the normal value.
- The negative pressure can be adjusted even during a pause of printing.

1

Select [PRESSURE ADJUST] of the maintenance menu.

- (1) Press the **FUNCTION** key.
- (2) Press **▲** **▼** to select [MAINTENANCE] and press the **ENTER** key.
- (3) Press **▲** **▼** to select [PRESSURE ADJUST].

2

Press **▲** **▼** to select **POSITIVE/NEGATIVE**.

PRESSURE ADJUST
: NEGATIVE

3

Press the **ENTER** key.

Open Throttle Valve
COMPLETED [ENT]

4

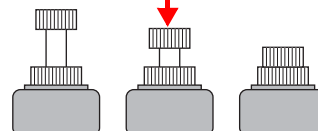
Rotate the adjustment screw of the throttle valve to release it so that air can flow.

- The throttle valve is located on the back side of the left side cover. Rotate it until the adjustment screw of the throttle valve comes to the middle position.



Positive prssure
Adjustment screw

Turn the adjustment screw to
this position.



Negative Pressure

5

Press the **ENTER** key.

- Sensor adjustment starts.

** ADJUSTING **
PLEASE WAIT

6

Rotate the adjustment screw of the throttle valve to adjust the pressure so that it becomes the proper value.

PRESSURE
= - 2 . 4 0 kPa

- Proper value of negative pressure: -2.40kPa
Proper value of positive pressure: 15.00kPa
- As the negative pressure changes between ± 0.1 and 0.2kPa, adjust so that the intermediate value may become the target pressure.
As the positive pressure changes between ± 1.0 and 2.0kPa, adjust so that the intermediate value may become the target pressure.



- Pressure is informed with the buzzer as well as the screen display.
- For the negative pressure, the buzzer stops within the range of ± 0.1 kPa. For the positive pressure, the buzzer stops within the range of ± 1.0 kPa.

7

Press the **ENTER key.**

PLEASE WAIT



- The error is released and the negative pressure control starts.

Important!

- When an error occurs even after you adjusted the pressure, contact your local distributor to call for service.

When media heaves up at feeding

We call the status of heaving media at feeding “cockling”.
When media cockling occurs, check the following items:

Note/ checking items	Measures
Checking media set status	(1) Check that the media is set straight and reset it.
Adjusting heater temperature	(1) Raise the pre-heater temperature by 5 to 10 degrees. (2) Lower all heaters' temperatures. (When you lower the heater temperature, drying time may not be enough. Lower the FEED SPEED.)
Media feeding	(1) For roll media, feed the media by about tens of centimeters to one meter. (2) For leaf media, press   and perform feed/ back feed.
Do not leave the media in the heater warming status	(1) Do not start printing with the media cockled because it may cause media jam.
Heighten the head	(1) For the thick media, heighten the head from L to M before printing.

Warning / Error Messages

If some trouble occurs, the buzzer sounds and the display shows a corresponding error message.
Take an appropriate remedy for the displayed error.

Warning messages

Errors when performing operations

Message	Cause	Solution
CAN'T OPERATE COVER OPEN	The front cover or the maintenance cover is opened.	Check the front cover and maintenance covers. If the same error message appears again even after closing all the covers, contact your local distributor to call for service.
CAN'T OPERATE MEDIA UNDETECTED	The media has not been detected.	Perform media detection.
CAN'T OPERATE MOTOR POWER OFF	The motor is OFF after the cover was opened etc.	Close the front cover and maintenance covers.
CAN'T OPERATE INK ERROR	An ink error occurred.	Check the cartridge for the supply path corresponding to the indicated color.
CAN'T OPERATE DATA REMAIN	Data was received.	Perform data clear. (☞ P.2-28)

Message displayed in LOCAL

Message	Cause	Solution
<LOCAL> CHECK CARTRIDGE[ENT]	Ink errors (unusable ink) occur in multiple cartridges.	Replace them with usable cartridges. Press the ENTER key to check the cartridge generating the warning.
<LOCAL> INK END : 12345678	Ink for one supply path has been completely used up.	Replace the cartridge generating the warning with a new one.
<LOCAL> INK NEAREND : 12345678	Ink for one supply path has been completely used up.	Replace the cartridge generating the warning with a new one.
<LOCAL> EXPIRATION : 12345678	The specified expiration date of an ink cartridge has passed.	Replace the cartridge generating the warning with a new one.
<LOCAL> Check waste ink[MNT]	The waste ink tank is nearly full.	Check the waste ink tank. Press the MAINT. key to correct or reset the counter. (☞ P.4-23)
<LOCAL> Replace a WIPER[ENT]	Time to replace the wiper in the capping station with a new one has come. (The wiping count has reached the specified value.)	Press the MAINT. key and replace the wiper with a new one. (☞ P.4-22)
<LOCAL> Replace FILTER : 12	Time to replace the ink filter with a new one has come.	• Contact your local distributor to call for service.
<LOCAL> Can't detect media	The media is not set. The sensor has been broken.	Set the media. (☞ P.2-5) If the same error message appears again, contact your local distributor to call for service.

Ink Error

Ink error is displayed also in the local guidance. (P.3-17)

Message	Cause	Solution
INK IC CAN'T READ :---- YYKK	The IC chip of the ink cartridge cannot be read normally.	Remove the cartridge generating the warning once and install it again. If the same warning message still appears, contact your local distributor to call for service.
WRONG INK IC :---- YYKK		
KIND OF INK :---- YYKK	The ink of the ink cartridge is different in type from the ink currently supplied.	Check the ink type of the cartridge generating the warning.
COLOR OF INK :---- YYKK	The ink of the ink cartridge is different in color from the ink currently supplied.	Check the ink color of the cartridge generating the warning.
WRONG CARTRIDGE :---- YYKK	There is trouble with an installed ink cartridge.	Check the cartridge generating the warning.
NO CARTRIDGE :---- YYKK	An ink cartridge has not been installed in the slot.	Install an appropriate cartridge in the slot generating the warning.
INK END :---- YYKK	The ink of the ink cartridge has been completely used up.	Replace the cartridge generating the warning with a new one.
INK NEAR END :---- YYKK	The ink of the ink cartridge has been nearly used up.	Replace the cartridge generating the warning with a new one.
CHCK AN INKPK :---- YYKK	Even when there are enough ink, ink end has been detected.	Check the ink pack set status in the eco case.
EXPIRATION :---- YYKK	The specified expiration date of an ink cartridge has passed.	Replace the cartridge generating the warning with a new one. The cartridge may be used until two months passes after the specified expiration date.
EXPIRATION (1MONTH) :---- YYKK	The expiration date of an ink cartridge has passed (one month has passed after the specified expiration date).	The red LED blinks. Replace the cartridge generating the warning with a new one. The cartridge may be used until one month pass after the specified expiration date.
EXPIRATION (2MONTH) :---- YYKK	The expiration date of an ink cartridge has passed (two months have passed after the specified expiration date).	The red LED blinks quickly. Replace the cartridge generating the warning with a new one.

Error messages

When an error message is displayed, eliminate the error according to the chart below.

If the same error message appears again, contact your dealer or an office of MIMAKI to call for service.

Message	Cause	Solution
ERROR 108 HD CONNECT [1 2 3 4 5 6 7 8]	Head connection can not be confirmed.	Turn off the power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service.
ERROR 108 HD THERMIS [1 2 3 4 5 6 7 8]	Head temperature can not be read.	
ERROR 12e Head Failed [x x x x]	Abnormality of the Driver of the Print head.	
ERROR 122 CHECK : SDRAM	There is no PRAM.	
ERROR 128 HDC FIFO OVER	<ul style="list-style-type: none"> • Data transmission speed is too fast. • Control circuit board is defective. 	
ERROR 128 HDC FIFO UNDER	<ul style="list-style-type: none"> • Data transmission speed is too slow. • Control circuit board is defective. 	
ERROR 129 BATTERY EXCHANGE	The battery life end of the internal clock is detected.	Contact your local distributor to call for service.
ERROR 130 HD DATA SEQ	Head data transferring sequence error occurred.	Turn off the power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service.
ERROR 146 E-LOG SEQ	Sequential number abnormality of the event log occurred.	
ERROR 151 Main PCB V12R	An error occurred in the main PCB 1.2V power supply.	
ERROR 152 Main PCB V2R5	An error occurred in the main PCB 2.5V power supply.	
ERROR 153 Main PCB V3R3	An error occurred in the main PCB 3.3V power supply.	
ERROR 154 Main PCB V05	An error occurred in the main PCB 5V power supply.	
ERROR 155 Main PCB V35-1	An error occurred in the main PCB 35-1 power supply.	
ERROR 156 Main PCB V5B	An error occurred in the main PCB 5VB power supply.	
ERROR 157 Main PCB VTT	An error occurred in the main PCB VTT power supply.	
ERROR 158 Main PCB V352	An error occurred in the main PCB 35-2V power supply.	

Message	Cause	Solution
ERROR 158 Main PCB V3R3B	An error occurred in the main PCB 3.3VB power supply.	Turn off the power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service.
ERROR15f HEAD DRIVE HOT	COM driver becomes the high temperature.	
ERROR 171 NEW HEAD CONNECT	New Print Head was recognized.	
ERROR 172 Main PCB Q6 Check K	The main PCB Q6 is disabled (short mode).	
ERROR 186 HDC OVERFLOW	An error is detected on the waveform printed on.	
ERROR 186 HDC UNDERFLOW		
ERROR 187 HDC SLEW RATE		
ERROR 188 HDC MEMORY		
ERROR 201 COMMAND	The machine received some data other than command data.	Securely connect the interface cable in position. Use an interface cable conforming to the specifications.
ERROR 202 PARAMETER	Any parameter outside the range of acceptable numeric values was received.	Turn off the main power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service.
ERROR 203 Ment Command	A maintenance command error occurred.	
ERROR 304 USB INIT ERR	USB device initialization failure.	
ERROR 305 USB TIME OUT	Occurrence of a time out error on a USB device.	
ERROR 401 MOTOR X	An excessive load was applied to the X motor.	
ERROR 402 MOTOR Y	An excessive load was applied to the Y motor.	
ERROR 403 X CURRENT	An error due to an excessive current of the X motor was detected.	
ERROR 404 Y CURRENT	An error due to an excessive current of the Y motor was detected.	
ERROR 406 WIPER	The wiper did not operate normally and the origin could not be detected.	

Message	Cause	Solution
ERROR 505 MEDIA JAM L	The media jam occurs.	Remove the media and reset it.
ERROR 506 MEDIA WIDTH SENSOR	The media width has not been detected correctly.	Check the media set position. (🔧 P.2-8) Clean the media sensor. (🔧 P.4-4)
ERROR 509 HDC POSCNT	A HDC position counter error occurred.	Turn off the main power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service.
ERROR 50a Y ORIGIN	Y-origin could not be detected.	
ERROR 50f L-SCALE BLACK	Abnormal linear scale.	
ERROR 516 MEDIA SET POSITION L	The media is set outside the proper area.	Check the media set position. (🔧 P.2-8)
ERROR 519 NEGATIVE P.SENSOR	The value of the negative pressure sensor is abnormal.	Turn off the main power to the machine and turn it on after a while. If the same error message appears again, contact your local distributor to call for service.
ERROR 51a POSITIVE P.SENSOR	The value of the positive pressure sensor is abnormal.	
ERROR 617 SUBTANK SNN:12345678	The liquid level sensor abnormality of the sub tank has been detected.	
ERROR 618 TANKlevelH :12345678	Though a certain amount was consumed, there is no change in the sub tank sensor Hi.	
ERROR 619 TANKlevelL :12345678	Though a certain amount was consumed, there is no change in the sub tank sensor Lo.	
ERROR 61a OVER FLOW :12345678	Overflow from the sub tank has been detected.	
ERROR 61b SUPPLY INK :12345678	Ink could not be supplied to the sub tank.	
ERROR 61c NEGATIVE P.CONTROL	Starting of the negative pressure control has an abnormality.	
ERROR 61d NEGATIVE P.NotEnough	The negative pressure cannot be kept properly	
ERROR 61e NEGATIVE P. OVER		
ERROR 61f POSITIVE P.CONTROL	Starting of the positive pressure control has an abnormality.	
ERROR 620 POSITIVE P.NotEnough	The positive pressure cannot be kept properly.	
ERROR 621 POSITIVE P. OVER		

Message	Cause	Solution
ERROR 627 INSERT CARTRIDGE	There is a slot in which the cartridge has not been inserted more than a certain time.	Set a cartridge.
ERROR 910 ENVIRONMENT TEMP (LO)	The ambient temperature is out of the usable temperature range (too low).	Adjust the ambient temperature of the installation place.
ERROR 911 ENVIRONMENT TEMP (HI)	The ambient temperature is out of the usable temperature range (too high).	

SYSTEM HALT

Message	Solution
SYSTEM HALT 000: MESSAGE	Turn off the main power to the machine and turn it on after a while. Check the number and contact your local distributor to call for service. ("000" is the error No.)

Chapter 6

Appendix



This chapter

contains the lists of the specifications and functions of this machine.

Specifications	6-2
Machine specifications	6-2
Ink specifications	6-3
Setting orders depending on ink type	6-4
Setting orders of ink cartridges	6-4
Sheet for inquiry	6-5
Warning labels	6-6
Function Flowchart	6-8

Specifications

Machine specifications

Item		JV400-130LX	JV400-160LX
Print head	Method	Drop-on-demand piezoelectric print heads	
	Specification	2 head	
Drawing mode (scan x feed)	4-color	900x900 : Bi/Uni 6/12/24pass 900x1200 : Bi/Uni 8/16/32pass 1200x1200 : Bi/Uni 8/16/32pass 600x900 : Bi/Uni 6/12/24pass 600x1200 : Bi/Uni 8/16/32pass 600x600 : Bi/Uni 4/8/16/32pass	
	6-color or more	900x900 : Bi/Uni 6/12/24/48pass 900x1200 : Bi/Uni 8/16/32/64pass 1200x1200 : Bi/Uni 8/16/32/64pass 600x900 : Bi/Uni 6/12/24/48pass 600x1200 : Bi/Uni 8/16/32/64pass 600x600 : Bi/Uni 4/8/16/32/64pass	
Usable inks		Y,M,C,K,Lm,Lc,W	
		Lx100 4 colors (K,M,C,Y) 6 colors (K,M,C,Y,Lc,Lm) 6 colors+W (K,M,C,Y,Lc,Lm,W)	
Ink supply		Supplying from ink cartridges through tubes. Ink cartridge replacement type : Only at 4 colors: Supplying by Toggle switchover with 2 cartridges/color Only at 6/8 colors: Supplying by Toggle switchover with 1 cartridges/color 600cc ink pack supply, 8 slot	
Capacity of ink cartridge		Only at 4 colors: 600cc 2 cartridges for each color, 600cc/1 color Only at 6 colors: : 600cc 1 cartridge for each color (Y,K: 2 cartridges/color) Only at 6 colors + W: : 600cc 1 cartridge for each color (W: 220cc 2 cartridges)	
Media type		Thin coat paper/PET/Tarpaulin/Weatherproof PVC/Polyester cloth/Cotton	
Max. printing width		1361mm	1610mm
Roll Media size	Maximum	1371mm	1620mm
	Minimum	210mm	
	Thickness	0.2 mm or less	
	Roll outside diameter	φ 180mm or less	
	Roll weight ^{**1}	25kg or less	
	Roll inside diameter	3 or 2 inches	
	Printing surface	Side facing outward	
	Roll end treatment	The roll end is gently fixed to the core with weak-adhesive tape or weak glue for easy removal.	
Leaf media size	Maximum	1371mm	1620mm
	Minimum	210mm	
Margin	Leaf media	Left end and right end : 15 mm (Default)	Front : 150.0 mm Rear : 200 mm
	Roll media	Left end and right end : 15 mm (Default)	Front : 150.0 mm Rear : 0 mm
Distance accuracy	Absolute accuracy	Whichever the larger one of ± 0.3 mm or ± 0.3 % of the designated	
	Reproducibility	Whichever the larger one of ± 0.2 mm or ± 0.1 % of the designated	
Perpendicularity		± 0.5 mm / 1000 mm	
Media skew		5 mm or less / 10 m variable	
Head height adjustment		L range : 1.8mm M range : 2.3mm H range : 2.8mm	
Cutting of media		Cutting of Y direction by the head cutter, Cutting accuracy (steps) : 1.0 mm or less.	
Media delivery		Take-up device supplied as a standard accessory (switching possible between face in and face out).	
Waste ink tank		Bottle type (2,000 cc)	
Interface		USB 2.0	
Command		MRL- III	

Item		JV400-130LX	JV400-160LX
Noise	during standby	Less than 58 dB (FAST-A, Front & Rear & Left & Right 1 m)	
	during continuous printing	Less than 65 dB	
	during discontinuous printing	Less than 75 dB	
Safety Standard		VCCI-Class A, FCC-Class A, UL 60950, CE Marking (EMC, Low Voltage Directive, Machinery Directive), CB Report, RoHS	
Power		AC100 - 120 ± 10% , AC220 - 240 ± 10% , 50/60Hz ± 1Hz , 15A or less	
Power consumption *2		2120 W x2 or less	
Recommended Environment	Available temp.	20 °C to 30 °C	
	Humidity	35 to 65% Rh (No condensation)	
	Guaranteed temp.	20 °C to 25 °C	
	Temperature change	± 10 °C / h or less	
	Dust	Equivalent to normal office level	
	Highest operation height	2000 m	
Weight		216 kg	231 kg
Outside dimensions		2634 mm(W) x 854 mm(D) x 1439mm(H)	2879 mm(W) x 854mm(D) x 1439 mm(H)

*1. Without deflection of the roll when it is retained at both ends.

*2. Main unit and heater included.

Ink specifications

Item		When LX ink is used
Supply		Ink pack / Ink cartridge(White ink)
Color		Black ink Cyan ink Magenta ink Yellow ink Light cyan ink Light magenta ink White ink
Ink capacity		600cc / 220cc(White ink)
Shelf life		LX100 ink 1 year from the date of manufacture (at room temperature)
Storage temperature	Storage	0 to 25°C (Average daily temperature) • Be sure to keep a vessel in the airtight condition.
	Transportation	-20 to 60°C • Avoid the condition lower than -20 °C and higher than 60 °C.

Important!

- **Do not disassemble ink cartridges and do not refill them with ink.**
 - **Ink could freeze if kept in a cold place for an extended period.**
 - If the ink freezes, thaw it at room temperature (25°C) spending more than three hours before use.
 - When aqueous ink is used, if the ink freezes, the quality is changed and the ink becomes unusable.
- Store the ink in an environment that will not freeze the ink.

Setting orders depending on ink type

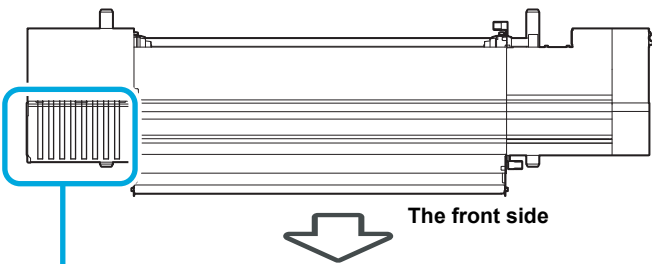
The setting value and the setting orders of the ink cartridges differ depending on the ink type you use.

Setting orders of ink cartridges

The orders of ink cartridges set in the ink station differ depending on the ink set you use.



- Set the ink cartridge according to the cartridge label under the ink station.



4 colors model	LX ink	M	M	C	C	Y	Y	K	K
6 colors model		M	Lm	C	Lc	Y	K	Y*1	K*1
6 colors+W model		M	Lm	C	Lc	Y	K	W	W

*1. Not used for printing.

Sheet for inquiry

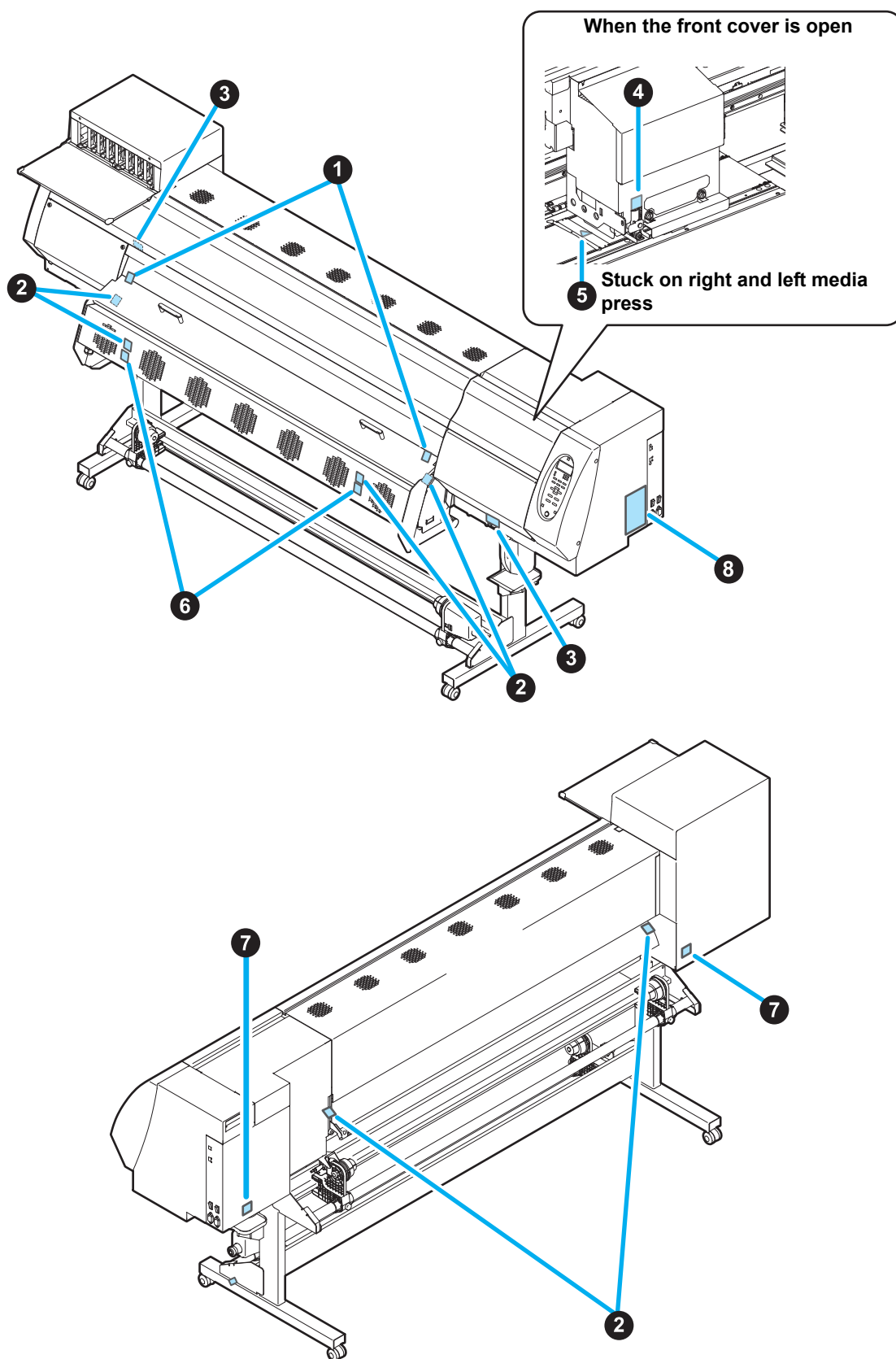
Use this sheet for troubles and abnormal functions of the machine.
Fill in the following necessary items, and then fax the sheet to our sales office.










Company name	
Person in charge	
Telephone number	
machine model	
Operating OS	
Machine information *1	
Error message	
Contents of inquiry	

*1. Refer to "Confirming Machine information" of "Convenient using" then fill in necessary information. (☞ P.3-16)

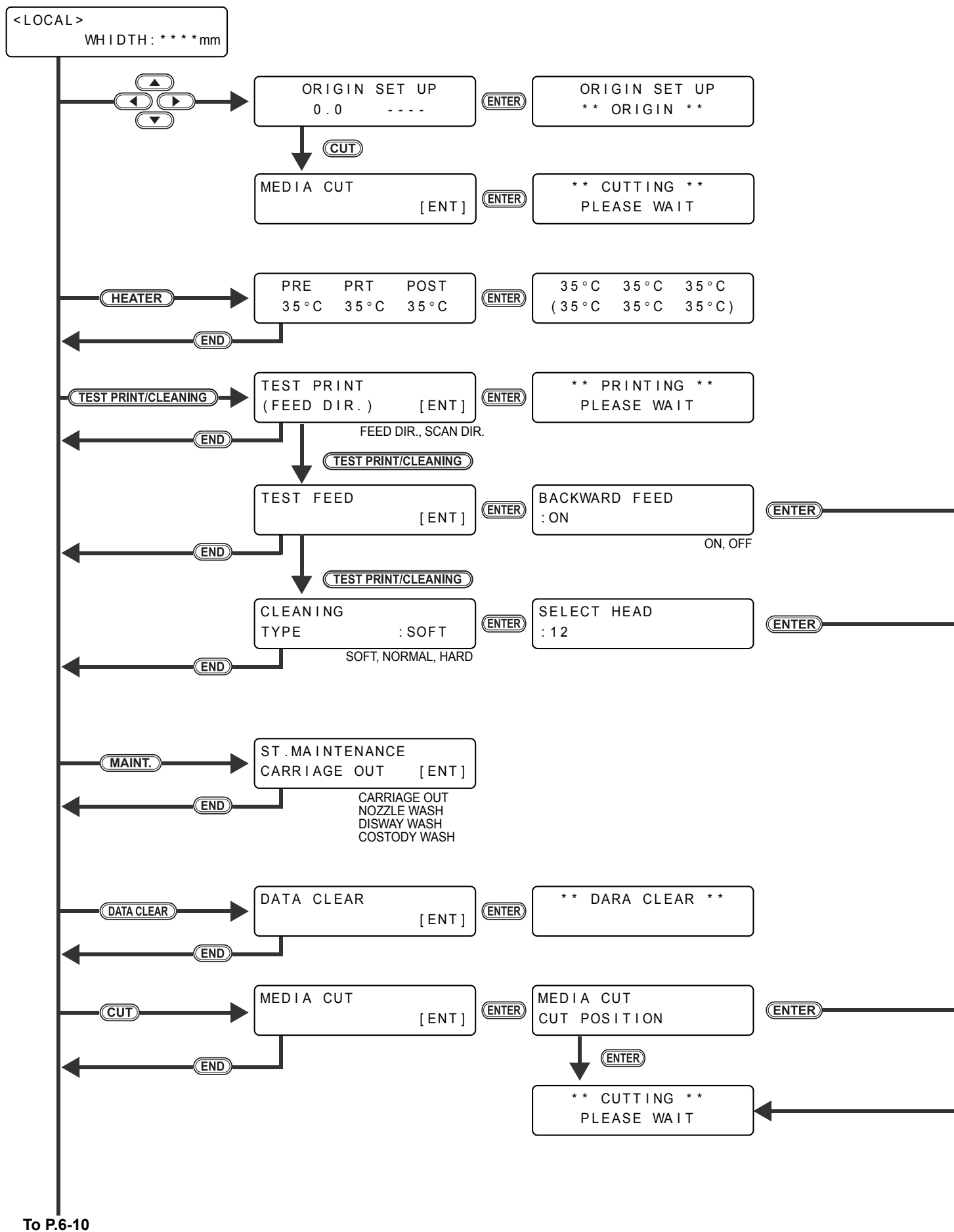
Warning labels

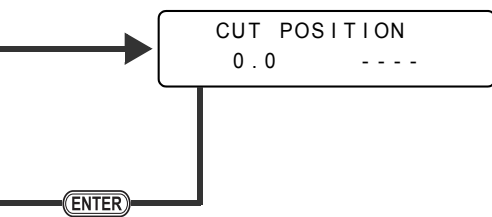
Warning labels are stuck on the machine. Be sure to fully understand the warning given on the labels. If a warning label is illegible due to stains or has come off, purchase a new one from a distributor or our sales office.



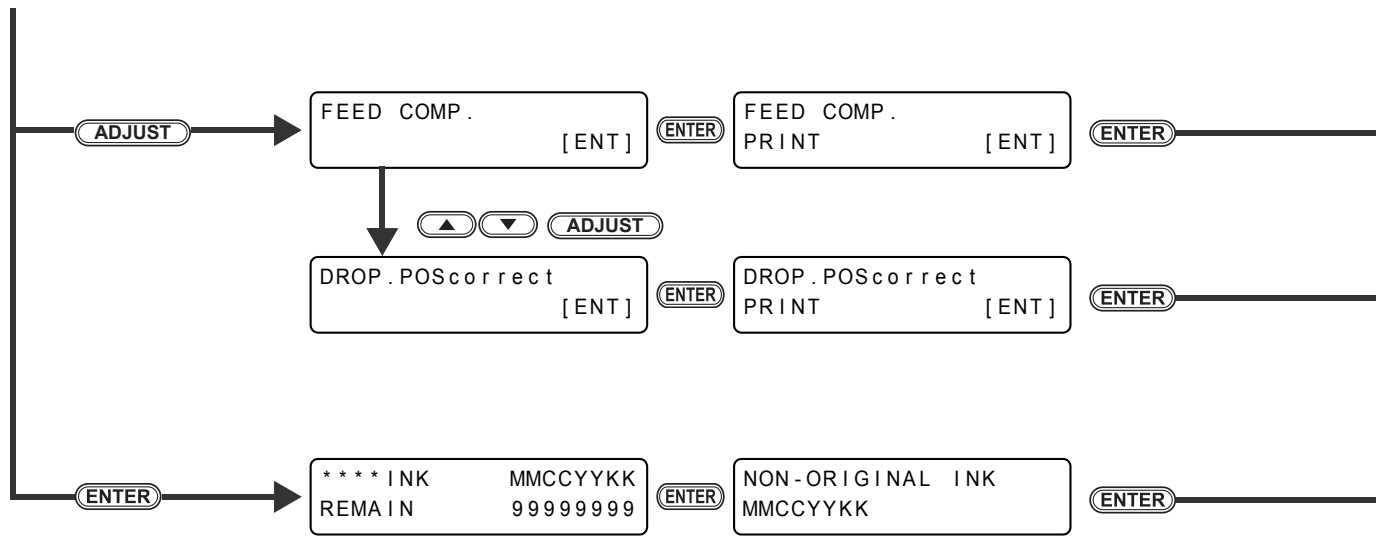
No.	Reorder		
1	M907833		
2	M903239		
3	M903330		
4	M903405		
5	M906144		
6	M908553		
7	M907935		
8	M908546 M908545	M908546 (JV400-130LX)	M908545 (JV400-160LX)
		 <p>Equipment to be connected to earthed mains outlet only. Apparatet må kun tilknyttes jordnet stikkontakt. Apparatet skall anslutas till jordat nätuttag.</p> <p>この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求される場合があります。 VCCI-A</p> <p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.</p> <p>This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.</p> <p>MODEL-SERIAL NO. Modell-Seriennummer 型番-serial-型番 MODEL-N° DE SERIE CONFORMS TO UL STD 60950-1 Certified to CAN/CSA STD C22.2 No. 60950-1 SGPR665-130 ***** 3080219</p> <p>INLET1 100-240V ~ 12A-8A 50/60Hz INLET2 100-120V ~ 12A/220-240V ~ 8A 50/60Hz weight of machine 220kg short circuit rating 0.1kA electrical diagram No. R200916 MIMAKI ENGINEERING CO., LTD 御牧高科技股份有限公司 2182-3 Shigeno-otsu, Tami, Nagano 389-0512 Japan Year of manufacture 年次 MADE IN JAPAN Herstellingsjaar 日本国産 FABRIQUE AU JAPON Année de fabrication</p>	 <p>Equipment to be connected to earthed mains outlet only. Apparatet må kun tilknyttes jordnet stikkontakt. Apparatet skall anslutas till jordat nätuttag.</p> <p>この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求される場合があります。 VCCI-A</p> <p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.</p> <p>This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.</p> <p>MODEL-SERIAL NO. Modell-Seriennummer 型番-serial-型番 MODEL-N° DE SERIE CONFORMS TO UL STD 60950-1 Certified to CAN/CSA STD C22.2 No. 60950-1 SGPR665-160 ***** 3080219</p> <p>INLET1 100-240V ~ 12A-8A 50/60Hz INLET2 100-120V ~ 12A/220-240V ~ 8A 50/60Hz weight of machine 255kg short circuit rating 0.1kA electrical diagram No. R200916 MIMAKI ENGINEERING CO., LTD 御牧高科技股份有限公司 2182-3 Shigeno-otsu, Tami, Nagano 389-0512 Japan Year of manufacture 年次 MADE IN JAPAN Herstellingsjaar 日本国産 FABRIQUE AU JAPON Année de fabrication</p>

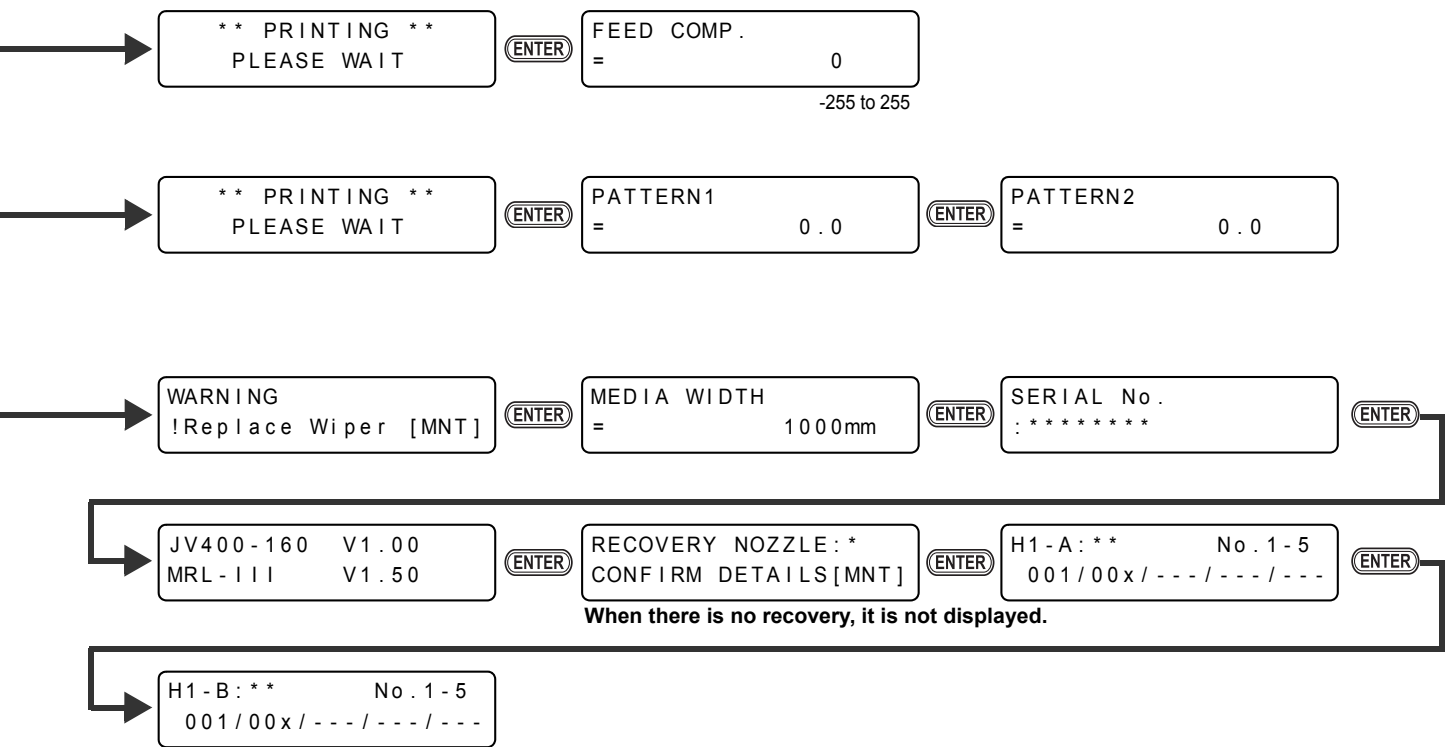
Function Flowchart

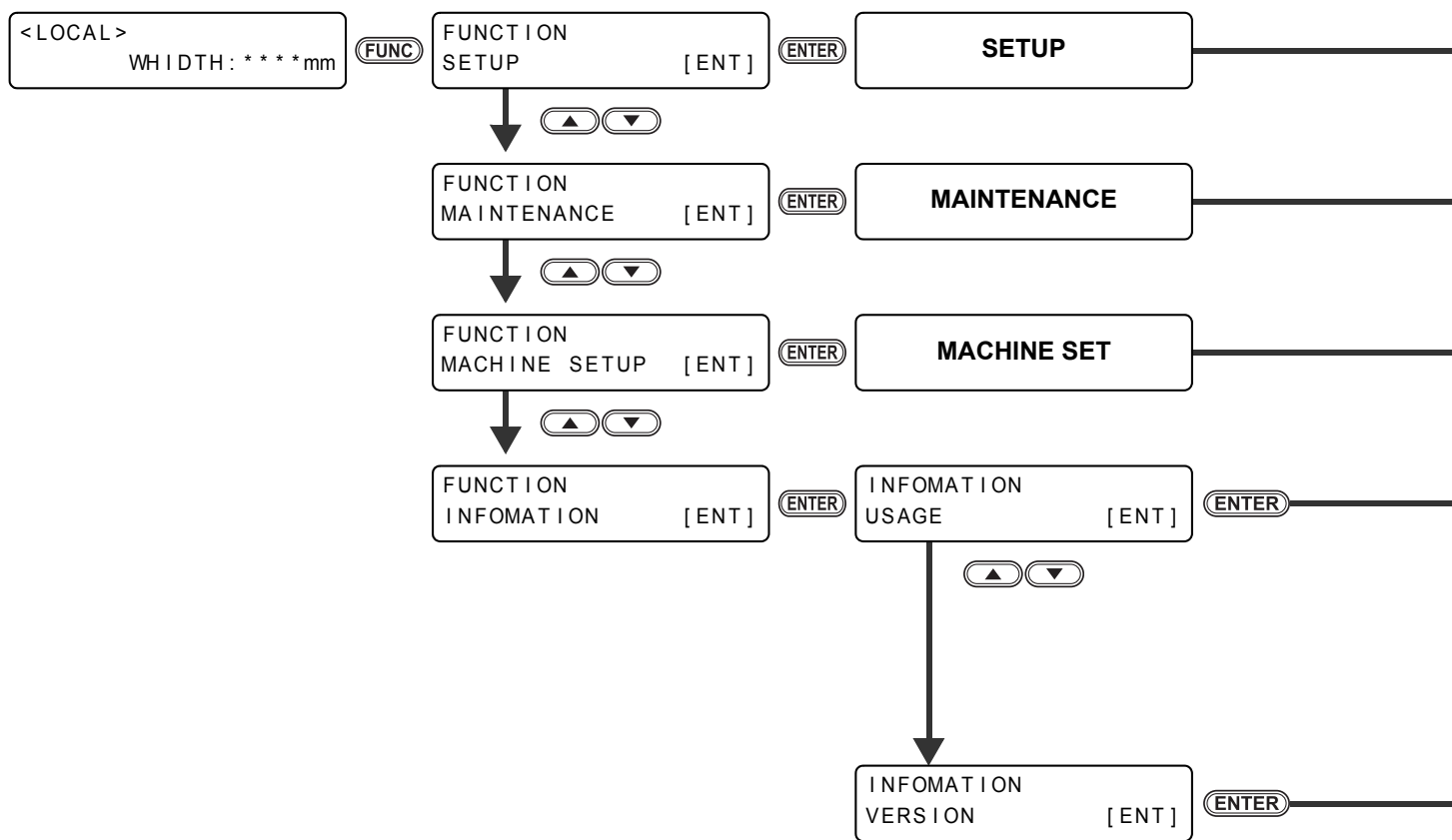


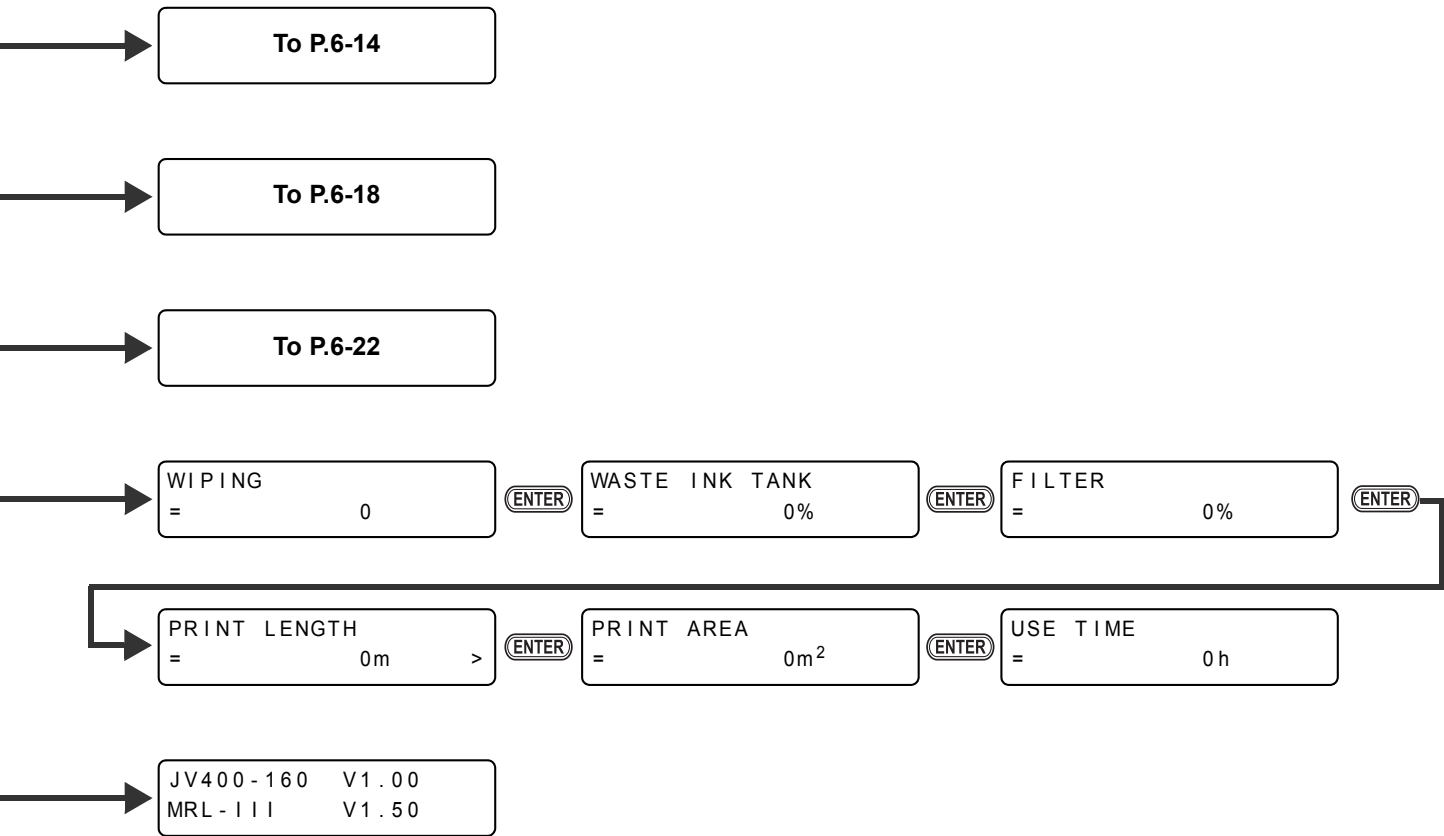


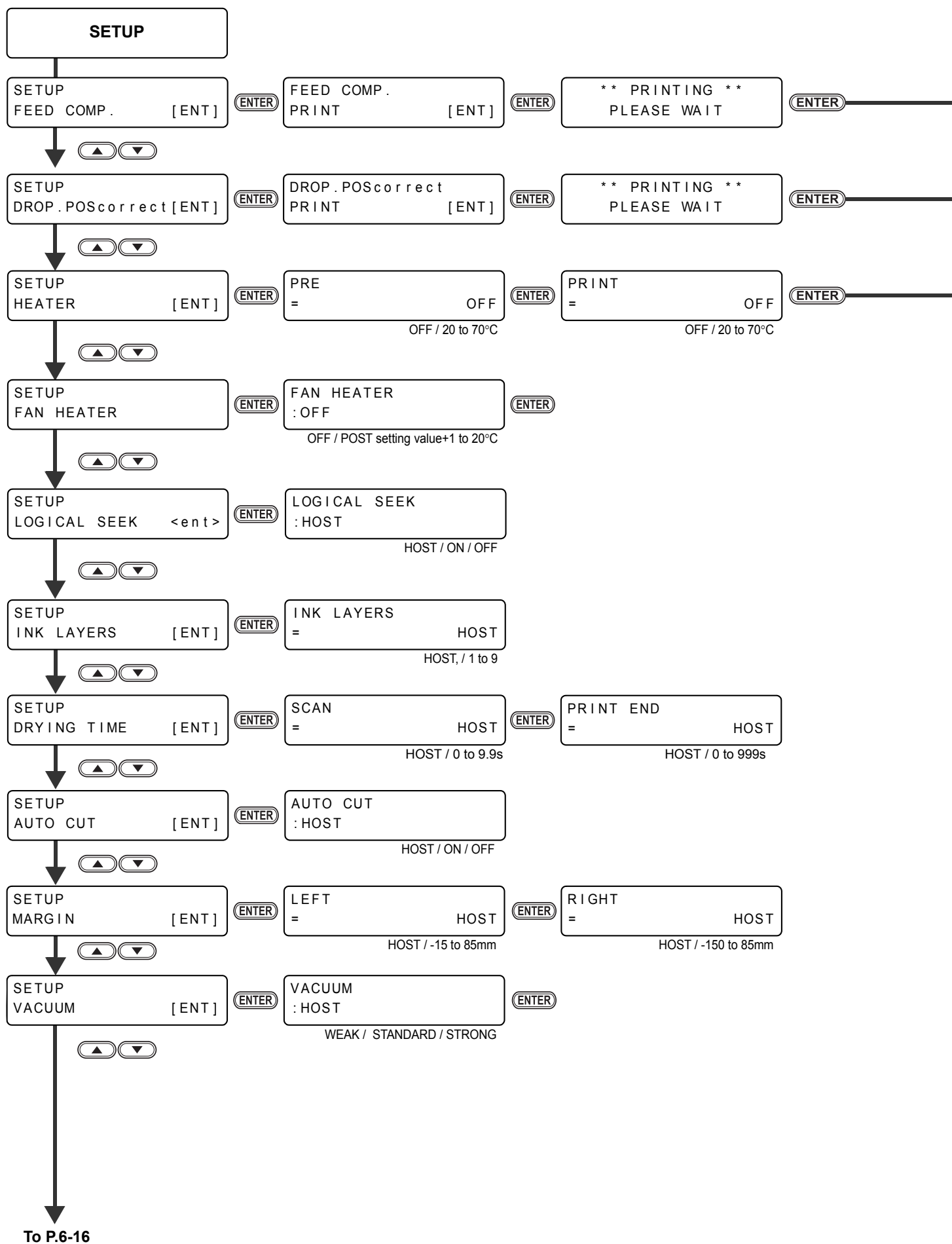
From P.6-8

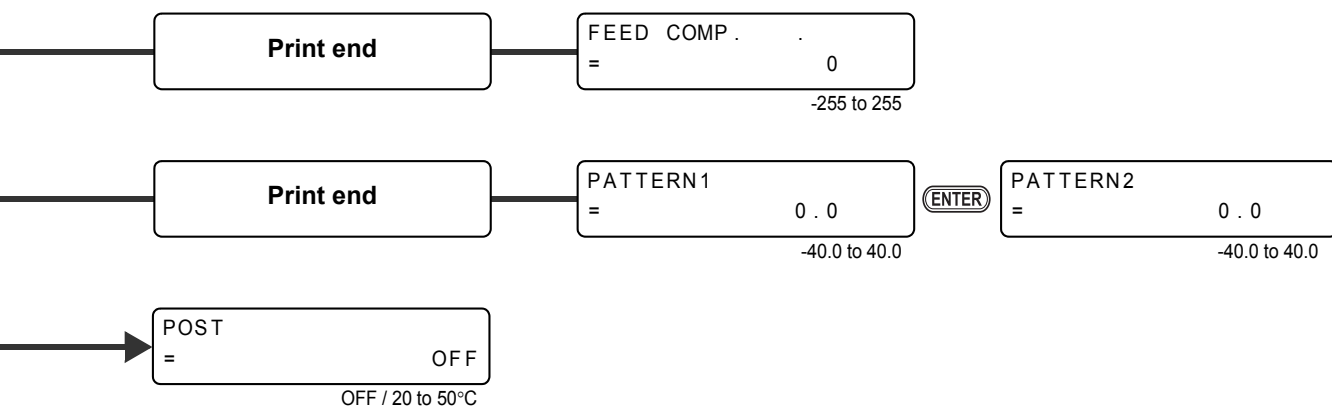




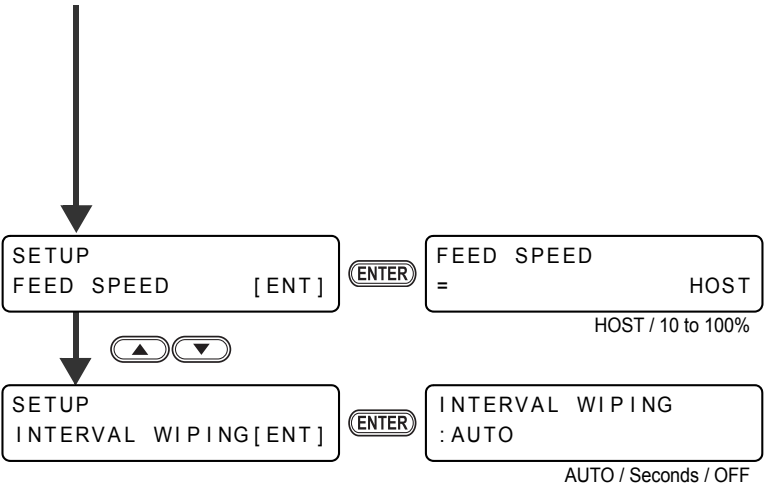


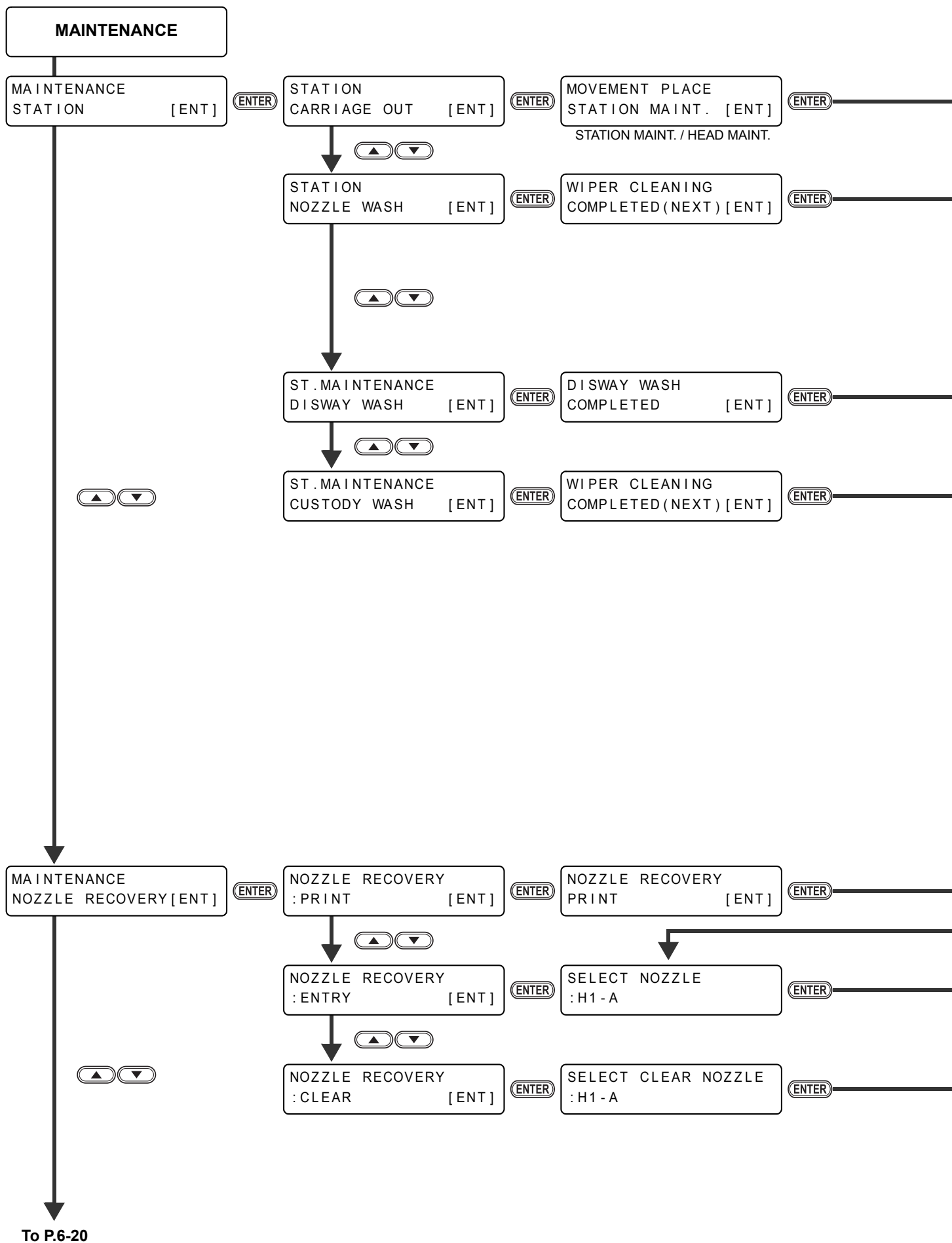


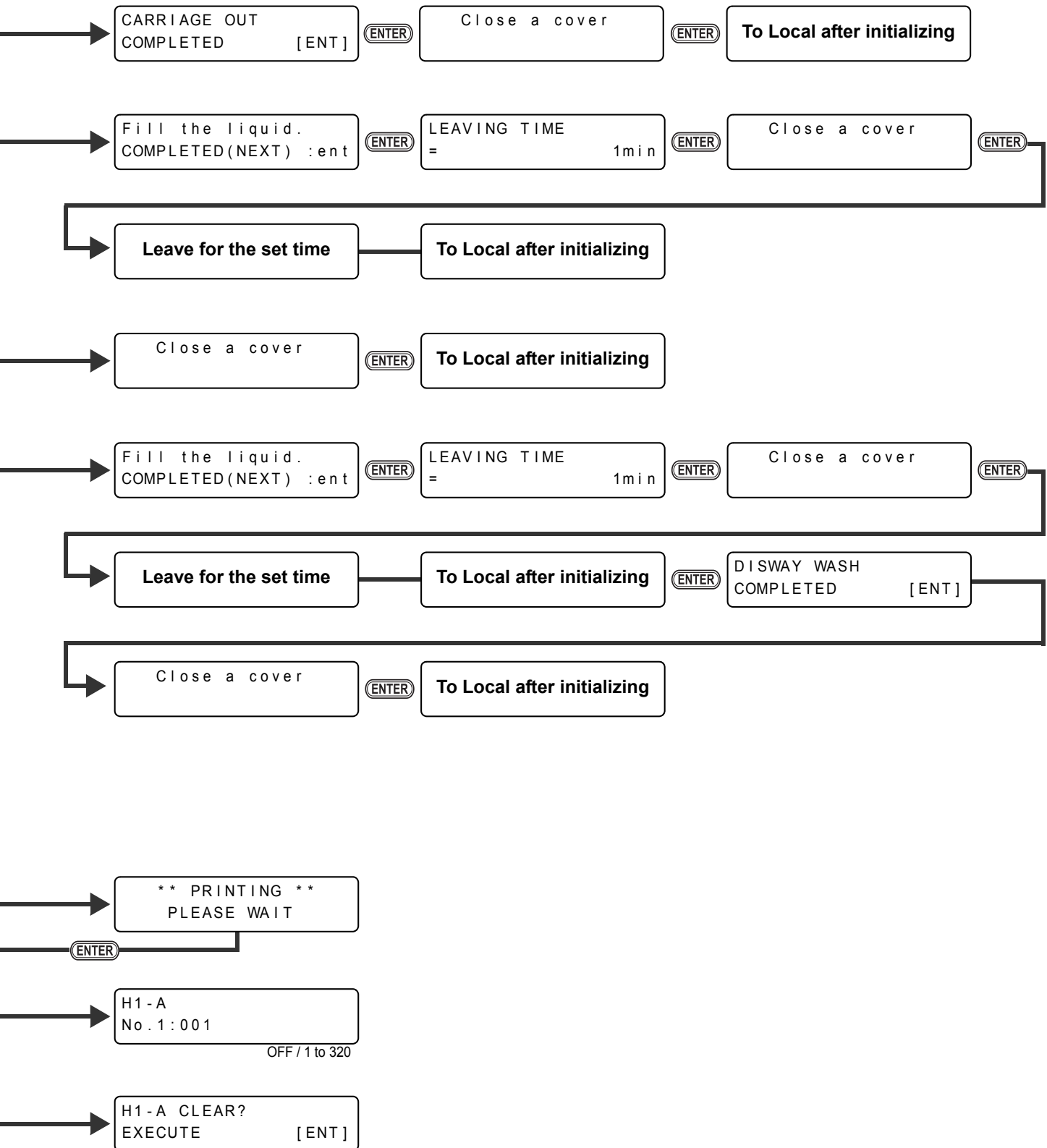




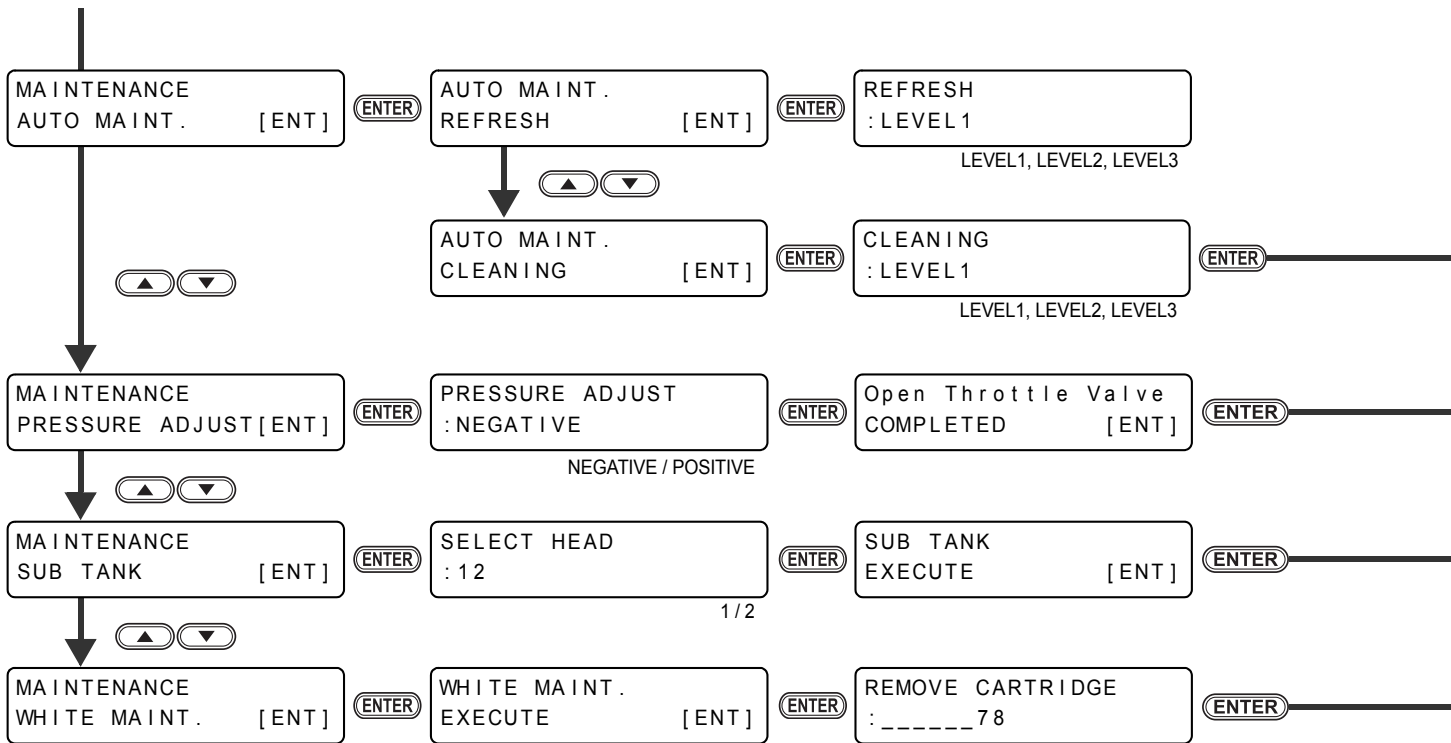
From P.6-14

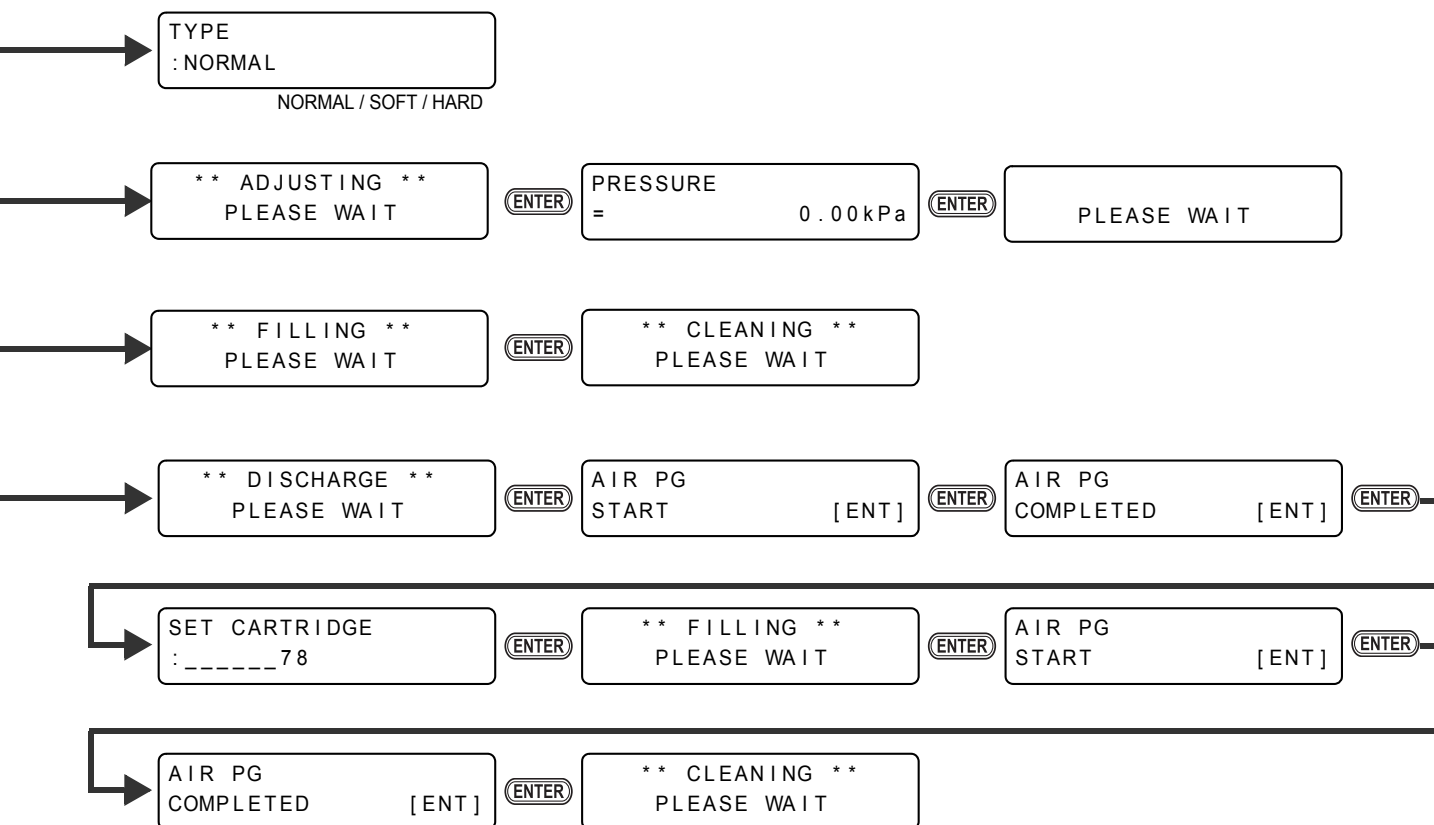


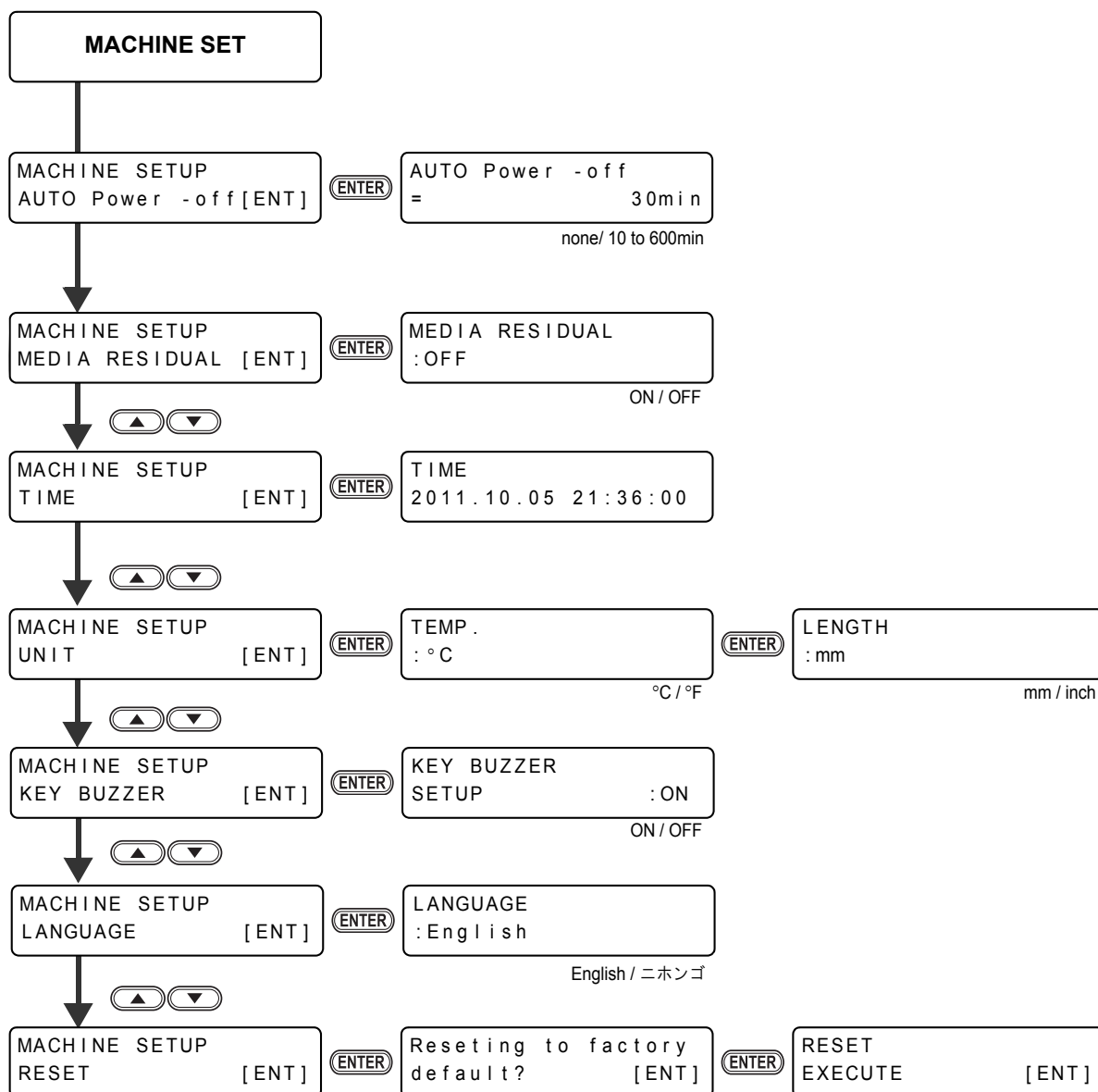




From P.6-18







JV400-130LX/160LX Operation Manual

December, 2011

MIMAKI ENGINEERING CO.,LTD.

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