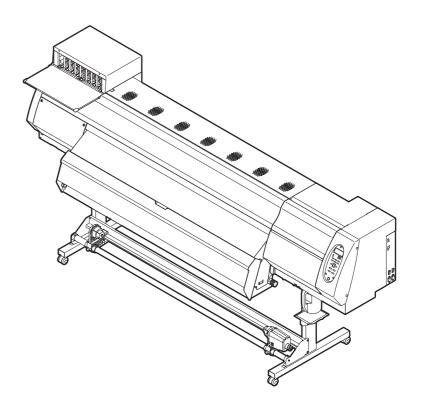
# **COLOR INKJET PRINTER**

# JV400-LX Series

# **OPERATION MANUAL**



MIMAKI ENGINEERING CO., LTD.

URL: http://eng.mimaki.co.jp/

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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 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 are LX100 ink (four-color / four-color+white model) and LX101 ink (four-color / six-color\* / six-color+white model: For white, LX100 is used.).

- 4-colors version
   2 each of Cyan, Magenta, Yellow and Black color ink cartridge are use.
- 4-colors + white version: 1 each of Yellow and Black, 2 each of Cyan, Magenta and White color ink cartridge are
  use.
- 6-colors version\*1 :1 each of Yellow, Black, Orange and Green color ink cartridge, 2 each of Cyan and Magenta ink cartridge are use.
- 6-colors + white version: 1 each of Cyan, Magenta, Yellow, Black, Orange and Green, 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)
- JV400-130LX/160LX are identical with models SGPR665-130/160.
- 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				
Warning	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.			
Caution	Failure to observe the instructions given with this symbol can result in injuries to personnel or damage to property.			
(Important!)	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.			
<u> </u>	The symbol " \( \sum_{\text{"}}\) " 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.			
0 5	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

# <u>^</u>

## **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

# <u>^</u>

# CAUTION

#### Handling of the power cable

# 0

- 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.
  - For Inlet 1 and 2, be sure to supply power from the outlet of the same voltage.
  - for PLUGGABLE EQUIPMENT, the socketoutlet shall be installed near the equipment and shall be easily accessible.

#### Heater



- 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.

#### **Power supply**



- Leave the breaker turned ON.
- Do not turn off the main power switch on the right side of this machine.

#### Handling of ink



- 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. The contact the emergency number written in MSDS.
- 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



When cleaning the ink-station or the heads, make sure to wear the attached goggles and gloves.



#### **CAUTIONS and NOTES**



## **Warning**

#### Handling of ink cartridges

- 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

 Never open the front cover or raise the lever during printing. Opening the cover or raising the lever will abort printing.

#### Handling of media

- 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.

• Do not leave the media with the heater ON for a long time.

#### Protection of media from dust

- 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

- 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.4-16 "Cleaning the Head and the Area around It (every day)")
- 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

• 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

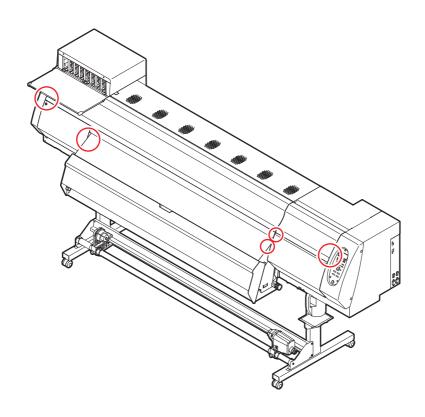
- · When discarding this machine, request the treatment of it for an industrial waste disposal contractor.
- Treat it properly in compliance with regulation in the local area.

# **Cautions on Installation**

<u> CAUTION</u>			
A place exposed to direct sunlight	On an inclined surface	A place where temperature or humidity varies significantly	
		• Use the machine under the following environmental conditions: • Operating environment: 20 to 30 °C (68 to 95 °F) 35 to 65 % (Rh)	
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.

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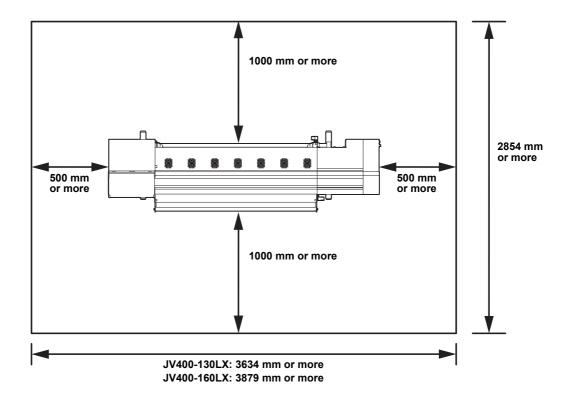
# **Moving This Machine**

# 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	Less than 230kg
JV400-160LX	2879mm	854mm	1435mm	Less than 250kg





- When you usually use photographic fixer, do not install this machine in a room filled with vapor of
  photographic fixer. If you install this machine in such a room, ink adhering to the head hardens and it
  may cause image quality defect that cannot be improved even if you perform head cleaning many
  times and may cause nozzle clogging.
- Besides photographic fixer, if you leave this machine in an environment where acidic vapor (acetic acid, muriatic acid, etc.) is generated, the same phenomenon occurs.

# **Working Environmental Temperature**

Use this machine in an environment of 20 to 30°C to ensure reliable printing.

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

# **Moving This Machine**

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



- 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.

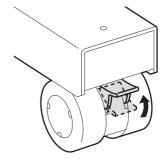
Be sure to request your distributor or our service office to move this machine.



- 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.



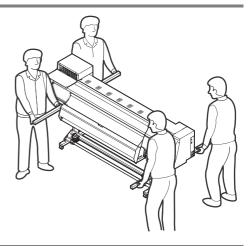
#### Release the lock of caster.





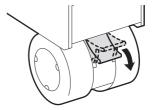
### Move this machine as shown in the figure.

- 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.



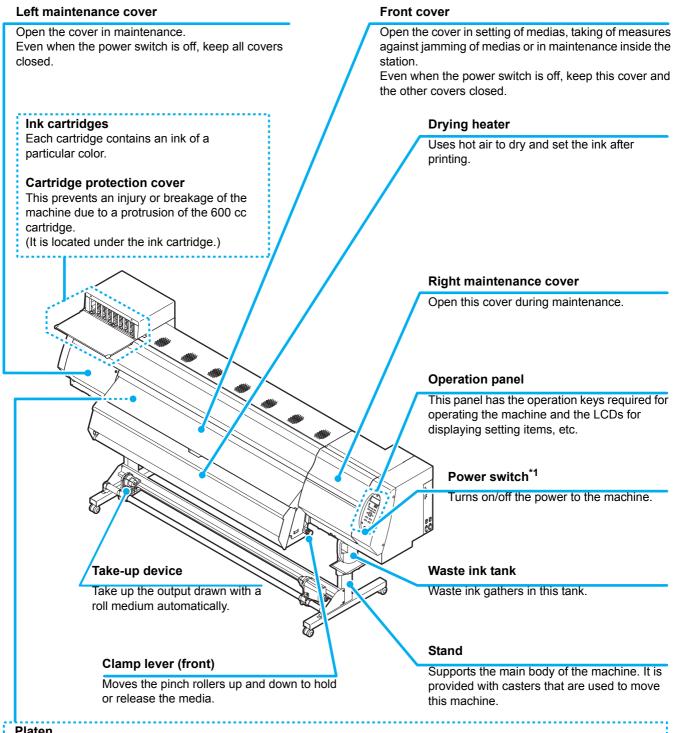
3

#### Lock the caster.



# Names of Parts and Functions

## **Front Side of the Machine**



#### **Platen**

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

#### Print heater/ Post-heater

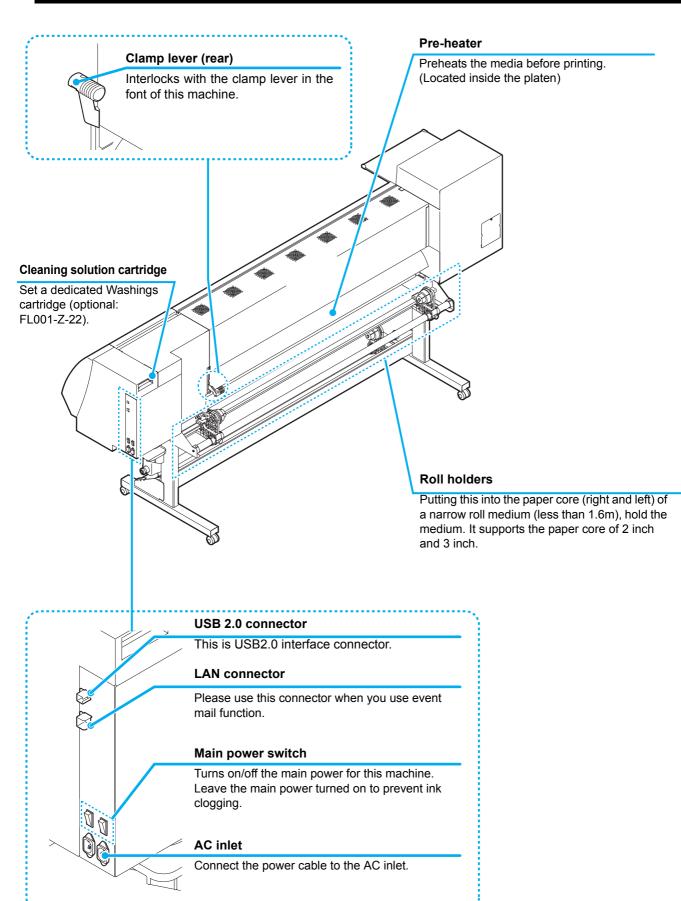
Fixes and dries the ink on the currently produced print. (Located inside the platen)

#### **Electrostatic sheet**

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

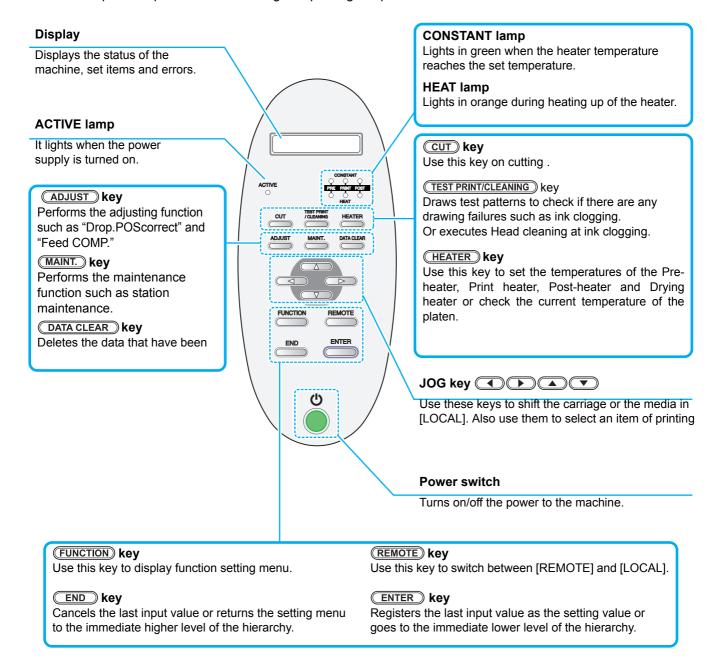
<sup>\*1:</sup> The power switch under the operation panel lights in green when the power is turned on. The ink clogging prevention function is periodically operated even when the power switch is OFF if the main power switch keeps being ON. (Auto maintenance function) @ P.1-5

# Rear Side and Right Side of the Machine



# **Operation Panel**

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



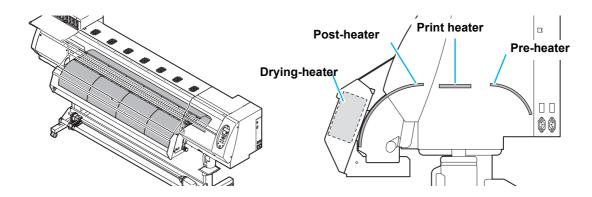
## Heater

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.

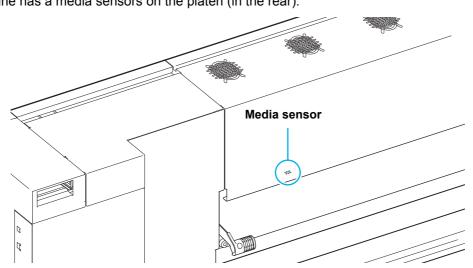


- While the heater is on, the platen is very hot. When the front cover is to be opened or media is to be replaced, lower the heater temperatures and wait until the platen temperature drops; otherwise, you can get burned.
- When the media is to be replaced with a thin one, lower the heater temperatures 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).



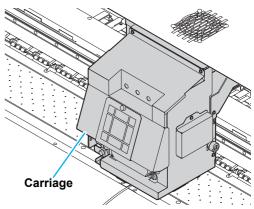


- When setting a medium, be sure to cover the medium sensors located on the rear of the platen. The media cannot be detected unless it is placed over the sensor.
- In case that you use 210mm-wide media, media cannot be detected if it is set in accordance with  $\sqrt{\phantom{a}}$ . Set media approximately 15mm inner than  $\sqrt{\phantom{a}}$ .

# Carriage

The carriage is provided with the 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)

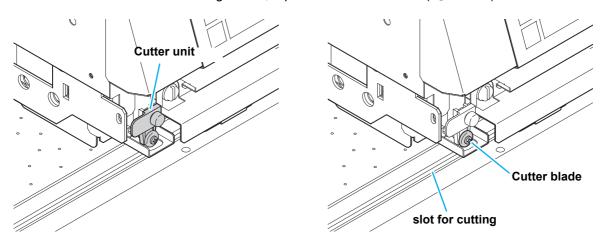


# Cutter blade and slot for cutting

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

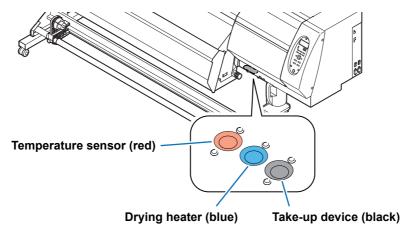
The cutter cuts off the sheet of media along the slot for cutting on the platen.

The cutter blade is consumables. If it gets dull, replace it with new one. ( P.4-37)



## Connector of Temperature sensor/ Drying heater/ Take-up device

Connector of Temperature sensor/ Drying heater/ Take-up device
If an error related to the Temperature sensor/ Drying heater/ Take-up device occurs, refer to the Chapter 5 and check the connector.



# **Capping station**

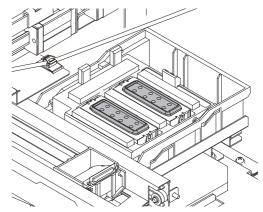


• Be sure to wear the attached goggles in cleaning within the capping station to protect your eyes against ink. Otherwise, you may get ink in your eyes.

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

The ink caps prevent the nozzles in the 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. ( $\ensuremath{\text{CFP}}$  P.4-32)

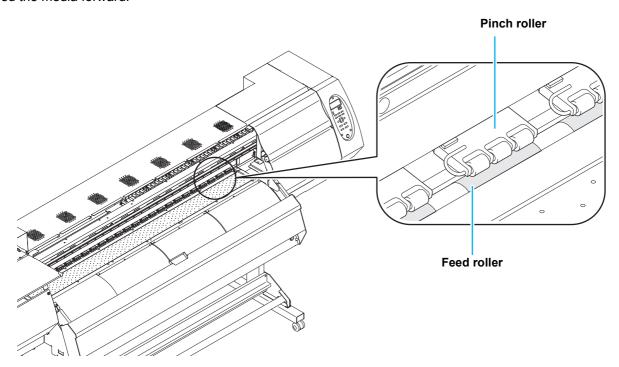


# Pinch rollers and Feed rollers



• 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.



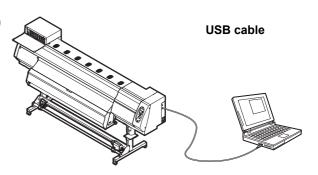
# **Connecting Cables**

# **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.
- When you connect USB cable, do not touch the connector contact point with your bare hand. Static may be generated and it may break the PCB of this machine.



#### Notes on USB 2.0 Interface

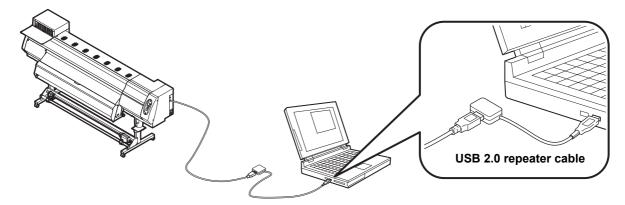


· Your RIP must be compatible with USB 2.0.

#### 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.



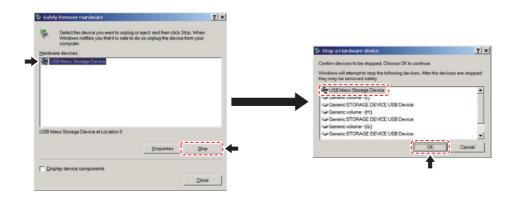
#### Notes on peripheral devices in USB high speed mode

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 201 COMMAND ERROR]. Copy the data onto the hard disk before outputting it for printing.



# Connecting the power cable



- Do not use any power cables other than the attached power cable.
- For Inlet 1 and 2, be sure to supply power from the outlet of the same voltage.



- 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.

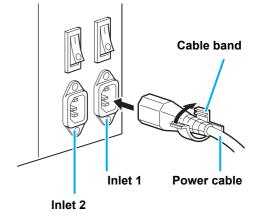


Insert the power cable into an inlet of the machine.



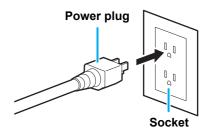
#### Secure a cable band.

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



3

Insert the power plug into a plug socket.



# Inserting ink cartridges

Insert an ink cartridges.



#### 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.

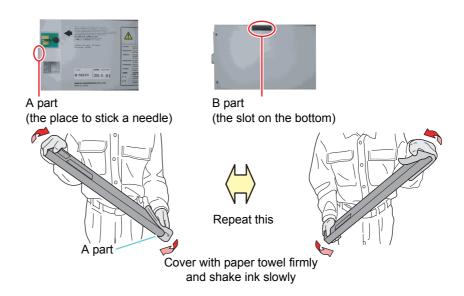


· When you use white ink:

When 24 hours have passed with the power supply is ON, or, when the power supply is ON, the message is displayed.

SHAKE WHITE INK CARTRIDGES [ENT]

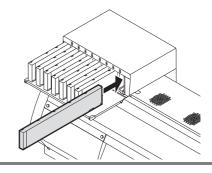
As the component of white ink is easy to settle out, it is necessary to shake it periodically.





#### 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.3-40)

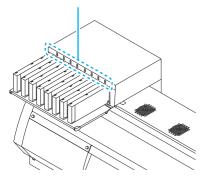


• When you changed the ink pack, be sure to change the IC chip, too.

## For Ink cartridge lamps

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





Condition of Lamp		Description		
	OFF	No error		
	Blinking	There is less ink in the ink cartridge (Near End), or ink has expired. It will become unusable soon.		
Upper row Red lamp	ON	There is no ink in the ink cartridge, or the ink cartridge cannot be used due to other ink error. ((22) P.5-5)		
	Quick blinking	As ink has expired, the ink cartridge cannot be used.		
	OFF	No error		
Lower row Green lamp	ON	Indicates that ink is supplied. If switching between two cartridges for one color (4-color ink set, M and C for 6-color ink set, M and C for 4-color + white 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.

When this expiration date is exceeded, a message is displayed in LOCAL and for the guidance message. ( P.5-11, P.5-13)

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, [Expiration] is displayed in LOCAL.

June: Usable (LED blinks), [Expiration(1M)] is displayed in LOCAL.

July: Unusable (LED blinks quickly), [Expiration(2M)] is displayed in LOCAL.

# 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 eyess 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.

# How to assemble ink cartridge

Before setting the ink cartridge, it is required to set the ink pack on the eco cartridge. By following the next procedures, assemble the ink cartridge.



#### Open the cover of the eco cartridge.

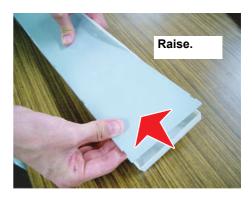
- (1) Press the center part of the cover with your finger.
  - The claw on the side without attaching part of IC chip comes off.



Press the center part with your finger.

- (2) Raise the cover as described in the photo.
  - At this time, the claw on the IC chip side does not come off.

Do not raise the cover forcedly so that you may not damage the claw.



(3) Remove the remaining claw while pressing the cover as indicated in the photo, and remove the cover.



# 2

### Set the ink pack on the eco case.

- (1) Turn the side with double coated tape downward and insert the stopper.
  - After inserting the stopper, push it firmly with your finger.



(2) Peel the seal of double coated tape.





# Firmly fix the ink pack on the eco case with double coated tape so that it may not move.

• Fix the ink pack after pulling it so that the ink pack may not go slack.



(Important!)

• Fix the ink pack so that it may not be biased in the eco case.

#### Good example



The corner of the case matches the ink pack corner.

#### Bad example







The ink pack goes slack in spots.



#### Attach the cover.

 Hang the claw on the IC ship side and then insert the cover into the case.





#### Attach the IC chip.

- Attach the IC chip as indicated in the photo.
- Attach it so that there is no gap in the part indicated with an arrow.

#### Bad example of attaching IC chip



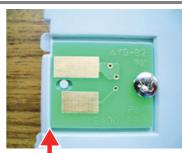
There is a gap.



The ins and the outs is reverse.



The back and the forth is reverse.



No gap shall be found.

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	
	Thickness	0.3mm or less*1		
	Roll outside diameter	φ180mm and less		
media	Roll weight	25kg and less (for small-size media holder, 25kg and less)		
= m	Roll inside diameter	3 or 2 inches		
Roll	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.		

<sup>\*1.</sup> Some media have bad drying characteristics. Please check this beforehand.

# Caution in handling of medias

Pay attention to the followings for handling of medias.



When handling media, wear the gloves.

If you touch the media with your bare hand, the media may be stained due to fingerprints or oil of your finger. Be careful about it.

· Do not leave the media with the heater ON for a long time.

Waviness may occur on the media and it may cause media clogging.

When the pinch roller is at the lower position, even if it is for a short time, impression produced by the pinch roller is left depending on the media material. Perform test feeding (P.2-18) to check the media status.

- 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.

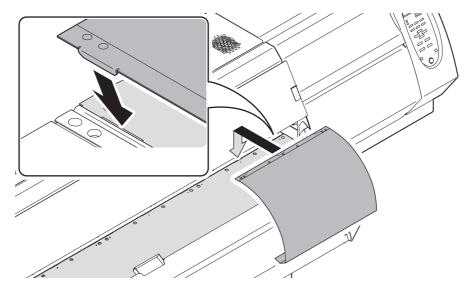
# **About antistatic sheet**

130LX: three antistatic sheets, 160LX: four antistatic sheets are attached in this machine. 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.

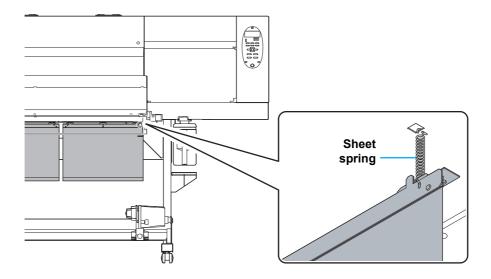
#### • Fix the electrostatic sheet

Hang the claw of the antistatic sheet on the groove of the platen.



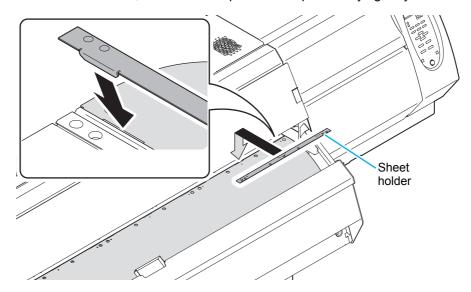
#### Remove the electrostatic sheet

Remove it in the reverse procedures of assembling, and use with it hanging on the attached sheet spring.



If you removed the antistatic sheet, attach the sheet holder on the platen (130LX: three positions / 160LX:four positions).

If you do not attach the sheet holder, the heater temperature drops and drying may become not enough.



# Chapter 2 Basic Operations



## This chapter

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

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# Workflow

Referring to "Turning the Power ON/OFF" **Turning the Power ON/OFF** (@ P.2-3). Setting a Media Referring to "Setting a Media" ( P.2-5). **Preparing for the Heaters** Referring to "Preparing for the Heaters" ( P.2-16). **Test Printing** Referring to "Test Printing" ( P.2-19). Set the media feeding Referring to "Set the media feeding" ( P.2-22). Correct the ink drop position for Referring to "Correct the ink drop position for bidirectional printing" ( P.2-24). bidirectional printing **Printing Data** Referring to "Printing Data" ( P.2-26).

# **Turning the Power ON/OFF**

# **Turning the Power ON**

This machine is provided with the following two power switches:

Main power switch: Two switches are 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.



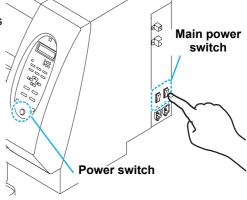
#### Turn the main power switch ON.

• Set the two main power switches located on the side of this machine to the "I" side.



#### 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.

JV400 Start-up Ver 1.00

• The machine performs its initial operation.



#### The machine enters LOCAL.

<LOCAL>



Turn ON the power of the connected PC.



- Turn the power ON after the front cover and maintenance cover are closed.
- Use the machine with always turning "ON" the main power. The function preventing nozzle clogging operates automatically to protect the head of the nozzle.
- The head nozzle may result in nozzle clogging if the main power switch is left OFF for a long time.

# **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")

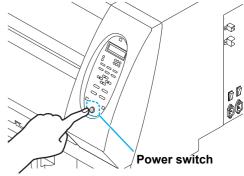


#### Turn OFF the power of the connected PC.



#### Press the power switch to turn the power OFF.

- 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) 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 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.1-17 "Usable sizes of media".

## **Adjusting the Head Height**

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

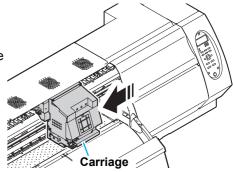


- Turn OFF heater and perform this after temperature dropped.
- Adjust the head height prior to setting the media. If the head height is adjusted after the media is set, this may cause a media jamming, deterioration of the print quality or head damage.
- The range of the initial head height is adjustable 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)



#### Move the carriage to the platen.

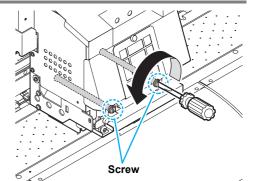
- When the device is turned ON :Execute [STATION - CARRIAGE OUT] of the Maintenance functions.(☼ P.4-5 Step1,2)
- When the device is turned off:
   Open the front cover, then move the carriage by hand.





#### Loosen two screws located at the front.

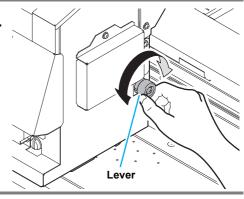
 Loosen the screws, rotating each by one turn of a flat-blade screwdriver.





#### Rotating the lever of the right side of the carriage.

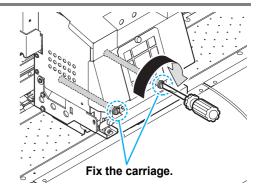
• Turn the lever left (towards you) to lower the carriage and turn the lever right (towards the back) to raise it.





#### Fix the carriage.

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

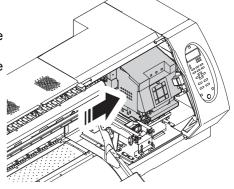




#### Return the carriage to the station position.

- When the power supply is off, return the carriage to the station manually.
- When the power supply is on, press the **ENTER** key if the screen below is displayed.

STATION COMPLETED [ENT]





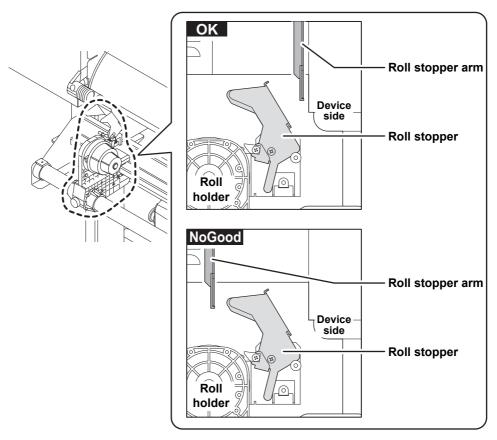
#### Close the front cover.

## 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.



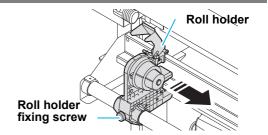
\*1. The function that once pulled out a certain amount of media, media pullout is temporarily locked.

## Setting a roll media



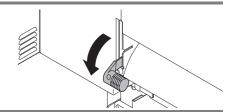
Move the roll holder located in the back of the device to the direction of the middle of the device.

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





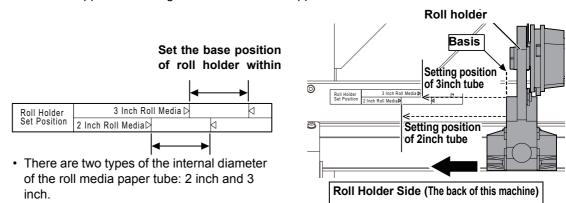
Check the clamp lever located in the back of the device is lowered.



3

#### Move the roll holder to the roll setting position.

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





- \*1)In case of using media with settable maximum width, set this so that the media width can be more inside than  $abla \subseteq \tau.$



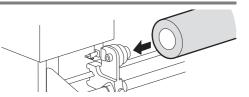
#### Tighten the roll holder fixing screw.

· Check the Step 2 to 3 again.



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

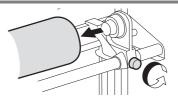
• Push the roll media onto the roll holder until the roll core is all the way seated.





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

When the roll holder is not firmly pressed against the core
of the roll media, the feeding media may be loosened and
thereby the media reaches to the floor. ( P.5-10)

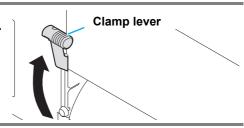




#### Tighten the screw of the roll holder

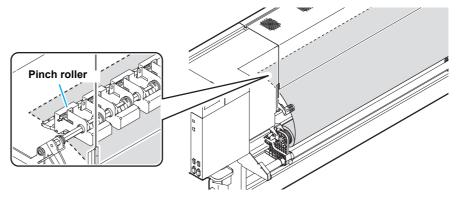


Raise the clamp lever in the front of this machine.





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 feed 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.

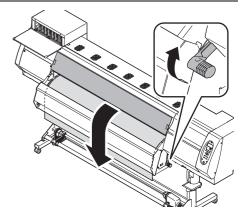


#### Pull out the roll media out.

- (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.



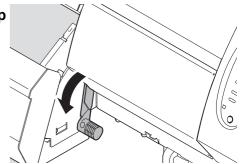
 When setting a medium, be sure to cover the medium sensors located on the rear of the platen. The media cannot be detected unless it is placed over the sensor.





## Make the roll media even then lower the clamp lever.

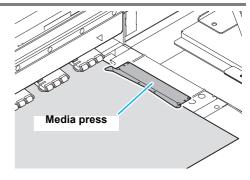
• Pulling several positions of the media lightly, Lower the clamp lever after confirming that the amount of the roll media pulled out is almost even.



**12** 

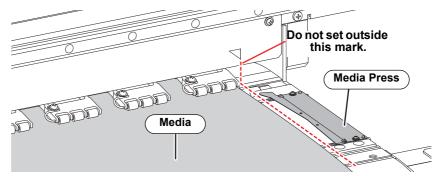
#### Hold the media with the media press gently.

- 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.





- In case that you use 240mm-wide media, media cannot be detected if it is set in accordance with  $\square$ . Set media approximately 30mm inner than  $\square$ .



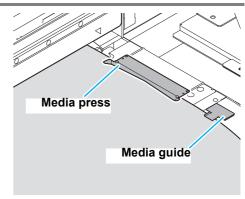
 If a media is misaligned to the right more than fixed position, a warning is displayed. Set the media again.

ERROR 516 MEDIA SET POSITION R

# 13

#### Hold the media with the media guide gently.

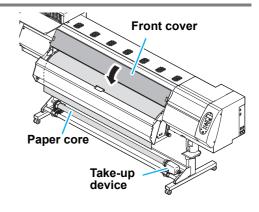
- If the printing result indicates that drying is not enough, use the media guide to improve adhesion of the media to the platen.
- Use the media guide with it hit slightly against the sheet holder.
- Make the media pass around the center of the claw of the media guide.





#### 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.



MEDIA SELECT

>LEAF

ROLL<



#### Press the key to select "ROLL" .

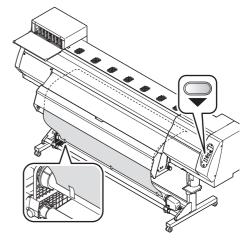
- Detects the media width.
- When [MEDIA RESIDUAL] of the machine setup is "ON" ((F) P.3-14), the screen for entering media remaining amount is displayed after detecting the media width.((F) P.2-12)



#### Fix the media on the take-up device.

((PP P.2-12)

- (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 the 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.
- (4) Press the ENTER key.





- Depending on the media to use, attach/ remove the antistatic sheet. ( P.1-18)
- If media floats at the detecting position, it may not be detected correctly.

### Entering the media remaining amount

When [MEDIA RESIDUAL] of the maintenance function is "ON" (P.3-14), the screen for entering media remaining amount is displayed after detecting the media width.

1

Display the screen for entering media remaining amount.

2

Press and key to enter the media remaining amount.

Input of MediaLength = 50.0m

3

Press the ENTER key.

### Take-up device

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

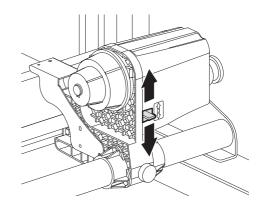
Lever in top position (REVERSE):

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

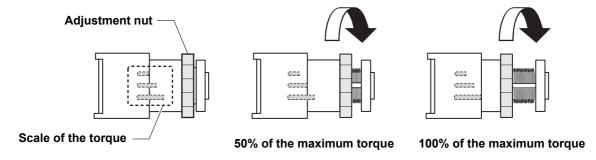
The take-up device is provided with a torque limiter.

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)





- 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.



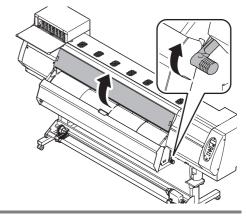
• After printing, in case that there is not a margin of more than 600mm from the edge, drying feed cannot be fully performed. Therefore, please note that some places cannot pass the drying heater, and drying unevenness and difference in printing quality occur.



#### Open the front cover.



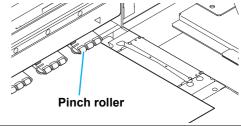
Raise the clamp lever.





## 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.



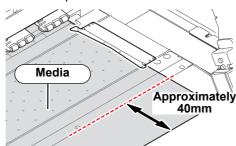


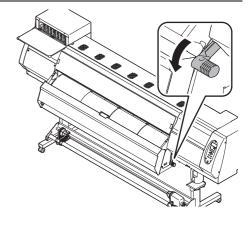
#### Push down the clamp lever.

· 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.

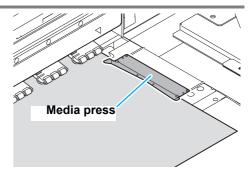






#### Hold the media with the media press gently.

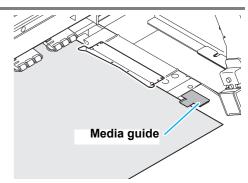
- Set the media so that no media sticks out from the right end pinch roller to the right side.
- When using a thick media, remove the media press from the media before printing.





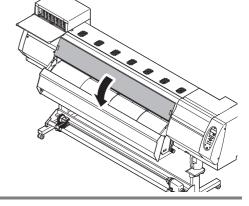
#### Hold the media with the media guide gently.

- If the printing result indicates that drying is not enough, use the media guide to improve adhesion of the media to the platen.
- Use the media guide with it hit slightly against the sheet holder.
- Make the media pass around the center of the claw of the media guide.





#### Close the front cover.



8

Press the **ENTER** key.



Press the key to select "LEAF".

MEDIA SELECT ROLL< >LEAF



#### The media detection is started.

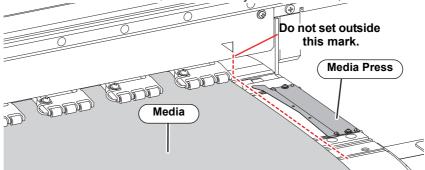
\*\* MEDIA DETECT \*\*

- (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



- In case that you use 240mm-wide media, media cannot be detected if it is set in accordance with  $\nabla$ . Set media approximately 30mm inner than  $\nabla$ .
- ullet Do not set the media outside  $oxed{n}$ . 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 R

### 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.



### In Local, Press (A) (V) (A).

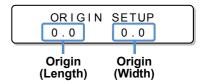
• It enters into the origin setting mode.

ORIGIN SETUP



# 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 CUT key here, you can perform media cutting.





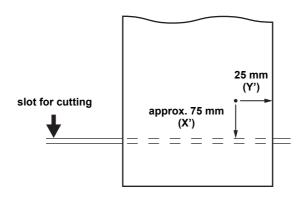
### After determining the origin, press the ENTER key.

• 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.3-6) 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)



Press the (HEATER) key.

PRE PRT POST 23°C 23°C

Heater temperature confirming display



Press the (HEATER) key.

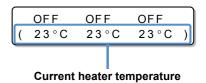
The set temperature: 20 to 70°C

OFF OFF OFF
( 23°C 23°C 23°C )



Press to set the temperature of each heater.

Heater selecting : Select with 
Temperature setting : Set with



- 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.



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

• The screen moves to the temperature setting of FAN HEATER.



- 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.)
- Depending on the power supply voltage, amount of heat generation differs. For the power supply voltage of 100V to 120V, it may not reach 70 °C.
- If you set [VACUUM] of the [SETUP] menu more than needs, it may cause temperature decrease of the print heater.



- Use this machine under 20 to 30°C. The temperature may not reach the set value due to the environmental temperature condition.
- When you lower the heater temperature, ensure drying time with the procedures below:
  - Set [SET UP] [DRYING TIME].
  - · Increase the number of printing passes.
  - · Print unidirectionally.

## **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 Heater**

1

Press the HEATER key three times.

FAN HEATER :READY( 10°C)

2

Press to select a set value.

• Set value : OFF / POST setting value+1 to 20°C

FAN HEATER :READY( 20°C)

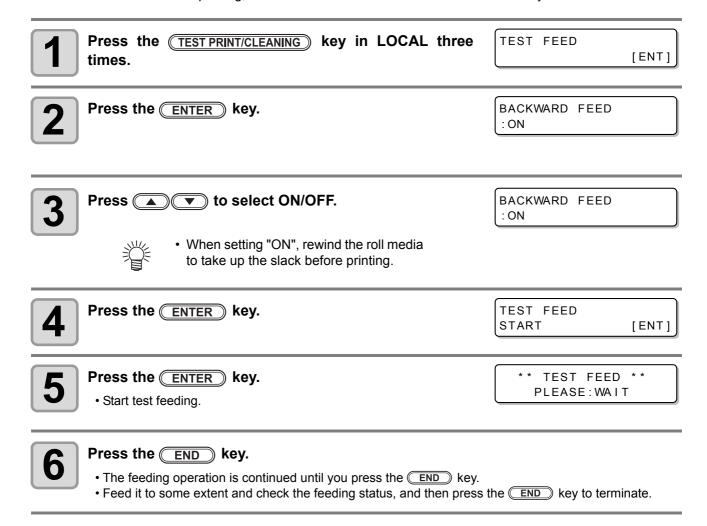
3

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.5-10) Perform this function before printing, and check whether the media can be fed normally.

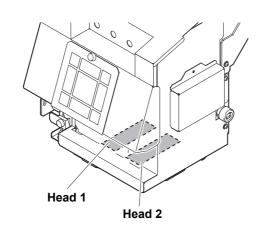


# **Test Printing**

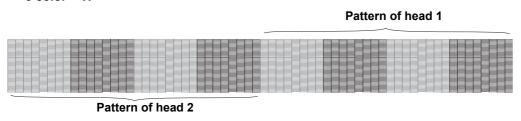
Print a test pattern to check that there are no discharging defects such as nozzle clogging (slight touching of ink or nozzle missing).

### Relationship between head row and test pattern

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

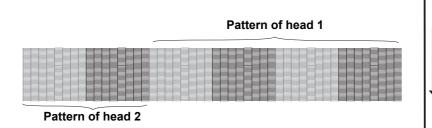


- 4 color
- 4 color + W
- 6 color + W



Media advance direction

• 6 color



Media advance direction

### Note on test printing

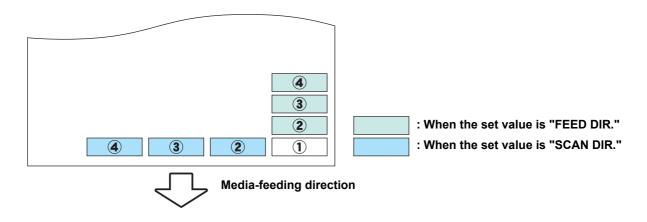


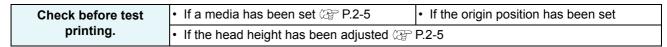
When using a roll medium, rewind the medium by hand before printing so that it is not loose.
 When the roll medium has not been rewound tightly, it may cause image quality to deteriorate.

### **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.







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

• Press to change the test pattern orientation.

TEST PRINT (SCAN DIR.) [ENT]

2

#### Press the **ENTER** key.

- · Test printing starts.
- When the printing has been completed, the screen returns to step1.

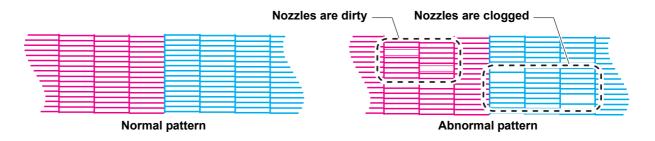
\*\* PRINTING \*\*
PLEASE WAIT

TEST PRINT (SCAN DIR.) [ENT]

3

#### Check the printed test pattern.

- When the result is normal, end the operation.
- When the result is abnormal, perform head cleaning. ( P.2-21)





• When using the nozzle recovery function ( P.4-26), if the feed corrections do not match, printing is done with the recovered nozzle sections misaligned. In that case, perform a feed correction ( P.2-22) and then perform the test print again.

# **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

: 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.



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

CLEANING SOFT L [ENT]

Press (\*\*) to select the cleaning type.

CLEANING HARD [ENT]

SOFT : When lines are bent, when any line is missing NORMAL: When any line is missing, when colors are mixed

: When poor image quality cannot be improved even by NORMAL or SOFT cleaning **HARD** 

Press the ENTER key.

SELECT HEAD : 12

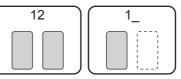


Press ( cleaning.

SELECT HEAD : 1

- : 12 (Cleaning both heads.) Set Value
  - 1 (Cleaning Head 1 only.)

2 (Cleaning Head 2 only.)







Press the ENTER key.

• On completion of cleaning, the screen returns to step1.

CLEANING \*\* PLEASE: WAIT



#### 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.4-20)
- Solve the failure of the image quality, referring to When Nozzle Clogging Cannot Be Solved. ( P.4-26)

# Set the media feeding

Correct the feeding rate of media.

If the correction value is not appropriate, stripes may appear on the printed image, thus resulting in a poor printing.



- When you have changed the media type, check the pattern and perform adjustment depending on the status.
- When you have changed the temperature of the heaters, make sure that the [CONSTANT] lamp lights up and that the preset temperature is reached, and then start the correction.
- When using a roll medium, rewind the medium by hand before printing so that it is not loose.
   When the roll medium has not been rewound tightly, it may cause image quality to deteriorate.
- When printing with a take-up device, set the media first and then perform media correction.

### **Setting Feed Correction**

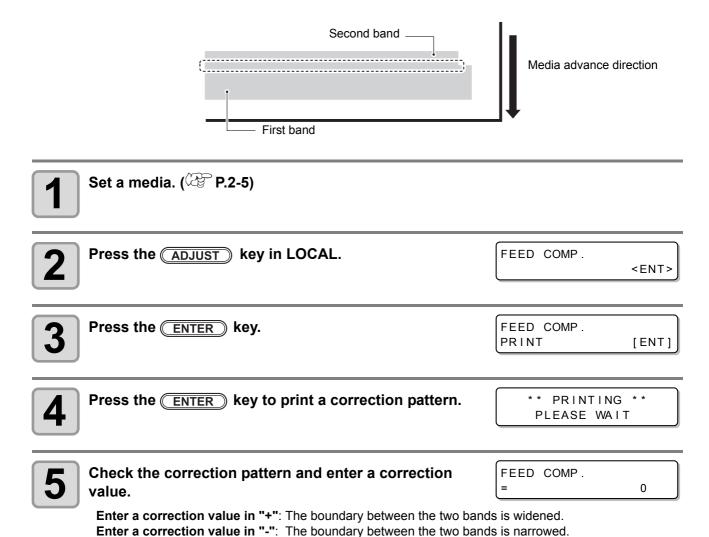
Input example: In case that patterns overlaps

When entering the value in "+"

A pattern for media correction is printed and a media-feeding rate is corrected.



- Two bands are printed in the correction pattern.
- Make adjustment so that an even color density is obtained in the boundary between the two bands.



0

In case that patterns are separate

When entering the value in "-"

2-22

[ENT]



### Press the **ENTER** key.

FEED COMP. PRINT

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



Press the END key several times to end the setting.

### Performing the feed correction 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 the **ENTER** key twice.

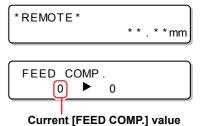
 It becomes the same condition as the key is pressed from Local.

### **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.



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.

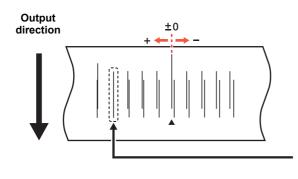
\*REMOTE\* \* \* . \* \* mm

- The changed value is registered.
- When you press the <u>ENTER</u> key instead of the <u>END</u> key, the value entered here will be invalid.

# 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**



The dots at the fourth position counted from the zero position in the positive direction form a straight line. In this case, the dot position correction value is 4.0.

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

Press the ADJUST key twice in LOCAL.

DROP.POScorrect [ENT]

Press the ENTER key.

DROP.POScorrect:Y600dpi

4

Press to select the resolution.

DROP.POScorrect :Y600dpi

- Setting value: Y600dpi / Y900dpi / Y1200dpi
- · Perform correction for all resolutions.

5

Press the ENTER key.

DROP.POScorrect
PRINT [ENT]

6

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

\*\* PRINTING \*\*
PLEASE WAIT

• Test pattern is printed. (The printed patterns are called Pattern 1, Pattern 2, Pattern 3... in the order of printing.)

7

Press to correct the dot position of Pattern 1~.

PATTERN1 0.0

- Corrected feeding rate: -40.0 to 40.0
- Open the front cover and 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 in not between -40.0 and 40.0, adjust the height of the printing heads and then perform the operations in Step 2 and later.



Press the ENTER key.

- Next test pattern is printed.
- Repeat step6 and step7.



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 [DROP.POScorrect], and press the ENTER key twice.

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

# **Printing Data**

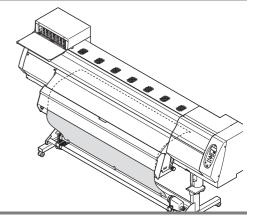
## **Starting a Printing Operation**



• 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.



#### 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

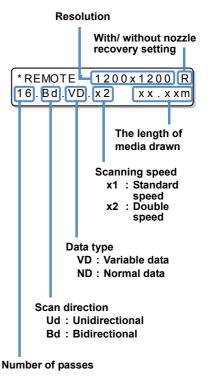


#### Transmit data to be printed from the PC.

- 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.



#### Press the **REMOTE** key during printing.

<LOCAL>

width: 1272mm

- 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.

## **Deleting Received Data (Data Clear)**

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



Press the DATA CLEAR key in LOCAL.

DATA CLEAR

[ENT]

2

Press the ENTER key.

\*\* DATA CLEAR \*\*

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

## Behavior after printing has been completed

### **Drying Feed**

When printing has been completed, the feeding operation is performed to dry the printed surface with the drying heater.

- Perform the feeding operation until the back edge of printing passes the drying heater.
- When you press the **END** key, the operation is terminated.
- When the machine has been received next data continuously, it will operate after the last data is received.

#### Screen display during drying feeding

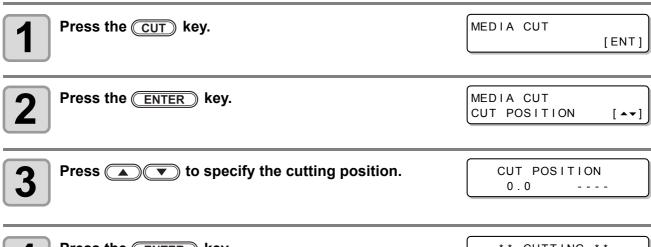
Drying \*\*:\*\*:\*\*

## **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 take-up device, take up a cut medium using the switch of the take-up device.





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.2-15)

# 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. (@PP.2-22)		-9999 ~ 0 ~ 9999		0		Used to print a pattern for correcting a media-feeding rate and correct it.	
DROP. POS	DROP. POS CORRECT		-40.0 ~ 0 ~ 40.0			Used to adjust the dot position in go and return printing.	
HEATER ((2) P.2-16)	Pre-Heater	OFF/ 20 ~ 70°C (OFF/ 68 ~ 122°F)		OFF			
	Print Heater	OFF/ 20 ~ 70°C (OFF/ 68 ~ 122°F)		OFF		Sets heater conditions.	
	Post Heater	OFF/ 20 ~ 70°C (OFF/ 68 ~ 122°F)		OFF			
	FAN HEATER(© P.2-17)	OFF/ POST+0 ~ 20°C*b		OFF		Sets drying heater conditions.	
LOGICAL SEEK((22 P.3-3)		HOST ON MACHINE WIDTH		HOST	OFF (MACHINE	Sets the scan movable area	
		OFF	/MEDIA WIDTH/ MANUAL WIDTH	WIDTH)		during printing.	
INK LAYERS (( P.3-10)		HOST /1 ~ 9		HOST	1	Sets the number of layers in which ink is to be applied.	
DRYING TIME	SCAN	HOST /0.0 ~ 9.9 sec		HOST	0.0 sec	Sets the time to wait for inlidrying.	
(ﷺ P.3-3)	PRINT END	HOST /0 ~ 999 sec		HOST	0 sec		
MARGIN	LEFT	HOST / -10 ~ 85mm (1mm unit)		HOST	0 mm	Sets a non-printing area along the right and left edges of the media.	
(Œ P.3-6)	RIGHT	HOST / -10 ~ 85mm (1mm unit)		HOST	0 mm		
VΔCHIIM (CAF P3-10)		HOST / STANDARD / STRONG		HOST	STANDARD	Sets the absorbability of the media.	
FEED SPEED	O (Æ P.3-10)	HOST	/ 10 ~ 200%	HOST	100%	Changes the media feeding speed in printing.*c	
MAPS	OFF / ON			OFF		Perform setting to reduce stripes	
(Œ P.3-7)	PRINT SPEED ADJUST	-50 ~ <b>+</b> 50%		0%		between passes.	
AUTO CLEANING (CP P.3-8)	INTERVAL	OFF / 1 ~ 1000 page		OFF		Sets the automatic cleaning	
	TYPE	SOFT / NORMAL / HARD		SOFT		operation of the head at the star of printing.	
INTERVAL WIPING	TYPE1	Lv1 ~ Lv6, MANUAL (90~600sec) Lv1 ~ Lv6, MANUAL (10~90min)		Lv4		Set wiping interval performed	
(@ P.3-9)	TYPE2			Lv4 -		during printing.	

<sup>\*</sup>a. 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.

<sup>\*</sup>b. The setting value range shall be within the POST heater setting value +20  $^{\circ}\mathrm{C}$  .

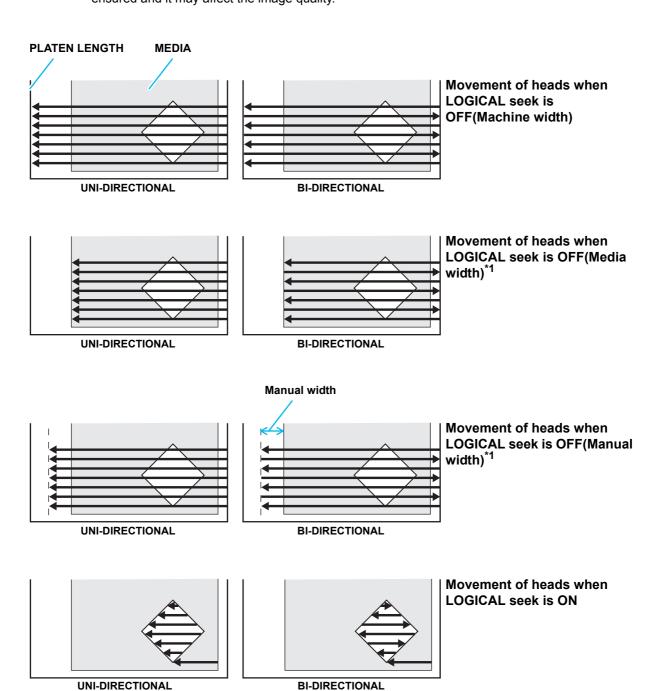
<sup>\*</sup>c. When you set this to "100%" or more, required time for completion of printing will be shortened. However, enough drying time cannot be ensured and it may affect the image quality.

# **Setting Logical Seek**

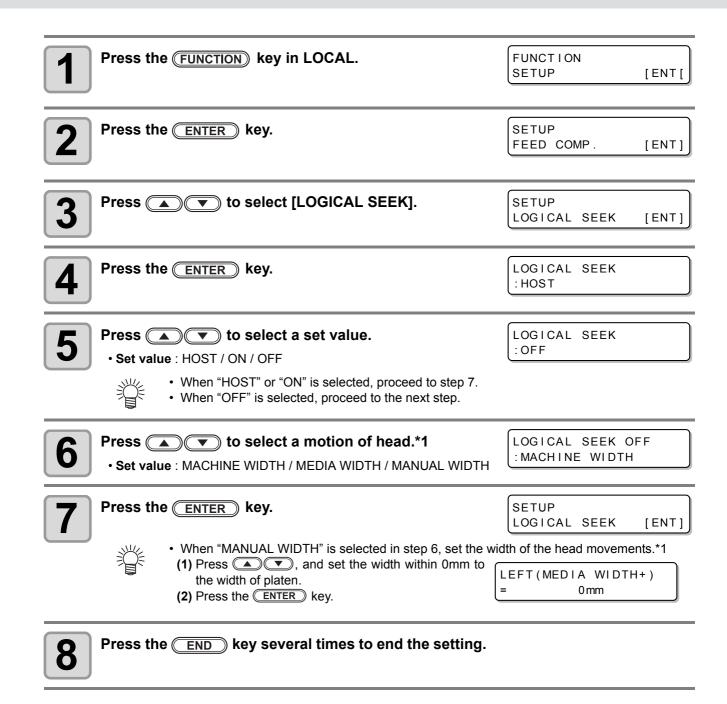
The motion of Head varies depending on the set of Logical-seek.



- 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"
   Required time for completion of printing will be shortened. However, enough drying time cannot be ensured and it may affect the image quality.



<sup>\*1.</sup> Supported from the firmware ver.2.50



<sup>\*1.</sup>Settings of logical seek "off" is supported from the firmware ver.2.50

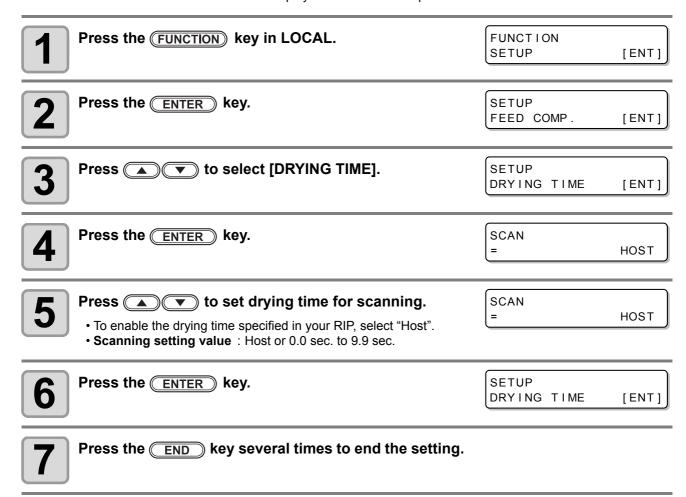
# **Setting Drying Time**

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.)



- 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.

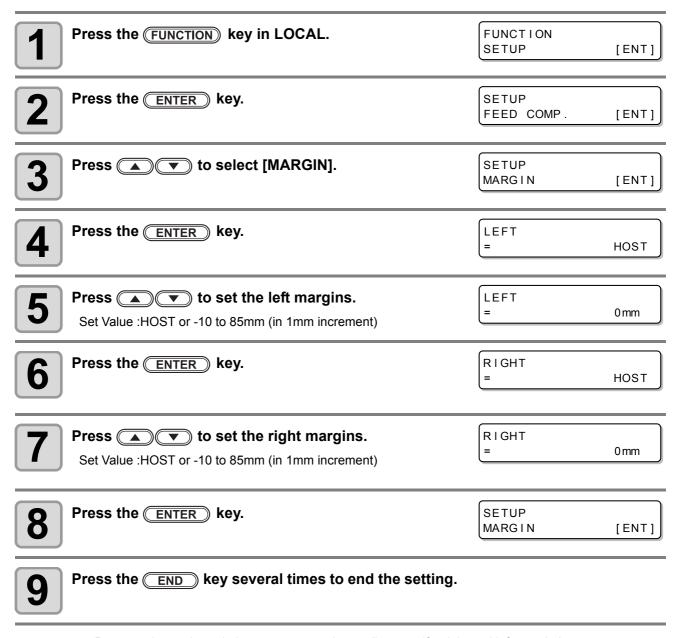


# **Setting Margins**

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.





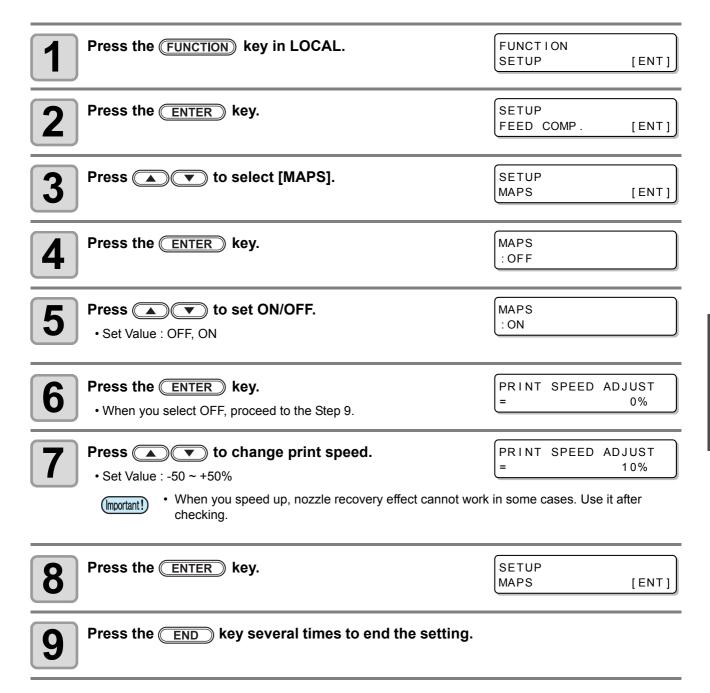
 Pay attention to that printing may start on the media press if a right and left margin is set to 5 mm or less when the media press is used in printing.

# **Perform setting to reduce stripes between passes**

In case that feeding stripes cannot be resolved even though media correction ( P.2-22) is performed, make "MAPS (Mimaki Advanced Pass System) valid. Feeding stripes become less visible by distributing the pass boundary. (Supported from the firmware ver.2.00)



• Depending on the printing condition, the effect cannot be recognized.



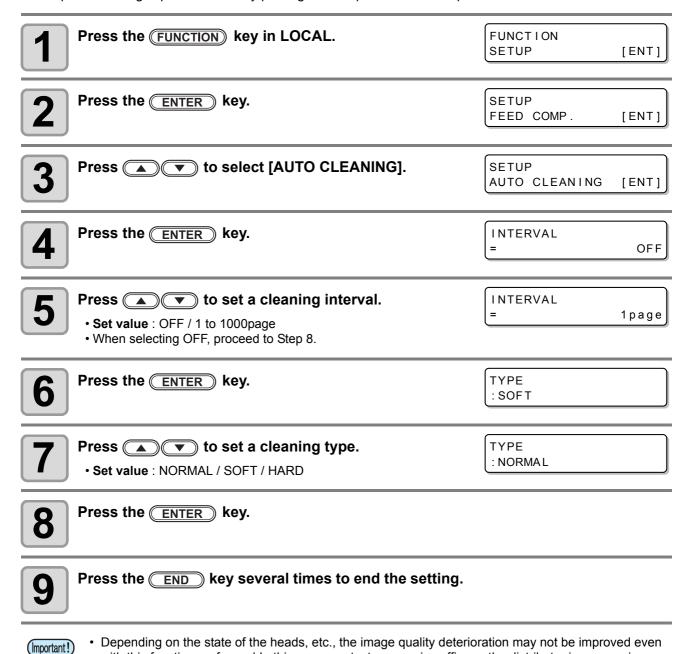
# **Setting Auto Cleaning**

You can set items so that the head cleaning is automatically performed when printing has been completed for the set interval.

When printing has been completed, the machine count the print count printed after the previous head cleaning and performs the cleaning automatically if necessary.

The machine can perform a stable printing operation with its heads always kept clean.

The first cleaning is performed immediately before the first printing after the machine is started. Then subsequent cleaning is performed every printing on the specified count of print.

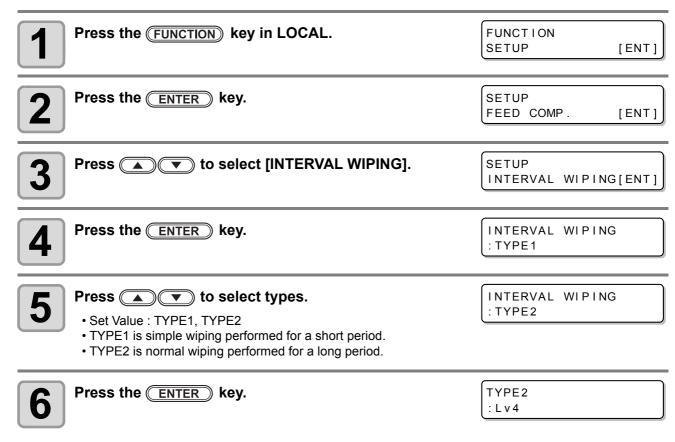


with this function performed. In this case, contact our service office or the distributor in your region.

# 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.

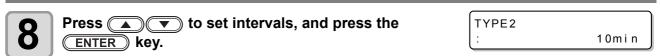
In case that deflection, nozzle missing, or symptom which ink droplets fall down occurred, increase the level for each type. If you increase the level, the intervals become shorter.





TYPE2 :Lv5

- Set Value : Lv1 to Lv6, MANUAL
- Lv1 has a lower frequency; the higher the level, the higher the frequency. Lv1 has a longer interval; the higher the level, the shorter the interval.
- When Lv1 to Lv6, the operation interval is changed automatically depending on the device temperature.
- When [MANUAL] is set, set the intervals ins step8.

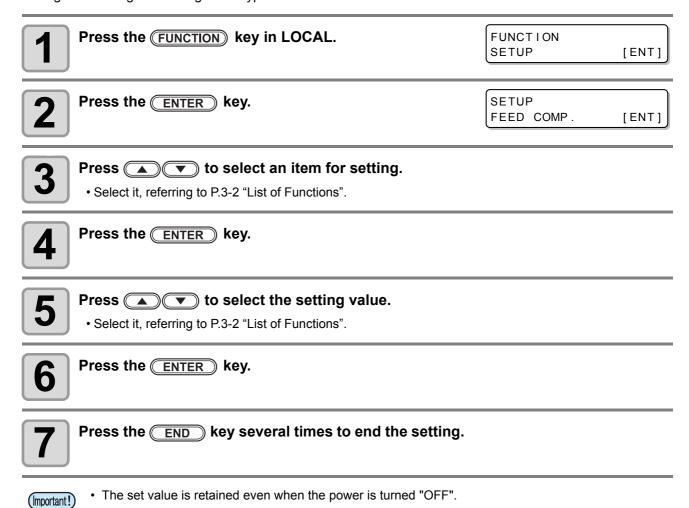


- Set Value :TYPE1: 90 to 600 sec TYPE2: 10 to 90min
- Example of behavior: When it is set to 90Sec, wiping is performed one head by one per 45Sec.



# **Other Settings**

Change the settings according to the types of 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 (@P P.3-13)		NONE/ 10 ~ 600min 30min		When no operation has been performed for the set time, the power supply is automatically turned "OFF".		
MEDIA	ON	0.0 to 500.0m	OFF	You can control the remaining amount of media.		
REMAIN (ﷺ P.3-14)	OFF					
	Cart. Weigth	1 to 8				
INK REMAIN ( P.3-16)	Case Weight	1 to 8				
	Alarm Display	ON / OFF	OFF			
TIME ( P.3	-21)	+4h ~ -20h	Japan time	Time difference is corrected.		
UNIT (Æ P.3-22)	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((2) P.3-23)		OFF / ON	ON	A buzzer sound when keys are pressed is set.		
	Set the networ	Set the network.				
	Check IP Addr.	The IP address currently used by this machine is displayed.				
	Check MAC Addr.	The IP address currently used by this machine is displayed.				
	DHCP	ON / OFF		When it is ON, the IP address given by the DHCP server is used.		
NETWORK (Æ P.3-24)	AutoIP	ON / OFF		When it is ON, the IP address is determined by the AutoIP protocol. However, DHCP is ON, DHCP has priority.		
	IP Address *1	Set the IP address used by this machine.				
	Default Gateway *1	Set the default gateway used by this machine.				
	DNS Address *1	Set the DNS server address used by this machine.				
	SubNet Mask *1	Set the digit number of the subnet mask used by this machine.				

Item		Set value		Default	Meaning	
EVENT MAIL (ﷺ P.3-26)	Mail Delivery	ON / OFF		OFF	Set whether you send/ do not send the email when the set event occurs.	
	Select Event	Print Start Event	ON / OFF	OFF	Set whether you send/ do not send the email at the start of printing.	
		Print End Event	ON / OFF	OFF	Set whether you send/ do not send the email at the end of printing.	
		Error Event	ON / OFF	OFF	Set whether you send/ do not send the e-mail when a error occurs.	
		Warning Event	ON / OFF	OFF	Set whether you send/ do not send the e-mail when a warning occurs.	
		Other Event	ON / OFF	OFF	Set whether you send/ do not send the e-mail when an event other than the above occurs.	
	Mail Address	Set the e-mail address to which you send the event mail.		Alphanumeric characters and symbols (within 96 characters)		
	Message Subject	Set the characters to write in the subject of the event mail.		Alphanumeric characters and symbols (within 8 characters)		
	Server Setup	SMTP Address		Set the SMTP server.		
		SMTP Port No.		Set the SMTP port number.		
		SENDER ADDRESS		Set the e-mail address to be used as the sender mail address.		
		Authenticati on	POP before SMTP	Set the SMTP server authentication method (SI authentication).		
			SMTP Authenticati on			
			OFF			
		User Name *2		Set the user name used for the authentication.		
		Pass Word *2		Set the password used for the authentication.		
		POP3 Address *3		Set the POP server.		
		APOP *3		Set ON/ OFF of APOP.		
	Transmit Test	Send the test e-mail.				
LANGUAGE ( P.3-35)		English ニホンゴ Deutsch Français Español Italiano Português		English	Displayed language is changed.	
RESET((22 P.3-36)					All setting values are returned to the status default.	

<sup>\*1.</sup> Settable when both of DHCP and AutoIP are [OFF]

<sup>\*2.</sup> Settable only when Auth. is not OFF

<sup>\*3.</sup> Settable only when Auth. is POP before SMTP

# **Setting a AUTO Power-off**

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

Press the FUNCTION key in LOCAL.

FUNCTION SETUP [ENT]

Press to select [MACHINE SETUP].

FUNCTION MACHINE SETUP [ENT]

Press the ENTER key twice.

AUTO Power-off = 30min

Press to set time to turn OFF the power supply.

Set Value: none, 10 to 600min

Press the ENTER key.

MACHINE SETUP
AUTO Power-off [ENT]

6 Press the <u>END</u> key several times to end the setting.

(Important!)

• If the machine received data from the PC in the auto-power-off status, the power supply is turned ON, however, printing operation is not started automatically.

# **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.



On this machine, you can display the remaining media amount when in Remote by entering the remaining amount of the media that you are using. The method for entering the remaining media amount varies depending on the firmware version of your device.

- Firmware version 3.20 or older: With these settings, the remaining media amount input can only be switched ON or OFF. You can actually enter the remaining media
- amount when roll media is detected (P.2-19).

   Firmware version 3.40 or later: With these settings you can enter the remaining media amount after turning the remaining media amount input "ON".



• The amount of a media that has been fed by the printing and jog keys is reflected in the remaining amount of a media.

amount of a friedia.	
Press the FUNCTION key in LOCAL.	FUNCTION [ENT]
Press to select [MACHINE SETUP].	FUNCTION MACHINE SETUP [ENT]
Press the ENTER key.	MACHINE SETUP AUTO Power-off [ENT]
Press to select [MEDIA REMAIN].	MACHINE SETUP MEDIA REMAIN [ENT]
<b>5</b> Press the ENTER key.	MEDIA REMAIN :OFF
6 Press (a) v to select ON/OFF.	MEDIA REMAIN :ON
7 Press the ENTER key.	

If you select "ON" in step 6 : proceed to step 8.
If you select "OFF" in step 6 : proceed to step 9.



Press **(\*\*)** to input the media remain.

• Set Value : 0.0 to 500.0 min

INPUT MEDIA LENGTH 50.0m



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.





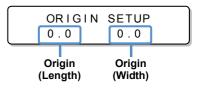
LOCAL changes to the origin setting mode.

ORIGIN SETUP 0.0



#### 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 **ENTER** key here, the origin is changed, and the screen returns to LOCAL.





#### Press the REMOTE key.

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

MEDIA REMAIN PRINT <ENT>



#### Press the ENTER key.

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



· 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.

# Adjusting the Remaining Amount in the Ink Cartridge

The remaining amount of ink in the ink cartridge can be adjusted. (available for the firmware Ver.3.40 and later)



• You need a scale (which can weigh up to 1200g in 1g) to adjust the remaining amount of ink. Please prepare your scale.

Setting the INK REMAIN

This setting allows you to adjust the remaining amount of ink or use the eco case. For details, refer to P.3-16.

Registering the case weight

When using the eco case, you need to register the case weight in order to be able to adjust the remaining amount of ink inside the ink cartridge accurately. Refer to P.3-18 and register the weight.

Registering the cartridge weight

By weighing the whole ink cartridge including the IC chip and the ink pack, you can adjust the remaining amount of ink inside the cartridge. Follow the instructions on P.3-19 and register the

# **Setting the INK REMAIN**

By setting INK REMAIN to "ON", you enable the following functions.

- · You can detect the remaining amount of ink inside the ink cartridge and adjust the cartridge weight.
- When the ink inside the ink cartridge is low, a message is displayed reminding you to weigh the cartridge. ( P.5-7)



• If there are any slots with unregistered case weight when using the eco case, register the case weight.

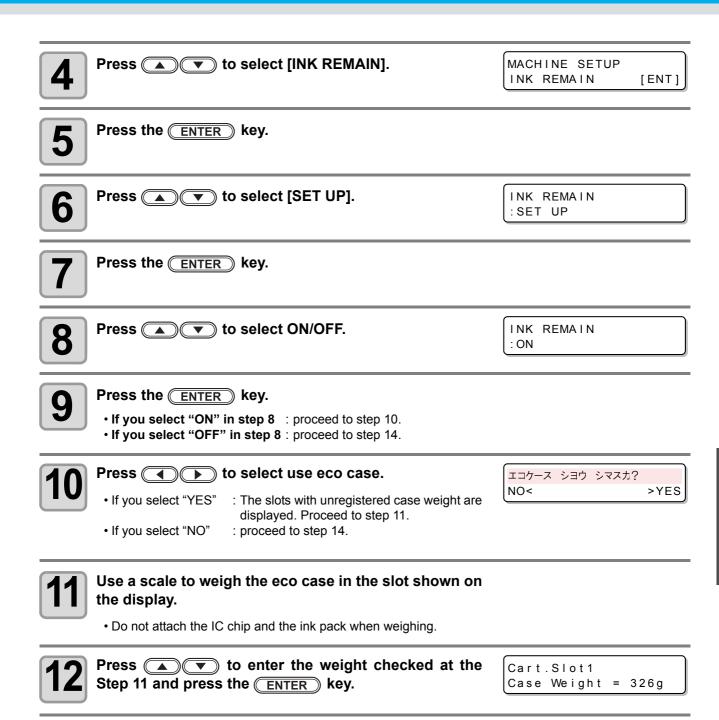
Press the FUNCTION key in LOCAL.

FUNCTION SETUP [ENT]

Press to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]

Press the ENTER key.



Repeat steps 11 and 12 until the case weight is registered on all the slots shown on the display.

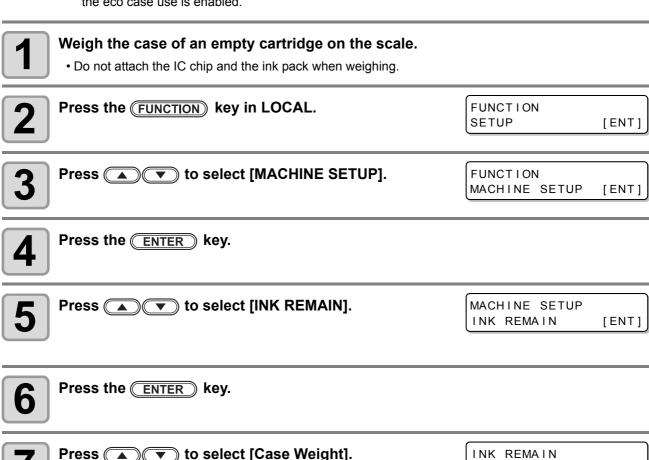
Press the END key several times to end the setting.

# Registering the case weight

When using the eco case, you need to register the case weight. Follow the steps below to register the case weight.



- If you replace the eco cartridge because the eco case is damaged, you need to register the case weight again in order to set the remaining amount in the ink cartridge correctly.
- You can only register the case weight when SET UP ( P.3-16) in INK REMAIN is set to "ON", and the eco case use is enabled.





- Press the ENTER key.
- Press to choose the cartridge for which you wish to register the weight.
- 10 Press the ENTER key.
  - Press to enter the weight checked at the Step 1.

    Cart.Slot1
    Case Weight = 326g



13

Press the END key several times to end the setting.

## Registering the cartridge weight

Calculate the remaining amount of ink from the ink cartridge weight including the IC chip and ink pack, and adjust the amount.

(Important!)

• You can only register the case weight when SET UP in INK REMAIN is set to "ON". ( P.3-16)

1

Weigh the ink cartridge on the scale.

· Attach the IC chip and the ink pack when weighing.

Press the FUNCTION key in LOCAL.

FUNCTION SETUP [ENT]

Press to select [MACHINE SETUP].

FUNCTION
MACHINE SETUP [ENT]

Press the ENTER key.

Press to select [INK REMAIN].

[MACHINE SETUP INK REMAIN [ENT]

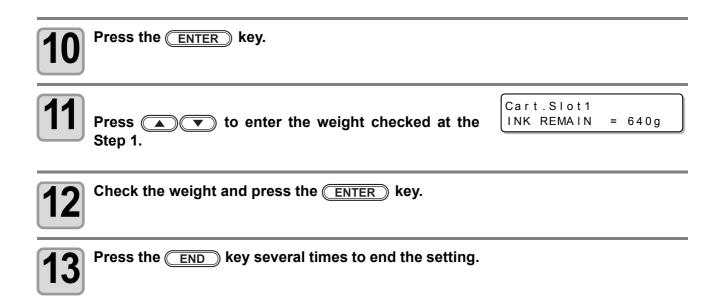
6 Press the ENTER key.

Press to select [Cart. Weigth].

Press the ENTER key.

Press to choose the cartridge (1 to 8) for which you wish to register the weight.

InkLevelSet Cart.Slot : 1





• When total entered weight of ink exceeds certain quantity, "Save Failure" error occurs again and entry becomes invalid.

15:30:00

2011.10.05

## **Setting Time** You can set time of your country (time difference). FUNCTION Press the FUNCTION key in LOCAL. SETUP [ENT] Press ▲ ▼ to select [MACHINE SETUP]. FUNCTION MACHINE SETUP [ENT] Press the ENTER key. MACHINE SETUP AUTO Power-off [ENT] MACHINE SETUP Press ▲ v to select [TIME]. 4 TIME [ENT] Press the ENTER key. TIME 2011.10.05 21:30:00 Press (A) (V) to enter time. 6 Year/Month/Day/Time selecting:by the keys. Year/Month/Day/Time inputting:by the keys. TIME Press the ENTER key.

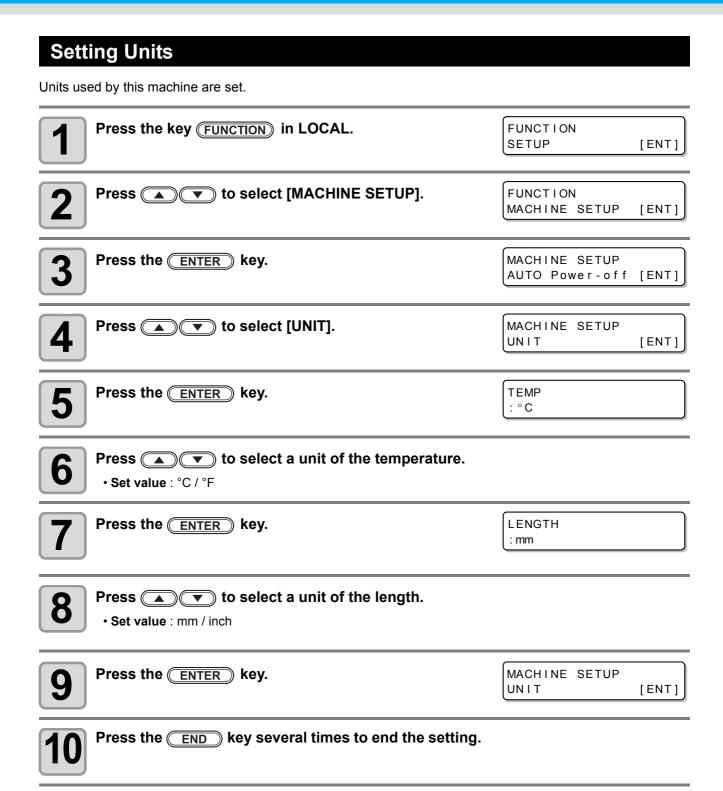


Press the END key several times to end the setting.



• -20 hours to +4 hours can be set.

• The entered date is displayed.



# **Setting a KEY BUZZER**

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

FUNCTION Press the FUNCTION key in LOCAL. SETUP <ENT>

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

Press the ENTER key. MACHINE SETUP AUTO Power-off [ENT]

Press ▲ v to select [KEY BUZZER]. MACHINE SETUP 4 KEY BUZZER [ENT]

Press the **ENTER** key. KEY BUZZER : ON

KEY BUZZER Press to select ON/OFF. 6 :OFF

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

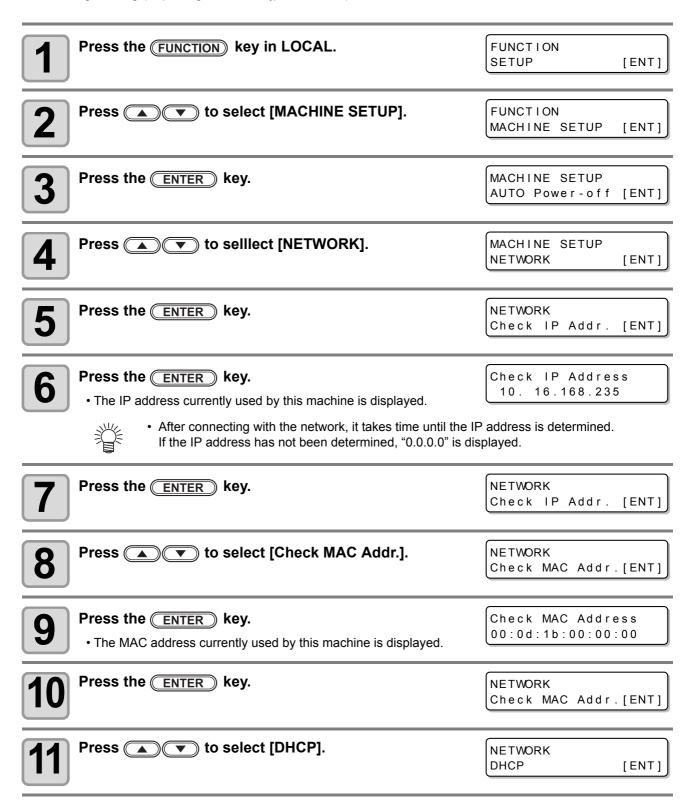
Press the END key several times to end the setting. 8

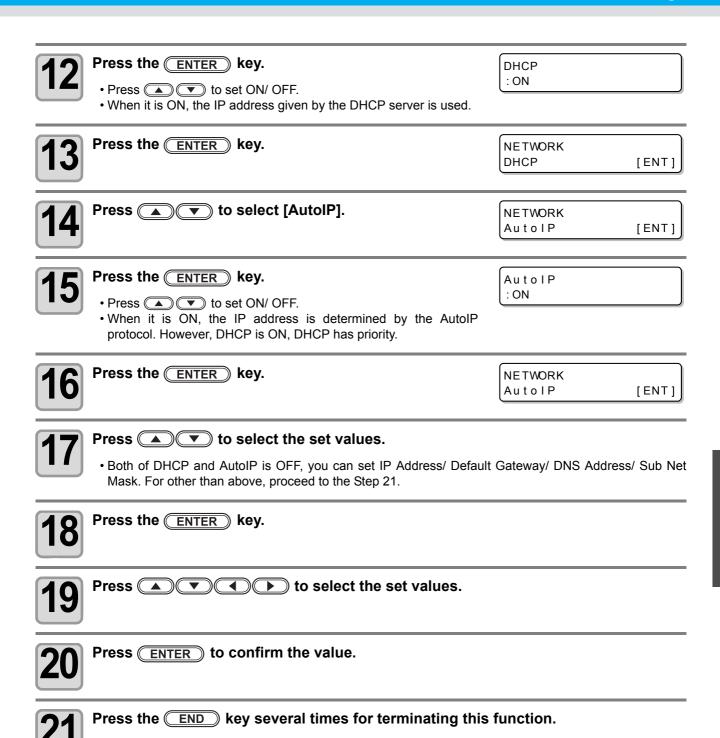


• When the key buzzer is set to "OFF", the buzzer sound for errors, warnings, operation completion, etc. cannot be shut off.

# Set the network

You can also perform network setting with "Network Configurator", the tool to perform network setting of Mimaki's product. To download the Network Configurator, check " Driver / Utility" on the download page at Mimaki Engineering (http://eng.mimaki.co.jp/download/).







• To reflect network setting, once turn off the power supply and then turn it on again.

# **Setting event mail function**

Set the function to send e-mails to the set e-mail address when events such as cutting start/ end and stop due to an error.

You can also perform network setting with "Network Configurator", the tool to perform network setting of Mimaki's product. To download the Network Configurator, check " Driver / Utility" on the download page at Mimaki Engineering (http://eng.mimaki.co.jp/download/).

#### **Disclaimer**

- The customer is responsible for the communication fee for Internet communication such as e-mail notification.
- The notification by the event mail function may not be delivered due to Internet environment, failure of the device/ the power supply, etc. Mimaki has absolutely no responsibility for any damages or loss resulting from non-delivery or delays.



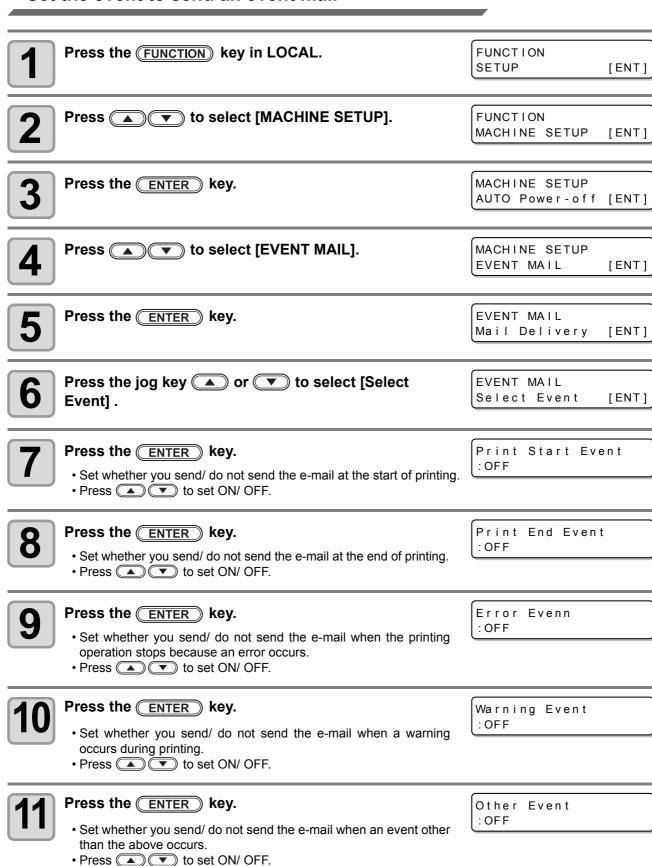
- You can use event mail function by connecting LAN to this machine. Please prepare for LAN cable connection beforehand.
- · Not compatible with SSL communication.

#### **Enable the event mail function**

Press the FUNCTION key in LOCAL.	FUNCTION SETUP [ENT]
Press to select [MACHINE SETUP].	FUNCTION MACHINE SETUP [ENT]
3 Press the ENTER key.	MACHINE SETUP AUTO Power-off [ENT]
Press to select [EVENT MAIL].	MACHINE SETUP EVENT MAIL [ENT]
<b>5</b> Press the ENTER key.	EVENT MAIL Mail Delivery [ENT]
6 Press the ENTER key.	Mail Delivery :OFF
Press to select "ON".	Mail Delivery :ON
8 Press the ENTER key.	EVENT MAIL Mail Delivery [ENT]
9 Press the END key several times for terminating to	his function.

## Set the event to send an event mail

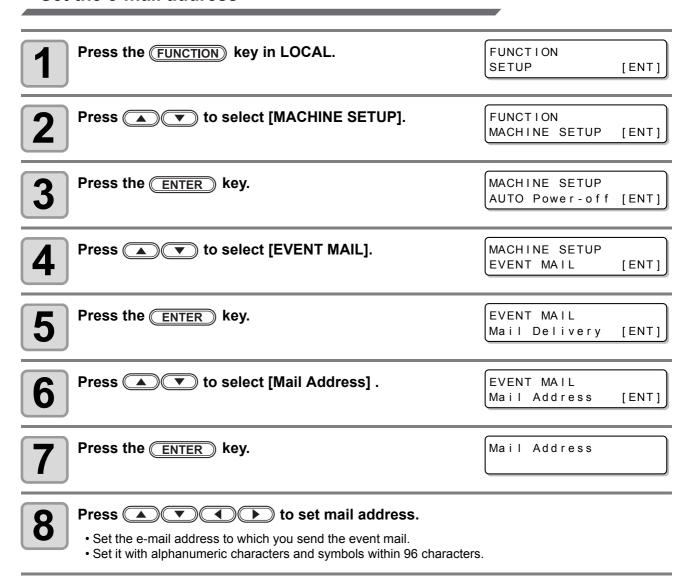
Press the ENTER key.



[ENT]

EVENT MAIL Select Event Press the END key several times for terminating this function.

#### Set the e-mail address



EVENT MAIL

Mail Address

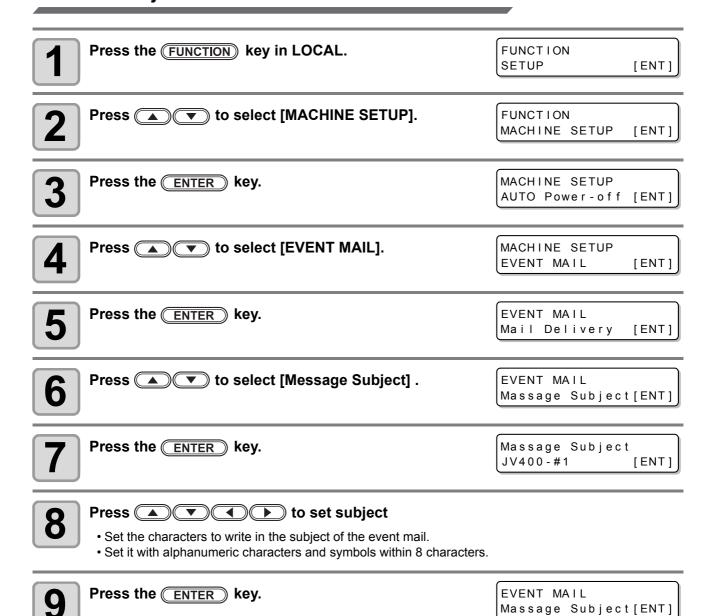
[ENT]

Press the END key several times for terminating this function.

Press the **ENTER** key.

9

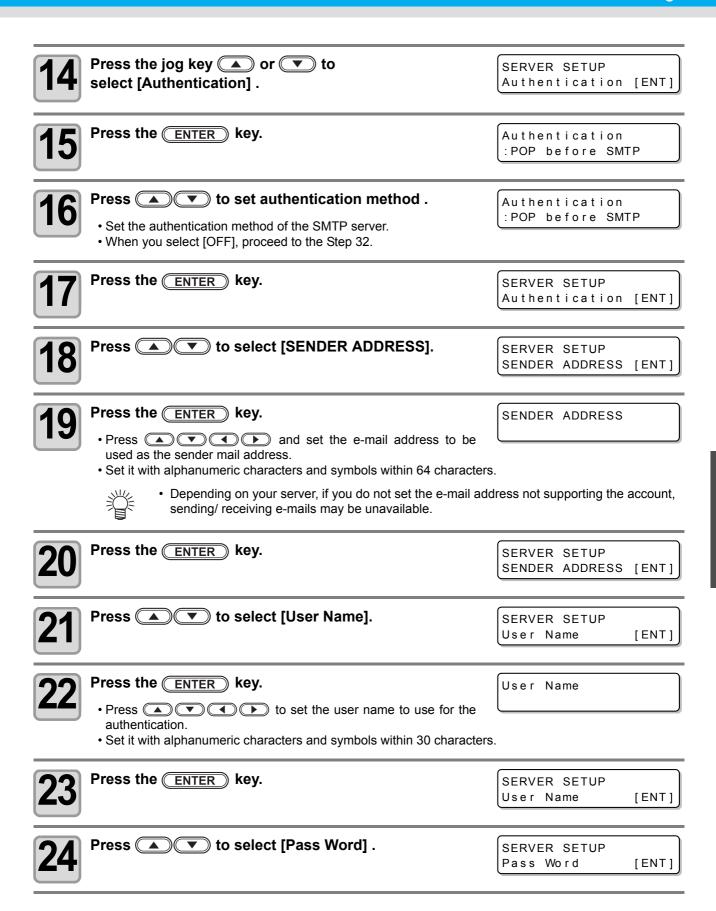
# Set the subject



Press the END key several times for terminating this function.

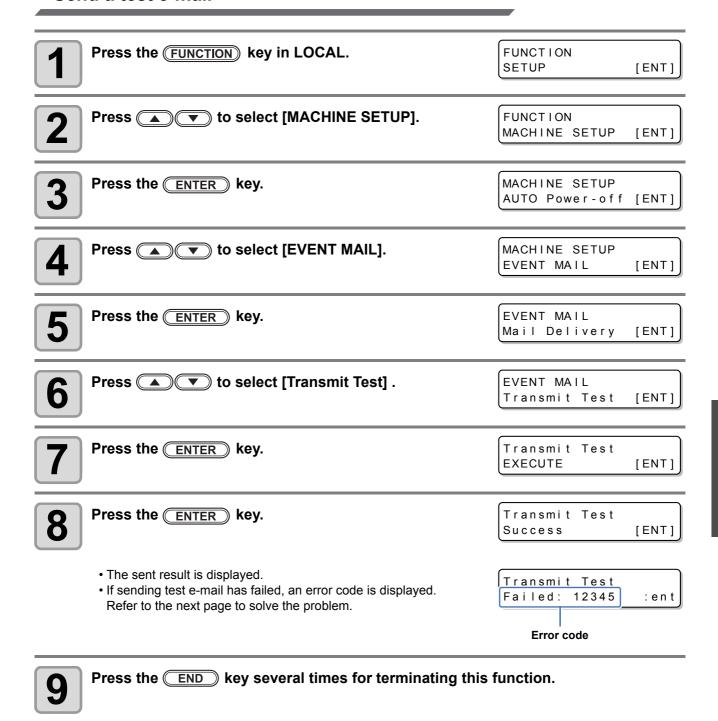
# Set the server

FUNCTION SETUP [ENT]
FUNCTION MACHINE SETUP [ENT]
MACHINE SETUP AUTO Power-off [ENT]
MACHINE SETUP EVENT MAIL [ENT]
EVENT MAIL Mail Delivery [ENT]
EVENT MAIL Server Setup [ENT]
SERVER SETUP SMTP Address [ENT]
SMTP Address
SERVER SETUP SMTP Address [ENT]
SERVER SETUP SMTP Port No. [ENT]
SMTP Port No. : 25
SERVER SETUP SMTP Port No. [ENT]



<b>25</b>	Press the ENTER key.  Press  to set the password to use for the authentication.  Set it with alphanumeric characters and symbols within 15 characters  On the password setting screen, you can only check the vinputting.	
<b>[26]</b>	<ul> <li>Press the ENTER key.</li> <li>When you select [POP before SMTP] in the Step 16, set the items in the Step 27 to 31.</li> </ul>	SERVER SETUP Pass Word [ENT]
<b>27</b>	Press (A) (T) to select [POP3 Address].	SERVER SETUP POP3 Address [ENT]
28	Press the ENTER key.  • Press the jog key  to set POP server.  • Input the POP server name.	POP3 Address
<b>29</b>	Press the ENTER key.	SERVER SETUP POP3 Address [ENT]
30	Press (A) to select [APOP].	SERVER SETUP APOP [ENT]
31	Press the ENTER key.  • Press  to set ON/ OFF of APOP.	APOP : ON
32	Press the ENTER key.	SERVER SETUP APOP [ENT]
33	Press the END key several times for terminating this	function.

### Send a test e-mail





- The sent result of the test e-mail is the result of e-mail sending process performed by this machine to the e-mail server. It does not indicate that the e-mail was received at the address.
- If the spam e-mail filter etc. has been set in the terminal in which e-mails are received, even if "Sending has been completed" is displayed, the e-mail cannot be received in some cases.
- If sending test e-mail has failed, the error code below is displayed.
- If the error cannot be solved, try again after a while.
- For the server setting etc., contact with the network administrator or the provider.

Error Code	The expected casus	Remedy
10	Network connection error	<ul> <li>Check that the machine is connected with the network.</li> <li>Check that the machine IP address is correct.</li> <li>Check that the machine is in the environment where DNS is available.</li> </ul>
20	No valid e-mail address.	Enter the correct e-mail address.
11003 11004	The POP server cannot be found. Or cannot access DNS server.	<ul> <li>Check the POP server address.</li> <li>Check that the machine is in the environment where DNS is available.</li> </ul>
11021	Cannot connect with the POP server.	<ul><li>Check the POP server setting.</li><li>Check the firewall setting.</li></ul>
12010	An error returns from the POP server.	Check the POP server setting.
13000	The POP authentication has failed.	<ul><li>Check the user name and the password.</li><li>Check the APOP setting.</li><li>Confirm the authentication method.</li></ul>
10013 10014	The SMTP server cannot be found. Or cannot access DNS server.	<ul> <li>Check the SMTP server address.</li> <li>Check that the machine is in the environment where DNS is available.</li> </ul>
10021	Cannot connect with the SMTP server.	<ul><li>Check the SMTP server setting.</li><li>Check the SMTP port number.</li><li>Check the firewall setting.</li></ul>
10*** 11*** 20*** 21***	An error returns from the SMTP server. Or, there was no response.	<ul> <li>Check the SMTP server setting.</li> <li>Cannot communicate with a server that requires mandatory SSL communication.</li> <li>Check protocol filter settings.</li> </ul>
12***	It is invalid sender address.	Check that the e-mail address supporting the account entered in the user name/ the password is set in SENDER ADDRESS.
13***	The e-mail address cannot be found. Or, it is invalid sender address.	<ul> <li>Check the e-mail address.</li> <li>Even if there is a mistake in the e-mail address, this error cannot be detected in some cases.</li> <li>Check that the e-mail address supporting the account entered in the user name/ the password is set in SENDER ADDRESS.</li> </ul>
22000 22008	SMTP authentication error	Confirm the authentication method.
23*** 24*** 25***	The SMTP authentication has failed.	Check the user name and the password.

<sup>&</sup>quot;\*\*\*" is the error code returned from the e-mail server.

MACHINE SETUP

LANGUAGE

[ENT]

# Setting a LANGUAGE You can change the displayed language. FUNCTION Press the FUNCTION key in LOCAL. SETUP [ENT] Press ▲ ▼ to select [MACHINE SETUP]. FUNCTION MACHINE SETUP [ENT] Press the ENTER key. MACHINE SETUP AUTO Power-off [ENT] MACHINE SETUP Press ▲ v to select [LANGUAGE]. 4 LANGUAGE [ENT] LANGUAGE Press the **ENTER** key. :English Press **\\_** to select language. LANGUAGE 6 : ニホンコ゛ • Set Value: ニホンゴ / English / Deutsch / Français / Español / Italiano / Português

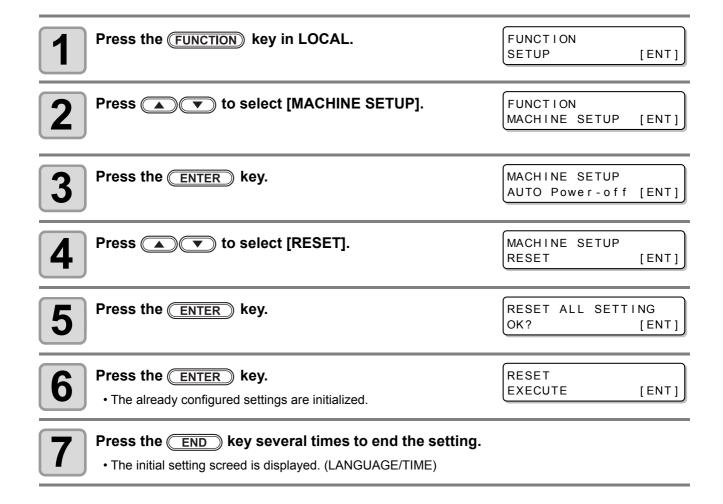
Press the **ENTER** key.

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.



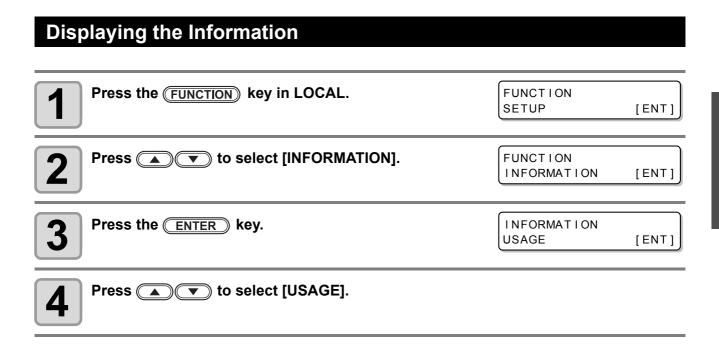
# **Confirming Machine Information**

The information of this machine can be confirmed.

The following items can be confirmed as machine information.

Item		Description	
ERROR HISTORY*1		This displays the history of errors and warnings to date.  When you press, the date of occurrence (year/month/day/hour/minute) and the error/warning information are displayed alternately in the order of occurrence.	
USAGE	WIPING		
	WASTE INK TANK		
	PRINT LENGTH	The information of this machine can be confirmed.	
	PRINT AREA		
	USE TIME		
VERSION		This displays the firmware version of the machine.	
LIST		This allows you to print the settings of the machine.	
Ink REPL. Report		This prints ink history of this machine.	

<sup>\*1.</sup> Supported from the firmware ver.2.50





### Press the ENTER key.

- · The wiping Information is displayed.
- Every time when you press the **ENTER** key, the next machine information is displayed sequentially.

#### **WIPING**

Displays wiping information.



#### **WASTE INK TANK**

Displays waste ink  $\lceil_{W\!ASTE} \rceil$  I NK TANK tank information.

0%

#### **PRINT LENGTH**

Displays printed length up to now.



#### **PRINT AREA**

Displays printed area up to now.

PRINT AREA  $0m^2$ 

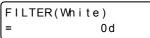
#### **USE TIME**

Displays used time  $\int_{USE} TIME$ information of machine.



#### FILTER(white)

Displays used time FILTER(White) up to now.





• When you reset the used count of the wiper, press the MAINT. key while WIPING is displayed.

When you press the **ENTER** key, the number of wipings is reset.

• When you reset the used count of the wiper, press the MAINT. key while WHITE INK FILTER is displayed. When you press the **ENTER** key, the used time of white ink filter is reset.

WIPING RESET? [ENT]

FILTER(White) RESET? [ENT]

# Check such as the machine version information

Press the FUNCTION key in LOCAL.

FUNCTION SETUP [ENT]

Press to select [INFORMATION].

FUNCTION INFORMATION [ENT]

Press the ENTER key.

INFORMATION USAGE [ENT]

Press to select a type of information.

INFORMATION VERSION [ENT]

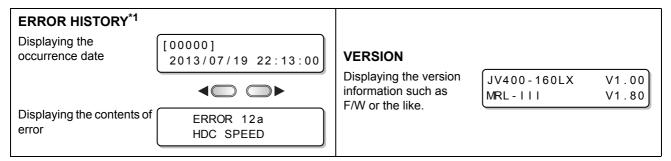
Press the ENTER key.

• When [ERROR HISTORY] is selected, the error history Information is

- displayed.
   When [VERSION] is selected, the version Information is displayed.
- When [List] is selected, the setting contents of the machine are printed.
- When [Ink REPL. Report] is selected, ink history of this machine are printed.

# **About Displayed Information**

This section describes how to read displayed information.



<sup>\*1.</sup> Supported from the firmware ver.2.50

# 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

\* \* \* I NK MMCCYYKK REMAIN 9999999

#### Error (when ink error occurs)

INK IC CAN'T READ MMCCYYKK

#### Warning (when warning occurs)

WARNING Replace a WIPER[MNT]

#### Media width

MEDIA WIDTH = 1000mm

#### Serial No.

SERIAL No.

#### Version

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

#### **RECOVERY NOZZLE**

RECOVERY NOZZLE CONFIRM DETAILS[MNT]

Press the MAINT. key and confim 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.

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# **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.



 When using maintenance washing liquid for maintenance, be sure to wear the supplied protective glasses.



• 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.



 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 main power switch, and unplug the power cable; otherwise, an unexpected accident may occur.



• Prevent moisture from entering the machine. Moisture inside the machine can cause electric shock hazards or damage to the machine.



- 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 side turned ON (in the position of | ), and leave the power cable connected.
- 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 maintenance washing liquid, ink, etc. not to stick to the cover because this may
  cause the surface of the cover to deteriorate or deform.

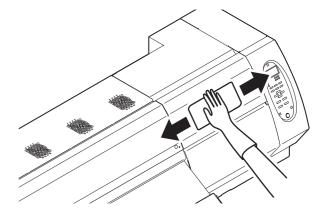
# **About Maintenance washing liquid**

Use the maintenance washing liquid dedicated for the ink being used.

Type of Ink	Applicable maintenance washings	
LX100 ink	Maintenance washing Liquid LX kit (ML001-Z-K1)	
Lx101 ink	Cleaning liquid 01 cartridge (FL001-Z-22) [Sold separately]	

# **Cleaning the Exterior Surfaces**

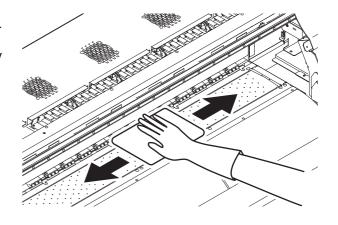
When the exterior surfaces of the machine are stained, dampen a soft cloth with water or a neutral detergent diluted with water, squeeze it, and wipe the surfaces with the cloth.



# **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.





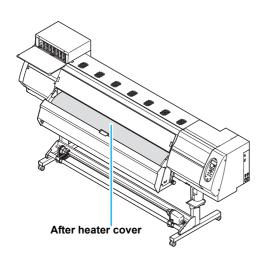
 When the platen is stained with ink, wipe it off with a paper towel containing a small amount of maintenance washing liquid for maintenance.

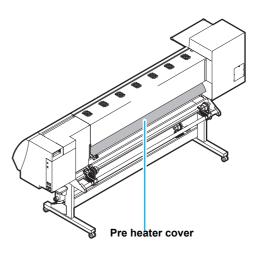


- · Before cleaning the platen, make sure that the platen has cooled adequately.
- Because dust and dirt are easily accumulated in the slots for holding a media and cutting paper (cutter slot), be sure to clean these parts carefully.

# 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.



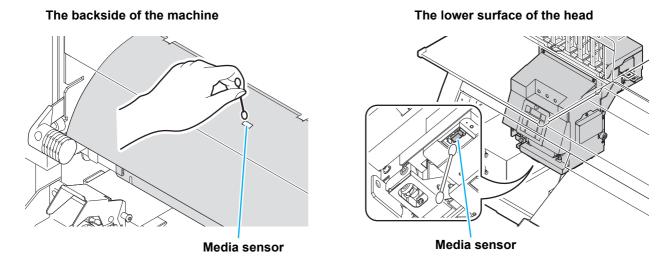


# **Cleaning the Media Sensor**

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.

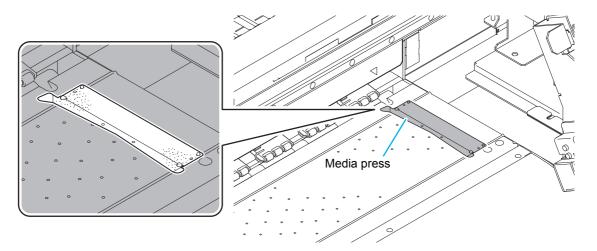
Using a cotton swab, remove the dust, etc. accumulated on the surface of the sensor.

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.4-16 "Cleaning the Head and the Area around It (every day)", and then clean it.



# **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.)



- To keep the nozzle status normal, perform wiper cleaning frequently.
- The right message is displayed periodically in LOCAL. When you press the MAINT. key, it moves to cleaning function.

Cleaning WIPER [MNT]

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.2-21) has been performed, use a maintenance washing liquid LX kit and clean stick.

Tools required for • Maintenance washing liquid		LX kit (ML001-Z-K1)	Kimwipe® (SPA-0207)
Maintenance	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.4-5Steps 1 to 2)

# **Cleaning the Wiper and Cap**

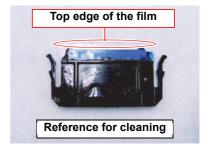
Ink, dust, or paper waste is pooled on the wiper. To keep stable printing quality, wash the wiper and cap at the end of the day.



- Further, in the cases as explained below, replace the wiper with the new one.( P.4-32)
   Even if you clean the wiper enough, nozzle clogging etc. occurs frequently
   When the wiper is deformed
   When the stuck ink can not be wiped off
- When cleaning the wiper, be careful that lint from the clean stick or kimwipe® does not get left on the wiper.Remaining lint may cause image quality to deteriorate.
- Clean the wiper completely until the stained ink on the top edge of the wiper film is washed away after soaking the wiper in the maintenance washing liquid LX for 1-24 hours. It is recommended to prepare two or more wipers and use them alternately.

When the warning for wiper replacement is indicated

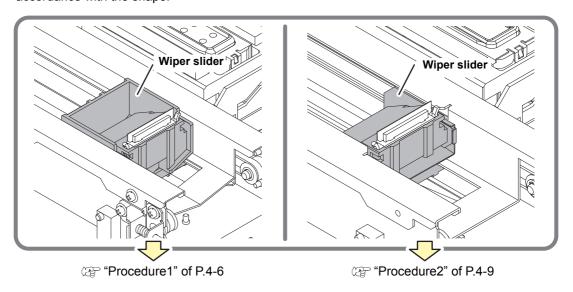
- If cleaning of the wiper is not enough, it may cause nozzle clogging.
- Do not wash the wiper with other than the Kimwipe® (SPA-0207). Otherwise, lint may remain on the wiper.





• The shape of the area around the wiper has changed.

Check the shape of the wiper slider of the machine you are using and perform maintenance in accordance with the shape.



## Procedure1

Press the MAINT. key in LOCAL.

CARRIAGE OUT [ENT]

Press the ENTER key.

MOVE POSITION :STATION MAINT.

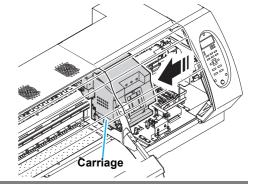
Press to select [STATION MAINT.].

MOVE POSITION :STATION MAINT.

4

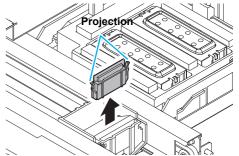
Press the **ENTER** key.

• The carriage moves to the maintenance position.



**5** Open the right maintenance cover cover then remove the wiper.

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



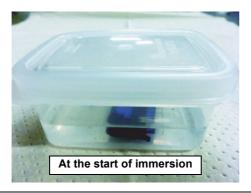


Put the wiper that you used for one day into a provided case or solvent-resistance-covered-container (glass, earthenware, etc.) and pour maintenance washing liquid LX.

• Time to immerse the wiper shall be for 1 to 24 hours.



- If you leave the wiper immersed in maintenance washing liquid LX too long, the wiper may be deformed.
- Dispose the maintenance washing liquid LX for soaking the wiper if it gets dirty. (As a guide, replace it in a week). Regarding disposal of unused maintenance washing liquid LX, please ask Industrial waste disposer and pursuant to the regulations of your district.
- For case for immersing the wiper, please use provided case or solvent-resistance-covered-container. In case that you want to immerse the wiper by using your resin case, please make sure to test whether there are no problems such as case deformation before you try.







Take out the wiper and remove ink blot etc. with a Kimwipe®.

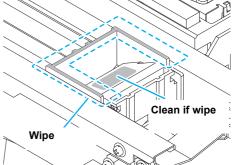
• Wipe off well so that any lint etc. do not remain on the top edge of the wiper film.





#### Clean the wiper slider.

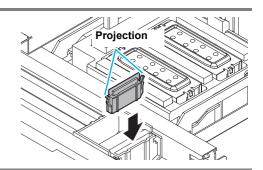
- Use a clean stick dipped in maintenance washing liquid LX to wipe away any ink that has adhered to the edges of the wiper slider. Also clean the slanting part inside the wiper slider, if it is dirty.
- Wipe off so that maintenance washing liquid LX will not remain.





#### Set the wiper at the original position.

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



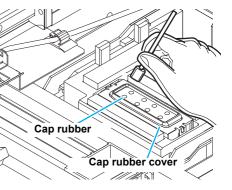


#### Clean the cap rubber and cap rubber cover.

 Wipe off the ink sticking to the cap rubber and cap rubber cover with a clean stick dipped in maintenance washing liquid LX for maintenance. (Wipe off so that you can see color of the cap rubber.) Wipe off so that maintenance washing liquid LX for maintenance will not remain.









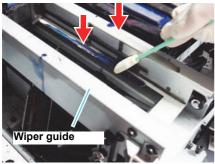
At this point, clean the cap rubber only. Do not clean the mesh inside the cap.

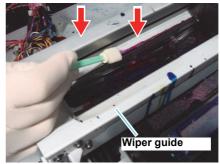
The mesh inside the cap is cleaned by executing "DISWAY WASH". ( P.4-12)



#### Use a clean stick to clean the areas around the wiper shown in the figures.

• Dip the clean stick in the maintenance washing liquid LX, and wipe clean the wiper guide upper portions and the portions one level below.





Wiper guide upper portions and portions one level below

12

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

Close a cover COMPLETED [ENT]

13

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

• After its initial operation, the machine returns to step1.

### **Procedure2**

Press the MAINT. key in LOCAL.

CARRIAGE OUT

[ENT]

Press the ENTER key.

MOVE POSITION :STATION MAINT.

3

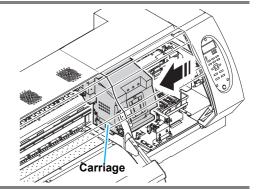
Press to select [STATION MAINT.].

MOVE POSITION :STATION MAINT.

4

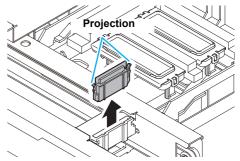
Press the **ENTER** key.

• The carriage moves to the maintenance position.



**5** Open the right maintenance cover cover then remove the wiper.

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



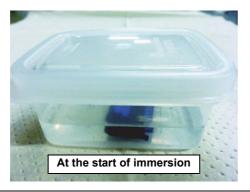


Put the wiper that you used for one day into a provided case or solvent-resistance-covered-container (glass, earthenware, etc.) and pour maintenance washing liquid LX.

• Time to immerse the wiper shall be for 1 to 24 hours.



- If you leave the wiper immersed in maintenance washing liquid LX too long, the wiper may be deformed.
- Dispose the maintenance washing liquid LX for soaking the wiper if it gets dirty. (As a guide, replace it in a week). Regarding disposal of unused maintenance washing liquid LX, please ask Industrial waste disposer and pursuant to the regulations of your district.
- For case for immersing the wiper, please use provided case or solvent-resistance-coveredcontainer. In case that you want to immerse the wiper by using your resin case, please make sure to test whether there are no problems such as case deformation before you try.







Take out the wiper and remove ink blot etc. with a Kimwipe®.

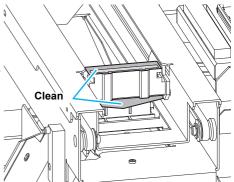
• Wipe off well so that any lint etc. do not remain on the top edge of the wiper film.





#### Clean the wiper slider.

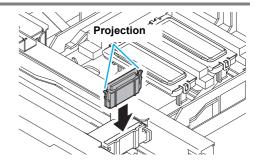
 Wipe off the ink sticking of the figure with a clean stick dipped in maintenance washing liquid LX for maintenance.
 Wipe off so that maintenance washing liquid LX for maintenance will not remain.





#### Set the wiper at the original position.

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



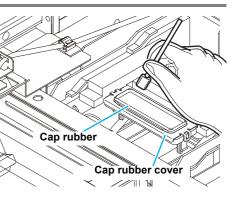
10

#### 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 maintenance washing liquid LX for maintenance. (Wipe off so that you can see color of the cap rubber.) Wipe off so that maintenance washing liquid LX for maintenance will not remain.





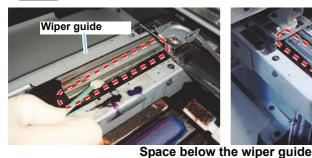




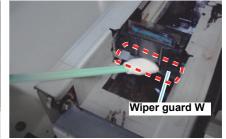
At this point, clean the cap rubber only. Do not clean the mesh inside the cap.
 The mesh inside the cap is cleaned by executing "DISWAY WASH". ( P.4-12)

11

Use a clean stick to clean the areas around the wiper shown in the figures.







Space between the wiper slider and wiper guard W

12

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

Close a cover COMPLETED [ENT]

13

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

• After its initial operation, the machine returns to step1.

## 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.

4-11

## Washing the Ink Discharge Passage (DISWAY WASH)



• Wash the ink discharge passage regularly(about once a week) to prevent the head nozzles from clogging due to ink coagulation inside the passage.



Press the MAINT. key in LOCAL.

CARRIAGE OUT

[ENT]

2

Press (a) v to select [DISWAY WASH].

DISWAY WASH

[ENT]

3

Press the ENTER key.

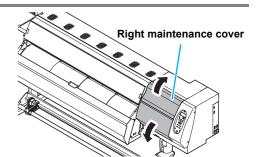
DISWAY WASH COMPLETED

[ENT]

- The carriage moves to the maintenance position.
- Dry suction operation is performed repeatedly until the washing work is completed.



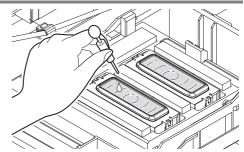
Open the right maintenance cover.





Fill up the cap with maintenance washing liquid LX for maintenance .

• 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.





Close the right maintenance cover and press the ENTER key.

DISWAY WASH PLEASE WAIT

• After the idle absorbing operation has been performed for 30 seconds, the screen returns to step2.

## 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.



- Use the machine with always turning "ON" the main power. The function preventing nozzle clogging operates automatically to protect the head of the nozzle.
- The head nozzle may result in nozzle clogging if the main power switch is left OFF for a long time.

# Check the items on the right beforehand.

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

- The maintenance washing liquid LX 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.4-33 "If a Waste Ink Tank Confirmation Message Appears" according to the situation.



Press the (MAINT.) key in LOCAL.

CARRIAGE OUT

[ENT]

2

Press ▲ w to select [CUSTODY WASH].

CUSTODY WASH

[ENT]

3

#### Press the ENTER key.

• The carriage moves to the maintenance position.

WIPER CLEANING COMPLETED [ENT]

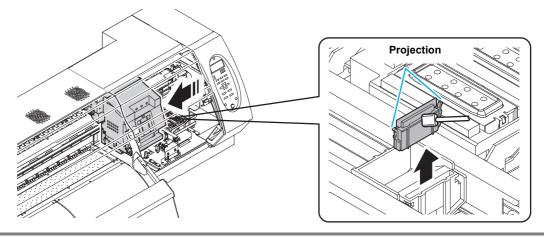


Until wiper/ bracket cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the
screen. After the work up to the step 4 is completed, press the <a href="ENTER">ENTER</a> key. If you press the
<a href="ENTER">ENTER</a> key before cleaning is completed, the machine moves to the next washing procedure.



#### Clean the wiper and the bracket.

- (1) Open the right maintenance 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 maintenance washing liquid LX for maintenance. (ML001-Z-K1) Wipe off so that maintenance washing liquid LX 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.

• The carriage moves onto the platen.

CAP CLEANING COMPLETED (NEXT) [ENT]



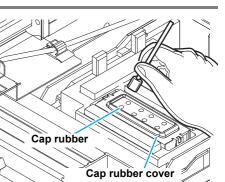
Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After
the work up to the step 6 is completed, press the <u>ENTER</u> key. If you press the <u>ENTER</u> key
before cleaning is completed, the machine moves to the next washing procedure.



#### 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 maintenance washing liquid LX for maintenance. (Wipe off so that you can see blue color of the cap rubber.) Wipe off so that maintenance washing liquid LX for maintenance will not remain.

• At this time, the discharge passage is cleaned automatically.





#### Press the ENTER key.

Fill the liquid COMPLETED(NEXT)[ENT]



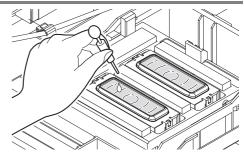
Until washing liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After the
work up to the Step 8 is completed and you close the right maintenance cover, press the

ENTER key. If you press the ENTER key before washing liquid is filled, the carriage returns
to the original position.



# Fill up the cap with maintenance washing liquid LX for maintenance.

• 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.



9

## Close the right maintenance cover and press the

ENTER key.

LEAVING TIME = 1min

10

# Press to set the time for the washing liquid to be left as it is.

LEAVING TIME

2min

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

11

#### Press the ENTER key.

DISWAY WASH COMPLETED

[ENT]

The nozzles are washed.

• When the nozzles have been completely washed, the head moves to the maintenance position.

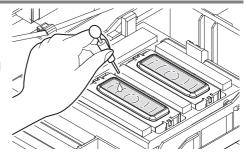


#### Open the right maintenance cover.



# Fill up the cap with maintenance washing liquid LX for maintenance .

• 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.





# Close the right maintenance cover and press the ENTER key.

\*Being Initialized\*
PLEASE WAIT

• After its initial operation, the machine returns to step2.

# Cleaning the Head and the Area around It (every day)

Because the 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 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 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.



Press the MAINT. key in LOCAL.

CARRIAGE OUT

[ENT]

2

Press the ENTER key.

MOVE POSITION :STATION MAINT.

3

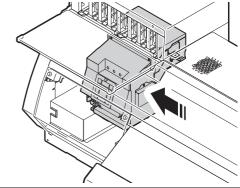
Press 🔳 🔻 to select [HEAD MAINT.].

MOVE POSITION : HEAD MAINT.



Press the **ENTER** key.

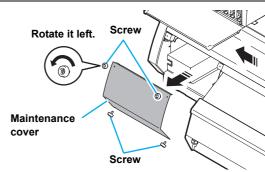
• Carriage will move to the left end of this device.





#### Open the left maintenance cover.

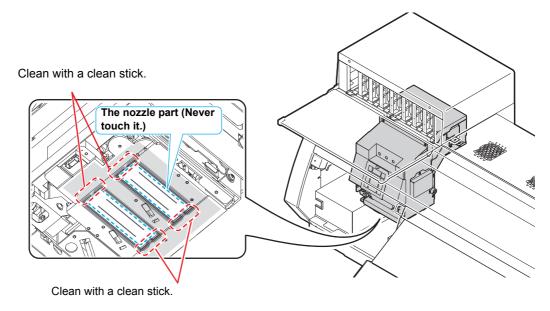
- (1) Turn four screws that fix the maintenance cover to the left, and remove them.
- (2) Remove the maintenance cover.
- If the maintenance cover is hard to remove, use the supplied screwdriver.





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

- To prevent gelled/ solid ink ground from pooling at the front of the carriage, scrape them off with clean stick etc.
- Clean the side surface of the head (shown in deep gray) with a clean stick.
- Never rub the nozzles.









Press the  $\begin{tabular}{|c|c|c|c|c|c|c|} \hline ENTER & key after the cleaning. \\ \hline \end{tabular}$ 





# Close the left maintenance cover then press the ENTER key.

• After its initial operation, the machine returns to step1.

# Replacing method of C absorber kit

If ink adheres to the C absorber, it is required to replace the C absorber.

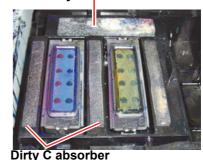
#### Rough guide for replacement:

Replace when the concavity and convexity of the surface of the absorber are filled with ink as indicated in the right photo.

In addition, when you replace the C absorber, clean ink adhering to the capping station at the same time.



 To replace the C absorber, the C absorber replacing kit (SPA-0185) separately sold is required. Contact a distributor in your district or our office for purchasing it. Dirty C absorber



1

Press the MAINT. key in LOCAL.

CARRIAGE OUT

[ENT]

2

Press the **ENTER** key.

MOVE POSITION :STATION MAINT.

3

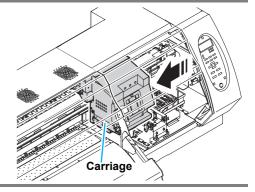
Press ( to select [STATION MAINT.].

MOVE POSITION :STATION MAINT.



Press the ENTER key.

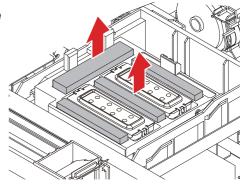
• The carriage moves to the maintenance position.



5

Open the right maintenance cover then remove the C absorber.

• Pull out the C absorbers (x 4).



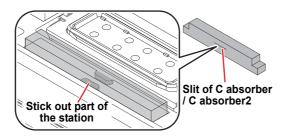


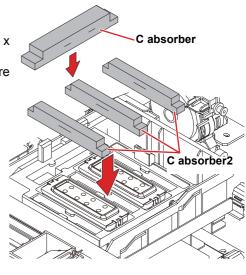
#### Insert a new C absorber.

- There are two types' absorbers and four in total (C absorber x 1, C absorber 2 x 3).
- Be careful not to mess up the positions to which they are inserted.



 Check whether stick out part of the station is inserted to slit of the C absorber/ C absorber 2.







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

Close a cover COMPLETED [ENT]



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

• After its initial operation, the machine returns to step1.

# When Nozzle Clogging Cannot Be Solved

When nozzle clogging cannot be solved even after the head cleaning ( P.2-21) has been done, perform the following two functions:

NOZZLE WASH	• Wash the head nozzle. ( P.4-20)	
Washing nozzle surface	Wash the nozzle surface. (     P.4-22)	
NOZZLE RECOVERY	• Alternative nozzles for printing, when nozzles missing can not be improved. ( P.4-26)	

# Washing of Head nozzle

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

Is [NEAR END] or [INK END] displayed?
 The maintenance washing liquid LX 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.

Press the MAINT. key in LOCAL.

CARRIAGE OUT [ENT]

[ENT]

NOZZLE WASH

Press to select [NOZZLE WASH].

Press the ENTER key.

• The carriage moves to the maintenance position.

WIPER CLEANING COMPLETED(NEXT)[ENT]

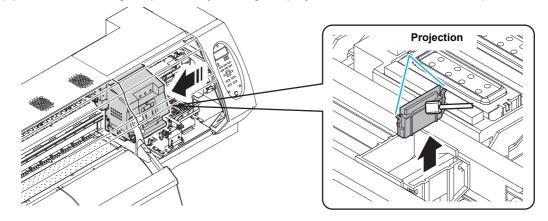
(Important!

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



#### Clean the wiper and the bracket.

- (1) Open the right maintenance 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 maintenance washing liquid LX for maintenance.
- (ML001-Z-K1) Wipe off so that maintenance washing liquid LX for maintenance will not remain.
- (3) Insert it in the original position by holding the projections at both ends of the wiper.





#### Press the **ENTER** key.

• The carriage moves onto the platen.

CAP CLEANING COMPLETED(NEXT)[ENT]

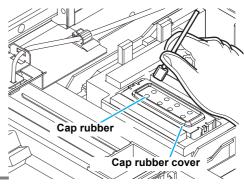


Until wiper cleaning is competed, [COMPLETED (NEXT): ENT] is displayed on the screen. After
the work up to the step 6 is completed, press the <u>ENTER</u> key. If you press the <u>ENTER</u> key
before cleaning is completed, the machine moves to the next washing procedure.



#### 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 maintenance washing liquid LX for maintenance. (Wipe off so that you can see blue color of the cap rubber.) Wipe off so that maintenance washing liquid LX for maintenance will not remain.
- At this time, the discharge passage is cleaned automatically.





#### Press the ENTER key.

Fill the liquid COMPLETED(NEXT)[ENT]

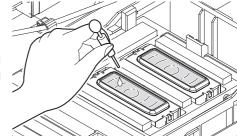


Until washing liquid is filled, [COMPLETED (NEXT): ENT] is displayed on the screen. After
the work up to the Step 8 is completed and you close the right maintenance cover, press
the ENTER key. If you press the ENTER key before washing liquid is filled, the
carriage returns to the original position.



# Fill up the cap with maintenance washing liquid LX for maintenance .

• Suck maintenance washing liquid LX into a dropper and fill up the cap with it. Fill up the cap with maintenance washing liquid LX on the verge of overflow from the cap.





# Close the right maintenance cover then press the ENTER key.

NOZZLE WASHE LEAVING TIME :1min



Press to set the time for the maintenance washing liquid LX to be left as it is.

NOZZLE WASHE LEAVING TIME :2min

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



#### Press the ENTER key.

- The maintenance washing liquid LX filled in the cap is absorbed.
- The screen on the right is displayed only for the duration set in the step 10.
- It returns to the step2 after the duration.

PLEASE WAIT
00:00

\*\* CLEAMING \*\*
PLEASE WAIT



• When nozzle missing is not cleared even after nozzle recovery ( P.4-26) or this washing is carried out several times, contact the distributor in your region or our service office.

## Washing nozzle surface

Using dedicated washing liquid and a waste cloth, clean the nozzle surface of the head.

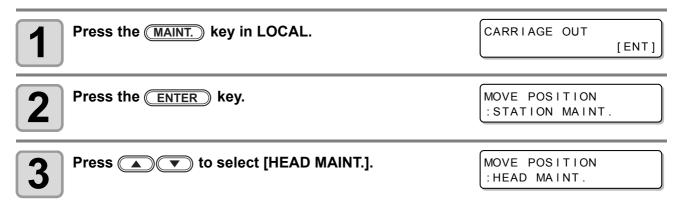


• Perform this if discharging defect such as nozzle clogging (slight touching of ink or nozzle missing) cannot be improved even if you performed head cleaning (P.2-21) and nozzle washing (P.4-20).

Tools required for	Maintenance washing liquid LX kit (ML003-Z-K1)	Gloves
Maintenance	COTTON CIEGAL® (SPC-0755)	



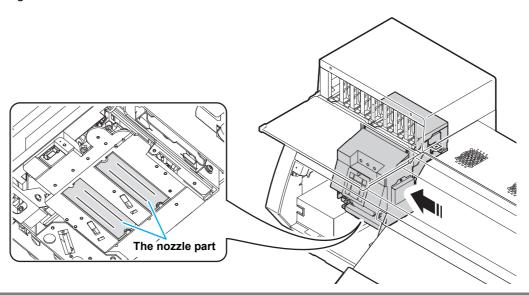
- When you usually use photographic fixer, do not leave COTTON CIEGAL® in a room filled with vapor
  of photographic fixer. If you wash the nozzle surface with COTTON CIEGAL® left in a room filled with
  vapor of photographic fixer, ink adhering to the head hardens and it may cause image quality defect
  that cannot be improved even if you perform head cleaning many times and may cause nozzle
  clogging.
- Besides photographic fixer, if you use COTTON CIEGAL® left in an environment where acidic vapor (acetic acid, muriatic acid, etc.) is generated, the same phenomenon occurs.





Press the ENTER key.

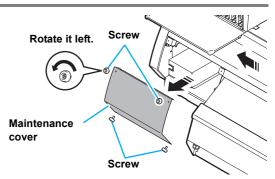
· Carriage will move to the left end of this device.





#### Open the left 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.





# Immerse COTTON CIEGAL® in maintenance washing liquid LX.



- Immerse much enough so that maintenance washing liquid LX may drip from it.
- Do not wipe the nozzle surface with dry COTTON CIEGAL®.



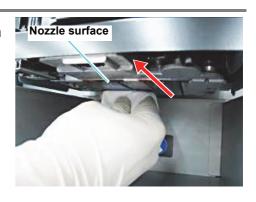


Wipe the nozzle surface from the rear of the main body to the front twice or three times with COTTON CIEGAL® immersed in maintenance washing liquid LX.

• Do not rub too strong.



- If COTTON CIEGAL® has fluffed, replace it
- If ink solid adheres to COTTON CIEGAL®, change the surface to use for cleaning or replace it.



8

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

Close a cover COMPLETED [ENT]

9

Close the left maintenance cover then press the ENTER key.

• After its initial operation, the machine returns to step1.

10

Perform head cleaning. (P.2-21)



Perform test printing. (P.2-19)

## When nozzle missing occurs due to ink mixture or aeration

Push out ink and air in the head from the port.

Use this when ink has been mixed in the port, or nozzle missing due to aeration occurs.

In addition, if nozzle missing cannot be solved even if you performed cleaning because it has not been used for long time (for about two weeks), perform air purge.



#### Select [AIR PG] of the maintenance menu.

- (1) Press the FUNCTION key in LOCAL.
- (2) Press (a) to select [MAINTENANCE] and press the (ENTER) key.
- (3) Press to select [AIR PG].



#### Start air purge by pressing the key.

• When completing air purge, press the key to proceed to the Step 10.

AIR PG END < > START



#### Select the damper to air purge.

- Select the damper with the key
- Selectable unit is two types of "MMCC\_\_\_\_" and "\_\_\_\_YYKK".

SELECT DAMPER :MMCC\_\_\_\_



Press the ENTER key.

AIR PG POSITION MOVE START [ENT]



#### Press the **ENTER** key.

- The carriage moves onto the wiper.
- Wait for a while until preparation for opening the port has been completed.



 The head corresponding to the damper selected in the Step 3 moves on the wiper. PLEASE WAIGT



PREPARING PLEASE WAIT

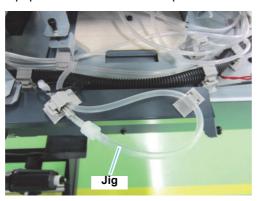


# Open the right maintenance cover, and set the jig into the port.

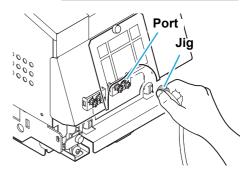
• Remove the port corresponding to the damper selected in the Step 3 only. Perform this one by one.



 When removing the jig, ink may leak. Put a paper towel etc. around the port.



AIR PG START [ENT]

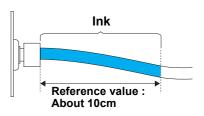




#### Press the ENTER key.

- Start pushing ink out.
- Flow ink in the jig by 10cm.
- Flow ink from all ports of the damper selected in the Step 3.







#### Terminate air purge by pressing the **ENTER** key.

· Close the port.



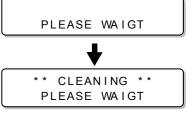
 When removing the jig, ink may leak. Put a paper towel etc. around the port.





#### Press the **ENTER** key.

- The carriage returns to the cap position.
- Filling to the damper starts. Wait for a while until the amount of ink returns to the normal status.
- When filling has been completed, cleaning is performed.
- When ink filling into the damper has been completed, the screen returns to the one in the Step 2. For other dampers, perform the procedures from the Step 3 to 8.





Press END the key several times to end the setting.

## 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.



# Select [NOZZLE RECOVERY] of the maintenance menu.

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



# Select the [PRINT] by pressing key. Then press key.

NOZZLE RECOVERY :PRINT

• Select "ENTRY" then "Move to select of the Nozzle line (Step 4) without drawing a pattern"

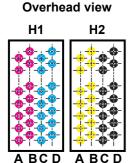


NOZZLE RECOVERY PRINT [ENT]

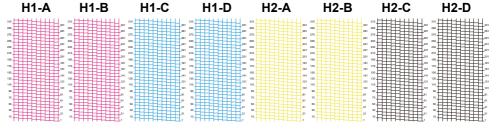
3

#### Press the **ENTER** key.

\*\* PRINTING \*\*
PLEASE WAIT



Nozzle pattern

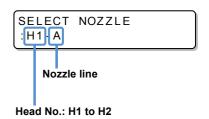


Nozzle line

 For 6-color ink sets, the nozzle patterns "H1-B" and "H1-D" are not printed.



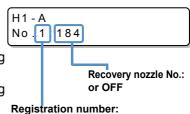
Select the Nozzle line that needs NOZZLE RECOVERY by pressing key. Then press ENTER key.



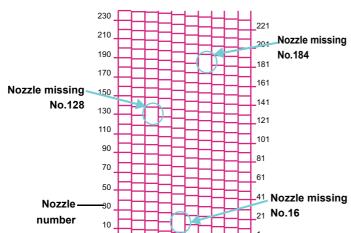


# Register the Nozzle number that needs NOZZLE RECOVERY and then press ENTER key.

- (1) Select the registration number from 1 to 10 by pressing key and press the ENTER.
- (2) Register the nozzle number that needs recovery by pressing key and press the ENTER.
- Check is performed at the same time of the registration. When there is a mode for which nozzle recover is invalid, the screen of the Step 3 of "Check the print condition for which nozzle recovery cannot be performed".



#### 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

1 to 10



Press the END key several times to end the setting.



- Up to 10 nozzles can be registered per 1 nozzle line.
- Even if you use this function, time required for drawing does not change.
- Depending on the registered nozzle, there is a mode on which recovery is not reflected. Check the print condition for which recovery cannot be performed with the check function. ( P.4-27)



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

## Check the print condition for which nozzle recovery cannot be performed

Depending on the registered nozzle, there is a mode on which recovery is not reflected. Check the print condition for which recovery cannot be performed.

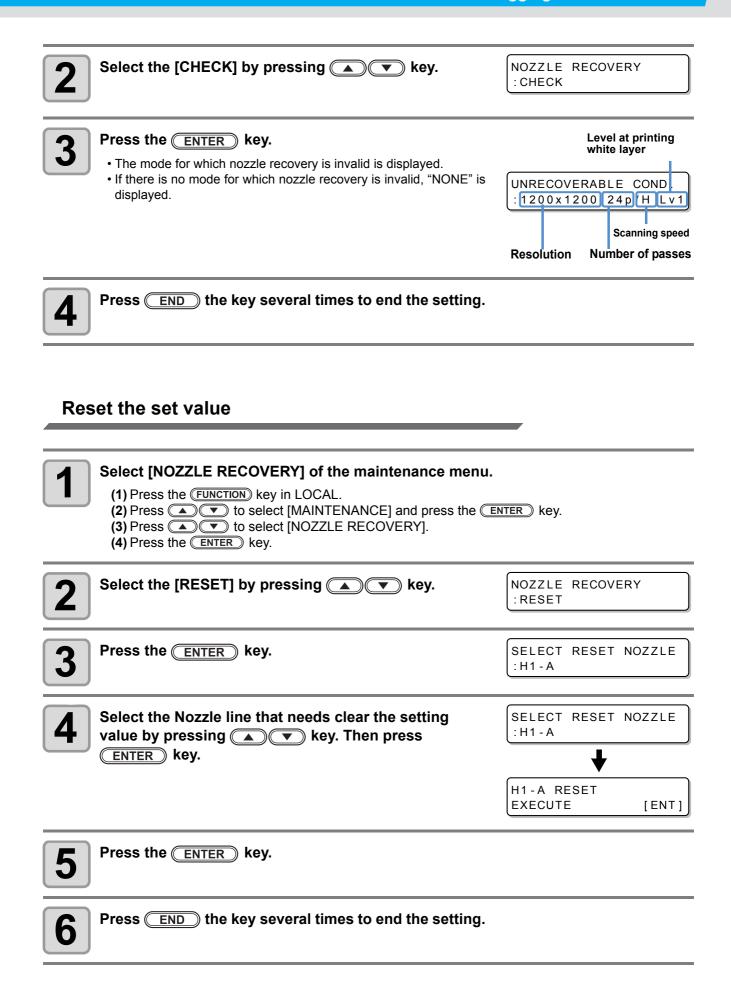


• When there are many registered nozzles, it takes much time to display the checked result.



#### 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.



# **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:



• 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.
CLEANING	The interval between each cleaning operation is set.
CLEANING(WHITE)	set the cleaning type and intervals between next cleaning to prevent white ink clogging (only when you use white ink).



- During the right message is displayed, the operation set in the auto maintenance function is not carried out. Perform the operations of P.4-34 if required.
- When the power switch on the front of the machine is turned off, check the waste ink tank.

<LOCAL>
Check waste ink[MNT]

## **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.



#### Select [AUTO MAINT.] of the maintenance menu.

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

AUTO MAINT. REFRESH [ENT]

3

Press the ENTER key.

REFRESH : Lv.1

4

Press **\\_** to set the refreshing interval.

REFRESH . :Lv.1

- Set value : Lv.1, Lv.2, Lv.3
- As the LEVEL increases, the interval between each operation gets shorter.

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.



#### Select [AUTO MAINT.] of the maintenance menu.

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



Press (A) (V) to select [CLEANING].

AUTO MAINT. CLEANING

[ENT]

3

Press the **ENTER** key.

CLEANING

: L v . 1



Press to set the interval between each cleaning operation.

CLEANING

: L v . 1

- Set value : Lv.1, Lv.2, Lv.3
- As the LEVEL increases, the interval between each operation gets shorter.



Press the **ENTER** key.

TYPE

• The cleaning type selection screen appears.

: NORMAL



Press **v** to select a cleaning type.

TYPE :SOFT



• Set value : NORMAL, SOFT, HARD



 when white ink is filled, the default setting is "HARD". (For four colors and six colors, it is "SOFT".)

It is recommended for you to use in "HARD" to prevent nozzle clogging.



Press the ENTER key.

AUTO MAINT.

CLEANING

[ENT]



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

## **Setting the Cleaning Intervals**

Set the cleaning type and intervals for cleaning of white ink.



#### Select [AUTO MAINT.] of the maintenance menu.

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



Press to select [CLEANING(White)].

AUTO MAINT. CLEANING

[ENT]

3

Press the **ENTER** key.

CLEANING(White)

: L v . 1

4

Press to set the interval between each cleaning operation.

CLEANING(White):Lv.1

- Set value : Lv.1, Lv.2, Lv.3
- As the LEVEL increases, the interval between each operation gets shorter.

5

Press the **ENTER** key.

TYPE : NORMAL

• The cleaning type selection screen appears.

6

Press ( to select a cleaning type.

TYPE :SOFT

• Set value: NORMAL, SOFT, HARD

|:

7

Press the **ENTER** key.

AUTO MAINT.
CLEANING(White)[ENT]

8

Press the END key several times to end the setting.

# Replacing consumables

## Replacing the wiper

The wiper is consumable. When the display indicates that it is necessary to check and 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 a WIPER[MNT]



- When the warning message for replacing wiper is shown, confirm whether there is no damage and fuzz at the top edge of the wiper film. If there is no damage on the top edge of the wiper film, it is possible to use the wiper continuously without replacing it.
- A cleaning wiper is an option. Buy one through the dealer in your region or at our service office.
- When you replace it before the message is displayed, first perform carriage out and then replace it. ( P.4-5Steps 1 to 2)

After replacing, reset the counter for the number of times the wiper was used. ( P.3-38)



Press the MAINT. key in LOCAL.

REPLACE WIPER EXECUTE [ENT]



Press the ENTER key.

• The carriage moves to the maintenance position.

REPLACE WIPER COMPLETED [ENT]

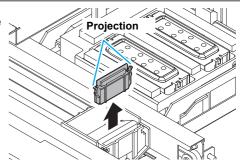


Until the replacement work is completed, [COMPLETED: ent] is displayed on the screen.
 After the work up to the Step 4 is completed and you close the right maintenance cover, press the ENTER key.



Open the rght maintenance cover then remove the wiper.

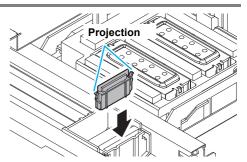
• Pull out the wiper by holding the protrusions at its both ends.





#### Insert a new wiper.

• Insert a new wiper by holding its both ends.





Close the right maintenance 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 "Check waste ink" is displayed when it reaches 80% (1.6L) of the 2L tank.
- When the amount of waste ink reaches 100% (2.0L), the message "WASTE INK FULL" is displayed. (available for the firmware Ver.3.40 and later)

## **Confirmation Message in LOCAL**



The message on the right is displayed.

<LOCAL> Check waste ink[MNT]

<LOCAL>
WASTE INK FULL [MNT]



#### Check the state of the waste ink tank

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

- When it is different from the actual amount, press and correct
- When you correct (80%), press the ENTER key to return to LOCAL.
- When you replace (disposal) and clear the count, perform the procedures in "Replace the waste ink tank with another". ( P.4-34)

## Replace the waste ink tank with another

The message on the right is displayed.

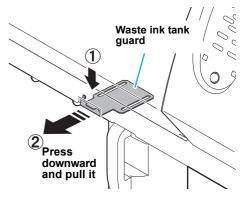
<LOCAL> Check waste ink[MNT]

Press the MAINT. ink tank

key and check the state of the waste | Confirm a waste tank

Level: 80%(1.6L)

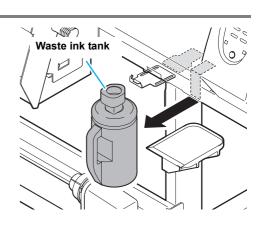
Press the waste ink tank guard downward to open to the front.



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

• Put a cap on the waste ink tank removed.



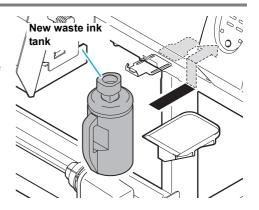


#### Replace the waste ink tank.

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

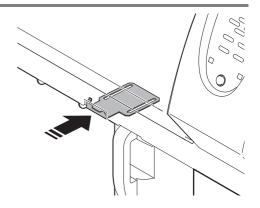


Waste ink is equivalent to waste oil of industrial waste. Request an industrial waste disposal company for disposal of waste ink.





#### Close the waste ink tank guard.





#### 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 waste ink tank before the waste ink tank confirmation message is displayed

if you replace the waste ink tank before the waste ink tank confirmation message is displayed (before the 2L tank is 80% (1.6L) full), set the waste ink information to 0% in the Information menu.

Perform steps 3 through 6 in "Replace the waste ink tank with another" (P.4-34) to empty the waste ink tank. Press the FUNCTION key in LOCAL. **FUNCTION** SETUP [ENT] Press ( to select [INFORMATION]. FUNCTION INFORMATION [ENT] Press the ENTER key. INFORMATION **USAGE** [ENT] Press ▲ v to select [USAGE]. Press the **ENTER** key several times until the waste WASTE INK TANK 6 60% ink tank information is displayed. Press the MAINT. key. Confirm a waste tank Level: 60%(1.2L) Press ▲ v to set the level "0%". Confirm a waste tank 8 Level: 0%(0.0L) Press the ENTER key.

## **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.



Press the MAINT. key in LOCAL.

CARRIAGE OUT

[ENT]

2

Press the ENTER key.

MOVE POSITION :STATION MAINT.

3

Press to select [STATION MAINT.].

MOVE POSITION :STATION MAINT.

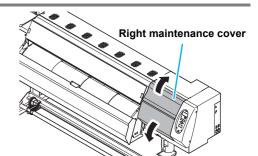


Press the **ENTER** key.

• The carriage moves to the maintenance position.



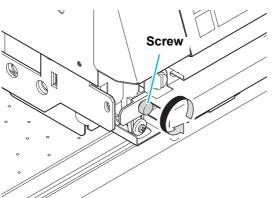
Open the right maintenance cover.

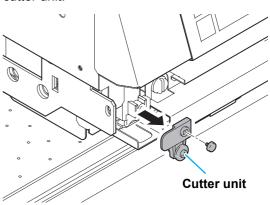




#### Replace the cutter unit by the carriage.

- (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.







Close the right maintenance cover.



Press the **ENTER** key.

• The screen returns to step1.

# 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.

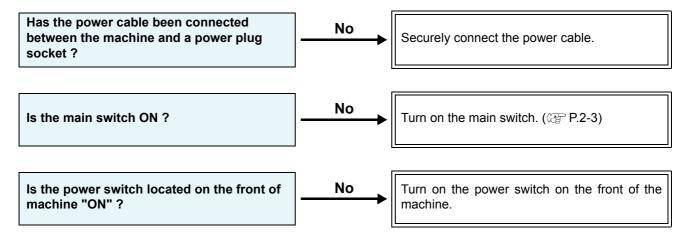
Troubleshooting	5-2
Power does not turn on	5-2
The machine does not start printing	5-2
Media get jammed / media is soiled	5-3
[HEAT] or [CONSTANT] LED does not light up	5-3
Image quality is poor	5-4
Nozzle is clogged	5-4
Ink cartridge warning appears	5-5
"Check Ink Pack" appears	5-6
When the INK REMAIN Setting Message is Displayed	5-7
When Error 618 to 61b occur	5-8
Regular maintenance of white ink	5-9
When media heaves up at feeding	5-10
When the feeding media is loosened and reached to the floor	5-10
Warning / Error Messages	5-11
Warning messages	5-11
Frror 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

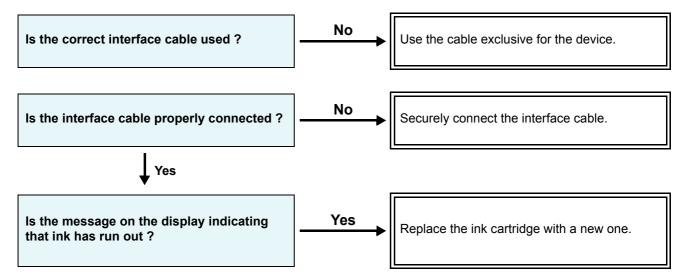
In most cases, this is due to improper connection of the power cable for the machine or computer. Check that the power cable is connected properly.



# The machine does not start printing

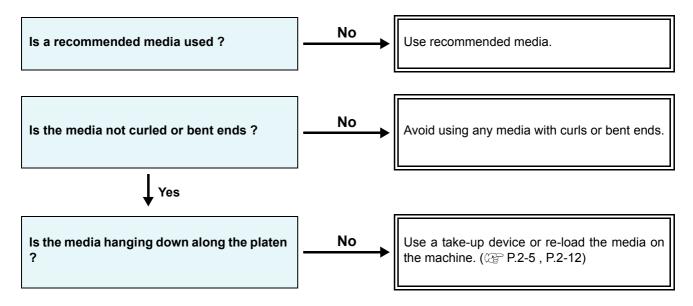
This occurs when the data is not being transmitted to the machine properly.

It can also occur when the printing function does not work properly or the media is not set correctly.



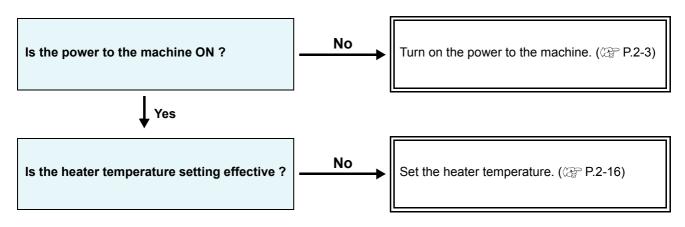
# Media get jammed / media is soiled

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)	<ul> <li>(1) Execute the head cleaning. ( P.2-21)</li> <li>(2) Perform maintenance of the inside of the station. ( P.4-5)</li> <li>(3) Execute the [MEDIA COMP.] function. ( P.2-22)</li> <li>(4) If any pieces of paper or dust is attached on the path of the heads such as media press, remove it.</li> </ul>	
Characters are double- or triple-printed in the media feed direction	(1) Execute the [MEDIA COMP.] function. ( P.2-22)	
Disagreement in print positions between outward trip and homeward trip	(1) Execute the [DROP POSITION] function. ( P.2-24)	
Ink drops falling on media during printing	<ul> <li>(1) Execute the wiper cleaning. ( P.4-5)</li> <li>(2) Execute the ink cap cleaning. ( P.4-5)</li> <li>(3) Clean around the head. ( P.4-16)</li> <li>(4) Execute the head cleaning [NORMAL]. ( P.2-21)</li> <li>(5) Set a shorter interval of INTERVAL WIPING operation. ( P.3-9)</li> </ul>	

# Nozzle is clogged

When nozzle clogging is not dissolved even after the head cleaning referring to P.2-21, make sure the following operations.

- Wash the head nozzle by the operations of P.4-20.
- Wash the head nozzle surface by the operations of P.4-22.
- Recovery the nozzle by the operations of P.4-26.
- Perform air purge by the operations of P.5-7.

## Ink cartridge warning appears

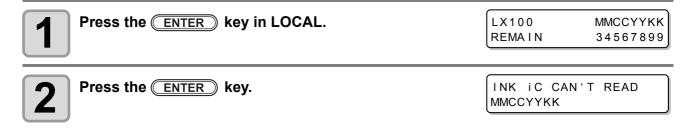
If an ink cartridge trouble is detected, the cartridge LED "red" is lit, and a warning message appears. None of printing, cleaning and all the other operations that use ink is available. In this case, replace the ink cartridge in question immediately.



 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.



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

## "Check Ink Pack" appears

When you are using the eco cartridge and there is a problem with the ink pack, the cartridge lamp lights up red, a warning message is displayed and all the operations related to the ink supply become unavailable. Check whether there is any ink left inside the ink pack as soon as possible.

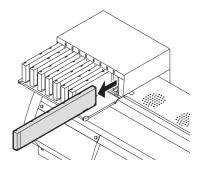


Press the END key several times to return to LOCAL.



# Remove the cartridge for which "Check Ink Pack" is displayed.

• Remove the cartridge where the ink station cartridge lamp has lit up red.





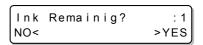
#### Check whether there is any ink left in the ink pack.

- Open the eco cartridge lid (see step 1 in "How to assemble ink cartridge" on P.1-15).
- (1) Check the ink pack.
- (2) Return the ink pack to its original position and close the lid of the eco cartridge.



#### Return the eco cartridge that you checked in step 3 to the original ink slot.

- If you are using the firmware version 3.20 or older, "Check Ink Pack" is removed and the cartridge is ready to be used.
- If you are using the firmware version 3.40 or later, the screen on the right is displayed. Perform the following steps according to the status of the ink pack.



Ink	Remainig?	: 1
INK	-	[ENT]

#### If there is ink left inside the ink pack:

Press and select "YES".

#### If there is no ink left inside the ink pack:

Press , select "NO", and then press the ENTER key.



#### If you press and select "YES"

· You can continue using the original eco cartridge.

#### If you press and select "NO"

• If you press the **ENTER** key, the eco cartridge status changes to "INK END". Refer to P.1-15 "How to assemble ink cartridge", and change the ink pack and the IC chip.

### When the INK REMAIN Setting Message is Displayed

If the remaining amount of ink inside the cartridge falls below a specified level when [SET UP] in INK REMAIN of MACHINE SETUP is set to "ON" ( P.3-31), a warning message appears on the display.

When the message appears, perform the following steps to adjust the ink cartridge weight.

Please prepare your scale (which can weigh up to 1200g in 1g).



#### Press the MAINT. key in LOCAL.

• The slot with the ink cartridge for which you need to register the weight is selected automatically.

SLOT 1 INK REMAIN =800g



#### Weigh the ink cartridge on the scale.

• Attach the IC chip and the ink pack when weighing.



Press to enter the weight of cartridge checked at the Step 2.

SLOT 1 INK REMAIN =800g



Press the ENTER key.

SLOT 1 800g OK? [ENT]



#### Check the weight and press the **ENTER** key.

- If there are other slots for which the weight registration is necessary, each slot is automatically numbered. Repeat steps 2 to 4.
- If there are no more slots where the weight registration is necessary, you will automatically return to LOCAL.

### When Error 618 to 61b occur

Error 618 to 61b are errors related to the damper.

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



#### Select [DAMPER] 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 [DAMPER].



#### Press the **ENTER** key.

SELECT DAMPER :MMCCYYKK



#### Select the damper to maintenance.

SELECT DAMPER: MMCC

- Select the damper with the key.
- If Error 61b occurs, an appropriate head is selected. Press ENTER key.
- Selectable unit is three types of "MMCC\_\_\_\_", "\_\_\_\_YYKK", and "MMCCYYKK".



#### Press the **ENTER** key.

DAMPER EXECUTE

[ENT]



#### Press the **ENTER** key.

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

\*\* FILLING \*\*
PLEASE WAIT

• Then, cleaning is performed.

\*\* CLEANING \*\*
PLEASE WAIT



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



• If "Error 61a" has occurred during printing or waiting, "damper" of the MAINTENANCE MENU is performed automatically.

### 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.



When you use white ink:
 When 24 hours have passed with the power supply is ON, or,
 when the power supply is ON, the message is displayed.
 As the component of white ink is easy to settle out, it is necessary
 to shake it periodically.

SHAKE WHITE INK CARTRIDGES [ENT]



#### 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.

- The automatic discharging operation and the filling operation are performed.
- \* FILLING \*\*
  PLEASE WAIT

• Then, cleaning is performed.

\*\* CLEANING \*\*
PLEASE WAIT



Press END the key several times to end the setting.

### When media heaves up at feeding

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

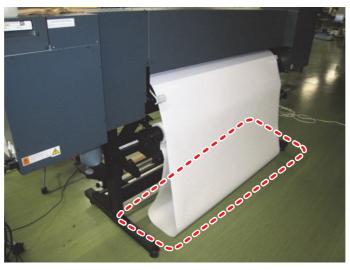
Note/ checking items	Measures
Checking media set status	(1) Check that the media is set straight and reset it.
Adjusting heater temperature	<ul><li>(1) Raise the pre-heater temperature by 5 to 10 degrees.</li><li>(2) Lower all heaters' temperatures. (When you lower the heater temperature, drying time may not be enough. Lower the FEED SPEED.)</li></ul>
Media feeding	<ul><li>(1) For roll media, feed the media by about tens of centimeters to one meter.</li><li>(2) For leaf media, press  and perform feed/ back feed.</li></ul>
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.

### When the feeding media is loosened and reached to the floor

The feeding roll media is loosened and reached to the floor if the holder is not properly pressed against the core of the roll media while the roll media is set to the roll holder on the back side of the printer. when the feeding media is loosened, please take following measures. Loosen the screw of the right side roll holder and firmly press the holder against the core of the roll paper and then tighten the screw. (The indication of pressing power: 15 kgf) ( P.2-9)

Please note that the feeding media is more often loosened under conditions described below.

- After printing, when the media is moved backwards against the feeding direction.
- When the heavy roll media like the banner material (tarpaulin) is used.
- When a remaining length of the roll media reaches low during printing. Or when the remaining length of set media is already low.



# **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 OFF)	The motor is OFF after the cover was opened etc.	Close the front cover and maintenance covers.
CAN'T OPERATE	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. (ﷺ P.2-27)
CAN'T OPERATE (CLAMP LEVER OFF)	Clamp lever is raise up.	Push down the clamp lever and detect the media.

## Message displayed in LOCAL

Message	Cause	Solution
<pre><local> Can't PRINT/CART.[ENT]</local></pre>	Ink errors (unusable ink) occur in multi- ple cartridges. Ink supply (print, cleaning, etc.) cannot be performed.	Press the ENTER key to check the car- tridge generating the warning.  Replace them with usable cartridges.
<pre><local> Check waste ink[MNT]</local></pre>	The waste ink tank is nearly full.	Check the waste ink tank.  Press the MAINT. key to correct or reset
<pre>VASTE INK FULL [MNT]</pre>	The waste ink tank is full.	the counter. ( P.4-33)
<pre><local> Replace a WIPER[MNT]</local></pre>	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.4-32)
<pre><local> Cleaning WIPER [MNT]</local></pre>	Time to clean 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 clean the wiper. ( Press
<pre><local> INK REMAIN [MNT]</local></pre>	The remaining amount of ink inside the cartridge falls below the specified level.	Press the key and register the cartridge weight. (     P.5-12)
<pre><local>   ** NO MEDIA **</local></pre>	The media is not set. The sensor has been broken.	Set the media. (ﷺ P.2-5) If the same error message appears again, contact your local distributor to call for service.

Message	Cause	Solution
<pre><local> DATA REMAIN</local></pre>	The data has been received.	Press the REMOTE key to perform printing. Or, perform data clear.
<pre><local> INK NEAR END [ENT]</local></pre>	The ink of the ink cartridge has been nearly used up.	Press the ENTER key to check the relevant cartridge. Be careful because it may be INK NEAR END soon.
<pre><local> SUPPLY INK :MMCCYYKK</local></pre>	Ink could not be supplied to the damper.	• Perform "DAMPER (( P.5-8) " of the maintenance. Also check the remaining amount of ink in the cartridge.  Even if you performed this, when the message is displayed, contact your local distributor to call for service.
<pre><local> DAMPER Sens:MMCCYYKK</local></pre>	The liquid level sensor abnormality of the damper has been detected.	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.
<pre><local> InkOverflow:MMCCYYKK</local></pre>	Overflow from the damper has been detected.	• Perform "DAMPER (ﷺ P.5-8) " of the
<pre><local> DAMPER/HIGH:MMCCYYKK</local></pre>	Though a certain amount was consumed, there is no change in the damper sensor High.	maintenance. Also check the remaining amount of ink in the cartridge.  Even if you performed this, when the message is displayed, contact your local distrib-
<pre>C LOCAL &gt; DAMPER / LOW : MMCCYYKK</pre>	Though a certain amount was consumed, there is no change in the damper sensor Low.	utor to call for service.
SHAKE WHITE INK CARTRIDGES [ENT]	To prevent settling out in the white ink pack, this is displayed periodically.	• Following the procedures, shake the white ink cartridge. ( P.1-12)
<pre><local> MachineTEMP/Hi ***°C</local></pre>	The machine temperature is high.	Adjust the ambient temperature of the
<pre><local> MachineTEMP/Lo ***°C</local></pre>	The machine temperature is low.	installation place.
HEATER TEMP ERROR POWER OFF [ENT]	After "error 710 HEATER TEMP ERROR" has occurred, the power is forcibly turned off, and when you restart it, this is displayed.	If the ERROR 710 appears again, contact your local distributor to call for service.
<pre><local> Expiration [ENT]</local></pre>	The specified expiration date of an ink cartridge has passed.	The expiration date has passed. However, you can use it until the end of the following month. Press the ENTER key to check the cartridge generating the warning.
<pre><local> Expiration(1M) [ENT]</local></pre>	The expiration date of an ink cartridge has passed (one month has passed after the specified expiration date).	One month has passed after the expiration date. However, you can use it until the end of this month. (The red LED blinks.) Press the ENTER key to check the cartridge generating the warning.
<pre><local> Expiration(2M) [ENT]</local></pre>	The expiration date of an ink cartridge has passed (two months have passed after the specified expiration date).	Two months have passed after the expiration date. Replace the cartridge generating the warning with a new one.  Press the ENTER key to check the cartridge generating the warning.
MEDIA JAM	Carriage stopped because the media jam occurred.	Open the cover, remove the media and reset. (Supported from the firmware ver.3.00)

Message	Cause	Solution
Check Jam Sensor	The jam sensor detects an error.	Open the maintenance cover and check around the carriage.
PRINTING PAUSE CONTINUE < > CANCEL	Print interrupted by the cover open or detection of media jam.	Close the cover or eliminate the media jam. Select the action by the right or left keys.

### **Ink Error**

Ink error is displayed also in the local guidance. ( P.3-40)

Message	Cause	Solution
INK IC CAN'T READ : YYKK  WRONG INK IC : 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.
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	An error occurred in the IC chip information of the ink cartridge.	<ul> <li>Check the cartridge generating the warning.</li> <li>When you use white ink, check that there is no nozzle missing etc.</li> </ul>
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 INKPACK : 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.	The expiration date has passed. However, you can use it until the end of the following month.
Expiration: 1MONTH : YYKK	The expiration date of an ink cartridge has passed (one month has passed after the specified expiration date).	<ul> <li>One month has passed after the expiration date.</li> <li>However, you can use it until the end of this month. (The red LED blinks.)</li> </ul>
Expiration: 2MONTH : YYKK	The expiration date of an ink cartridge has passed (two months have passed after the specified expiration date).	Two months have passed after the expiration date.  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[12345678]	Head connection can not be confirmed.	
ERROR 108 HD THERMIS[12345678]	Head temperature can not be read.	
ERROR 108 HD MEM EMP[12345678]	The head memory has no data.	
ERROR 108 HD TYPE [12345678]	Solvent ink was used in the head for water.	Turn off the power to the machine and turn it on after a while.
ERROR 12e Head Failed[xxxx]	Abnormality of the Driver of the Print head.	If the same error message appears again, contact your local distributor to call for service.
ERROR 122 CHECK:SDRAM	There is no PRAM.	
ERROR 128 HDC FIFO OVER	<ul><li>Data transmission speed is too fast.</li><li>Control circuit board is defective.</li></ul>	
ERROR 128 HDC FIFO UNDER	<ul><li>Data transmission speed is too slow.</li><li>Control circuit board is defective.</li></ul>	
ERROR 129 BATTERY EXCHANGE	The battery life end of the internal clock is detected.	Contact your local distributor to call for service.
ERROR 12a HDC SPERD	Abnormality in scan speed and waveform is detected.	
ERROR 130 HD DATA SEQ	Head data transferring sequence error occurred.	
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.	Turn off the power to the machine and
ERROR 152 Main PCB V2R5	An error occurred in the main PCB 2.5V power supply.	turn it on after a while.  If the same error message appear again, contact your local distributor to ca for service.
ERROR 153 Main PCB V3R3	An error occurred in the main PCB 3.3V power supply.	
ERROR 155 Main PCB V35-1	An error occurred in the main PCB 35-1 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 16e Main PCB V3R3B	An error occurred in the main PCB 3.3VB power supply.	
ERROR15 f 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		
ERROR 186 HDC UNDERFLOW	An error is detected on the waveform	
ERROR 187 HDC SLEW RATE	printed on.	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 ser-
ERROR 188 HDC MEMORY		
ERROR 189 COM VOLT	Abnormality in waveform voltage is detected.	vice.
ERROR 18a Main PCB V_CORE	An error occurred in the main PCB V_CORE power supply.	
ERROR 18b Main PCB V1R5B	An error occurred in the main PCB 1.5VB power supply.	
ERROR 18c Main PCB V12	An error occurred in the main PCB 12V power supply.	
ERROR 18e FLS NOT COMP [12 ]		
ERROR 18f OFFSET START [12 ]	Abnormality in head control is detected.	
ERROR 18f OFFSET END [12]		
ERROR 201 COMMAND	The machine received some data other than command data.	Securely connect the interface cable in position.
ERROR 202 PARAMETER	Any parameter outside the range of acceptable numeric values was received.	Use an interface cable conforming to the specifications.

Message	Cause	Solution	
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.	Turn off the main power to the machine and turn it on after a while.  If the same error message appears	
ERROR 402 MOTOR Y	An excessive load was applied to the Y motor.	again, contact your local distributor to call for service.	
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 504 CLAMP UP	The function of executing is ended for raising the clamp lever.	(Supported from the firmware ver.3.00)	
ERROR 50c 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	
ERROR 50a Y ORIGIN	Y-origin could not be detected.	and turn it on after a while.  If the same error message appears again, contact your local distributor to call	
ERROR 50 f L-SCALE BLACK	Abnormal linear scale.	for service.	
ERROR 516 MEDIA SET POSITION R	The media is set outside the proper area.	• Check the media set position.	
ERROR 516 MEDIA SET POSITION L			
!PRE HEATER BRK	The temperature in the media heater	Check whether the heater power switch near the main power switch is ON.     Turn off the main power to the machine	
!PRT HEATER BRK	won't rise.	and turn it on after a while.  If the same error message appears again, contact your local distributor to call	
!POST HEATER BRK		for service.  Turn off the main power to the machine	
ERROR 617 DAMPER Sens:12345678	The liquid level sensor abnormality of the damper has been detected.	and turn it on after a while.  If the same error message appears again, contact your local distributor to call for service.	
ERROR 618 DAMPER/HIGH:12345678	Though a certain amount was consumed, there is no change in the damper sensor High.	Perform "DAMPER ( P.5-8)" of the maintenance. Even if you performed this, when the message is displayed, contact your local distributor to call for service.	

Message	Cause	Solution
ERROR 619 DAMPER/LOW : 12345678	Though a certain amount was consumed, there is no change in the damper sensor Low.	Perform "DAMPER ( P.5-8) " of the maintenance. Even if you performed this, when the mes-
ERROR 61a OVER FLOW :12345678	Overflow from the damper has been detected.	sage is displayed, contact your local distributor to call for service.
ERROR 61b SUPPLY INK :12345678	Ink could not be supplied to the damper.	Perform "DAMPER ( P.5-8)" of the maintenance. Also check the remaining amount of ink in the cartridge. Even if you performed this, when the message is displayed, contact your local distributor to call for service.
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 702 THERMISTOR CONNECT	The thermistor connection of a heater is defective.	Check the thermistor connection of the drying heater. 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 703 !EXT HEATER BRK	The thermistor is abnormal and the temperature cannot be read normally.	
ERROR 707 !H1 HEATER BREAK	A head heater is disconnected.	Turn off the main power to the machine and turn it on after a while.  If the same error message appears again,
ERROR 710 HEATER TEMP ERROR	The temperature abnormality of the heater has been detected. When this error occurred and if the temperature abnormality cannot be resolved, the power supply of the machine is forcibly turned off.	contact your local distributor to call for service.
ERROR 901 INVALID OPERATION	Due to a certain error, the function cannot be performed.	Return to the local screen, check the error status and take a countermeasure.
ERROR 902 DATA REMAIN	There remains received data that has not yet been printed.	Execute the data clear function. ( P.2-27)
ERROR 90d NO HEAD SELECT	The number of mounted heads is "0".	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 90 f PRINT AREA SHORT	The media width or the media length required for printing is not enough.	Change the media to the one with enough width or length. When the media width narrows because the origin moved, slide the origin to the right to widen the effective media width.
ERROR 04 PARAM ROM	The parameter has an error.	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.

## **SYSTEM HALT**

Message	Solution
SYSTEM HALT 000: MESSAGE	Turn off the main power to the machine and turn it on after a while.  If the same error message appears again, 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	
Ink specifications	
Setting orders depending on ink type	
Setting orders of ink cartridges	
Sheet for inquiry	6-5
Warning labels	6-6
Function Flowchart	

# **Specifications**

# **Machine specifications**

	Item	JV400-130LX	JV400-160LX		
D.C. Oberest	Method	Drop-on-demand piezoelectric	Drop-on-demand piezoelectric print heads		
Print head	Specification	2 head	•		
Drawing mode (scan x feed)	4-color	600x900 : Bi/Uni 6/12/24pass 900x900 : Bi/Uni 6/12/24pass 900x1200 : Bi/Uni 8/16/32pass 1200x900 : Bi/Uni 6/12/24pass 1200x1200 : Bi/Uni 8/16/32pass			
	4-color + White 6-color 6-color + White	600x900 : Bi/Uni 12/24/48pass 900x900 : Bi/Uni 12/24/48pass 900x1200 : Bi/Uni 16/32/64pass 1200x900 : Bi/Uni 12/24/48pass 1200x1200 : Bi/Uni 16/32/64pass (Depending on the drawing mode, some pass cannot be selected.)			
	Lx100	Y,M,C,K,W 4 colors (K,M,C,Y) 4 colors+W (K,M,C,YW)			
Usable inks		4 colors+W (K,M,C,Y,W)  Y,M,C,K,Or,G,W (For W, Lx100 is used.)			
	Lx101	4 colors (K,M,C,Y) 6 colors* <sup>1</sup> (K,M,C,Y,Or,G) 6 colors+W (K,M,C,Y,Or,G,W)			
Ink supply		Supplying from ink cartridges through tubes.  Ink cartridge replacement type:  For four colors, M and C at four colors + W and M and C at six colors, : Supplying by Toggle switch over with 2 cartridges/color  For Y, K and W at four colors, Y, K, Or and G at six colors and six colors + W:  Supplying with 1 cartridges/color  600cc ink pack(W: 220cc cartridges) supply, 8 slot			
	Only at 4 colors		600cc 2 cartridges for each color		
Capacity of ink car-	Only at 4 colors + W	600cc 1 cartridge for each color (M,C: 2 cartridges/color) (W: 220cc 2 cartridges)			
tridge	Only at 6 colors	600cc 1 cartridge for each color (M,C: 2 cartridges/color)			
	Only at 6 colors + W	600cc 1 cartridge for each colo	600cc 1 cartridge for each color (W: 220cc 2 cartridges)		
Media type	1	Thin coat paper/PET/Tarpaul	lin/Weatherproof PVC/Polyester cloth/Cotton		
Max. printing	width	1361mm	1610mm		
	Maximum	1371mm	1620mm		
	Minimum	210mm	<u> </u>		
	Thickness	0.3 mm or less*2			
Roll Media	Roll outside diameter	φ 180mm or less			
size	Roll weight *3	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	Maximum	1371mm	1620mm		
size	Minimum	210mm	<u> </u>		
Margin	Leaf media	Left end and right end : 15 mm (Default) Front : 150.0 mm Rear : 200 mm			
waryiii	Roll media	Left end and right end : 15 mm (Default) Front : 150.0 mm Rear : 0 mm			
Distance	Absolute accuracy	Whichever the larger one of $\pm$ 0.3 mm or $\pm$ 0.3 % of the designated			
accuracy	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			

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ltem		JV400-130LX	JV400-160LX	
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		
	during standby	Less than 58 dB (FAST-A, Front & Rear & Left & Right 1 m)		
Noise	during continuous printing	Less than 65 dB		
	during discontinuous printing	Less than 75 dB		
Safety Standard		VCCI-Class A, FCC Part 15-Class A, UL 60950, CE Marking (EMC/Low Voltage/ Machinery), CB Certificate, RoHS		
Power		AC100 - 120 ± 10% , AC220 - 240 ± 10% , 50/60Hz ± 1Hz , 15A or less		
Power consumption *4		100 to 120V : 1440W x2 200 to 240V : 1800W x2		
	Available temp.	20 °C to 30 °C		
Reco-	Humidity	35 to 65% Rh (No condensation)		
mended	Guaranteed temp.	20 °C to 25 °C		
Environ- ment	Temperature change	± 10 °C / h or less		
	Dust	0.15mg/m <sup>3</sup> (Equivalent to normal office level)		
	Highest operation height	2000 m		
Weight		Less than 230 kg	Less than 250 kg	
Outside dimensions		2634 mm(W) x 854 mm(D) x 1439mm(H)	2879 mm(W) x 854mm(D) x 1439 mm(H)	

- \*1. Supported from the firmware ver.2.50
- \*2. Some media have bad drying characteristics. Please check this beforehand.
- \*3. Without deflection of the roll when it is retained at both ends.
- \*4. Main unit and heater included.

## Ink specifications

ltem		When LX ink is used		
Supply		Ink pack / Ink cartridge(White ink)		
Color		Black ink Cyan ink Magenta ink Yellow ink Orange ink Green ink White ink		
Ink capacity		600cc / 220cc(White ink)		
Shelf life		LX100/LX101 ink 1 year from the date of manufacture (at room temperature)		
Storage tempera- ture	Storage	0 to 25°C (Average daily temperature)  • Be sure to keep a vessel in the airtight condition.		
	Transpor- tation	-20 to 60°C  • Avoid the condition lower than -20 °C and higher than 60 °C.		



- 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**

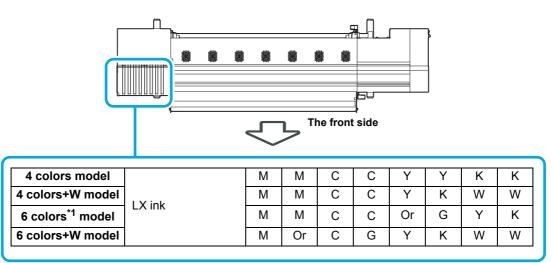
The setting value and the setting orders of the ink cartridges differ depending on the ink type you use.

# 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.



<sup>\*1.</sup> Supported from the firmware ver.2.50

# **Sheet for inquiry**

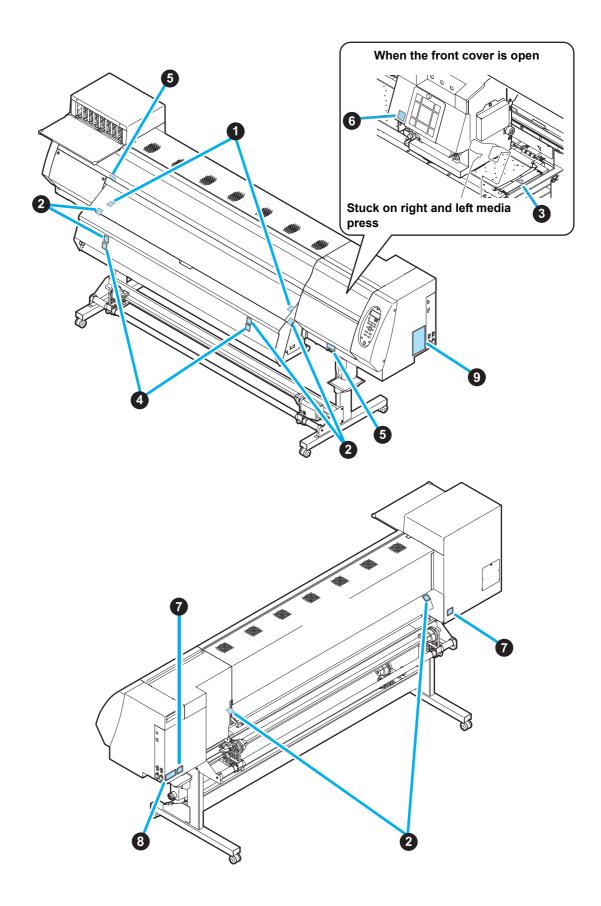
Use this sheet for troubles and abnormal functions of the machine. Fill in the following necessary items, and then fax the sheet to our sales office.

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

<sup>\*1.</sup> Refer to "Confirming Machine information" of "Convenient using" then fill in necessary information. ((2) P.3-37)

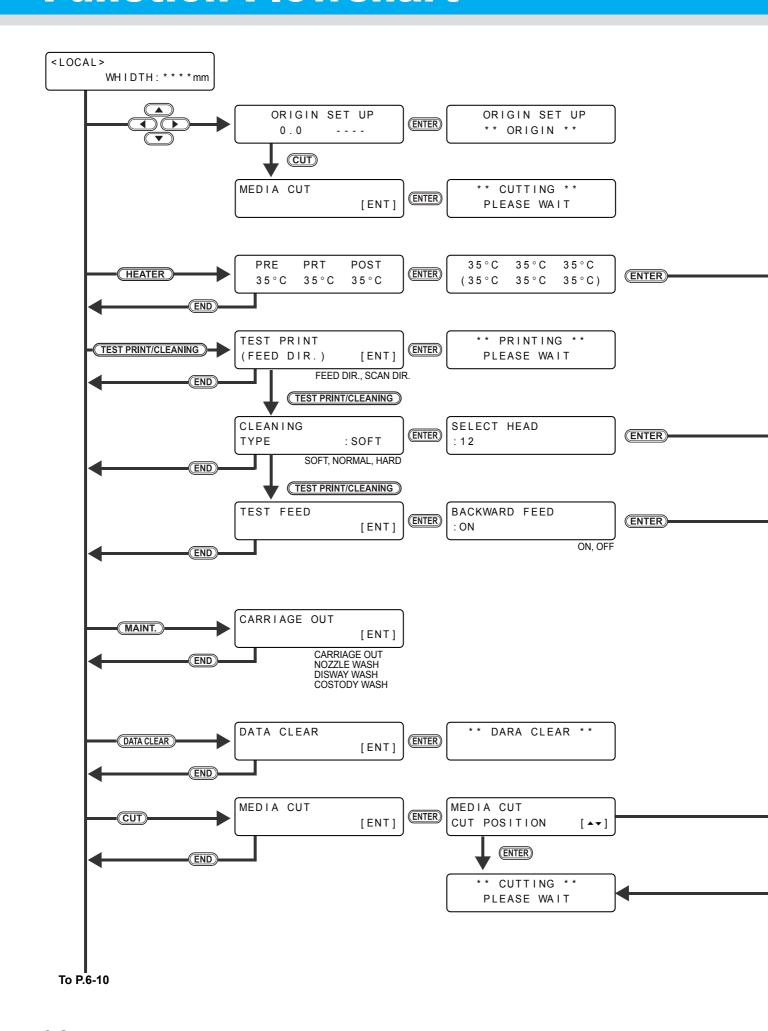
# **Warning labels**

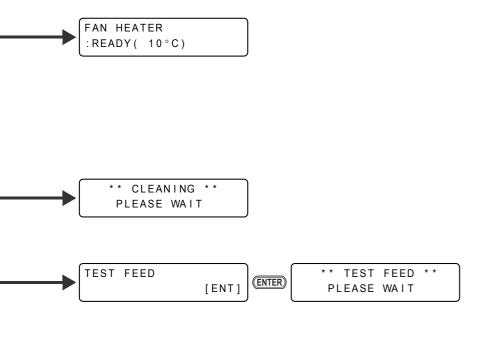
Warning labels are stuck on the machine. Be sure to fully understand the warning given on the labels. If a warning label is illegible due to stains or has come off, purchase a new one from a distributor or our sales office.



No.	Label	
1	M907833	As the carriage moves, do not insert your hand.
2~4	M903239 M906144 M908553	Be careful of the heat.
5	M903330	Please wear the goggle and gloves at work.
6	M903405	Be careful of the cutter blade.
7	M907935	Be careful with electric shocks as the voltage is hazardous.
8	M906031  This unit has two power cords. For removal of all power, disconnects both cords.  Cet appareil a deux cordons secteur. Pour le mettre hors tension, débranchez ces deux cordons secteur. 本機は、2本の電源ケーブルがある。電源をオフする場合、2本とも核くこと。	This product has multiple power cords. To turn off the power to this product completely, remove all power plugs.
9	M908546 (JV400-130LX)  Apparate in the connected to earthed mains cotlet cally, Apparate in the tillegies jurged children that, Apparate will applied the children that, Apparate will be complete that the children that, Apparate will be complete that the children th	M908545 (JV400-160LX)  Apparate in the tilleging jurdet tillegalish, Apparate in the tillegalish jurdet tillegalish, C-OMMEN, Apparate in tillegalish jurdet tillegalish, Apparate in tillegalish jurdet jurdet in tillegalish jurdet jurdet in tillegalish jurdet j

# **Function Flowchart**

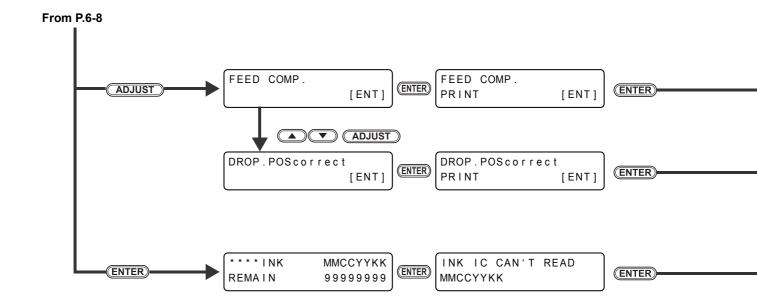


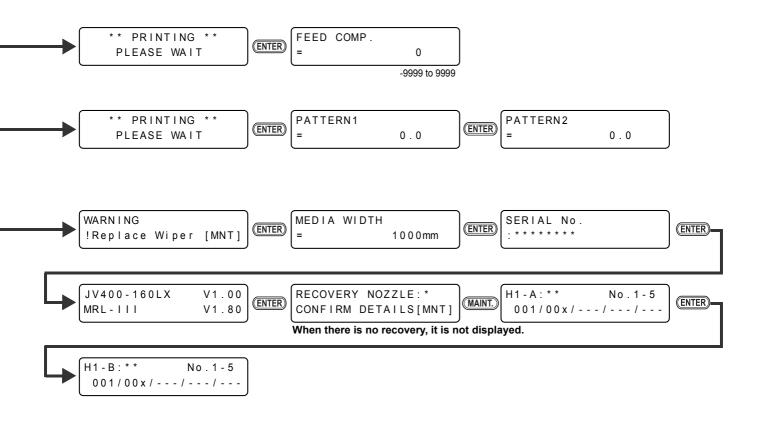


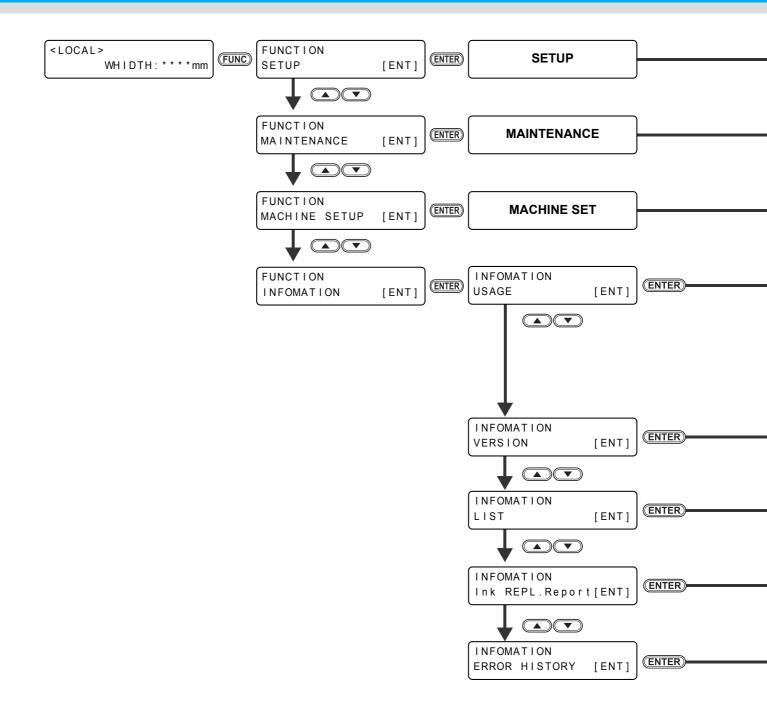


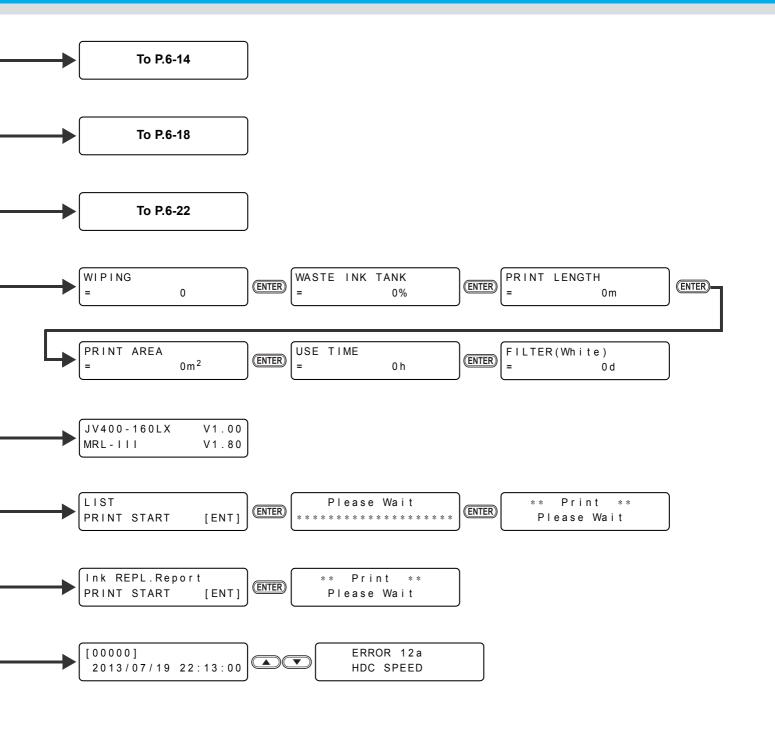
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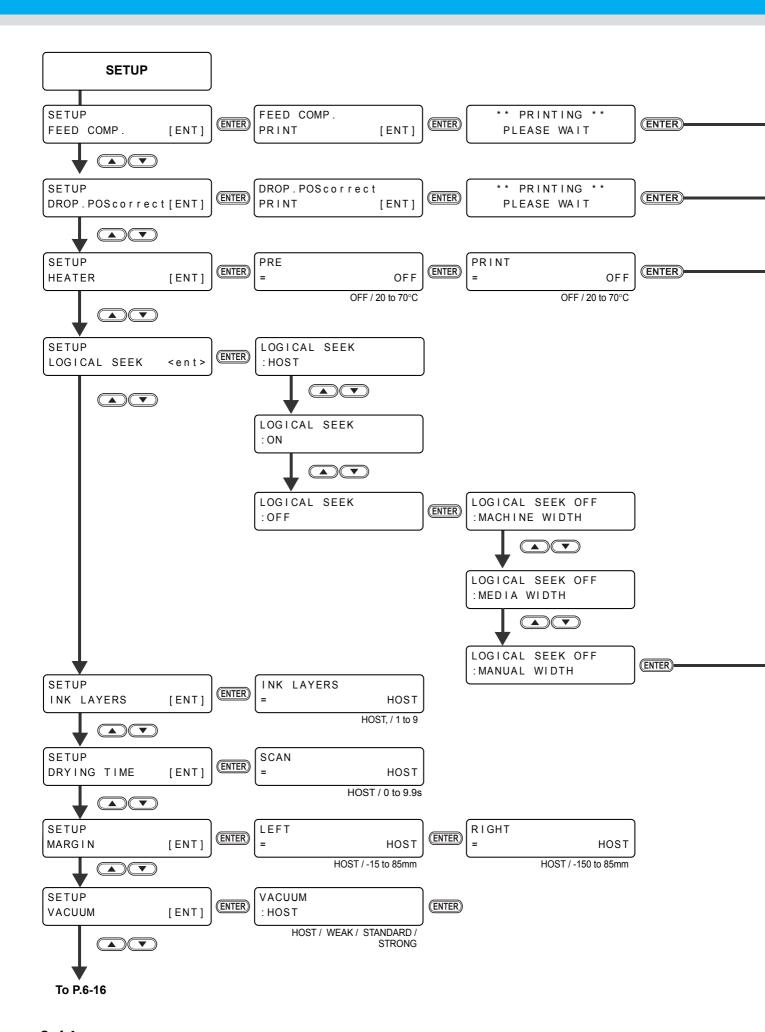
CUT POSITION

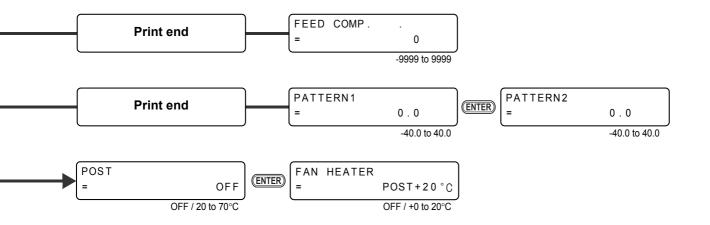


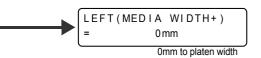


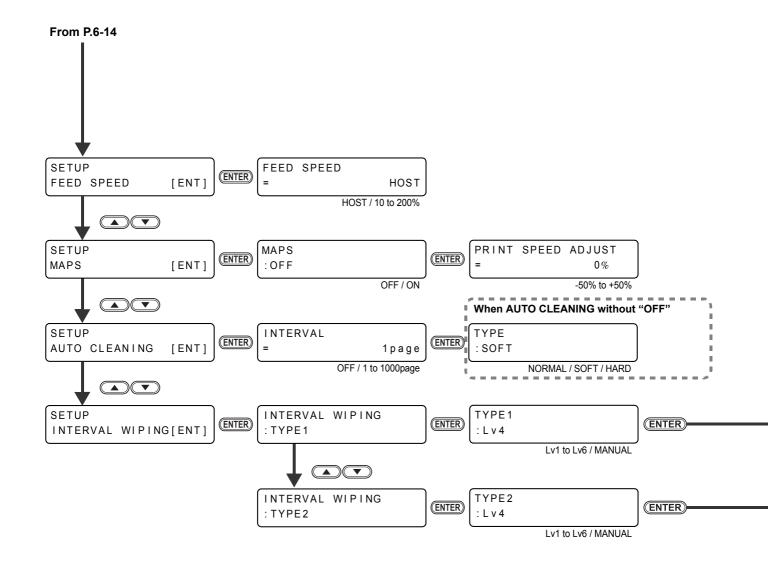


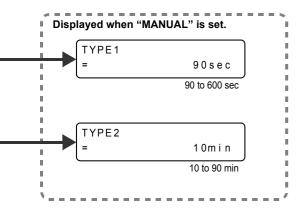


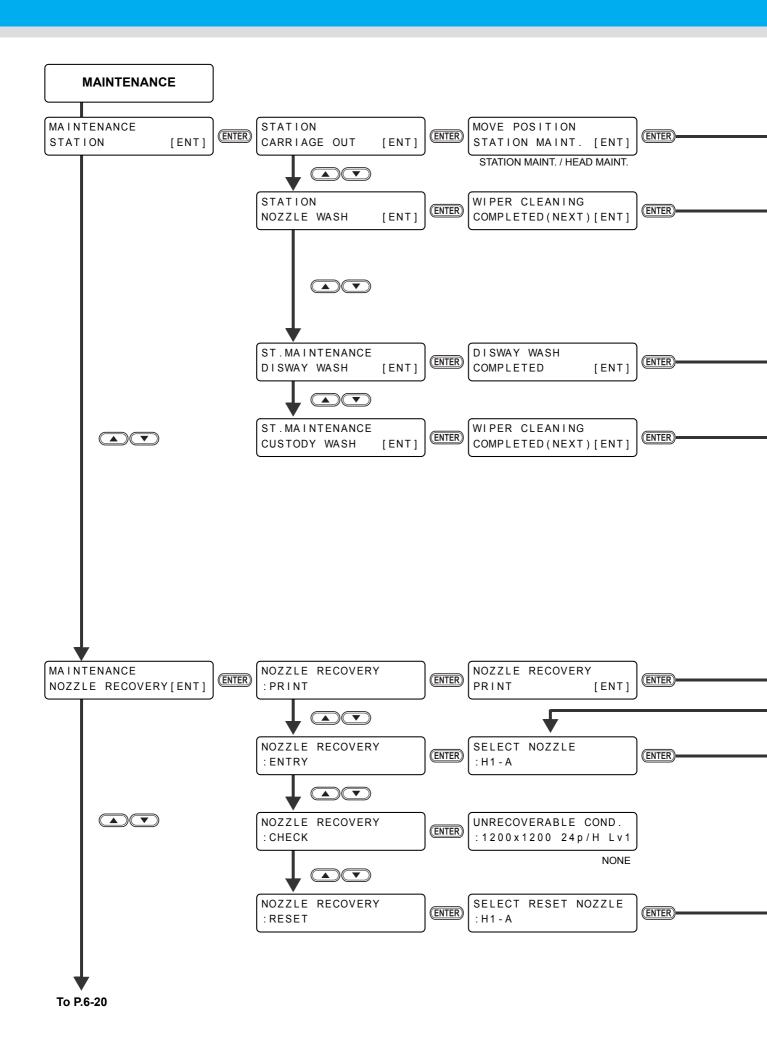


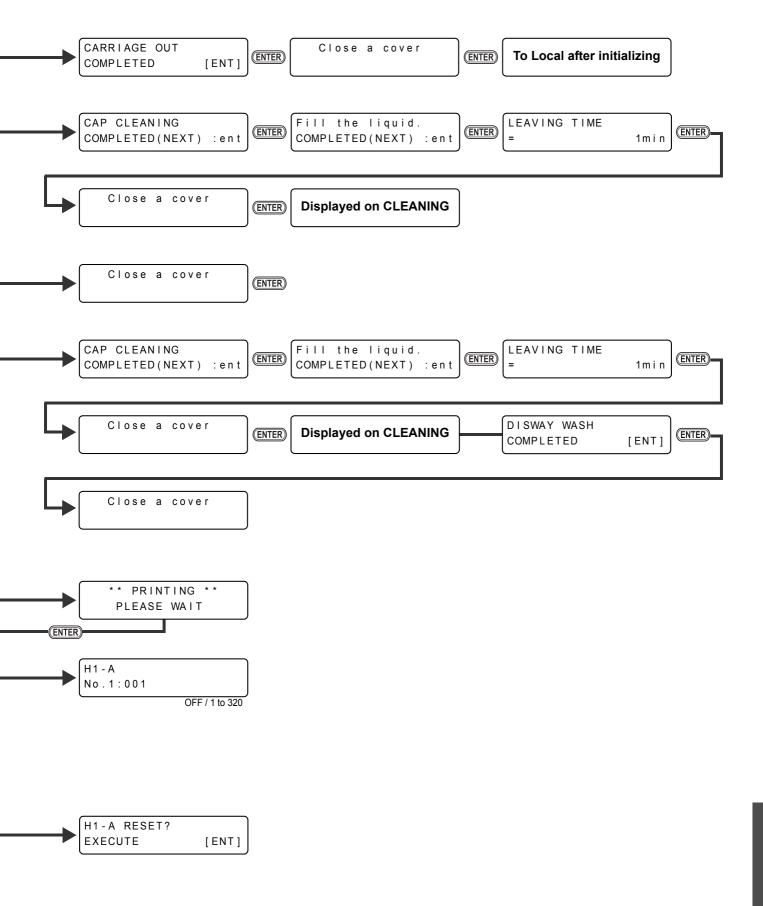


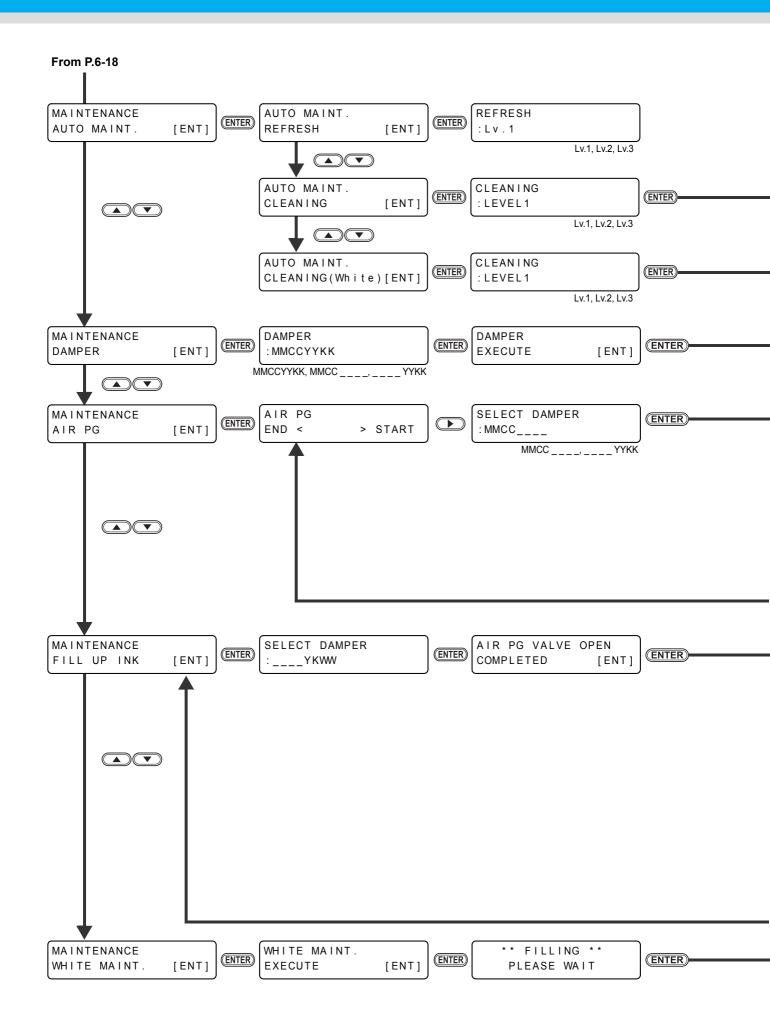


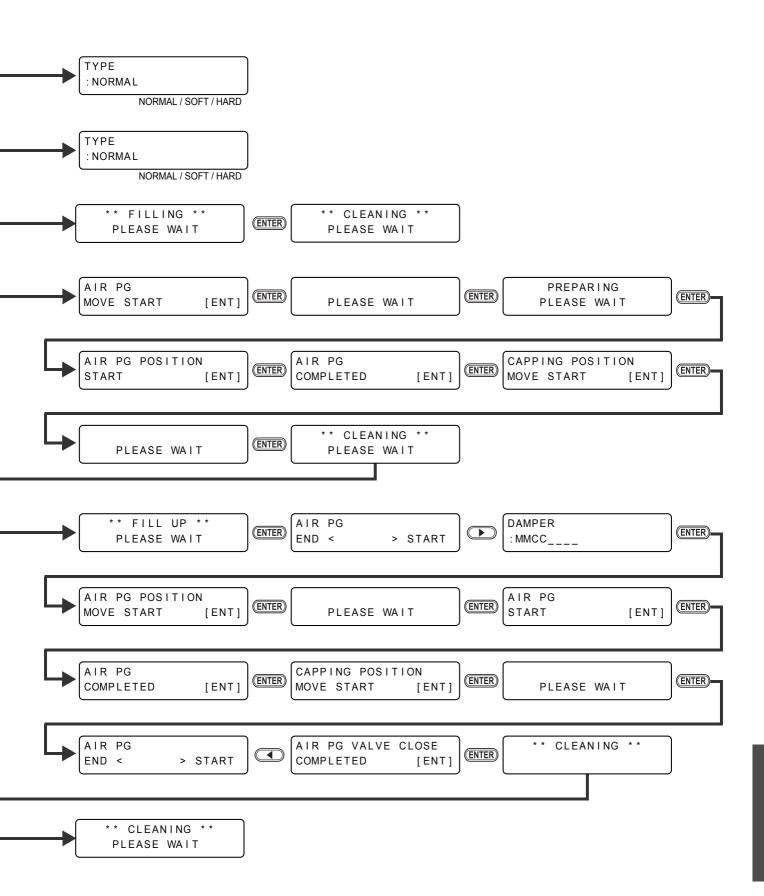


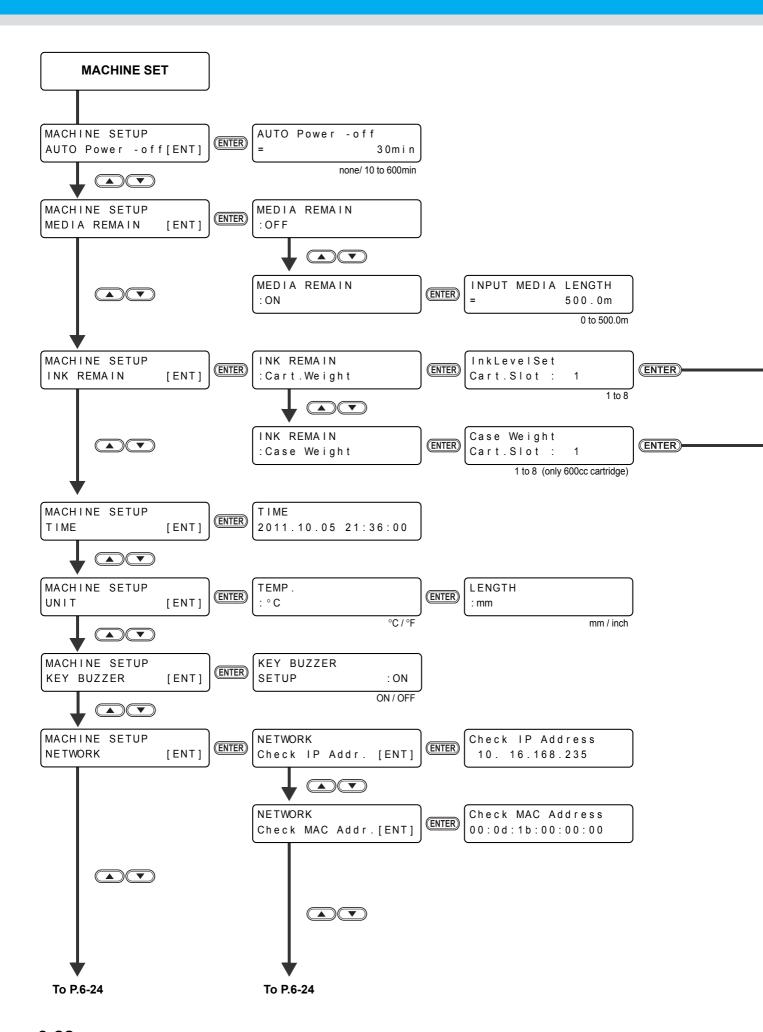


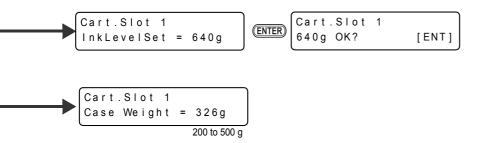


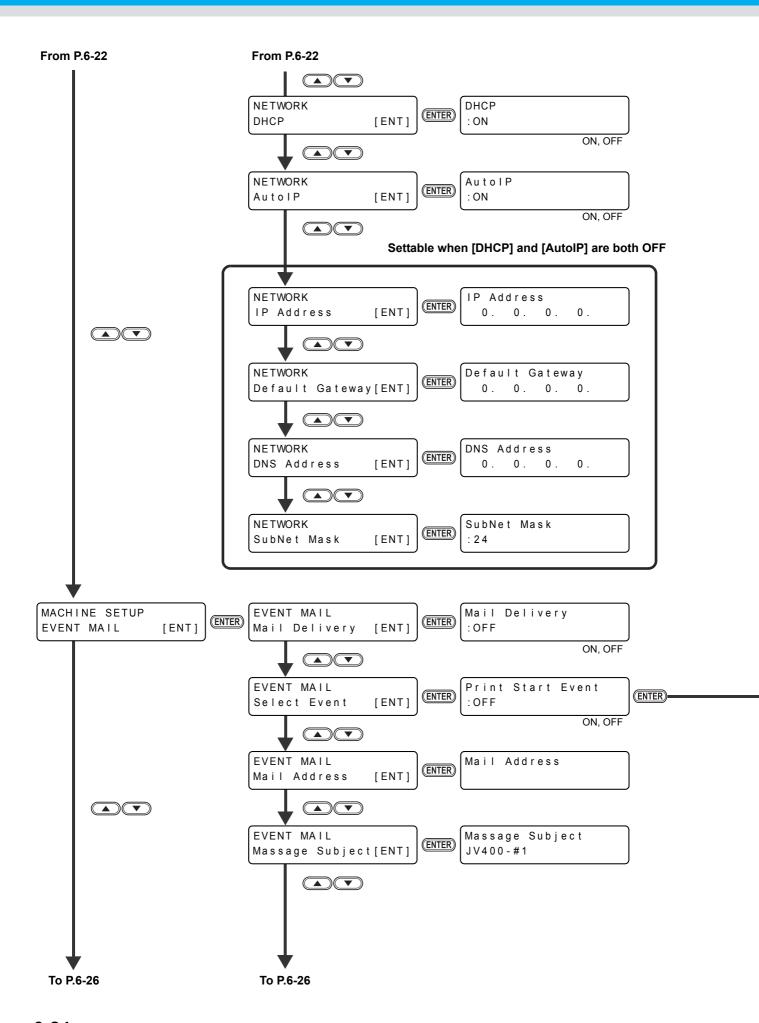


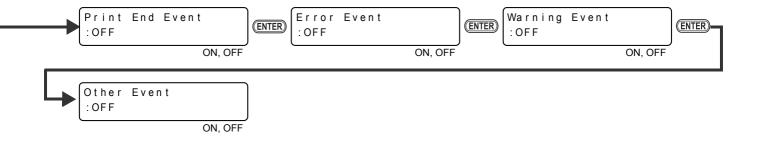


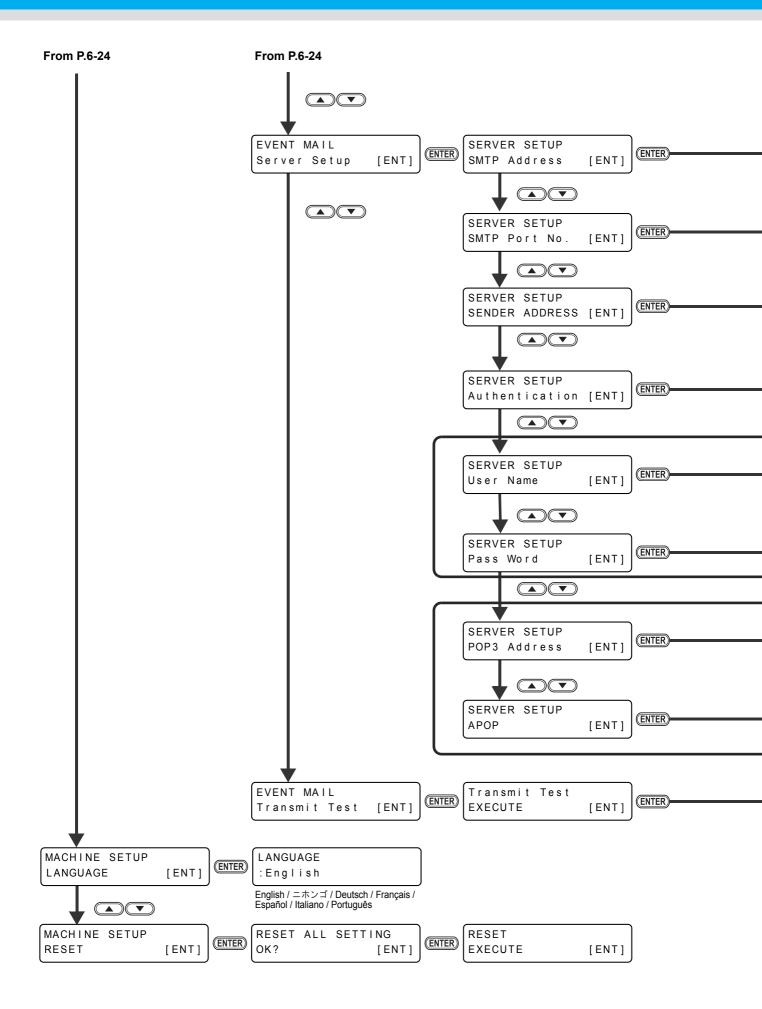


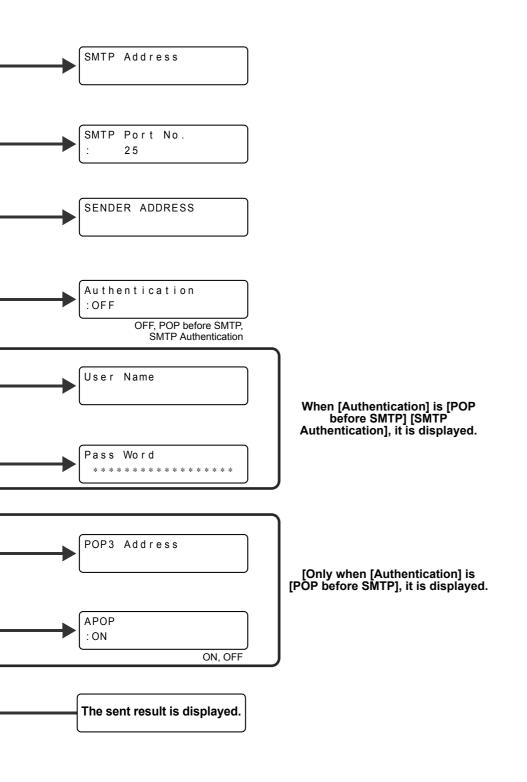












# JV400-130LX/160LX Operation Manual

December, 2015

MIMAKI ENGINEERING CO.,LTD. 2182-3 Shigeno-otsu, Tomi-shi, Nagano 389-0512 JAPAN

