

Mimaki



OPERATION MANUAL

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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 instruction manual, may cause harmful interference to radio communications.

Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



- 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 device.

INTERFERENCE TO TELEVISIONS AND RADIOS

The product covered by this Instruction Manual produces low radio waves while it is in operation. 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 direction of the receiving antenna or the feeder of your radio/television.
- Change the installing direction of the product.
- Move the receiver away from the product.
- Use a power line for the receiver that is not shared with the product.

LASER SAFETY

This Model is certified as a Class I laser product under the U.S. Department of Health and Human Services Radiation Performance standard according to the Radiation Control for Health and Safety Act of 1968. This means that this Model does not produce hazardous laser radiation.

CDRH REGULATION

The Center for Devices and Radiological Health for the U.S. Food and Drug Administration Implement regulations for laser products. The Label shown below indicates compliance with the CDRH regulations and is labeled on the product when marketed in the United States. This Model is equivalent to Class I laser device according to CDRH Regulation.

This product complies with 21 CFR chapter I and subchapter J.

Foreword

Congratulations on your purchase of a Garment Printer “GP-1810D”.

GP-1810D allows the original discharge liquid to print directly cloths and take some color off with 4-color original ink.

Read this Operation Manual carefully and make the most effective use of your printer.



- **[GP-1810D] shifts by a high-speed head. To avoid danger of injury or damage, be sure to read this Operation Manual carefully before starting to operate it.**

On This Operation Manual

- This Operation Manual describes the operation and maintenance of Garment Printer GP-1810D (hereinafter referred to as the machine).
- Please read and fully understand this Operation Manual before putting the machine into service. It is also necessary to keep this Operation Manual on hand.
- Make arrangements to deliver this Operation Manual to the person in charge of the operation of this machine.
- 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.
- In the case where this Operation Manual should be illegible due to destruction by fire or breakage, purchase another copy of the Operation Manual from our office.

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Features

The features of the machine are described below. Together with the method of operation of the machine explained in this manual, they help you understand how to use the machine properly.

Use a discharge liquid

Print the original discharge liquid directly on T shirt, and perform heat treatment to take off some colors. Also, discharge composition printing is available.

- Only the dyed cotton by a reactive dye ink allows for discharging. According to reactive dye inks, its effects are all different.

Use the pigment ink for textile

The new pigment ink for textile allows for printing directly T shirt.

It allows for the heat treatment (simple post treatment) without media preparation. It is kind to the skin and remains breathable and absorbent.

High-Speed printing

New piezo electric heads, the staggered-layout print head provides more attractive, faster printing, and allows ultra high-precisions 6-head 1-way printing.

High-precision printing and high-quality images

The machine is capable of printing high-quality images with a maximum resolution of 720 dpi.

Head height adjustable to 50mm maximum

Can print on T-shirts and other materials placed around a board.

Prints on extra wide work of 1870mm maximum

Up to 1870mm wide work can be set for printing over up to a 1860mm wide area.

Indication of the INK Remains

Since the amount of ink that remains can be checked even during operation of the machine, you can use the ink and medium without waste.

High-speed interface

The "IEEE-1394" interface allows for high-speed data reception from the computer.

Easy “origin” setting

The cross-shaped LED pointer allows easy visual setting.

Prevents the head and work collision

When the work is too thick or the head height is set too low, the head protective sensor senses the head height and avoids the head collision accordingly.

Safety precautions during installation

Safety symbols used in manual

Safety signal words

Pictorial signs are used in this Operation Manual for safe operation of and in prevention of damages to the machine. Pictorial signs and their meanings are given below. Read and fully understand before reading the text.



- Indicates a potentially hazardous condition which, if not avoided, could result in serious injury or death. Be sure to read this manual for proper operation.



- Indicates a potentially hazardous condition which, if not avoided, could result in moderate or minor injury or property damage.



- The symbol "💡" indicates helpful information that will facilitate the use of the machine.



- Indicates the reference page for related contents.

Example of pictorials within the manual



- The symbol "⚠" indicates the case where some phenomenon that requires a CAUTION sign (including "DANGER" and "WARNING" signs) exists. A concrete precaution (precaution against an electric shock in the case of the sketch given on the left) is shown in the illustration.













- The symbol "⊘" indicates a prohibited behavior. A concrete illustration of prohibition (disassembly is prohibited in the sketch given on the left) is shown in or next to the illustration.















- The symbol "●" indicates a thing that is forced to be done and instruction that is forced to be followed. A concrete illustration of instruction (the removal of a plug from the receptacle is instructed in the sketch given on the left) is drawn in the illustration.

Never do the following

 WARNING	
<p>Do not disassemble or modify the machine.</p>  <ul style="list-style-type: none"> Never disassemble or remodel the main unit of the machine and the ink cartridge. Disassembling/remodeling any of them will result in electric shocks or breakdown of the machine. 	<p>Power supply and voltage</p>  <ul style="list-style-type: none"> Be sure to use the machine with the power supply specifications indicated.  <ul style="list-style-type: none"> Be sure to connect the plug of the power cable to a grounded receptacle. If not, fire or electric shocks can result.
<p>Do not use the machine in damp places.</p>  <ul style="list-style-type: none"> Avoid damp environments when putting the machine into service. Do not splash water onto the machine. High-humidity or water will give rise to fire, electric shocks or breakdown of the device. 	<p>Handling of ink cartridges</p>  <ul style="list-style-type: none"> Store ink cartridges and waste ink tank in a place that is out of the reach of children.  <ul style="list-style-type: none"> If ink settles on the skin or clothes, immediately wash it off with detergent or water. If you get ink in your eyes, immediately rinse off with water and consult a medical doctor.
<p>Abnormal event occurs.</p>  <ul style="list-style-type: none"> If the machine is used under an abnormal condition where the machine produces smoke or unpleasant smell, fire or electric shocks can result. Be sure to turn off the power switch immediately and detach the plug from the receptacle. Check first to be sure that the machine no longer produces smoke, and contact a distributor in your district for repair. Never repair your machine by yourself since it is very dangerous for you to do so. 	<p>Laser sensor</p>  <ul style="list-style-type: none"> This device is equivalent to Class I laser device according to CDRH Regulation. LASER CAUTION Label for CDRH regulation shown below is provided with the device. Also, the device is equivalent to a Class I laser device according to JIS/IEC standard. The label according to these standards shown below is provided with the device. To avoid causing pain in your eyes or visual impairment, do not review the laser beam through a lens or the other optical observation system.
<p>Handling of the power cable</p>  <ul style="list-style-type: none"> Use the supplied power cable. 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. 	<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="border: 1px solid black; padding: 2px;"> <p>CAUTION Laser radiation when open. DO NOT STARE INTO BEAM.</p> </div> <div style="border: 1px solid black; padding: 2px;"> <p>クラス1レーザー製品 CLASS 1 LASER PRODUCT</p> </div> </div>

Precautions in use

 CAUTION	
<p>Periodic exchange parts</p>  <ul style="list-style-type: none"> • There are some parts which must be replaced by service engineer. You have to make a contract with distributors or dealers for after-sale service. • A head for the discharge liquid is consumable. Please exchange a new one in half a year when using it everyday. 	<p>Front cover and lever</p>  <ul style="list-style-type: none"> • Never open the front cover and/or lever during printing. Opening the cover or lever will abort printing.
	<p>Keep the machine level</p> <ul style="list-style-type: none"> • Adjust the level feet to keep the machine level at all times.
<p>Protection against dust</p>  <ul style="list-style-type: none"> • It is strongly recommended to use the device in a room that is not dusty. Set the Refresh level 2 or 3 when in bad environment. ( page 4.6)  <ul style="list-style-type: none"> • Keep the front cover to be closed also when the machine is not engaged in printing. If not, dust can accumulate on the head nozzle.  <ul style="list-style-type: none"> • When leaving the workshop after the working hours, be sure to take off any medium from the roll hanger. If any medium is left on the roll hanger, dust can put on it.  <ul style="list-style-type: none"> • Store medium in a bag. Wiping off dust accumulated on a medium will adversely affect the medium due to static electricity.  <ul style="list-style-type: none"> • Frequently clean the capping station to eliminate dust and paper chips.  <ul style="list-style-type: none"> • Dust in the head will also cause drops of ink to fall on the media during printing. If this phenomenon takes place, be sure to clean up the head. ( page 3.6) 	<p>Warning labels</p>  <ul style="list-style-type: none"> • This machine is adhered with a warning label. Be sure understand firmly the warnings given on the labels. In the case where any of the warning label has become so soiled that the warning message is illegible or has come off, purchase a new one from your local distributor or our office. Refer to Appendix for the label adhering locations.

 **CAUTION**

Ink cartridges



- If the ink cartridge is moved from a cold place to a warm place, do not use for three hours.



- Open the ink cartridge just before installing it in the machine. If it is opened and not installed for a long time, the machine may not plot normally.



- Make sure to store ink cartridges in a cold and dark place.



- 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.



- Do not discharge printing for baby clothes as some of formaldehyde remains on a fabric after post treatment by heat press. Wash out any cloths at least one time to remove residual formaldehyde after post treatment by heat press.



- Using any ink type other than the exclusive one can cause a trouble. Remember that the user shall be charged for a repair cost to correct any damage resulting from the use of ink other than the exclusive type.



- The ink cartridge cannot be refilled.











- Neither pound the ink cartridge nor shake it violently so as to prevent 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.

Precautions in installation

 CAUTION	
<p>A place exposed to direct sunlight</p>  <ul style="list-style-type: none">Do not install machine where it is exposed to direct sunlight or work may be discolored.	<p>A place that is not horizontal</p>  <ul style="list-style-type: none">Do not place the machine where the machine cannot be installed on a level surface, or you may not secure the stabilized plot work.
<p>A place in which temperature and humidity vary by a great margin</p>  <ul style="list-style-type: none">Use the machine under the following environment. <p>Operating environment: 15 to 30°C 40 to 65% (Rh)</p>	<p>A place that vibrates</p>  <ul style="list-style-type: none">Do not install the machine where it is subject to vibration or you may not secure the stabilized plot work.
<p>A place exposed to direct air blowing from air conditioner, etc.</p>  <ul style="list-style-type: none">Do not install the machine that is directly exposed to blowing air from an air conditioner, etc, or you may get spattered with the ink.	<p>A place full of dust or cigarette smoke</p>   <ul style="list-style-type: none">Do not install the machine where it is exposed to significant dust or cigarette smoke, or the dust may adhere to the machine and cause the ink drops to deflect.

How to read this operation manual

Display on the LCD and Indication of the Keys

In this Operation Manual, the characters displayed on the LCD of the operation panel and the keys used to operate the machine are explained, together with the operation procedure.  page 1.6.
Operate the machine while confirming the display on the LCD.

Display on the LCD

The content of display is shown in characters in a box as shown at right.

Operate the machine according to the explanation of the operation procedure and the content of display on the LCD.

In this Operation Manual, each setting and messages displayed on the LCD is enclosed in [], like [Type1], [Please Wait], etc.

FUNCTION SETUP	< ENT >
-------------------	---------

SETUP SELECT	: Type 1
-----------------	----------

Operation keys

In the text of this Operation Manual, the operation keys are shown enclosed in brackets.

[▲] and [▼] indicate JOG keys.

The other operation keys are enclosed in brackets, as [FUNCTION].

Structure of this Operation Manual

This manual consists of the following six chapters to describe the handling of the machine.

Chapter 1 Before Use

This chapter describes the name and function of each section of the machine as well as ink and work.

Chapter 2 Basic Operations

This chapter describes a series of operations and settings, ranging from power-on to end of printing.

Chapter 3 Daily Care

This chapter describes the daily cleaning.

Chapter 4 How to Set Functions

This chapter describes the setting function.

Chapter 5 Maintenance Functions

This chapter describes functions intended to correct adverse influences on picture quality and to check abnormal conditions as well as the procedure to be taken to replace a used wiper.

Chapter 6 When Abnormal Conditions Are Encountered

This chapter describes how to correct troubles after the occurrence of an abnormal condition on the machine.

Appendix

This appendix describes the specifications of the machine, function menu structure and introduces separately-available consumables.

CHAPTER 1

Before Use

This chapter describes the name and function of each section of the machine as well as ink and work.

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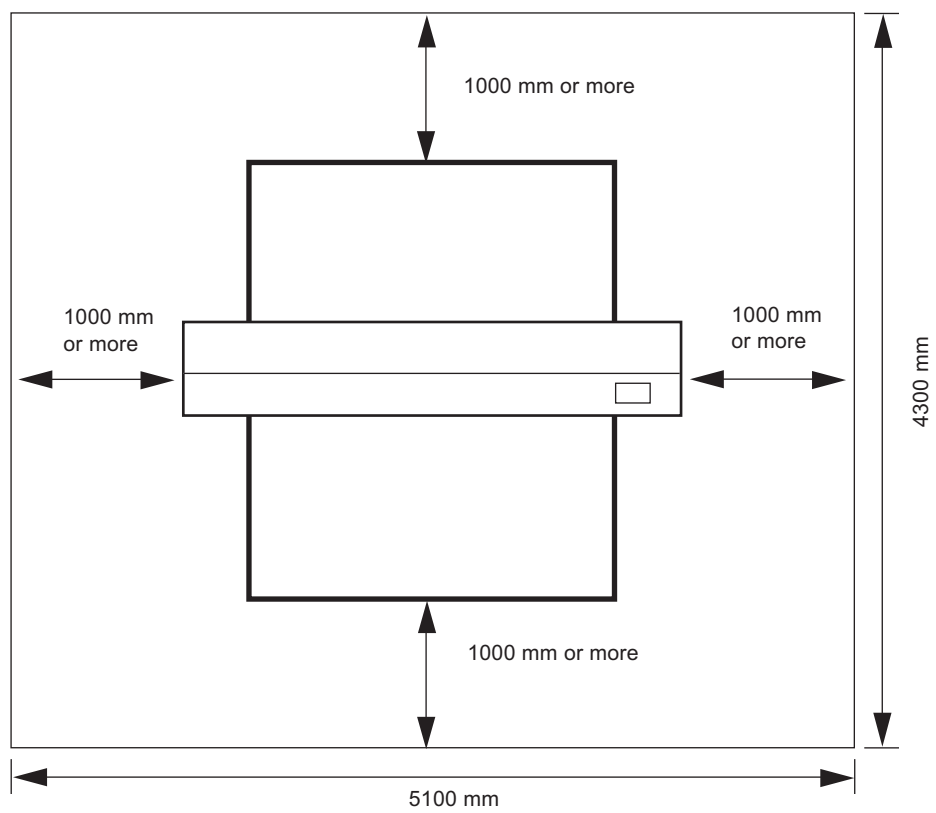
Where to install the machine	1.2
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MENU mode	1.14

Where to install the machine

Secure a suitable installation space before assembling the machine.

Install the machine considering enough space for the machine size and to perform print operation.

Model	Width	Depth	Height	Gross weight
GP-1810D	3070 mm	2210 mm	1350 mm	620 kg or less



Moving the machine

This section explains to carry the machine to e.g., an instruction location after assembled.

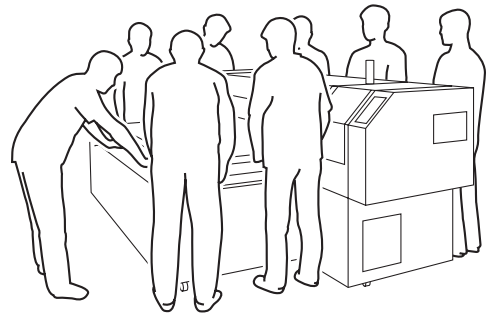
Raise the level feet of the table frame before moving the machine to a new location.



- **Be sure to disconnect the power cable and the interface cable before moving the machine.**
- **When moving the machine, take care not to apply excessive shock to it.**
- **Be sure to adjust the level feet to level the machine at the new location.**

Method of moving the machine

When moving the machine, it must be held up by at least eight persons as illustrated at right.



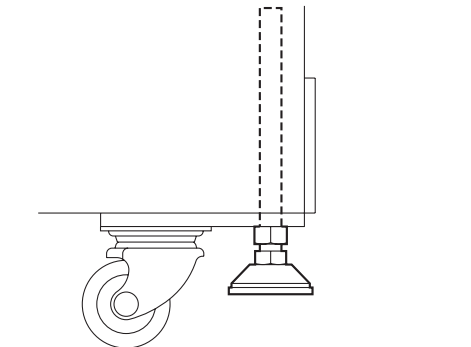
Locking the caster

Raise the level feet of the table frame before moving the machine to a new location.

Lower and adjust the level feet to level the machine at the new location.

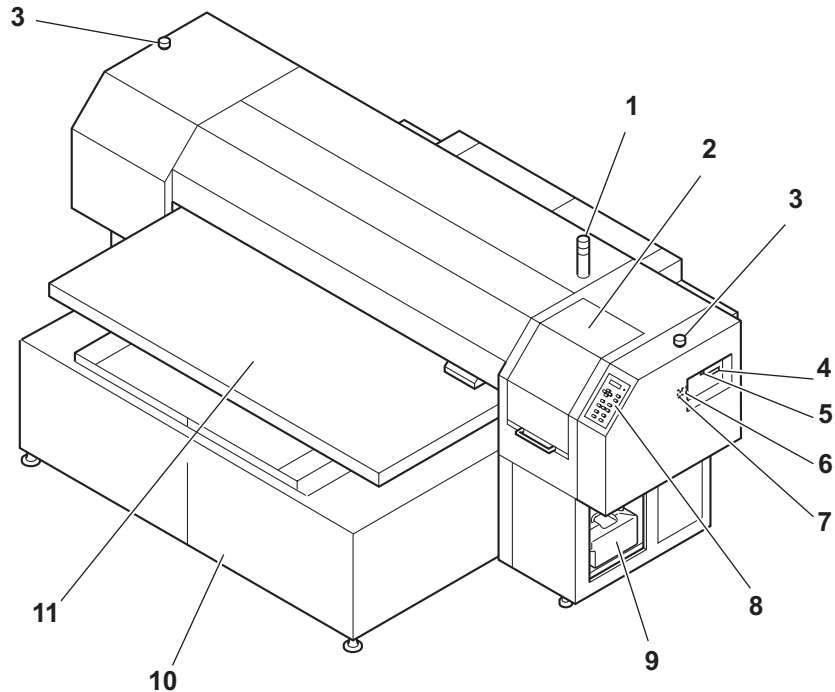




- Use a level gauge to ensure that the table is level in the front and in the back.



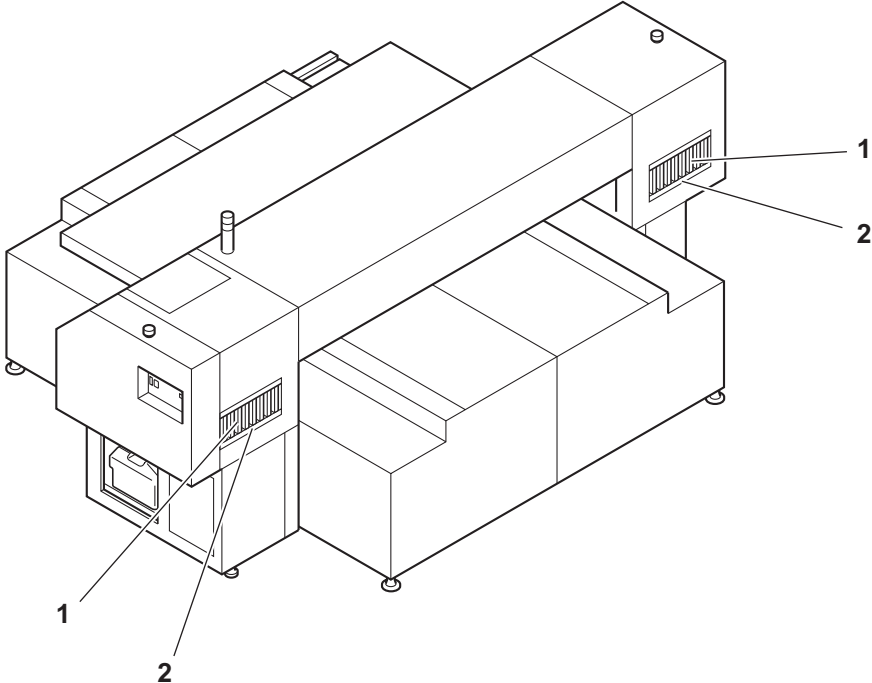
Configuration and function

The Front



	Name	Function
1	Pilot lamp	Displays the plotter status as ACTIVE (green), or ERROR (red).
2	Station Cover	A cover for the station maintenance. Open the cover when performing the station maintenance.
3	EMERGENCY Switch	(Emergency) Stop printing.
4	Parallel connector	Bi-directional parallel interface connector. (complies with IEEE1284)
5	IEEE1394 connector	A 400 M bps interface connector compatible with -IEEE1394.
6	AC inlet	The power cable is connected to the AC inlet.
7	Power switch	It turns on/off the power to the machine.
8	Operation panel	This panel has the operation keys required for operating the machine and the LCD for displaying set items, etc. ( page 1.6)
9	Waste ink tank	Waste ink gathers in this tank. ( page 3.14)
10	Table frame	It supports the main unit. It is provided with casters and level foos for moving the machine.
11	Table	Moves back and forth when performing printing.

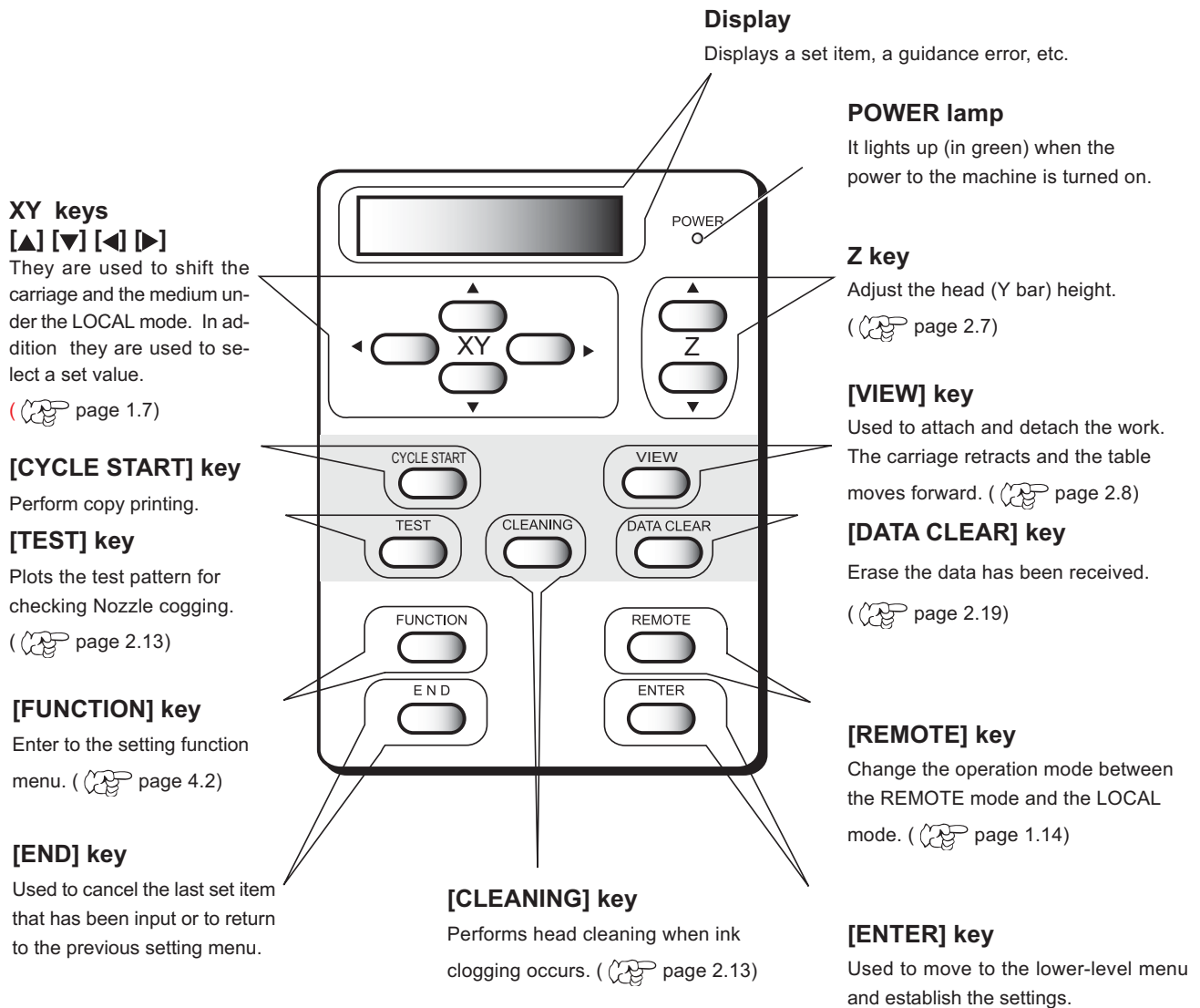
The Rear



	Name	Function
1	Ink cartridge	Each cartridge contains ink of a specific color.
2	Ink station	Set the ink cartridges specified.





Operation Panel

The operation panel that is used to operate the machine.



Functions of the XY keys

Each of the keys varies in function according to the time at which it is used.

	When setting a plotting origin / plotting area	When selecting a function	When inputting a choice selected among several alternatives
	Shifts the carriage to the left.	_____	_____
	Shifts the carriage to the right.	_____	_____
	Shifts the work (table) away from you.	Restores the last previous function.	Selects the next value.
	Moves the work (table) toward you.	Moves to the next function.	Selects the last previous value.

Functions of the Z keys

Press the Z keys to move the head (Y bar) height. ( page 2.7)

Capping station

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

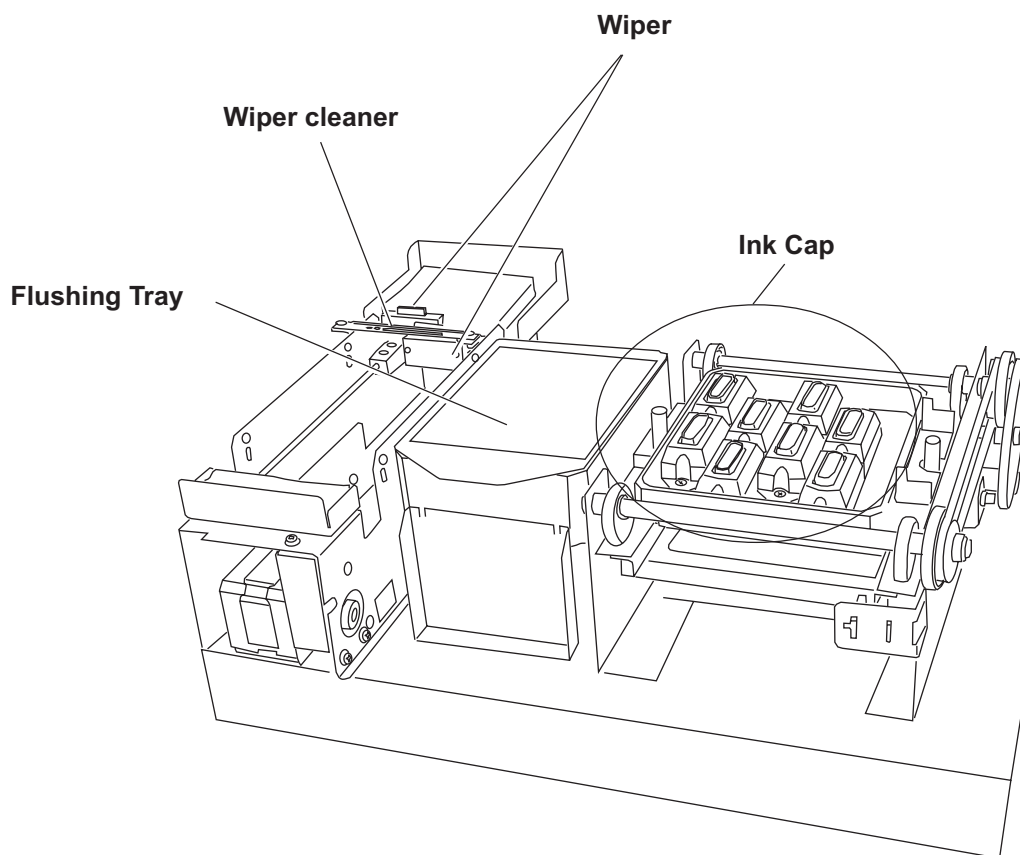
Cap : It covers the nozzle so as to prevent the head nozzle from drying up.

Wiper : It is used to clean the head nozzle.

The wipers are consumable parts. If the wiper is deformed or the work is stained, replace the wiper with a new one. (☞ page 5.9)

The wiper cleaner takes off the discharged ink remains on of the wiper to keep affection of the discharge liquid to the head, at a minimum. Clean the wiper cleaner regularly.

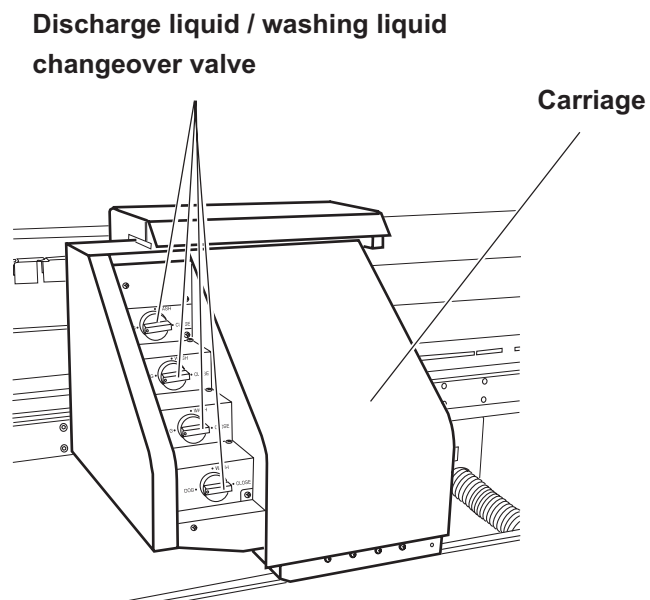
(☞ page 3.6)



Carriage

The cartridge provides the changeover valve of the ink head for print and discharge, and the changeover valve for the discharge liquid and the cleaning liquid for the ink head.

It provides a LED pointer which specifies a starting position to print.



Ink cartridge and Ink station

Precautions in handling the ink cartridge



- Use the specified ink.
Using any ink type other than the exclusive one can cause a trouble. Remember that the user shall be charged for a repair to correct any damage resulting from the use of ink other than the exclusive type.



- If ink settles on the skin or clothes, immediately wash it off with soap and water.

If you get ink in your eyes, immediately wash your eyes with a lot of clean water. Then, consult a doctor as soon as possible.



- Do not shake the ink cartridge violently. Shaking or turning it roughly can cause leakage of ink.



- Never disassemble the ink cartridge.



- The ink cartridge cannot be refilled. Refilling the 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.



- Be sure to store ink cartridges in a cold and dark place.



- 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.



- Be sure to thoroughly consume the ink in the ink cartridge, once it is opened, within six months. If an extended period of time has passed after opening the cartridge tank, plotting quality would be poor.



- Be sure to store ink cartridges in a cold and dark place.



- Store ink cartridges in a place that is out of the reach of children.



- Request an industrial waste processor for processing of empty cartridges.



- Do not touch or stain the contacts of the ink cartridge as doing so may cause damage to the print circuit board.



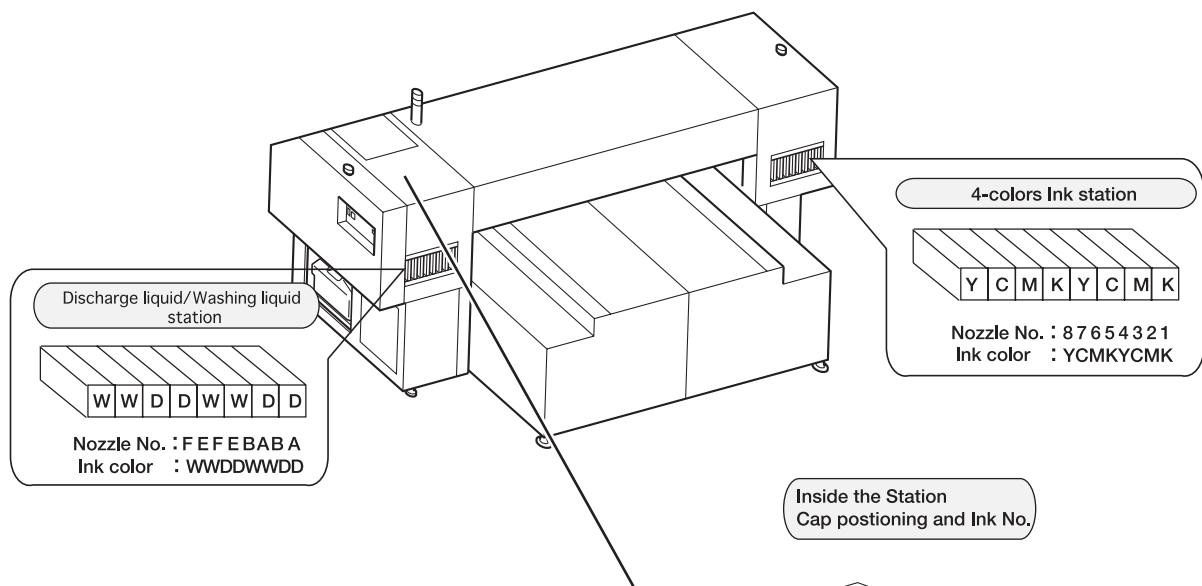
- Do not discharge printing for baby clothes as some of formaldehyde remains on a fabric after post treatment by heat press. Wash out any cloths at least one time to remove residual formaldehyde after post treatment by heat press.

Ink station

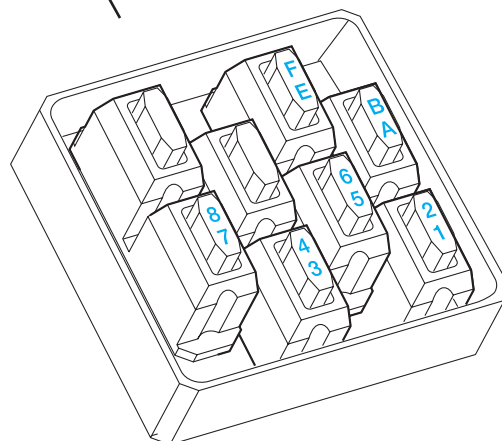
The Discharge liquid / Washing liquid station supplies ink to the 2 front row of Carriage.

The 4-colors ink station supplies ink to the 2 rear row of Carriage.

Remember these relationship when checking the heads for clogged nozzles, replacing ink cartridge and replenishing inks.



- K:** Black ink
- M:** Magenta ink
- C:** Cyan ink
- Y:** Yellow ink
- D:** Discharge liquid
- W:** Washing liquid



Types of work that can be used

The following describes the sizes of work that can be used and the method of handling.

Sizes of work that can be used

Maximum	1870 mm
Minimum	1050 mm
Max. printing width	1860 mm *1
Max. printing length	1010 mm
Thickness	50 mm or less
Weight	60kg or less when load is evenly distributed

*1: When the mode is Discharge Composition printing mode at 720 x 720 variable, and the product serial number is E1509013 or before, maximum printing width is 1,100 mm.)

Precautions in handling the work

Carefully observe the following when handling the work.



- **Work thickness**

When setting the work used, adjust the head height.
Otherwise, the work and/or the head can be damaged.



- **Expansion and contraction of the work**

Do not use sheet types of work immediately after unpacking.
The work can expand and contract due to room temperature and humidity.
The work have to be left in the atmosphere in which they are to be used for 30 minutes or more after unpacked.



- **Warps of work**

If you want to use board-shaped works, always use flat boards.



- **Other tips**

- The device has a moving table. The work must be fixed to the table during operation. If necessary, fix the work with a tape.
- Maintain a sufficient head gap when printing on a fluffy material. If the print head nozzle is allowed to touch the fluff, it may be blocked and affect the print quality.

Direct printing on a cloth



- To minimize color variations, maintain constant humidity and temperature while printing directly on a cloth.

1. When using the Pigment ink for textile (TPig ink)

- No special preparation is necessary. Print on a dry cloth.
- Print twice to ensure higher color fastness.
- The post-treatment condition varies by the material of the heating process. Determine the optimum condition carefully.

REFERENCE

	Press
T-shirt material	160°C / 60 second
Cotton broad cloth	190°C / 40 second

2. When using the dye ink

- Pre-treatment and post-treatment of the cloth are necessary according to the acid dye ink (silk, nylon, etc.), reactive dye ink (cotton, etc.) or disperse dye ink (polyester, etc.).
Refer to the Ink guidance.
- The machine can print on a wide variety of cloths and color stability, fastness and tones can vary significantly by pre-treatment in particular. Use your own judgment in deciding pretreatment and post-treatment and introduce changes as deemed necessary.

3. When using the discharge liquid (discharge ink)

- After discharge printing, perform post treatment (heat press) immediately. If it takes some time after discharge printing and some water is dried off, it may reduce the effectiveness of discharging.
Please perform post treatment within 5 minutes after discharge printing.
- Set out the optimal condition according to status of use after discharge process.
Reference: heat press 150 for 60 seconds
- Some unreacted discharge liquid still remains in fabric after discharge printing and press heat. Those remaining liquid may cause turning into slight yellow.

MENU mode

The unit's four modes are described below.

< LOCAL > mode

This mode is for the preparatory state.

All keys are effective to enable setups.

The machine is able to receive data from computer, however, it will not perform printing.

In this mode, it is possible to perform the following operations.

1. Pressing the appropriate XY keys to set up an origin and the printing area.
1. Pressing the Z keys to set up the print head (Y bar).
2. Pressing the [TEST] key to start test printing.
2. Pressing the [CLEANING] key to start cleaning the print head.
3. Pressing the [DATA CLEAR] key to erase the printing data the machine has received.
4. Pressing the [FUNCTION] key to set plotting conditions.
5. Pressing the [VIEW] key brings the work to the detaching position.

< REMOTE > mode

The machine prints an image from data it receives.

During the printing operation, press the [REMOTE] key to interrupt the printing operation.

While the machine is in the LOCAL mode, press the [REMOTE] key to put the machine into the REMOTE mode.

< CYCLE START > mode

This mode may be used in combination with "Raster Link Pro" to repeat printing using the identical data (copy). "Raster Link Pro" has a copy function which eliminates the need to send data from the computer for every printing.

While the machine is in the LOCAL mode, press the [CYCLE START] key to put the machine into the CYCLE START mode.

< FUNCTION > mode

While the machine is in the LOCAL mode, press the [FUNCTION] key to put the machine into the FUNCTION mode.

This is the mode in which printing conditions can be set.

CHAPTER 2

Basic Operations

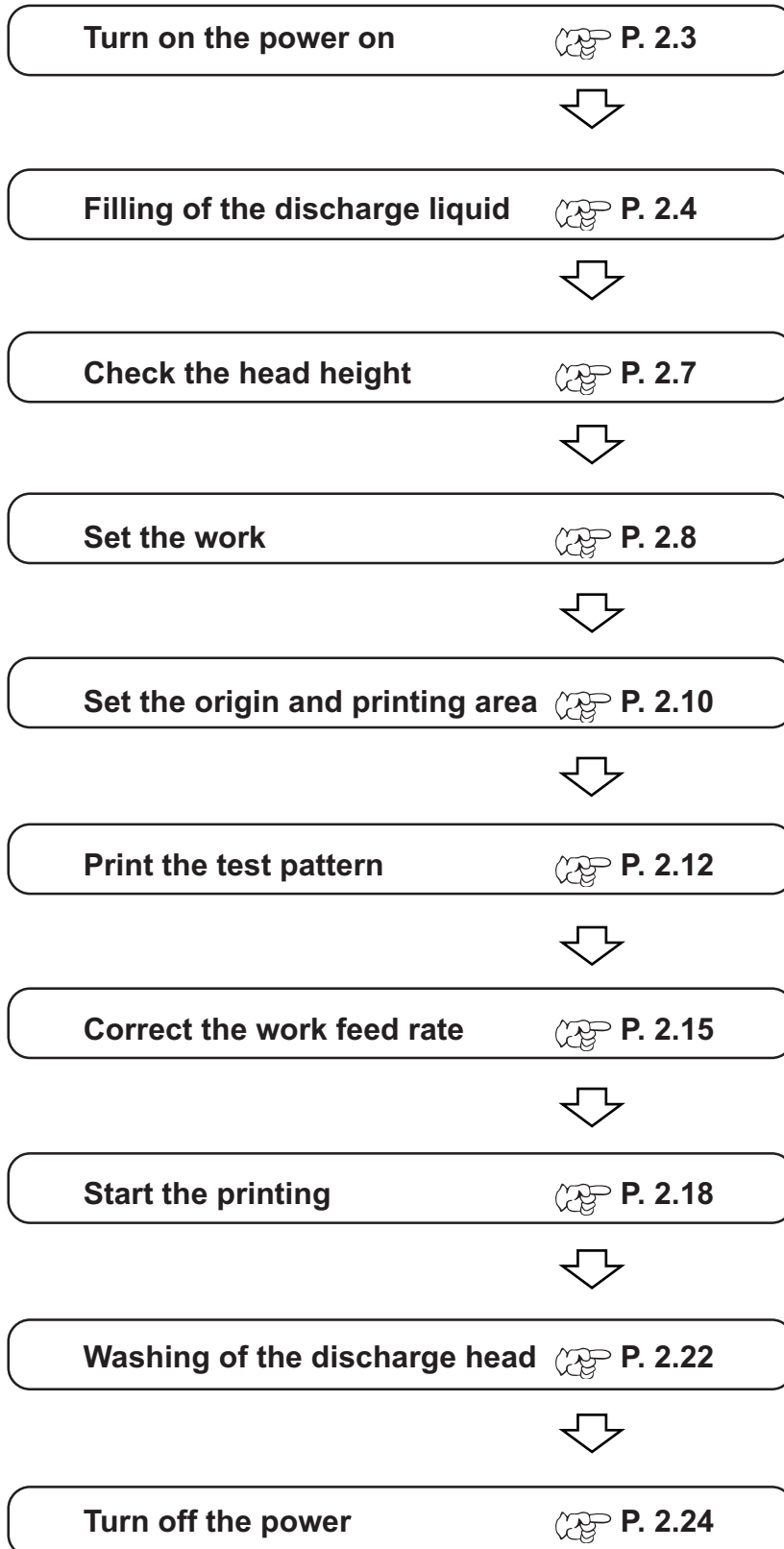
This chapter describes a series of operations and settings, ranging from power-on to end of printing.

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Operation

The following shows a series of operations and settings, ranging from power-on to end of printing.
For details on each item, refer to the reference page.



Switching on the power supply

Turning the power on

1. Turn on the power to the computer which is connected to the machine.

2. Turn on the power to the machine.

Press the power switch to "I".



- Make sure that the station cover is closed. If it is open, initialization is not performed.
- Leave 10 seconds and more intervals before turning on the power after once turning off.

When the power is switched on, the LCD first displays "BOOT" and then displays the firmware version number.

3. The message [Please Wait] appears flashing on the LCD.

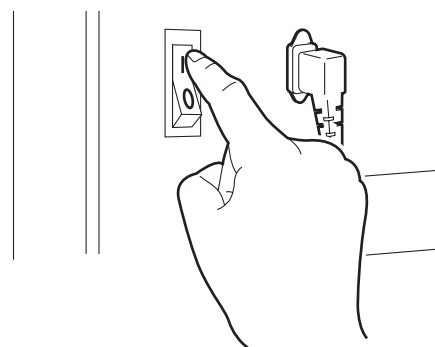
The initial operation of the machine is performed.



- To avoid injuries, keep your hands away from the machine while in motion.

4. The machine enters the LOCAL mode.

Display the print area.



BOOT



GP-1810D

V*.*



Please Wait

<< LOCAL >>

X = 1010

Y = 1860



- The Local mode is not available until ink initialization is completed. Install the ink cartridges. (Refer to page 24 of the setup guide.)
- The following message will appear when the ink cartridges are not installed:

Ink Cartridge
1 2 3 4 5 6 7 8 A B C D E F G H

Filling of discharge liquid at the time of starting works


If the discharge liquid in this machine has used in the long period, it may cause the decrease in the print head life. In order to prevent the shortening of the life of the head for discharge liquid, the discharge liquid contained is replaced by washing liquid when it is not used for an extended period of time. At the time of starting works, the washing liquid filled in the head for discharge liquid is to be drained and the discharge liquid is filled in.

STEPS:

1. At the LOCAL state, press the [FUNCTION] key 4 times.

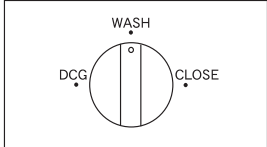
FUNCTION
 DCG/WASH SW <ENT>

2. Press the [ENTER] key.




3. Use up/down key to select [Discharge].

DCG/WASH SWITCH
 Fill : Discharge



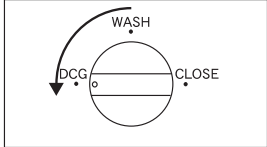
4. Press the [ENTER] key.



5. Open the station cover.


6. Turn the all valves to [DCG].

SW Valve To [DCG]
 Press [ENT] key



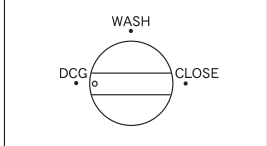
7. Close the station cover.

8. Press the [ENTER] key.



9. Fill up the discharge liquid after initializing this machine.

Initialize
 Please Wait



10. It indicates the remaining run-time.

Filling

00:00:00

Filling of discharge liquid at the time of starting works

11. Filling of the discharge liquid is completed, menu returns to the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860



- Every day at the time of starting works, the filling of the discharge liquid shall be performed.
- Every day at the time of finishing works, the filling of the washing liquid shall be performed for the protection of head for discharge liquid. (👉 page 3.4)

Station cover

Opening/closing the station cover



- **Keep the station cover closed during printing operation. Opening the station cover during printing interrupts image printing and disables continuous processing.**

If you open the station cover during printing, the carriage will stop for safety, resulting in abortion of printing. In this case, re-start the machine and computer following the procedure described below.

STEPS:

- 1. When opening the station cover during printing, the message shown on the right will be displayed.**

Stop the printing.

Check Stop SW or
Station Cover

- 2. Stop the data transmission from the computer.**

- 3. Close the station cover.**

PRESS < ENT > KEY


- 4. Press the [ENTER] key.**



Please Wait

- 5. The carriage will start to move.**

The carriage will carry out a series of performance same as that taken after turning on the power to the machine.

 page 2.3)

Adjusting the head height

The head can be adjusted in height, according to thickness of a work used for printing.

The head height must be set according to the work thickness. If the head height is too low, it may affect the printing quality and even damage the work or the machine itself. Be sure that the head height is correct



- **Adjust the head height before setting a work on the machine.**
- **Leave at least 3mm clearance when printing on T-shirts or other fluffy materials. Otherwise, the head will touch the fluff and affect the print quality.**



- **Confirm the head height setting value, press the [ENTER] key in the LOCAL, REMOTE and CYCLE mode. (☞ page 2.20)**

STEPS:

1. The machine enters the LOCAL mode.

Press the [REMOTE] key and put the machine back into the LOCAL mode.

```
<< LOCAL >>
X =1010      Y = 1860
```

2. Press the Z [▲] or [▼] keys to adjust the head height.

The ideal head height is equal to the work thickness + 1.0 to 2.0mm. Check the work thickness before adjusting the head height.

▲
◻ Head Height
* * . * mm
▼



- **If the work thickness is not uniform, use the work thickness at the thickest point.**

3. Press the [ENTER] key.

ENTER ◻ Head Height
* * . * mm

4. The machine revert the LOCAL mode.

```
<< LOCAL >>
X =1010      Y = 1860
```

Setting the work on the machine

Set the work on the table as following.

- Adjust the head height before placing a work on the machine. (page 2.7)
- Always print on flat works.
- When printing on T-shirts or other cloths, set them flat.

STEPS:

1. Turn on the power to the machine.

<< LOCAL >>
X =1010 Y = 1860

2. Adjust the head height. (page 2.7)

After adjusting, return to the LOCAL mode.

Head Height
* * . * mm

3. Press the [VIEW] key.



VIEW
< ENT >

4. Push the [VIEW] key or the [ENTER] key.

The table moves toward you.



* * VIEW * *

5. The machine revert the LOCAL mode.

<< LOCAL >>
X =1010 Y = 1860

6. Set the work on the marking on the table.

Secure work in such a manner that work can not float or be dislocated.

Fixing the work holder

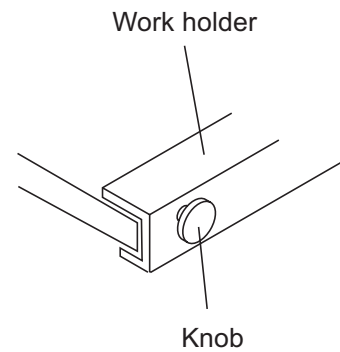
When printing on a material of allowable size (1870 x 1050mm maximum) that tends to bend upward (floating at two or four edges), use the work holders on any of the four table edges to fit the work in place.

STEPS:

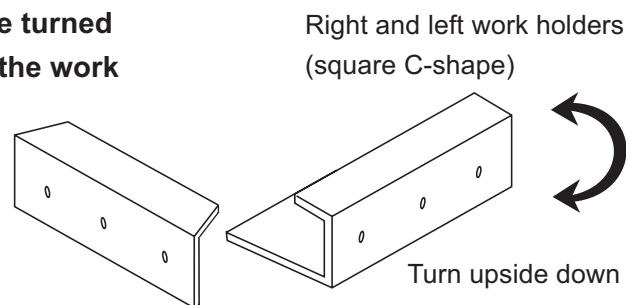
1. Turn (or remove) the knob screws to loosen the work holder.



A collar is fitted to each of the screws of the work holder. Do not lose them when they are removed.

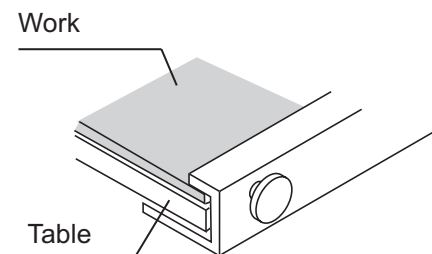


2. The right and left work holders may be turned upside down as needed according to the work size.



Front and back work holders
(L-shaped; cannot be turned
upside down)

3. Place the work between the work holder and the table.

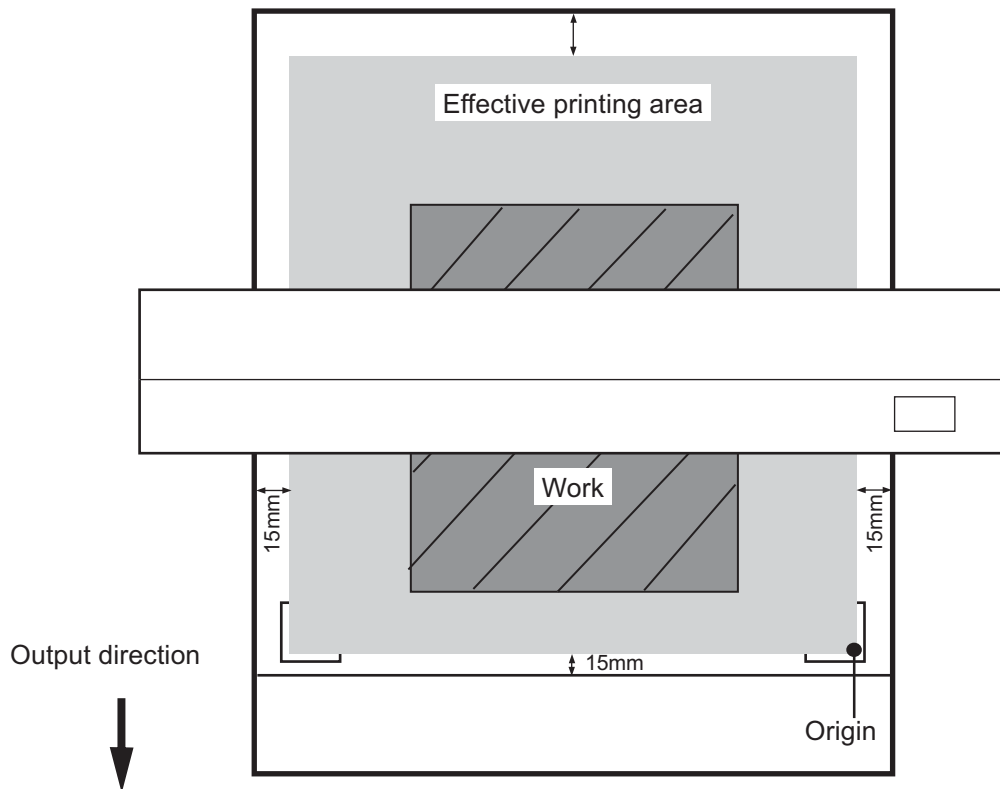


4. While pressing the work holder down, re-tighten the knob screws.

Establishing the origin and the print area

Initial value

The origin and the print area are set as follows by default until they are changed:



Changing the origin and the print area

The default origin and the print area may be changed as needed.



- When printing on the entire work surface (without margins), the printing origin and the printing area must be set outside of the work. They must be set as close to the work as possible, however, to minimize smearing the machine itself. Otherwise, there will be much ink mists especially when printing on thick works.

STEPS:

1. The machine enters the LOCAL mode.

```

<< LOCAL >>
X = 1010      Y = 1860
    
```

2. Move the carriage to the position at which to establish an origin by pressing the XY[▲], [▼], [◀] or [▶] keys.

The origin changes as the carriage moves.

```

Origin Setup
X = 500      Y = 970
    
```



- A cross-shaped point mark appearing on the table or the work will be the display coordinate.

3. After deciding the origin, press the [ENTER] key.



```

Origin Setup
* * * * Origin * * * *
    
```

4. Press the [ENTER] key.

Press the [END] key if the print area is to be left unchanged.



```

Print Area
end <      > ent
    
```

5. Set the print area by pressing the XY[▲], [▼], [◀] or [▶] keys.

Display the new print area determined by the carriage movement.

```

Print Area
X = 900      Y = 1810
    
```

6. After deciding the print area, press the [ENTER] key.

The machine revert the LOCAL mode.

The new print area is displayed.



```

<< LOCAL >>
X = 900      Y = 1810
    
```



- The new setting is saved until the origin or the print area is changed.
- The print area will be set to the initial value if it is set to the same position as the origin.

Checking and solving nozzle clogging

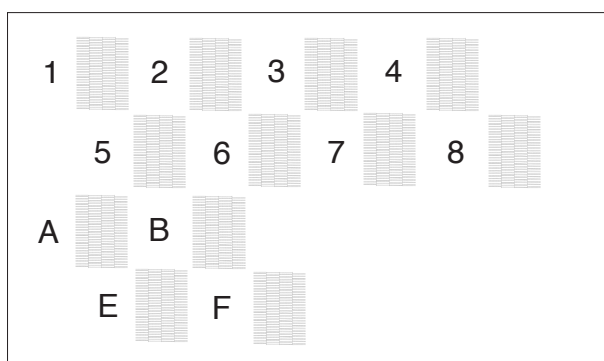
Make test printing to check whether there is nozzle clogging or other printing failures.

If the finished test pattern shows any sign of abnormal conditions, carry out the cleaning function.



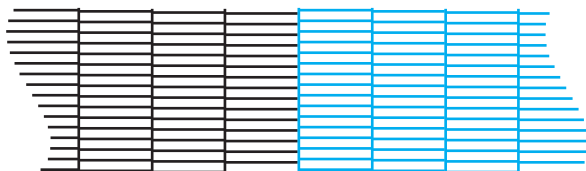
- To perform the test print on a cut sheet medium, use a medium whose size is A4 or larger with placed in landscape configuration.
- The discharge liquid is colorless and invisible on paper and fabric. Use attached color paper (in pink).

Test Pattern

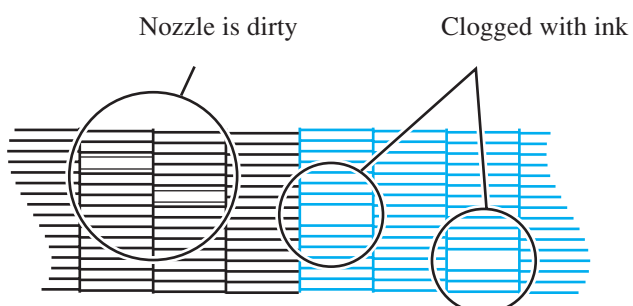


↓ Output direction

Normal Pattern



Abnormal Pattern



STEPS:

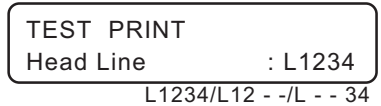
1. The machine enters the LOCAL mode.



2. Press the [TEST] key.



3. Select from all head (L1234), ink head (L12 - -), or discharge head (L - - 34).



4. Press the [ENTER] key.



5. Select numbers to print.



6. Press the [TEST] key or [ENTER] key.

The machine prints the test pattern.



After the test print is done, the table moves to the front and turns to LOCAL mode.

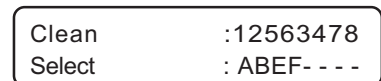


7. Check the test patterns.

If a failure occurs, proceed with step 8; otherwise, terminate the operation.

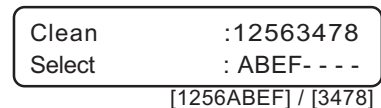
If a failure occurs, perform the following operation

8. Press the [CLEANING] key.

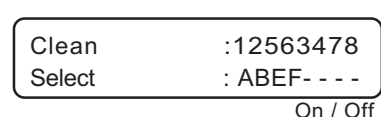


9. Press the XY [◀] or [▶] keys to select the head-block for cleaning.

(Refer to page.1.11 [Ink station])



10. Press the XY [▲] or [▼] keys to set on/off of the blocks that need cleaning.



11. Press the [ENTER] key.

12. Press the XY [▲] or [▼] keys to select the type of cleaning.

Cleaning
Type : Normal
Normal / Strong

- Normal** : Select this if any line is bent.
(When selecting the Pigment ink for textile [T Pig], this function is invalid.)
- Strong** : When printing trouble is not solved even with Normal cleaning.

13. Press the [ENTER] key.

It displays the remaining run-time.



Cleaning
00: * * : * *

14. The machine revert the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860

15. Change the work, or establish the new origin.

16. Repeat steps 2 and 3, and check the result of the test printing.

Repeat STEPS 2 to 13 until normal printing result is obtained.



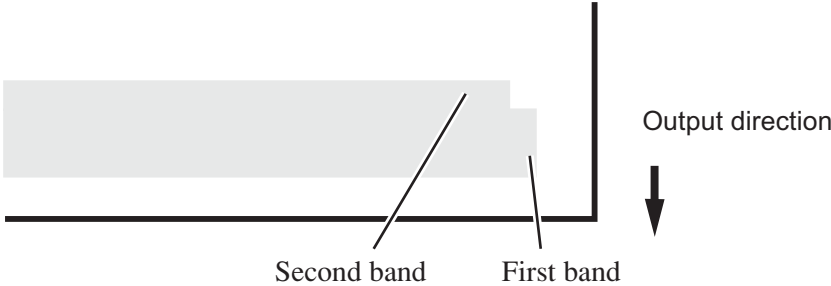
- Replace the wiper and the ink cap if inferior printing does not improve after cleaning operations. (☞ page 3.6)
- In case the TPig ink and dye ink are mixed, the inferior print image may not be improved in the cleaning, if the TPig ink is set at the front side of the carriage. Reset the TPig ink at the back side of the carriage, perform the cleaning operation again.

Correcting the work feed rate

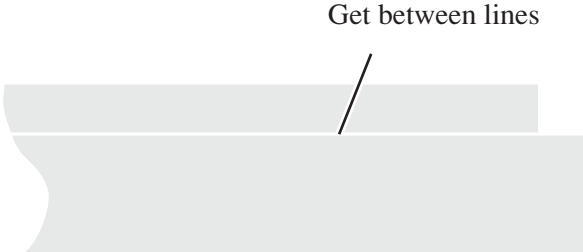
When the work type is changed, the amount of work feed changes.
If the correction value is not appropriate, stripes may occur in the printing disturbing neat printing.
Correction for the work feed rate in online is available. (☞ page 2.17)

CORRECTING PATTERN

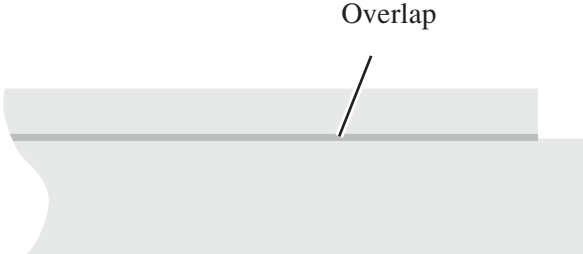
Print two bands.
Adjust the print density so that the boundary of the two bands is printed with an even density,
Setting value : -100 - 100



Correction value is too large



Correction value is too small



STEPS:

1. The machine enters the LOCAL mode.

<< LOCAL >>
X =1010 Y = 1860

2. Press the [FUNCTION] key.

FUNCTION


<< LOCAL >>
X =1010 Y = 1860

3. Press the [ENTER] key.

ENTER


4. Press the XY [▲] or [▼] keys to select a type.

▲


▼



FUNCTION
SELECT : TYPE1

5. Press the [ENTER] key.

ENTER


TYPE1
Print Mode < ent >

6. Press the XY [▲] or [▼] keys to select [Feed Comp.].

▲


▼

TYPE1
Media Comp. < ent >

7. Press the [ENTER] key.

ENTER


8. Press the XY [▲] or [▼] keys to enter the printing width.

▲


▼

TYPE1
Print : Y = 100

9. Press the [ENTER] key.
Output the pattern.

ENTER


** Printing **
Please Wait

10. Check the patterns.
Enter a correction value from the output pattern.

ENTER


TYPE1
Adjust = 0



- When [ADJUST] is changed to 30, the pattern moves by about 0.1 mm. Determine the correction value referencing this amount of movement.

11. Press the [ENTER] key.

Register the correction value.
Repeat steps 8 to 11 until normal printing result is obtained.

ENTER


TYPE1
Print : Y = 100

12. Press the [END] key three times, and the menu returns to the LOCAL mode.

END


<< LOCAL >>
X =1010 Y = 1860

Correcting the media feed rate during printing

To perform this operation during LOCAL mode, refer to the “Feed Correct” (👉 page 2.16).

The following describes the procedures to alter the media feed rate during printing or in a REMOTE mode.

STEPS:

1. Press the [REMOTE] key.



2. Press the [FUNCTION] key to confirm the current setting value.



Press the [END] key when an appropriate value is set or to abort the operation.

3. Press the [ENTER] key.



Available to alter the medium feed rate.

4. Press the XY [▲] or [▼] keys as needed to set the amount of correction.

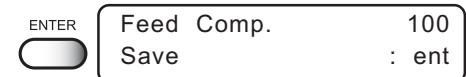


Setting value is available from -100 to +100. Press the [END] key to return to the REMOTE display. The altered value ceases to be in effect, and returns to the previous value.



- A new value takes effect in real time. The best effect can be obtained while checking the result.
- The unit of the correction value is the same as in “Media Comp.” in the LOCAL mode. (👉 page 2.16)
- Setting value is to be Reset as follow,
 - *Perform the Feed Correct.
 - *Perform the Setup reset

5. Press the [ENTER] key.

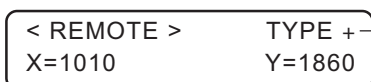


Confirm the medium feed rate before saving it. Press the [END] key to return to the REMOTE display. The changed setting value is to be in effect performing till the next power on.

6. Press the [ENTER] key to return to the REMOTE display.



The changed setting value is saved. The value is to be in effect performing till Reset.



Displays the feed correct value type on drawing. (+/-)
 [+] displays if the feed correct value is plus.
 [-] displays if the feed correct value is minus.

Printing an image from source data

Starting the printing operation

The following describes the method of printing.

For various function settings necessary for printing, refer to “CHAPTER4 How to Set Functions”.

STEPS:

1. The machine enters the LOCAL mode.

```
<< LOCAL >>
X =1010      Y = 1860
```

2. Press the [REMOTE] key.

The machine enters the REMOTE mode.



```
< REMOTE >      TYPE *
X=1010           Y=1860
```

3. Transmit data from the computer.

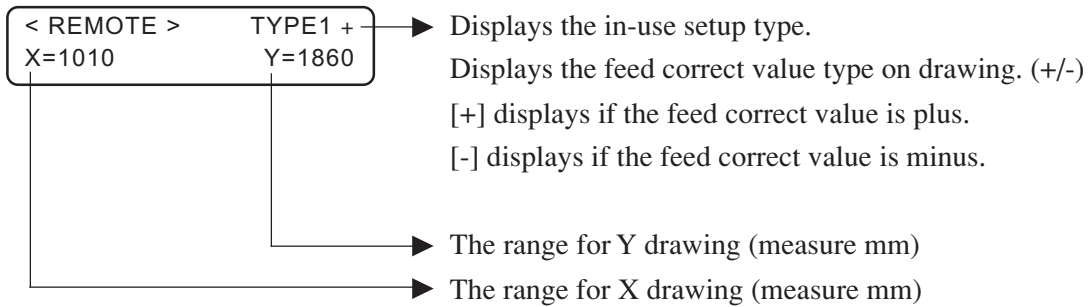
The plotting conditions that have been set for the data are displayed.

```
< REMOTE >
360 x 360 / 4P / U
```

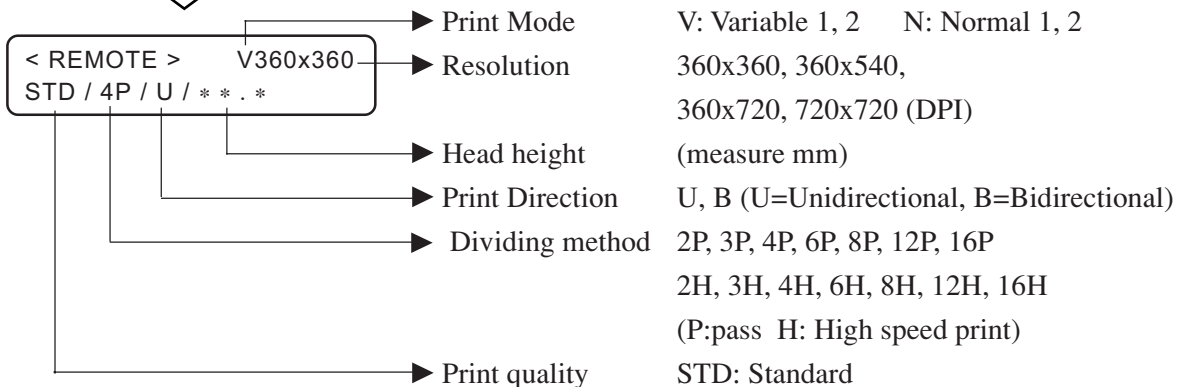
For the method of data transmission, see the manual for the output software.



- When performing Discharge Composition drawing (when Discharge Composition for RIP software is available) and if “V720 x 720” is displayed for the resolution, the range for Y drawing limits to 1,100 mm. Even if the data exceeds 1,100 mm is send, drawing will be performed up to 1,100 mm.



Display them alternately




4. During the printing.

<< LOCAL >>
X = 1010 Y = 1860

5. After the printing operation is completed, put the machine back into the LOCAL mode.

The table will move toward you when printing in the Cycle Start mode.



- The origin and the print area remain unchanged after printing. You must reset them if they need to be changed. ( page 2.11)

Interrupting the printing operation

To interrupt the printing operation, stop the carriage and erase (the receive data) from the machine.

STEPS:

1. Press the [REMOTE] key to stop the printing operation.



<< LOCAL >>
X = 1010 Y = 1860

2. If data is being transmitted from the computer to the machine, stop the data transmission.

3. Press the [DATA CLEAR] key.

The data that has been received is erased.



DATA CLEAR < ENT >

4. Press the [DATA CLEAR] key or [ENTER] key.

The machine enters the LOCAL mode.



<< LOCAL >>
X = 1010 Y = 1860



- The green pilot lamp indicates that there is no data in the machine.

Displaying machine information

Displays the firmware version, ink level etc. This following describes the procedures to display the machine information during printing or REMOTE and CYCLE mode.



- In LOCAL mode, information displays by pressing [ENTER] key as well.

STEPS:

1. Display the LOCAL mode.

```

<< LOCAL >>
X =1010      Y = 1860
    
```

2. Press the [REMOTE] key.

The machine enters the REMOTE mode.



```

<REMOTE>
X=1010      Y=1860
    
```

3. Press the [ENTER] key to display the ink remains.



```

      Ink Level
3 2 3 1 7 9 8 7 4 5 9 9 0 2 5 3
    
```

4. Press the [ENTER] key to display the head height.



```

      Head Height
      * . * mm
    
```

5. Press the [ENTER] key to display the ink type.



```

      Ink Type
Type          :TPig
    
```

6. Press the [ENTER] key to display the firmware version and command.



```

Ver1.00      MRL-IIC
    
```

7. The [ENTER] key displays setting status.

The [▼] key displays the in-use setup contents.



```

SETUP < TYPE * >
Display [▼] Key
    
```

8. The [ENTER] key displays error information guidance.

The [▼] key displays current warning.



```

      Error Info
      Display [▼] Key
    
```

9. Press the [END] key, the machine returns to the REMOTE or CYCLE mode.



```

<REMOTE>      TYPE *
X=1010      Y=1860
    
```



- Return to the REMOTE mode or CYCLE mode automatically when the 60 seconds pass over or error is occurred.

To replenish ink, set a new ink cartridge in the ink station

If ink in the cartridge comes to an empty, the corresponding message appears.

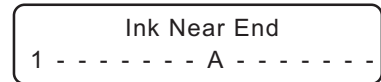
Printing can be continued but ink may run out during printing.

Immediately put a new ink cartridge.

< When the amount of ink becomes small during printing >

Indicate the ink color which has run out.

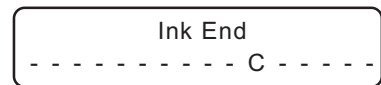
The display at right indicates that [slot1] and [slotA] comes to an end.



< When the amount of ink completely runs out during printing >

Indicate the ink color which has completely run out.

The display at right indicates that [slotC] runs out.



STEPS:

1. Either of the messages shown above is displayed on the LCD during printing.

When [INKnearEND] appears, the local mode is resumed and the operation stopped each time printing of a single data is completed. Proceed with Step 2 at the end of the printing operation. Proceed to Step 2 at the end of the printing operation.

When [INKEND] appears, printing cannot be continued.

2. Install a new ink cartridge.

Pull out the ink cartridge of the indicated number and then set a new ink cartridge.

3. The machine enters the LOCAL mode.

Continuous printing is possible.

Filling of the washing liquid at the end of the works


If you leave the head for discharge liquid with discharge liquid filled in for a long time, the life of the head for discharge liquid will be shortened because the discharge liquid melts the water-shedding part. To prevent the reduction of its life, at the end of daily operation drain the discharge liquid and fill in the washing liquid.

STEPS:

1. At the LOCAL state, press the [FUNCTION] key 4 times.

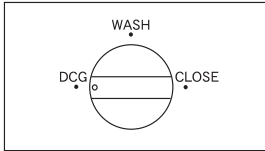
FUNCTION
DCG/WASH SW <ENT>

2. Press the [ENTER] key.


ENTER


3. Use up/down key to select [Washing].

DCG/WASH SWITCH
Fill : Washing



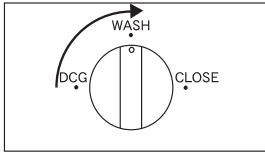
4. Press the [ENTER] key.

ENTER


5. Open the station cover.


6. Turn the all valves to [WASH].

SW Valve To [WASH]
Press [ENT] key



7. Close the station cover.

8. Press the [ENTER] key.

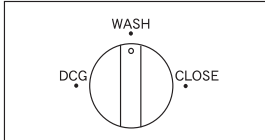
ENTER


9. Fill up the washing liquid after initializing this machine.

Initialize
Please Wait

10. It displays the remaining run-time.

Filling
00:00:00



Filling of the cleaning liquid at the end of the works

11. Filling of the washing liquid is completed, menu returns to the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860



- Every day at the time of finishing works, the filling of the washing liquid shall be performed for the protection of head for the discharge liquid.
- Every day at the time of starting works, the filling of the discharge liquid shall be performed. (👉 page 2.4)

Turning the power off

To turn the power off, check first whether there is data in the machine that remains to be printed. Also make sure that the head rests at the capping station.

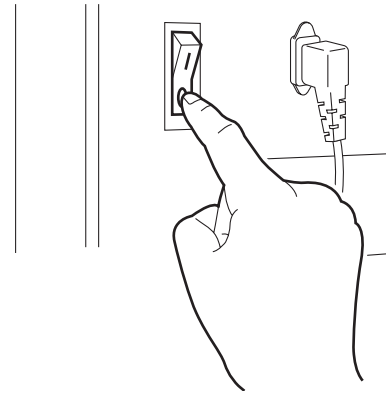


- If the power is turned off while the machine is engaged in printing, the head may fail to be retracted in the capping station. If the head is left without capped for an extended period of time, the nozzle will be clogged with dust. If the power to the machine is turned off without the head capped, return on the power to the machine.
- When turning off the power, be sure to fill up some head washing liquid in the discharge head, and then turn off the power.

1. Turn off the power to the computer which is connected to the machine.

2. Turn off the power to the machine.

Press the power switch to [O].



CHAPTER 3

Daily Care

This chapter describes daily cleaning.

Table of contents

Routine maintenance	3.2
Filling of the washing liquid at the end of the works	3.4
Cleaning the wiper cap and wiper cleaner	3.6
Cleaning the nozzle [Nozzle Cleaning]	3.9
Replacing the flushing tray ink absorber	3.12
When the waste ink tank becomes full	3.14
Ink discharge way cleaning [Drain Wash]	3.15
When not in use the machine over the long term [Storage Wash]	3.17

Routine maintenance

Be sure to conduct maintenance works for the machine when necessary or periodically so as to use the device for a long time while keeping its printing accuracy.

When the machine is left unused for a long period of time



- Be sure to turn off the power of machine. (☞ page 2.24)
- Remove the work which setting on the table.

Precautions during cleaning



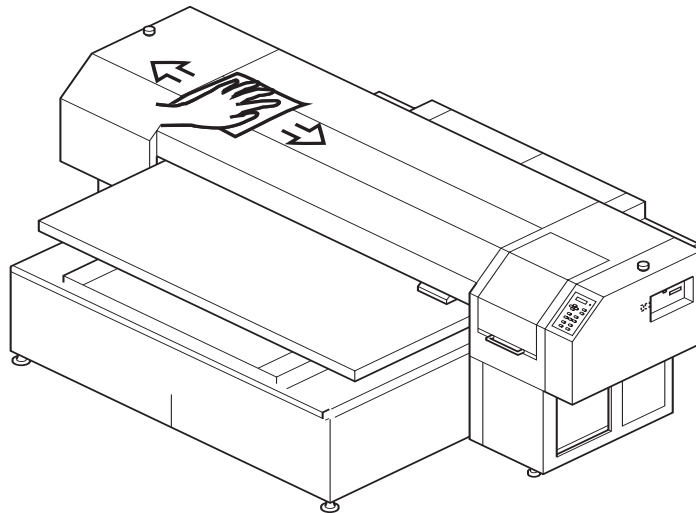
- Never disassemble the machine. Disassembling the machine can result in electric shock hazards and breakage of the machine.
- To prevent electric shock hazard and damage to the machine, do not allow moisture to get inside.
- Turn off power and detach power cable before doing any maintenance.
- Benzine, thinner and chemical agents containing abrasives. Such materials can deteriorate or deform the surface of the cover.
- Do not apply lubricating oil or the like inside the machine. Such materials can cause the printer mechanism to fail.
- Especially when printing to untreated fabric without preparation by TP ink, it may cause adherence of cotton waste, dirt, and dust around the nozzle or the station cap. With some dust around the nozzle and the wiper, it may cause some trouble on cleaning. Clean the head nozzle, station cap, and wiper every time when the operation is terminated.

Maintenance for frame components

If the frame components of the machine have become dirty, wipe off frame with soft cloth using water or neutral detergent diluted with water, squeeze it and wipe the frame components clean. Clean the table also as dust may cause ink fly-bend or dropping.

Cleaning Tools :

- Neutral detergent
- Soft cloth (quantity)



Washing ink from the slider surface

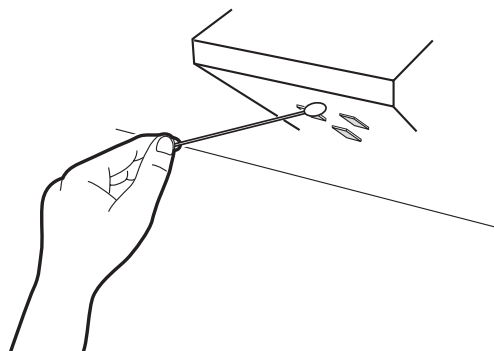
The ink may gel and collect under the slider after a long use. The ink droplets may grow in size and smear the work as a result. To prevent this problem, wet the supplied cotton swab in the cleaning liquid (A29) and use it to remove the ink from under the head in regular intervals.



- Do not use the cotton swab on the head nozzles. The brush may damage the nozzles and cause poor ink delivery.

Cleaning Tools :

- Cleaning liquid (A29)
- Cotton swabs



Filling of the washing liquid at the end of the works


If you leave the head for discharge liquid with discharge liquid filled in for a long time, the life of the head for discharge liquid will be shortened because the discharge liquid melts the water-shedding part. To prevent the reduction of its life, at the end of daily operation drain the discharge liquid and fill in the washing liquid.

STEPS:

1. At the LOCAL state, press the [FUNCTION] key 4 times.

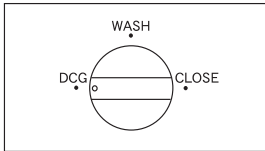
FUNCTION
DCG/WASH SW <ENT>

2. Press the [ENTER] key.




3. Use up/down key to select [Washing].

DCG/WASH SWITCH
Fill : Washing



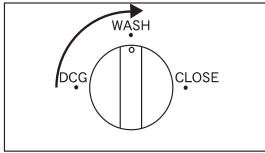
4. Press the [ENTER] key.



5. Open the station cover.


6. Turn the all valves to [WASH].

SW Valve To [WASH]
Press [ENT] Key



7. Close the station cover.

8. Press the [ENTER] key.

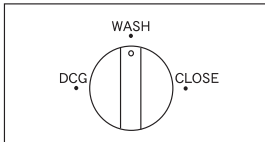


9. Fill up the washing liquid after initializing this machine.

Initialize
Please Wait

10. It displays the remaining run-time.

Filling
00:00:00



Filling of the cleaning liquid at the end of the works

11. Filling of the washing liquid is completed, menu returns to the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860



- Every day at the time of finishing works, the filling of the washing liquid shall be performed for the protection of head for the discharge liquid.
- Every day at the time of starting works, the filling of the discharge liquid shall be performed. (👉 page 2.4)

Cleaning the wiper cap and wiper cleaner

The wiper cap prevents clogging of the head nozzle caused by dried nozzle.

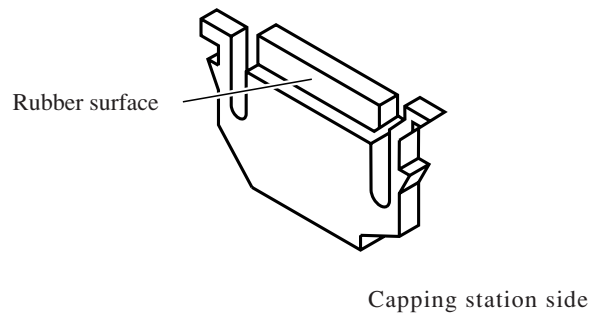
The wiper wipes out ink adhered to the head nozzle.

As the machine is used to print images, the wipers and ink caps gradually become stained with ink and dust. Use the cotton swabs to clean the wiper.

Clean the wiper cap and the wiper cleaner periodically so as to keep the machine in good operation condition.



- Clean the wiper at the end of the day's operation.
- Remove dust from the wiper before starting head cleaning. A dusty wiper may damage the head and cause defective printing.
- Clean the two wipers at a time.
- Do not move the carriage out of the capping station by hand.
- Do not touch rubber of the new wiper as this may cause clogged nozzles.



- Once the replacement of the wiper and the cleaning of the caps have been completed, immediately press the [ENTER] key to allow the carriage to return to the capping station. If the carriage is left in the aforementioned state for an extended period of time, the nozzles can be clogged.

Cleaning Tools :

- Cleaning liquid (A29)
- Cotton swabs

STEPS:

1. Press the [FUNCTION] key.



2. Press the XY [▲] or [▼] keys to select [MAINTENANCE].



Cleaning the wiper cap and wiper cleaner

3. Press the [ENTER] key.

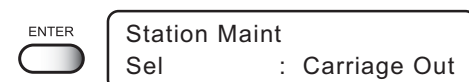


4. Press the XY [▼] or [▼] keys to select [Station].

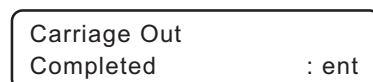


5. Press the [ENTER] key.

The table moves away from you and the Y-bar moves upward. The wiper moves toward you and the carriage moves away from the station.



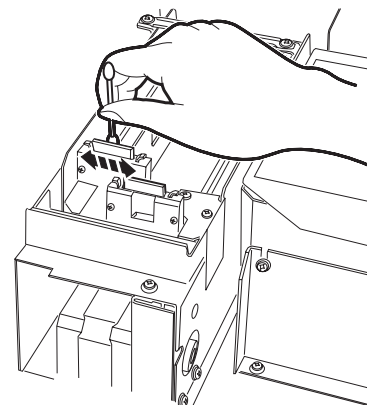
6. Open the station cover and clean the both sides of the wiper.



Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper.



- If dirt or curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.

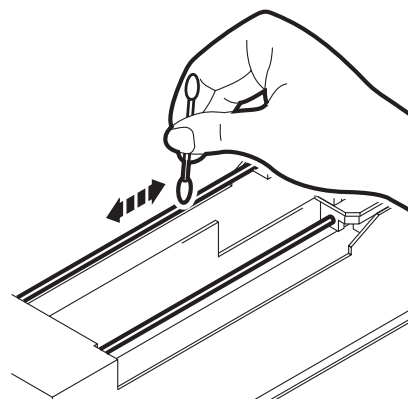


7. Clean the wiper guide shaft using a cotton swab or cloth.


If dirt is hard to remove, use a cotton swab or cloth dampened with water.



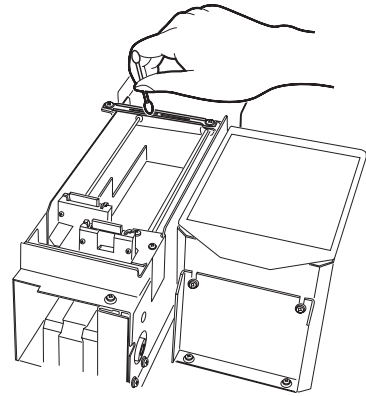
- Extremely dirty wiper guide shaft may cause operational failure of the wiper, resulting in error display.




8. Wipe off the ink adhering to the wiper cleaner with cotton swab.

 CAUTION

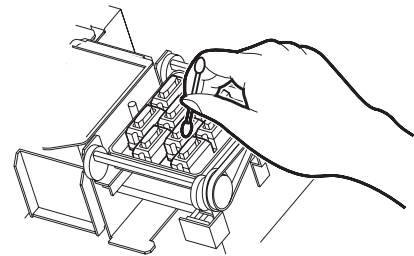
- Full attention should be paid to clean the wiper due to the sharp edges of the wiper cleaner.



9. Wipe off ink or dirt adhered to the rubber of the cap and the ceiling of the wiper cover using cotton swab.

 CAUTION

- Clean the area at the end of the day's operation.



10. Close the station cover, then press the [ENTER] key.

Execute the initial operation.



Carriage Out Completed : ent

Initialize
Please Wait

11. Return to the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860

Cleaning the nozzle [Nozzle Cleaning]

Clean up the nozzle as for nozzle clogging.

If nozzle clogging cannot be resolved even after cleaning several times, execute the [Ink Filling] function. ( page 5.11)

If this error cannot be resolved with these functions, contact the dealer.



- **Two colors (two cartridges) per head are used. If the remaining amount of one ink is extremely greater than another ink's amount, it may flow into the cartridge which has lesser ink to make their ink-head even.**
Execute the [Ink Filling] function (P.5-11) if the inks are mixed.
- **Operate it in the head only with the nozzle clogging.**

Cleaning Tools :

- Cleaning liquid bottle kit A29 (SPC-0137 : Option)
- Syringe

STEPS:

1. Press the [FUNCTION] key in the LOCAL mode.



FUNCTION
SETUP < ENT >

2. Press the XY [▲] or [▼] keys to select [MAINTENANCE].



FUNCTION
MAINTENANCE < ENT >

MAINTENANCE
List < ent >

3. Press the [ENTER] key.

[Station] is displayed.



MAINTENANCE
Station < ent >

4. Press the XY [▲] or [▼] keys to select [Nozzle Clean].



Station Maint
Sel : Nozzle Clean

5. Attention about the ink mixing is displayed.
Press the [ENTER] key.



Color May Mix Up
Continue OK? : ent

6. Press the [ENTER] key.

The table moves backward, the Y-bar moves to the top, the wiper moves forward, and the carriage moves on the table.

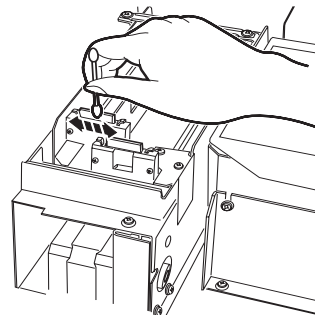


- Open the station cover and clean the both sides of the wiper.

Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper.



- If dirt of curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.



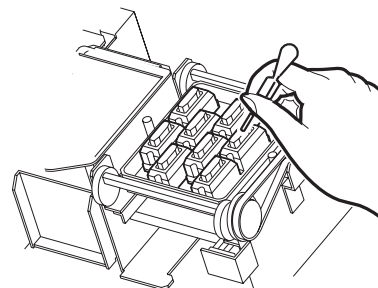
Clean the wiper and press the [ENTER] key.



Wiper Cleaning
Completed : ent

- Fill the cap with the cleaning liquid (A29) using a syringe.

Fill Up Washings
Completed : ent



Close the station cover, and press the [ENTER] key.



Fill Up Washings
Completed : ent

- Press the XY [▲] or [▼] keys, select the time to leave. (1-99 minutes: 1 min unit)

Normally set 1 min.



Nozzle Cleaning
Wait Timer = 1 min

Cleaning the nozzle [Nozzle Cleaning]

10. Press the [ENTER] key.

The initial operation is performed.



Initialize
Please Wait



Remaining time is displayed.

Waiting
00 : * * : * *

After remaining time is over, execute cleaning.
It displays the remaining cleaning time.

Cleaning
00 : * * : * *

11. Cleaning is completed, the menu returns the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860

Replacing the flushing tray ink absorber

Replace the ink absorber in the flushing tray if it appears to be clogged. Clogged ink absorber may cause ink mists and smeared head nozzles.



- Check the ink absorber for clogging at the end the day's operation.

Cleaning Tool :

- Ink absorber (Order No. M-3)

STEPS:

1. Press the [FUNCTION] key.



FUNCTION
SETUP < ENT >

2. Press the XY [▲] or [▼] keys to select [MAINTENANCE].
Press the [ENTER] key.



FUNCTION
MAINTENANCE < ENT >



MAINTENANCE
List < ent >

3. Press the XY [▲] or [▼] keys to select [Station].



MAINTENANCE
Station < ent >

4. Press the [ENTER] key.



Station Maint
Sel : Carriage Out

5. Press the [ENTER] key.

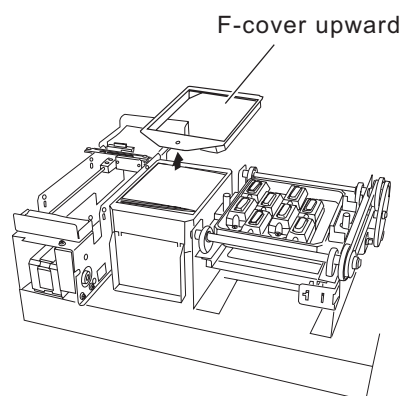
The table moves away from you and the Y-bar moves upward. The wiper moves toward you and the carriage moves away from the station.

Carriage Out
Completed :ent

6. Open the station cover.

Replacing the flushing tray ink absorber

7. Remove the F-cover upward from the flushing tray.



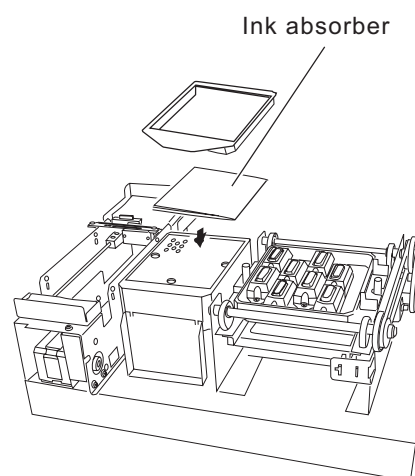
8. Remove the ink absorber.

9. Place a new ink absorber (supplied) on the tray.

Place the ink absorber (as folded) at the center.



- Make certain the ink absorber is placed flat and touching the tray. Otherwise, it may interfere with the head nozzles.



10. Place the F-cover from above.



- Place the F-cover all the way down. A floating cover may cause trouble.

11. Close the station cover, then press the [ENTER] key.

The initial operation is performed.



Carriage Out
Completed : ent

12. Return to the LOCAL mode.

<< LOCAL >>
X = 1010 Y = 1860

When the waste ink tank becomes full

Waste ink used for cleaning the heads will gather in the waste ink tank.

When the message “Near Full” or “Full” appears, immediately replace the tank with a new waste ink tank.

Waste Ink Tank
Ink Tank Near Full

Waste Ink Tank
Ink Tank Is Full



- **Contact your local MIMAKI distributor or call a local MIMAKI office if you need a spare waste ink tank.**
- **Prepare a polyethylene tank for emptying waste ink.**



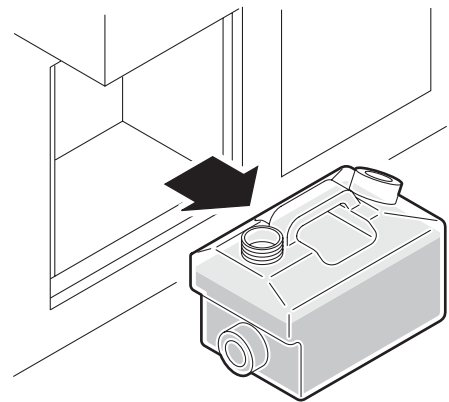
- **If ink is dripping, wait until it stops dripping.**
- **Dispose a long-term unused waste ink regardless of its amount.**

STEPS:

1. Pull out the tank toward you.



- When pulling out the waste ink tank, hold the opening of the waste ink tank with paper and then slowly pull it out to prevent waste ink from spattering.
- Before replacing ink, put paper on the floor to prevent it from being stained with ink.



2. Dump waste ink into a separate polyethylene tank.



- Request an industrial waste processor for processing of empty cartridges.

3. Put the empty waste ink tank back in the machine.

Ink discharge way cleaning [Drain Wash]

The ink discharge way may become clogged by coagulated ink. It must be cleaned at regular intervals to avoid clogging.

Ink discharge way: Tubing between the cap and the waste ink tank



- Do not move the carriage out of the capping station by hand.
Use the appropriate operation key to move the carriage.

Cleaning Tools :

- Cleaning liquid bottle kit A29 (SPC-0137 : Option)
- Syringe

STEPS:

1. Press the [FUNCTION] key once.



2. Press the XY [▲] or [▼] keys to select [MAINTENANCE].



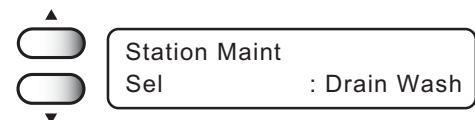
3. Press the [ENTER] key.
[Station] is displayed.



4. Press the [ENTER] key.
[Carriage out] is displayed.

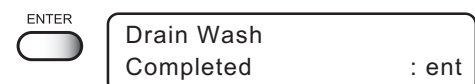


5. Press the XY [▲] or [▼] keys to select [Drain Wash].



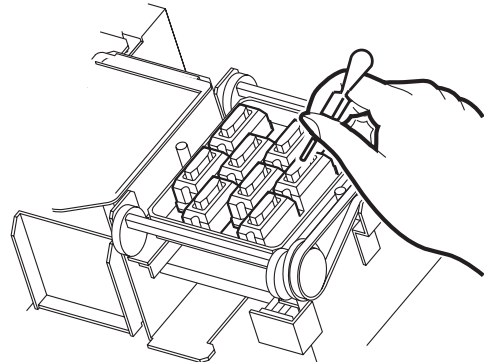
6. Press the [ENTER] key.

The table moves backward, the Y-bar moves to the top, the wiper moves forward, and the carriage moves on the table. Dry suction starts in cycles consisting of 10 seconds of suction followed by 10 seconds of pause.



7. Open the station cover.

8. Remove the cleaning liquid (A29) with a syringe. During the suction pause period, drop the cleaning liquid (A29) until just before it overflows from the cap.



9. Close the front cover, and press the [ENTER] key.

Dry suction continues for 30 seconds and then the machine is put in LOCAL mode.



Drain Wash
Completed : ent

Initialize
Please Wait

10. Return to the LOCAL mode.

<< LOCAL >>
X =1010 Y = 1860

When not in use the machine over the long term [Storage Wash]

When not in use the machine over a week, perform [Storage Wash] function to clean the head nozzle and ink discharge way.

After performing the function, store the machine.



- **Two colors (two cartridges) per head are used. If the remaining amount of one ink is extremely greater than another ink's amount, it may flow into the cartridge which has lesser ink to make their ink-head even.**
Execute the [Ink Filling] function if the inks are mixed.

Cleaning Tools :

- Cleaning liquid bottle kit A29 (SPC-0137 : Option)
- Syringe

STEPS:

1. Press the [FUNCTION] key once.

FUNCTION



FUNCTION
SETUP < ENT >

2. Press the XY [▲] or [▼] keys to select [MAINTENANCE].



FUNCTION
MAINTENANCE < ENT >

3. Press the [ENTER] key.
[Station] is displayed.

ENTER



MAINTENANCE
Station < ent >

4. Press the XY [▲] or [▼] keys to select [Storage Wash].



Station
Sel : Storage Wash

5. Attention about the ink mixing is displayed.
Press the [ENTER] key.

ENTER



Color May Mix Up
Continue OK? : ent

6. Press the [ENTER] key.

The table moves backward, the Y-bar moves to the top, the wiper moves forward, and the carriage moves on the table.

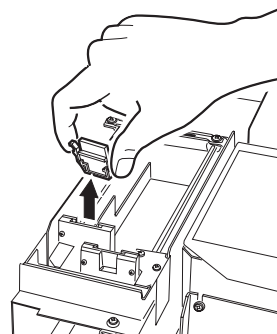
ENTER



Wiper Cleaning
Completed : ent

7. Open the station cover.

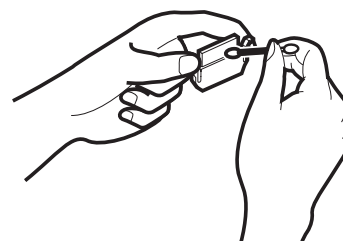
-
8. Take off the wiper with holding projections at the tips of wiper.



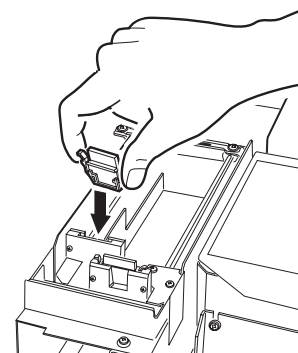
9. Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper and bracket.



- If dirt or curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.



10. Insert the clean wiper with holding both projections at the tips of wiper.



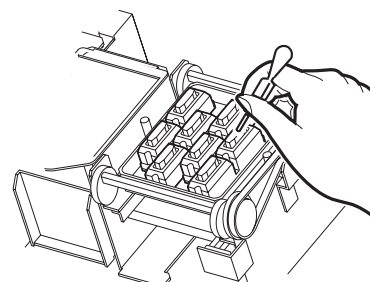
Press the [ENTER] key.



Wiper Cleaning
Completed : ent

11. Fill the cap with the cleaning liquid (A29) using a syringe.

Fill Up Washings
Completed : ent



When not in use the machine over the long term [Storage Wash]

12. Close the station cover, and press the [ENTER] key.



Fill Up Washings
Completed : ent

13. Press the JOG [▲] or [▼] keys, select the time to leave. (1-99 minutes: 1 min unit)

Normally set 1 min.



Nozzle Cleaning
Wait Timer = 1 min

14. Press the [ENTER] key.

The initial operation is performed.

Remaining time is displayed.

After remaining time is over, execute cleaning.
Remaining cleaning time is displayed.

After cleaning the nozzles, the Y-bar moves to the top. The wiper moves toward you and the carriage moves away from the station.



Initialize
Please Wait



Storage Wash
00 : * : * : *

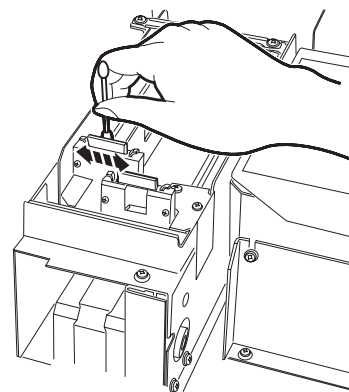
Cleaning
00 : * : * : *

15. Open the station cover and clean the both sides of the wiper.

Use a cotton swab soaked with the cleaning liquid (A29) to clean off ink blots on wiper.



- If dirt of curl is serious, replace the wiper with a new one. At the time of replacement, be sure to terminate the machine operation and follow the wiper replacement procedure.



Clean the wiper and press the [ENTER] key.



Wiper Cleaning
Completed : ent

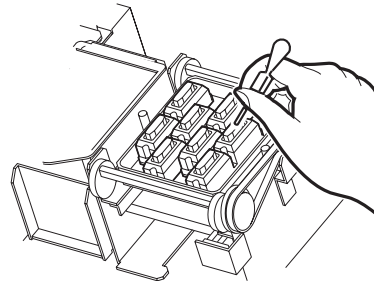
16. Fill the cap with the cleaning liquid (A29) using a syringe.

Dry suction starts in cycles consisting of 10 seconds of suction followed by 10 seconds of pause.

Repeat the performance of the air aspiration several times to clean up the ink discharge way.

Perform the operation for the each cap.

Drain Wash
Completed : ent



17. Close the station cover, and press the [ENTER] key.

Carrige returns the station to the initial operation performed.



Drain Wash
Completed : ent

Initialize
Please Wait



18. Return to the LOCAL mode.

<< LOCAL >>
X =1010 Y = 1860

CHAPTER 4

How to Set Functions

This chapter describes how to set up the machine.

Table of contents

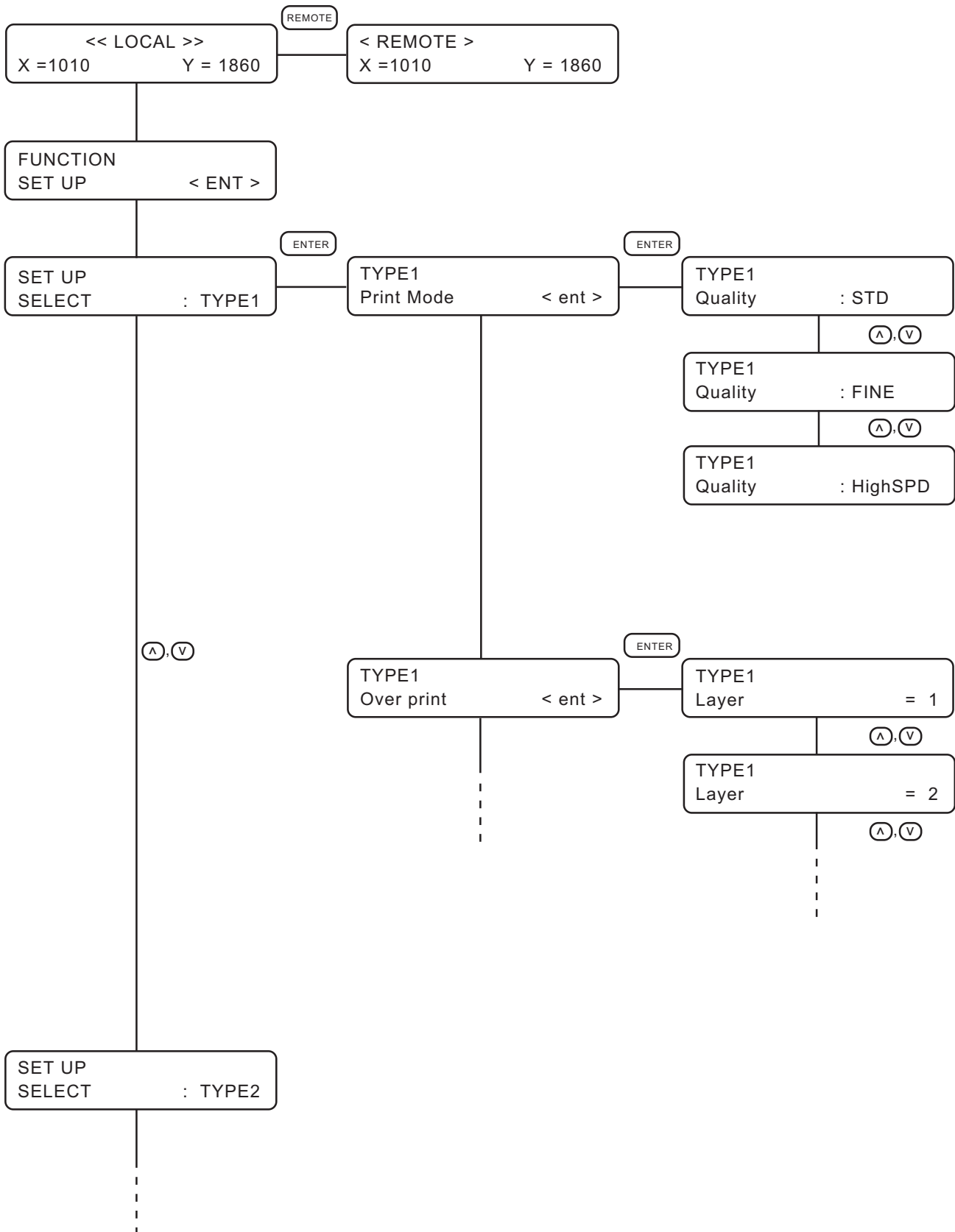
Basic operations of menus	4.2
Function mode	4.4
Setup functions	4.5
Change the display language [DISPLAY]	4.8

Basic operations of menus

This section describes how to change over the operation modes and how to operate the menus.

The following gives the key operation flow to invoke menus.

For detailed menu configuration, refer to Appendix.



1. Select the LOCAL mode.

Ascertain first that the machine does not perform printing under the REMOTE mode, then press the [REMOTE] key to enter the LOCAL mode.

2. Select the FUNCTION mode.

Press the [FUNCTION] key, and the machine will enter the FUNCTION mode.

The FUNCTION mode is divided into two: the setup function and maintenance function. Select either function.

3. Select a type.

There are four types. The FUNCTION mode can be set for each type depending on the media type used.

4. Select the Function.

Select the function pressing the XY [▲] or [▼] keys.

5. Enter the Function selected.

Press the [ENTER] key.

6. Select a parameter.

Press the XY [▲] or [▼] keys to select a parameter.

7. Enter the specified value.

Press the [ENTER] key.

8. Restore the LOCAL mode.

Press the [END] key several time to restore the LOCAL mode.

Function mode

The FUNCTION mode enable to registers 4 types.

If the type has been registered for each medium type, it becomes easy to change plotting conditions when the medium type is changed.

Registering a type

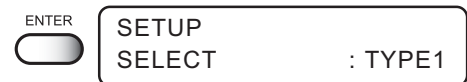
1. Make sure that the mode is LOCAL mode.



2. Press the [FUNCTION] key.



3. Press the [ENTER] key.

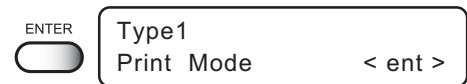


4. Select any of Types 1 through 4 by pressing the JOG [▲] or [▼] keys.



5. Press the [ENTER] key.

Setting Printing Conditions.
(page 4.5 through 4.9)



Changing the type

If printing conditions for types 1 through 4 have already been registered, settings can be selected according to the printing simply by selecting the type.

1. Perform steps 1 through 5 above.

Select a type.

2. Press the [END] key.

Printing with the printing condition registered for the selected type is possible.

Setup functions

The FUNCTION mode consists of 14 items.

The following describes the overview of and settings for each function.

Print Mode

Sets the print quality, print direction.

Quality : Select the quality image from three items.

[STD] : Standard image quality

[FINE] : High image quality and low printing speed

[High SPD] : High printing speed and slightly inferior image quality

DIRECTION: Specifies the head movement direction along which printing is made.

[UNI-D] : Specifies that printing is made while the head is moving to the left.

[BI-D] : Specifies that printing is made while the head is moving to the left and right.

This mode allows higher printing speed with a lower print quality than UNI-D.

RET.SPD UP: The unidirectional print within 1000mm width may cause nozzle drop-out. Nozzle drop-out can be solved by head's return at low speed.

[OFF] : The head moves at normal speed.

[ON] : Make the head return at low speed.

Overprint

Sets the number of overprinting if ink coloring is poor.

The number of Overprinting : 1 – 9



For nonflammable cloth and silk, do not perform overprinting.

Overprinting will cause the media to expand/contact by ink moisture producing wavy finished surface.

DRYING TIME

It sets the function for drying ink.

The drying time is the wait time by scanning.

Specify the time to be established in accordance with the printing resolution on a printing and the type of work to be used.

Time : 0.0 – 9.9 sec

Sets the time of temporary stop by scanning of the head.

Priority

Specifies whether the values set on the machine (print) are given priority or the values set on the computer (host) are enabled as for the following five functions.

- Print Mode
- Overprint
- Drying Time
- Refresh
- Feed Correct

[HOST] : The plotting operation is performed with priority given to the printing conditions set on the computer.

[PLOT] : The printing operation is performed with priority given to the printing conditions set on the machine.

Refresh

Solidification of ink can be prevented by refreshing the head during printing.

If this function is executed in a dusty place or dry place, ink in the head will be likely to solidify.

A larger level results in more number of refreshes.

Number of refreshes : Level 0 – 3

mm/ inch

Set a unit of set values displayed.

When the machine is shipped from the factory, the unit of display is set to “mm” (millimeter).

[mm] : Numerics are expressed in millimeters.

[inch] : Numerics are expressed in inches.

[Offset] : -100 – 100

Feed Correct

When the machine is not print a clear image (e.g., unwanted stripes may appear on the image), to correct the work feed rate.

Auto Clean

The head is cleaned automatically. Perform cleaning for each print to prevent printing failures.

[ON] : The head is cleaned automatically.

[OFF] : The head is not cleaned automatically.

Setup Reset

This function resets the current printing conditions to the factory-set printing conditions. Execute this function for each of the types of set printing conditions.

[ENTER] : All setup is reset.

[END] : End without reset.

Change the display language [DISPLAY]

Display language enable to change Japanese or English. This procedure explains how to change Display language to ENGLISH.

STEPS:

1. Make sure that the mode is LOCAL mode.



<< LOCAL >>
X =1010 Y = 1860

2. Press the [FUNCTION] key.



FUNCTION
FUNCTION
SETUP < ENT >

3. Press the XY [▼] key twice.



FUNCTION
DISPLAY < ENT >

4. Press the [ENTER] key.



ENTER
DISPLAY
JAPANESE < ent >


5. Press the XY [▲] or [▼] keys to select the language.



DISPLAY
ENGLISH < ent >

6. Press the [ENTER] key.

The machine enters the LOCAL mode.



<< LOCAL >>
X =1010 Y = 1860

CHAPTER 5

Maintenance

In order to keep the machine in good operating condition, it is necessary to carry out maintenance of the machine periodically.

This chapter introduces special features for correcting poor printing quality and replacing the wipers.

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Printing setup conditions [LIST]	5.4
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When the message [Replace Wiper] is displayed [Station]-[Wiper Exchnng]	5.9
Fill up the ink [Ink Filling]	5.11
Set up the ink of different type [Ink Change]	5.12
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Execute the flushing and cleaning regularly [Routine Control]	5.16
Specifying the print head line [Use Head]	5.18

Maintenance of the machine

The term “maintenance” as used herein refers to actions that need to be taken to keep the machine in good operating condition.

To carry out maintenance of the machine, select [MAINTENANCE] from the function menu and make the necessary settings.

Setting the maintenance function

In order to execute any of the maintenance functions, it is necessary to perform the following operation on the operation panel.

You have to understand how to invoke the desired maintenance function to carry out maintenance.

STEPS:

1. Make sure that the mode is LOCAL mode.



<< LOCAL >>
X = 1010 Y = 1860

2. Press the [FUNCTION] key.



FUNCTION
SETUP < ENT >

3. Press the [▲] or [▼] keys to select [MAINTENANCE].



FUNCTION
MAINTENANCE < ENT >

4. Press the [ENTER] key.




ENTER
MAINTENANCE
List < ent >

5. Select the next operation.

Set up the desired maintenance function to carry out maintenance. (☞ page 5.3)

Maintenance setup functions

The following describes the overview of and settings for each function.

Name	function	
List	Printing the set condition of the machine.	page 5.4
Data Dump	Printing data commands received from the computer, in HEX code.	page 5.5
Print Adjust	Adjust the dot position according to the head height, high/low.	page 5.6
Station	Clean the inside of the station and replace the wiper. (Wiper Exchng, Carriage Out, Nozzle Clean, Drain Wash, Storage Wash)	page 5.8
Ink Filling	This is not normally used. Perform it when nozzle clogging is still not solved. In addition, when Nozzle cleaning or Storage Wash is performed, this may cause color mixture. Perform it when ejecting mixed color ink.	page 5.11
Ink Change	Changed ink different from the one currently in use.	page 5.12
Routine Ctrl	To set Routine Flushing or Routine Cleaning on/off and interval.	page 5.16
Head To Use	When making printing, using only headline which set this function.	page 5.18

Printing setup conditions [LIST]

This function lists the current settings of the machine.

This is useful in carrying out maintenance of the machine.

1. **SET UP** : Indicates a value that is specified with the FUNCTION.
2. **PRINT adjust** : Indicates a correction value for dot position.
3. **REPLACE COUNTER** : Indicates the number of times the ink cartridges are replaced.
4. **VERSION** : Indicates the version of the firmware and memory capacity of the machine.
5. **PARAMETER** : To be used by customer engineer for maintenance.



- **When the [LIST] function is used to print data commands on paper, use 297mm x 210mm or larger size with the long side set horizontally.**

```

LIST (System Ver1.00) ([/F Ver1.40) S/N : 00000000
(1) SET UP TYPE1 < TYPE2 > TYPE3 TYPE4
MEDIA COMP. 0 :HOST 100 :HOST 0 :HOST 0 :HOST
HEATER PRE OFF :HOST 200 :HOST OFF :HOST OFF :HOST
PRINT OFF 20 OFF :HOST OFF :HOST
C/F °C °C °C °C
STANDBY 0min 10min 0min 0min
OFF 0min 30min 0min 0min
PRINT MODE STD :PLOT FAST :PLOT STD :HOST STD :HOST
DIRECTION UNI-D :PLOT UNI-D :PLOT UNI-D :HOST UNI-D :HOST
LOGICALseek ON ON ON ON
INK LAYERS 1 :HOST 1 :HOST 1 :HOST 1 :HOST
DRYING TIME 0.0s 0s :HOST 0.0s 0s :HOST 0.0s 0s :HOST 0.0s 0s :HOST
AUTO CUT OFF :HOST OFF :HOST OFF :HOST OFF :HOST OFF :HOST
MARGIN RIG 0mm 0mm 0mm 0mm
LEFT 0mm 0mm 0mm 0mm
COLOR PTN. OFF ON OFF OFF
REFRESH LEVEL3 :HOST LEVEL3 :HOST LEVEL3 :HOST LEVEL3 :HOST
MEDIA SET SELECT SELECT SELECT SELECT
VACUUM STANDARD STANDARD STANDARD STANDARD
MM/INCH MM MM MM MM
STAMP MODE OFF ON OFF OFF
TIME OFF ON OFF OFF
AUTO CLEAN OFF OFF OFF OFF
(2) WIPE LEVEL 1/1
(3) deodorizFAN OFF
(4) DISPLAY English
(5) PRINTadjust PATTERN1 PATTERN2 PATTERN3 PATTERN4
0.0 0.0 0.0 0.0
PATTERN5 PATTERN6 PATTERN7
0.0 0.0 0.0
(6) REPLACE CNT
CARTRIDGE 1: 87 2: 53 3: 42 4: 65 5: 58 6: 29
REMAIN 1: 65% 2: 67% 3: 83% 4: 100% 5: 65% 6: 65%
SHOT COUN 1: 1896 2: 1276 3: 1430
4: 1355 5: 1913 6: 1810
SCAN COUNT 1 (x1000)
DRAW AREA 5m² 53sq.ft.
USE TIME 31h
SLEEP REF. 0 0h9m
Date : 02.10.04 23:43

```


When medium thickness is changed [Print Adjust]

When the head height is adjusted, be sure to correct the dot positions.

This function corrects the dot positions to ensure that the accurate printing result is obtained.

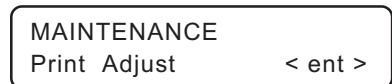
The dot positions are corrected by comparing the ink dropping positions on each of the seven test patterns between the two printing directions.

Always perform Print Adjust (dot position correction) whenever the head height is changed.

STEPS:

1. Set a sheet of paper, use 297mm x 210mm or larger size with the long side set horizontally, and set the Origin.

2. Select the [Print Adjust].

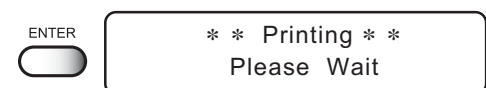


3. Press the [ENTER] key.



4. Press the [ENTER] key.

Printing of the test patterns for the correction of dot position starts. There are seven types of test patterns that are printed.

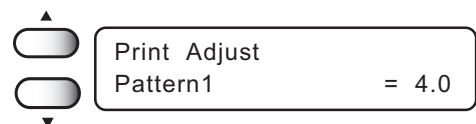



5. Press the XY [▲] or [▼] keys to correct the dot position of pattern 1.

The seven test patterns that are output are sequentially named [PATTERN 1] to [PATTERN 7].

Select the correct dot positions on [PATTERN 1] pressing the XY [▲] or [▼] keys.

Select the dot positions that make a straight line on the test pattern in the two printing directions.

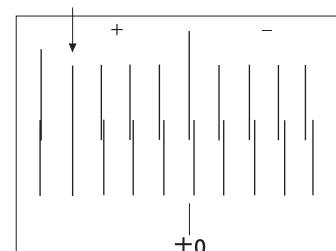




• If the pattern correction value for straight lines is not within -15 through +15, adjust the head height and then correct it again with [Print Adjust].

Select the dot positions 4.0 that make a straight line on the test pattern in two printing direction.

Out put direction



When medium thickness is changed [Print Adjust]

6. Press the [ENTER] key.



Print Adjust
Pattern2 = 0.0

7. Repeat STEPS 5 and 6 to correct the dot positions on Patterns 2 to 7.

Select the correct dot positions on each of the patterns.

Print Adjust
Pattern3 = 0.0

Print Adjust
Pattern4 = 0.0

Print Adjust
Pattern5 = 0.0

Print Adjust
Pattern6 = 0.0

Print Adjust
Pattern7 = 0.0

Enter the dot position correction value on Patterns 1 to 7 and then terminate dot position correction.

Print Adjust
Pattern : ent

8. Press the [END] key to complete [Print Adjust].



MAINTENANCE
Print Adjust < ent >

9. Press the [END] key twice, and the menu returns to the LOCAL mode.



<< LOCAL >>
X =1010 Y = 1860

Cleaning the station interior [Station]-[Carriage Out]

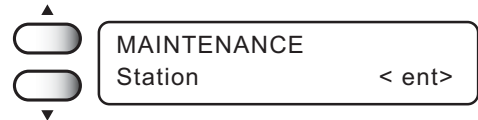
Move the carriage when cleaning the station interior and replacing the consumable parts.



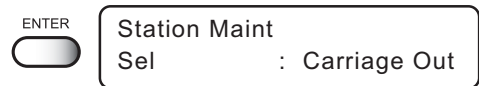
- Do not move the carriage out of the capping station by hand.
Use the appropriate operation key to move the carriage.

STEPS:

1. Press the [▲] or [▼] keys to select [Station].



2. Press the [ENTER] key.



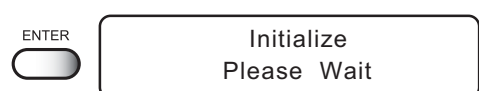
3. Press the [ENTER] key.



4. Open the station cover, then perform the following maintenance works for the station interior.

1. Cleaning the ink caps. (👉 page 3.6)
2. Cleaning the wiper. (👉 page 3.6)
3. Cleaning the ink at the bottom of the carriage. (👉 page 3.3)
4. Replacing the flushing tray ink absorber. (👉 page 3.12)
5. Changing the wiper. (👉 page 5.9)
When the message [Replace Wiper] is displayed on the LCD, replace the wiper.

5. Close the station cover, then press the [ENTER] key.



6. The machine enters the LOCAL mode.



When the message [Replace Wiper] is displayed [Station]- [Wiper Exchnng]

The wipers are consumable parts. When the following message is displayed, replace the wipers with new ones.

Wiper
Replace Wiper



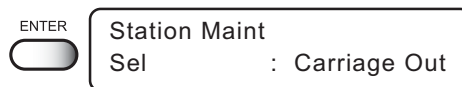
- Do not press the [ENTER] key other than the case of replacing wipers. The number of wiper operations that is counted in the machine will be reset.
Do not select [Wiper Exchnng] unless the wiper is to be really changed.

STEPS:

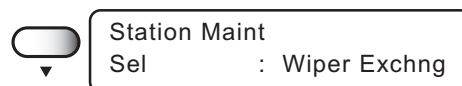
1. Press the [▲] or [▼] keys to select [Station].



2. Press the [ENTER] key.



3. Press the [▲] or [▼] keys to select [Wiper Exchnng].



4. Press the [ENTER] key.

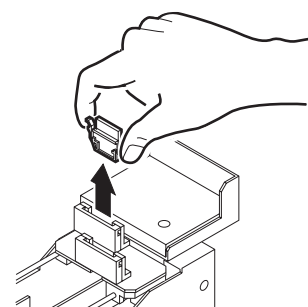
The wiper moves toward you and the carriage moves away from the station.




5. Open the station cover.

6. Holding the projections at both ends, draw out the wiper.

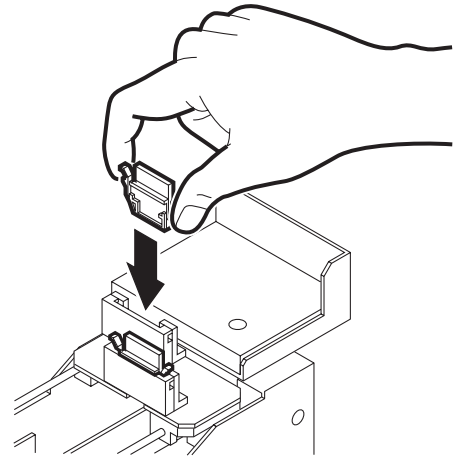
Use the gloves that are supplied with the separately-available clean wiper to protect your hands from stains.



7. Holding the projections at both ends, insert a new wiper into place.


 CAUTION


- Contacting the rubber portion of a new wiper shall be avoided. It can cause the nozzle to be clogged.

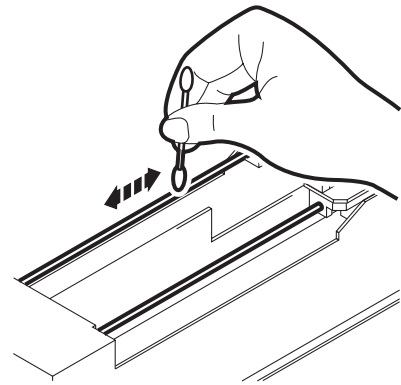


8. Clean the wiper guide shaft using a cotton bud or cloth.

If dirt is hard to remove, use a cotton bud or cloth dampened with water.

 CAUTION

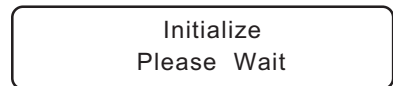
- Cleaning the wiper guide shaft. ( page 3.7)
Extremely dirty wiper guide shaft may cause operation failure of the wiper, resulting in error display.



9. Check the flashing tray ink absorber. Replace if ink is found on the ink absorber.

( page 3.12)

10. Close the station cover, then press the [ENTER] key.



11. The machine enters the LOCAL mode.



Fill up the ink [Ink Filling]

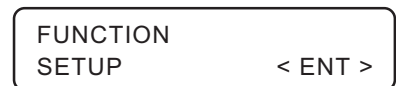
Perform the [Storage Wash] function for nozzle clogging when head cleaning or [Nozzle cleaning] does not work.

In addition, when the [Nozzle cleaning] function or the [Storage Wash] function is performed, this may cause color mixture.

Perform the [Ink Filling] function to discharge mixed color ink.

STEPS:

1. Make sure that the **FUNCTION** mode is displayed.



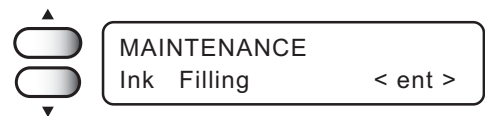
2. Press the [▲] or [▼] keys to select [MAINTENANCE].



3. Press the [ENTER] key.

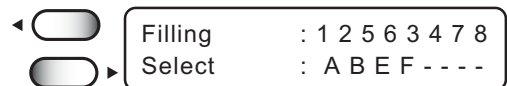


4. Press the [▲] or [▼] keys to select [Ink Filling].

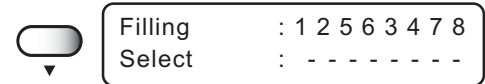


5. Press the [ENTER] key.

6. Press the XY [◀] or [▶] keys to select a head with no ink.



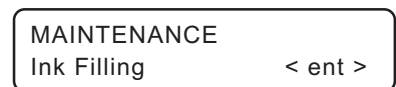
7. Press the XY [▲] or [▼] keys to indicate a head with no ink by [----].



8. Press the [ENTER] key.



9. When filling up some ink, back to STEP 4.



Set up the ink of different type [Ink Change]

Replace the filled ink with the other ink of different type.

Outfit :

- Washing liquid cartridge (Type: SPC-0422 or SPC-0188S)
- New ink cartridges



- Use the new cartridges.
- If using the ink cartridges with small amount, the ink may run out while filling ink.
- Only color ink allows to be replaced. Not for any discharge liquid.

STEPS:

1. Make sure that the **FUNCTION** mode is displayed.



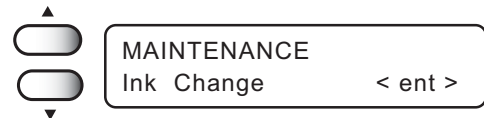
2. Press the [▲] and [▼] keys to select the [MAINTENANCE].



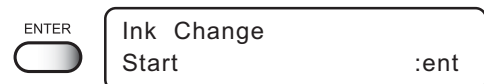
3. Press the [ENTER] key.



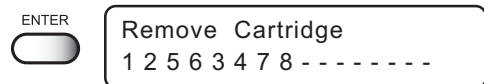
4. Press the XY [▲] or [▼] keys to select [Ink Change] .



5. Press the [ENTER] key.
The waiting screen to replace the ink is displayed.

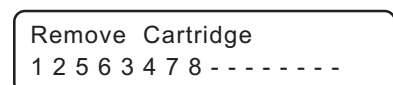


6. The ink exchange control function starts operating by the [ENTER] key.



It cleans up the ink drains

7. Remove the exchanging a cartridge.



8. Ink is automatically ejected from the ink drains.



Set up the ink of different type [Ink Change]

9. Set up the washing liquid cartridge to all slots.

Set Washing Liq.
1 2 5 6 3 4 7 8 - - - - -

10. It automatically sucks up the washing liquid cartridge to clean up the ink drains.

Washing 2/5
00: ** : **

11. Remove the washing liquid cartridge from all slots.

Remove Washings
1 2 5 6 3 4 7 8 - - - - -

12. The washing liquid is ejected automatically to clean up the ink drains.

Washing 3/5
00: ** : **

13. Set up the washing liquid cartridge to all slots.

Set Washing Liq.
1 2 5 6 3 4 7 8 - - - - -

14. It automatically sucks up the washing liquid cartridge to clean up the ink drains.

Washing 4/5
00: ** : **

15. Remove the washing liquid cartridge from all slots.

Remove Washings
1 2 5 6 3 4 7 8 - - - - -

16. The washing liquid is ejected from the ink drains.

Washing 5/5
00: ** : **

After cleaning operation is finished, the machine enters the ink exchange mode.

Fill up the ink




- When filling up ink, do not select [CLOSE] of the changeover valve of the discharge liquid.

17. Install new ink cartridges.

Ink Cartridge
1 2 5 6 3 4 7 8 - - - - -

18. After setting up the cartridge, the select screen of the ink type is displayed.

Press the XY [▲] or [▼] keys to set the ink type.



Ink Type	
Type	:TPig
Type	:Acid
Type	:Reac
Type	:Disp

19. Press the [ENTER] key.



20. Ink filing is in execution.

Remaining time of filling is displayed per second.

Filling 00: * * : * *

Initialize Please Wait

21. After filling, the machine enters the LOCAL mode.

<< LOCAL >> X =1010 Y = 1860
--

Displaying the firmware version [INFORMATION]

Display the firmware versions of this machines and an interface.

If trouble occurs, please inform the dealer or MIMAKI sales office of the contents of the trouble as well as this information.

STEPS:

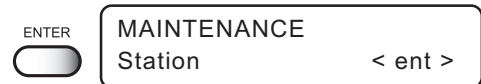
1. Make sure that the **FUNCTION** mode is displayed.



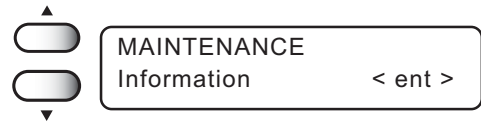
2. Press the **[▲]** or **[▼]** keys to select the **[MAINTENANCE]**.



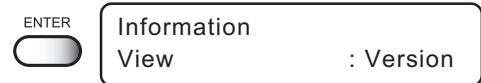
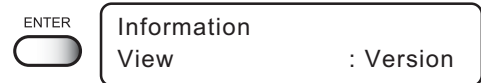
3. Press the **[ENTER]** key.



4. Press the **[▲]** or **[▼]** keys to select the **[Information]**.



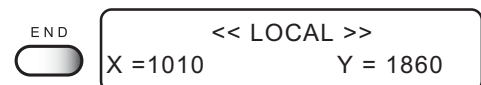
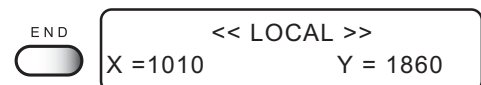
5. Press the **[ENTER]** key.



6. Select **[Version]**, then press the **[ENTER]** key.



7. Press the **[END]** key for times, and the menu returns to the **LOCAL** mode.



Execute the flushing and cleaning regularly [Routine Control]

This function allows for the pigment ink for textile (TPig).




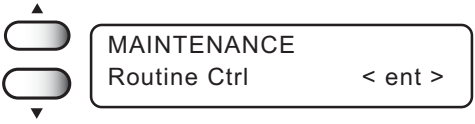

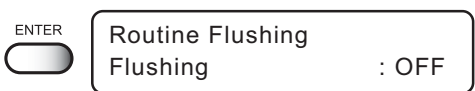
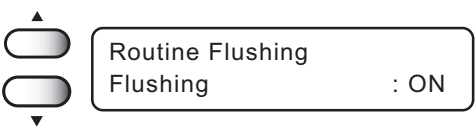

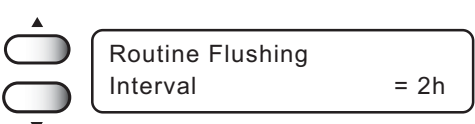

Set time limits on the flushing and cleaning functions at regular time intervals to avoid nozzle clogging and clean off dust on the nozzle surface.

Routine Flushing

The routine flushing function is executed with the power on.

Time set by the hour is available for 1 to 24 hrs with this function turns on.

STEPS:

- 1. Make sure that the FUNCTION mode is displayed.**
The screen shows 'FUNCTION' at the top left, 'FUNCTION SETUP' in the center, and '< ENT >' at the bottom right. A slider icon is to the left of the text.
- 2. Press the [▲] or [▼] keys to select [MAINTENANCE].**
The screen shows 'FUNCTION' at the top left, 'FUNCTION MAINTENANCE' in the center, and '< ENT >' at the bottom right. A slider icon is to the left of the text. Up and down arrow icons are positioned above and below the screen.
- 3. Press the [ENTER] key.**
The screen shows 'ENTER' at the top left, 'MAINTENANCE Station' in the center, and '< ent >' at the bottom right. A slider icon is to the left of the text.
- 4. Press the [▲] or [▼] keys to select [Routine Ctrl].**
The screen shows 'MAINTENANCE Routine Ctrl' in the center, and '< ent >' at the bottom right. A slider icon is to the left of the text. Up and down arrow icons are positioned above and below the screen.
- 5. Press the [ENTER] key.**
The screen shows 'ENTER' at the top left, 'Routine Control Select : Flushing' in the center, and a slider icon to the left of the text.
- 6. Select [Routine Flushing], then press the [ENTER] key.**
The screen shows 'ENTER' at the top left, 'Routine Flushing Flushing : OFF' in the center, and a slider icon to the left of the text.
- 7. Press the [▲] or [▼] keys to select [ON].**
The screen shows 'Routine Flushing Flushing : ON' in the center, and a slider icon to the left of the text. Up and down arrow icons are positioned above and below the screen.
- 8. Press the [ENTER] key.**
The screen shows 'ENTER' at the top left, 'Routine Flushing Interval = 1h' in the center, and a slider icon to the left of the text.
- 9. Press the [▲] or [▼] keys, and select time interval. (1 to 24h)**
The screen shows 'Routine Flushing Interval = 2h' in the center, and a slider icon to the left of the text. Up and down arrow icons are positioned above and below the screen.
- 10. Press the [ENTER] key.**
The screen shows 'ENTER' at the top left, 'MAINTENANCE Routine Ctrl < ent >' in the center, and a slider icon to the left of the text.












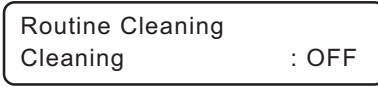
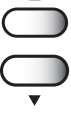
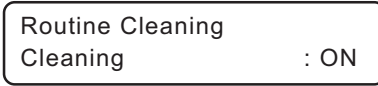

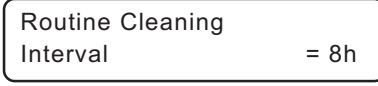
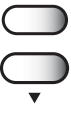
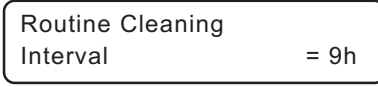

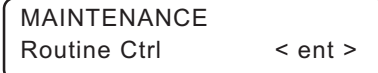
Execute the flushing and cleaning regularly [Routine Control]

Routine Cleaning

The routine cleaning function is executed with the power on.

Time set by the hour is available for 1 to 48 hrs with this function turns on.

STEPS:

1. Make sure that the **FUNCTION** mode is displayed.
 
2. Press the **[▲]** or **[▼]** keys to select **[MAINTENANCE]**.
 
3. Press the **[ENTER]** key.
 
4. Press the **[▲]** or **[▼]** keys to select **[Routine Ctrl]**.
 
5. Press the **[ENTER]** key.
 
6. Select **[Routine Cleaning]**, then press the **[ENTER]** key.
 
7. Press the **[▲]** or **[▼]** keys to select **[ON]**.
 
8. Press the **[ENTER]** key.
 
9. Press the **[▲]** or **[▼]** keys, and select time interval. (1 to 48h)
 
10. Press the **[ENTER]** key.
 

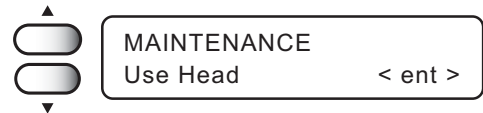
Specifying the print head line [Use Head]

Use this function if nozzle missing cannot be recovered even after repetitive cleaning or if plotting with higher quality is required. Divide the 16 (4x4) nozzles in the carriage into four horizontal rows to specify the print headline.

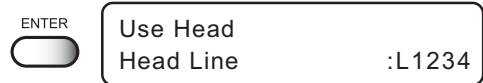
The headline 3.4 is the discharge liquid head. You cannot specify it.

STEPS:

1. Press the [▲] or [▼] keys to select [Use Head].

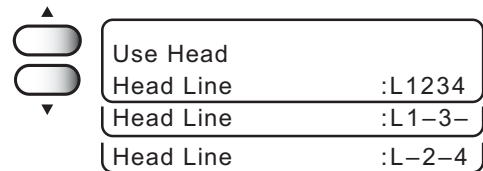


2. Press the [ENTER] key.



3. Press the XY [▲] or [▼] keys to select the use head.

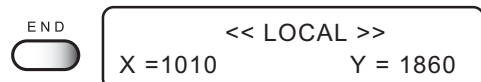
Head Line 1			
Head Line 2			
Head Line 3			
Head Line 4			



4. Press the [ENTER] key.



5. Press the [END] key twice, and the menu returns to the LOCAL mode.



CHAPTER 6

When Abnormal Conditions Are Encountered

Chapter 6 describes corrective measures to be taken in the case where an to be taken in case an abnormal condition arises and an error message appears on the display.

Table of contents

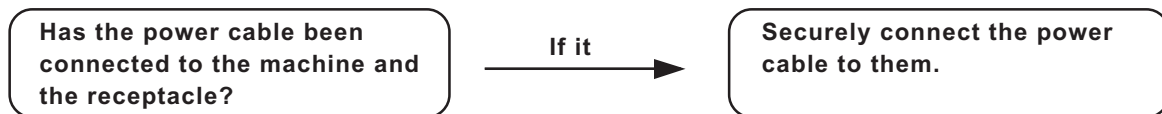
Abnormal conditions where no error message appears	6.2
If image quality declines	6.3
When printing trouble occurs in	6.4
Problems where error messages are given on the LCD	6.5

Abnormal conditions where no error message appears

Corrective measures for problems where no error message is given on the LCD are described in this section. Be sure to take the following measures before contacting MIMAKI. If the measures fail to fix the machine, contact your local MIMAKI distributor or MIMAKI office for service.

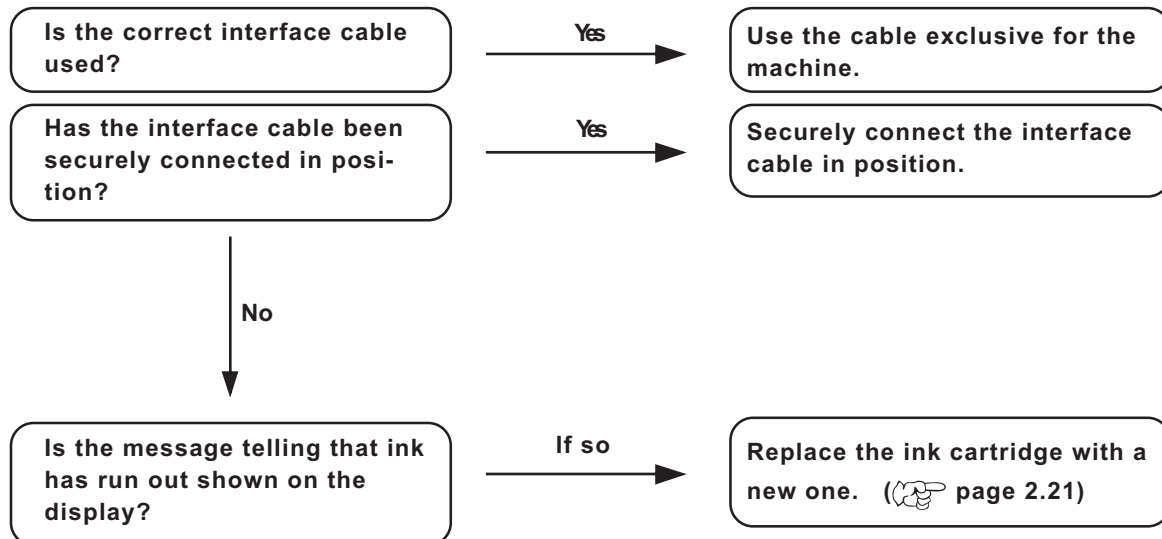
The machine cannot be energized

More often than not, this is due to improper connection of the power cable. Check that the power cable has been properly connected to the power outlet and the computer.



The machine cannot perform printing

This occurs when the data is not being transmitted to the machine properly. It can also occur when any of the machine functions fails or the medium has been set improperly.



If image quality declines

Corrective measures against problems where satisfactory image quality is not provided are described in this station. Take measures in accordance with actual state of the picture.

If the measures fail fix the machine, contact your local MIMAKI distributor or MIMAKI office call for service.

While lines/thin spots are obvious or dark stripes occur (In the direction of travel of the head)

Corrective measure : Clean the head. (☞ page 2.13)

Corrective measure : Clean the interior of the station.
(☞ page 5.8)

Corrective measure : Conduct the [Feed Correct] function. (☞ page 2.15)

Corrective measure : If slip of paper is present in the head path, for example, above the work plate, remove it.

Characters fluctuate doubly or triply into paper feed

Corrective measure : Conduct the [Feed Correct] function. (☞ page 2.15)

Displacement is observed between outward and inward printing

Corrective measure : Adjust “Y (outward and inward)” in [Print Adjust] function.
(☞ page 5.6)

The respective color ink injected by the respective color heads do not properly overlap

Corrective measure : Conduct the [Print Adjust] function. (☞ page 5.6)

Large ink drop on medium

- Corrective measure :
1. Clean the wiper. (☞ page 3.6)
 2. Clean the ink caps. (☞ page 3.6)
 3. Clean the bottom of the slider. (☞ page 3.3)
 4. Execute the head cleaning [normal]. (☞ page 2.13)
 5. If ink drop occurs again over time, perform Head cleaning [Hard]. (☞ page 2.13)
 6. Dust the work.
 7. Dust the table.

Become lighter during the printing and then printing without ink

Corrective measure : Reduce the printing density by resetting the RIP setting or remaking the data.

When printing trouble occurs in

Unable to discharge

- Corrective measure:
1. **Make sure if the discharge liquid is filled.
If not filling the discharge liquid, fill it up.**

Impaired discharge function

- Corrective measure:
1. **Head expiration date has expired.
If blowing ink occurs in nozzle check pattern
after cleaning, the head expiration date has
expired. Please contact the service call.**

Some strip streaks occur on the image with narrow print width

- Corrective measure:
1. **Set the head return speed, SLOW.
(☞ page 4.5)**

Problems where error messages are given on the LCD

If something is wrong with the machine, the buzzer sounds and a corresponding error message is given on the LCD.

Take an appropriate corrective measure in accordance with the message.

Errors accompanied by warnings

These errors arise on the ink-related components.

Warning message	Cause	Corrective measure
Ink Cartridge 1 2 3 4 5 6 7 8 A B C D E F G H	Ink cartridge is not loaded on the ink station.	Attach the ink cartridge(s) corresponding with the number(s) shown on the display.
Ink Near End 1 2 3 4 5 6 7 8 A B C D E F G H	The amount of ink remaining in the ink cartridge is insufficient.	Printing can continue by pressing the [REMOTE] key. However, it is recommended that you replace the ink cartridge is shown on the LCD with a new one.
Ink End 1 2 3 4 5 6 7 8 A B C D E F G H	The ink cartridge has run out of ink.	Replace the ink cartridge shown on the LCD with a new one.
Ink Low 1 2 3 4 5 6 7 8 A B C D E F G H	Not enough ink for cleaning.	Replace the ink cartridge of the displayed number before cleaning.
Wiper Replace Wiper	Time to replace the wiper in the capping station with a new one has come and clean the bottom of the slider.	Printing will be enabled by pressing the [REMOTE]. Then, the error message will not appear until the power is returned on. It is recommended, however, to replace the wiper with a new one as soon as possible.
Wiper Clean Wiper Shaft	The wiper guide shaft is dirty.	Clean the wiper guide shaft.
Waste Ink Tank No Ink Tank	The waste ink tank cannot be found.	Set the waste ink tank correctly.
Waste Ink Tank Ink Tank Is Full	Waste ink tank is full.	Remove the waste ink tank and set an empty waste ink tank.
Waste Ink Tank Ink Tank Near Full	Waste ink tank will soon full.	

Warning message	Cause	Corrective measure
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Unidentified Ink 1 2 3 4 5 6 7 8 A B C D E F G H </div>	The loaded ink cartridge is not MIMAKI genuine.	Use the ink specified by MIMAKI.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Ink Limit 1 2 3 4 5 6 7 8 A B C D E F G H </div>	The ink cartridge will expire soon or has expired.	Printing can be continued in file by-file basis by pressing the [REMOTE] key. However, it is recommended that you replace the ink cartridge is shown on the LCD with a new one.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Ink Color 1 2 3 4 5 6 7 8 A B C D E F G H </div>	The color of the loaded ink cartridge is different from the previous one.	Check the color of the loaded ink cartridge.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Ink Type 1 2 3 4 5 6 7 8 A B C D E F G H </div>	The type of the loaded ink cartridge is different from the previous one.	Check the type of the loaded ink cartridge.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Ink IC Error 1 2 3 4 5 6 7 8 A B C D E F G H </div>	The IC chip of the ink cartridge cannot be read normally.	Attach the ink cartridge(s) corresponding with the color shown on the display. If the same error message appears again on the LCD, contact your local distributor to call for service.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Ink Count Error 1 2 3 4 5 6 7 8 A B C D E F G H </div>	The loaded ink cartridge is defective.	Check the loaded ink cartridge.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Head Height Check HeadHeight </div>	The head height is incorrect.	Correct the head height.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Check Stop SW or Station Cover </div>	The station cover is open or the stop switch is pressed.	Close the station cover or release the stop switch.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center; margin-bottom: 5px;"> Service Call 001 </div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> Service Call 002 </div>	Time to replace regularly replaceable parts.	Contact your local MIMAKI distributor or call a local MIMAKI office for services. The parts may be used until new parts are delivered.
<div style="border: 1px solid black; border-radius: 10px; padding: 5px; text-align: center;"> TPig ERROR 1 2 3 4 5 6 7 8 A B C D E F G H </div>	TPig ink has been set at the front side of the carriage in the initial setting of mixed inks.	Set the TPig ink at the back side of the carriage.

Problems where error messages are given on the LCD

Warning message	Cause	Corrective measure
Below Operable Temperature	Temperature is below operable condition.	Adjust environmental temperature.
Temperature Evn. Temp is Low	Temperature is below guaranteed.	
Temperature Evn. Temp is High	Temperature is over below guaranteed.	

Error messages

Error messages contain error numbers.

If any error message is given on the LCD, turn off the power to the machine for while and turn it back on.

If the same error message appears again on the LCD, contact your local MIMAKI distributor or MIMAKI office to call for service.

Warning message	Cause	Corrective measure
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">ERROR 01 MAIN ROM</div> <div style="border: 1px solid black; padding: 2px;">ERROR 02 MAIN RAM</div>	Control circuit board is defective.	Turn off the power to the machine for while and turn it back on. If the same error message appears again on the LCD, contact your local distributor to call for service.
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">ERROR 03 POWER +5V</div> <div style="border: 1px solid black; padding: 2px;">ERROR 03 POWER +35V</div>	Control circuit board is defective. POWER+5V POWER+35V	
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">ERROR 04 FRASH ROM</div> <div style="border: 1px solid black; padding: 2px;">ERROR 06 D-RAM</div>	Control circuit board is defective.	
<div style="border: 1px solid black; padding: 2px;">ERROR 07 TEMP (0000)</div>	Head connection failure is detected.	
<div style="border: 1px solid black; padding: 2px;">ERROR 08 ENCODER</div>	Trouble with detection of linear encoder.	
<div style="border: 1px solid black; padding: 2px; margin-bottom: 2px;">ERROR 09 FPGA</div> <div style="border: 1px solid black; padding: 2px;">ERROR 19 HDC</div>	Control circuit board is defective. FPGA Error HDC Error	
<div style="border: 1px solid black; padding: 2px;">ERROR 10 COMMAND</div>	The device has received data other than command data. The interface cable used is not in conformance with this plotter.	Securely connect the interface cable in position. Use an interface cable in conformance with the standard.

Problems where error messages are given on the LCD

Warning message	Cause	Corrective measure
ERROR 11 PARAMETER	A parameter outside the range of acceptable numeric values is received.	Check the host computer output setting.
ERROR 14 COLOR COMMAND	Strange color data has been received.	
ERROR 20 I / F BOARD	Improper operation has been conducted on the operation panel.	Turn off the power to the machine for a while and then turn it on. If the same error message appears again on the LCD, contact your local distributor for service.
ERROR 21 THERE IS NO I / F	No I/F board is attached to the control board.	
ERROR 23 HOST I / F	HOST I/F Timeout error has arisen during communication between the host computer and interface board.	Check to be sure that the cable is securely connected to the host computer and interface board. Also, check to ascertain that no error has arisen on the host computer side.
ERROR 24 I / F INITIAL	Initial operation failure of the I/F board and control board.	Turn off the power to the machine for a while and then turn it on. If the same error message appears again on the LCD, contact your local distributor for service.
ERROR 30 OPERATION	An error occurs on the interface between the I/F board and the control board.	Perform a proper operation.
ERROR 34 DATA REMAIN	Settings for functions have been changed to be changed though there remains received data that has not yet been printed.	Print all pieces of received data or execute the data clear function. Then, change the settings.
ERROR 40 MOTOR X	The Xmotor has been overload.	Turn off the power to the machine for a while and then turn it on. If the same error message appears again on the LCD, contact your local distributor to call for service.
ERROR 41 MOTOR Y	The Ymotor has been overload.	
ERROR 42 X OVERCURRENT	Overcurrent error on the Xmotor has been detected.	
ERROR 43 Y OVERCURRENT	Overcurrent error on the Ymotor has been detected.	
ERROR 45 CAPPING	Incorrect height of the capping station has been detected.	

Warning message	Cause	Corrective measure
<div style="border: 1px solid black; border-radius: 5px; padding: 5px; text-align: center;"> ERROR 46 WIPER </div>	The wiper position is not correct.	Turn off the power to the machine for a while and then turn it on. If the same error message appears again on the LCD, contact your local distributor for service.
<div style="border: 1px solid black; border-radius: 5px; padding: 5px; text-align: center;"> ERROR 51 ORIGIN DETECTION </div>	Origin could not be detected.	

APPENDIX

This appendix describes the specifications of the machine and components and the structure of the function menu.

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Basic specifications	A.2
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Discharge liquid / Washing liquid specification	A.5
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Function flowchart	A.9

Basic specifications

Item		GP-1810D
Safety Standard		VCCI-classA, FCC-classA, CBreport CE marking (EMC Directive, low-voltage Directive), ETL/cETL
Power		AC 200 – 240 V \pm 10% (Auto voltage), 50/60 Hz \pm 1 Hz
Power consumption		500VA
Recomended Environment	Available temp.	15 °C – 30 °C
	Humidity	40 – 65 % Rh (No condensation)
	Guaranteed temp.	18 °C – 25 °C
	Temperature change	\pm 10 °C / h or less
	Dust	Equivalent to normal office level
Weight		620 Kg
Outside dimensions		3070 (W) x 2210 (D) x 1350 (H) mm or less

Leser sensor unit specifications

Item	Specifications
Type	JIS/IEC Class I Laser Product
Maximum output	3.0mW
Wave length	650nm

Ink specification

Item	Specifications
Form	Exclusive ink cartridge
Type	Pigment ink for Textile / SPC-0350 series (K, M, C) Pigment ink for Textile / SPC-0435Y Acid dye ink / SPC-0355 series (K, M, C, Y) Disperse dye ink / SPC-0356 series (K, M, C, Y) Reactive dye ink / SPC-0357 series (K, M, C, Y)
Contents of ink	210 – 220 cc per cartridge
Shelf life	Varies by the ink type. Within three months after opening the package
Storage temperature	During storage : 0 – 40°C (Storage at temperature of 40°C is permitted within a month.) During : 0 – 60°C (Storage at temperature of 60°C is only permitted within 120 hours, and at temperature of 40°C is permitted within a month.)



- **The ink will freeze when it is left for a long time under temperature below -4°C. Should it freeze, leave the ink cartridge at room temperature (at 25°C) for three hours or more to allow the ink to thaw.**
- **Do not disassemble or refill the ink cartridge.**



- **Pigment ink for textile (TPig) dries easily. If the nozzle face, wiper and cap get dried, it may cause nozzle-out and deflection. To prevent from those troubles, use it under more than humidity 40%.**

Discharge liquid / Washing liquid specification

Item		Specifications
Ink type		Washing liquid (SPC-0422) Fill up when operation finished.
		Washing liquid (SPC-0188S) Used when replacing a ink cartridge.
		Discharge liquid (SPC-0409)
Contents		220 cc per cartridge
Shelf life	Washing liquid	One year from the data of manufacture (at room temperature) Within three months after opening the package
	Discharge liquid	9 months from the data of manufacture (at room temperature) Within three months after opening the package
Storage temperature		During storage : 0 – 35°C (Cold and dark place presevation) During : 0 – 60°C (Within 2 weeks permitted)



- Do not leave the washing liquid and discharge liquid in a cold place too long, or it may be frozen.
In the case ink froze, leave the ink cartridge at room temperature (at 25°C) for more than three hours to allow the ink to thaw.
- Do not disassemble or refill the ink cartridge.

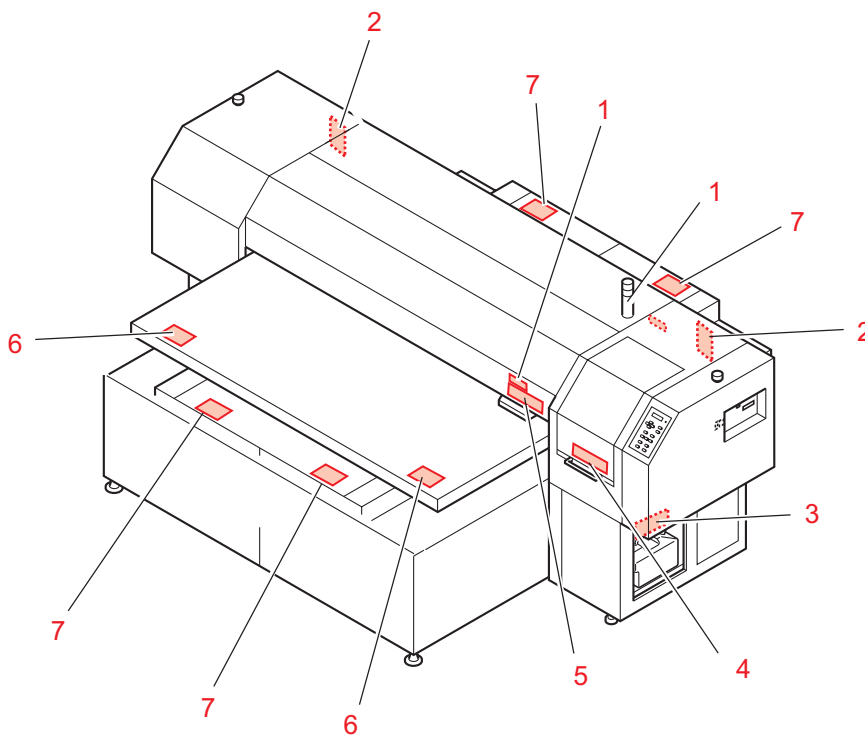
Consumable items

Consumable items listed below must be renewed at regular intervals to maintain adequate printing quality. Contact your local MIMAKI distributor or call a local MIMAKI office for services.





Wiper	10pcs	: Order No. SPA-0116
Ink absorber for the flushing tray	100pcs	: Order No. M-3
Paper for the test pattern (pink color)	10pcs	: Color copy paper on the market
Print head for the discharge liquid		: Exchange it when the periodic maintenances is needed

Location of safety labels

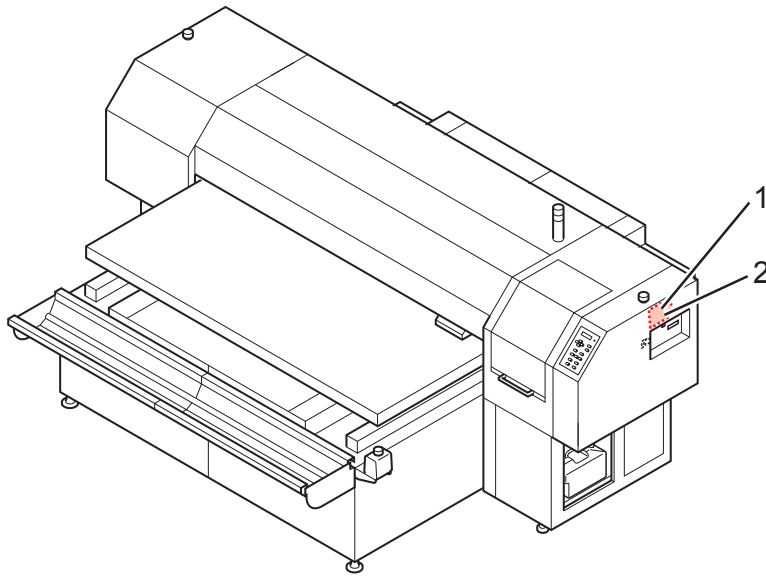
The following safety labels (10 kinds and 25 labels in total) have been attached to this machine. If any of them fall off or become illegible, contact MIMAKI local distributor for a replacement. All persons who install, operate and maintain this machine should understand and follow the safety precautions in these labels. Failure to do so can result in serious injury.




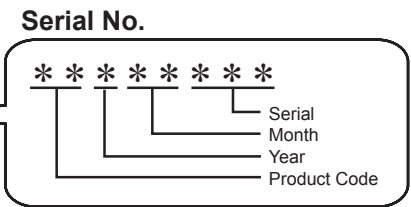
Location of safety labels

No.	Order No.	Label										
1	M903968	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;"> CAUTION Laser radiation when open. DO NOT STARE INTO BEAM. </div> <div style="border: 1px solid black; padding: 5px; text-align: center;"> クラス1レーザー製品 CLASS 1 LASER PRODUCT </div> </div>										
2	LHDM-04 (Japanese) PED-04 (English)	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">  <p style="font-size: small;">危険 巻き込まれ危険 重傷の恐れあり。</p> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">  <p style="font-size: small;">DANGER Do not get caught in the machine serious injury can result.</p> </div> </div>										
3	M901469	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center; font-size: x-small;">△ 注意</th> <th style="text-align: center; font-size: x-small;">△ 注意</th> <th style="text-align: center; font-size: x-small;">△ CAUTION</th> </tr> <tr> <td style="font-size: x-small;"> 廃墨は有毒性的、 請取捨方法排去。 </td> <td style="font-size: x-small;"> 廃インクに毒性はありま せん。地域の条例に従い、 廃棄してください。 </td> <td style="font-size: x-small;"> Inks are not poisonous. You can dispose them according to a municipal ordinance. </td> </tr> </table>	△ 注意	△ 注意	△ CAUTION	廃墨は有毒性的、 請取捨方法排去。	廃インクに毒性はありま せん。地域の条例に従い、 廃棄してください。	Inks are not poisonous. You can dispose them according to a municipal ordinance.				
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4	M901607	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: x-small;"> 噴印時、速不要打开设了蓋子、如果 打开盖子的话噴印就会停止。禁止之 后再度噴印时、请将数据再从计算 机中输出。 </td> <td style="font-size: x-small;"> 作印中、このカバーを開けないでく ださい。途中で作印が終了してしま います。再度、作印する場合は、 もう一度コンピュータからデータを 送信してください。 </td> <td style="font-size: x-small;"> Do not open this cover during printing. The carriage will stop and ruin the print. </td> <td style="font-size: x-small;"> Diese Abdeckung während des Druckens nicht öffnen. Der Wagen hält sonst an, wodurch der Druck ruiniert wird. </td> <td style="font-size: x-small;"> Ne pas ouvrir ce couvercle pendant l'impression. Le chariot peut s'arrêter, abîmant l'impression. </td> </tr> </table>	噴印時、速不要打开设了蓋子、如果 打开盖子的话噴印就会停止。禁止之 后再度噴印时、请将数据再从计算 机中输出。	作印中、このカバーを開けないでく ださい。途中で作印が終了してしま います。再度、作印する場合は、 もう一度コンピュータからデータを 送信してください。	Do not open this cover during printing. The carriage will stop and ruin the print.	Diese Abdeckung während des Druckens nicht öffnen. Der Wagen hält sonst an, wodurch der Druck ruiniert wird.	Ne pas ouvrir ce couvercle pendant l'impression. Le chariot peut s'arrêter, abîmant l'impression.					
噴印時、速不要打开设了蓋子、如果 打开盖子的话噴印就会停止。禁止之 后再度噴印时、请将数据再从计算 机中输出。	作印中、このカバーを開けないでく ださい。途中で作印が終了してしま います。再度、作印する場合は、 もう一度コンピュータからデータを 送信してください。	Do not open this cover during printing. The carriage will stop and ruin the print.	Diese Abdeckung während des Druckens nicht öffnen. Der Wagen hält sonst an, wodurch der Druck ruiniert wird.	Ne pas ouvrir ce couvercle pendant l'impression. Le chariot peut s'arrêter, abîmant l'impression.								
5	M901549	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="text-align: center; font-size: x-small;">△ 注意</th> <th style="text-align: center; font-size: x-small;">△ 注意</th> <th style="text-align: center; font-size: x-small;">△ CAUTION</th> <th style="text-align: center; font-size: x-small;">△ ACHTUNG</th> <th style="text-align: center; font-size: x-small;">△ ATTENTION</th> </tr> <tr> <td style="font-size: x-small;"> 滾転转动时、請勿将手插入 前面外蓋的内部。 </td> <td style="font-size: x-small;"> キャリッジ動作中は、フロント カバーの中に指を入れない てください。 </td> <td style="font-size: x-small;"> -MOVING CARRIAGE- Do not put fingers inside this area </td> <td style="font-size: x-small;"> -Beweglicher Wagen- Finger nicht in diesen Bereich bringen. </td> <td style="font-size: x-small;"> -CHARIOT MOBILE- Ne pas mettre de doigts dans cette zone. </td> </tr> </table>	△ 注意	△ 注意	△ CAUTION	△ ACHTUNG	△ ATTENTION	滾転转动时、請勿将手插入 前面外蓋的内部。	キャリッジ動作中は、フロント カバーの中に指を入れない てください。	-MOVING CARRIAGE- Do not put fingers inside this area	-Beweglicher Wagen- Finger nicht in diesen Bereich bringen.	-CHARIOT MOBILE- Ne pas mettre de doigts dans cette zone.
△ 注意	△ 注意	△ CAUTION	△ ACHTUNG	△ ATTENTION								
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6	M903226 (Japanese) M904325 (English)	<div style="border: 1px solid gray; padding: 5px; margin-bottom: 10px;"> <p style="font-size: x-small;">このテーブルに腰掛けたり、寄り掛かる等の負荷重をかけないで下さい。 テーブルが変形し、故障の原因や、画質に影響が出る可能性があります。</p> </div> <div style="border: 1px solid black; padding: 5px; background-color: #ffffcc;"> <p style="font-size: x-small;">Do not sit or lean on the table. Do not put any pressure on one side. These will deform the table and may cause damage and affects the printing.</p> </div>										
7	LHCM-02 (Japanese) PEC-02 (English)	<div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; padding: 5px; text-align: center;">  <p style="font-size: x-small;">注意 はさまれ注意 ● 運転中は可動部に手を触れ ないこと。 ● カバーを外したまま運転し ないこと。 ● 運転中はカバーの内側に手 を入れないこと。</p> </div> <div style="border: 1px solid black; padding: 5px; text-align: center;">  <p style="font-size: x-small;">CAUTION RISK OF GETTING TRAPPED do not insert hands</p> </div> </div>										

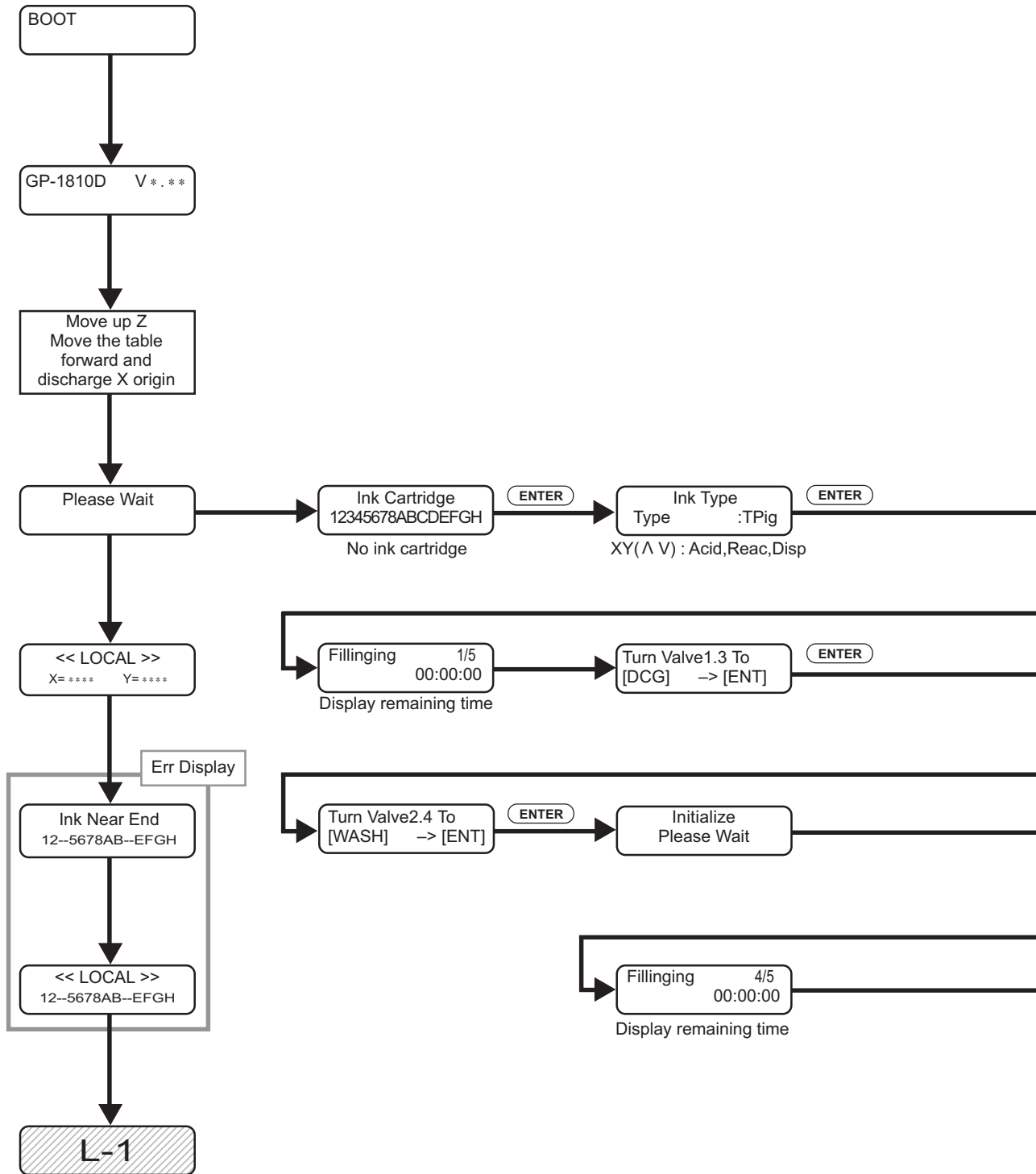
Other labels



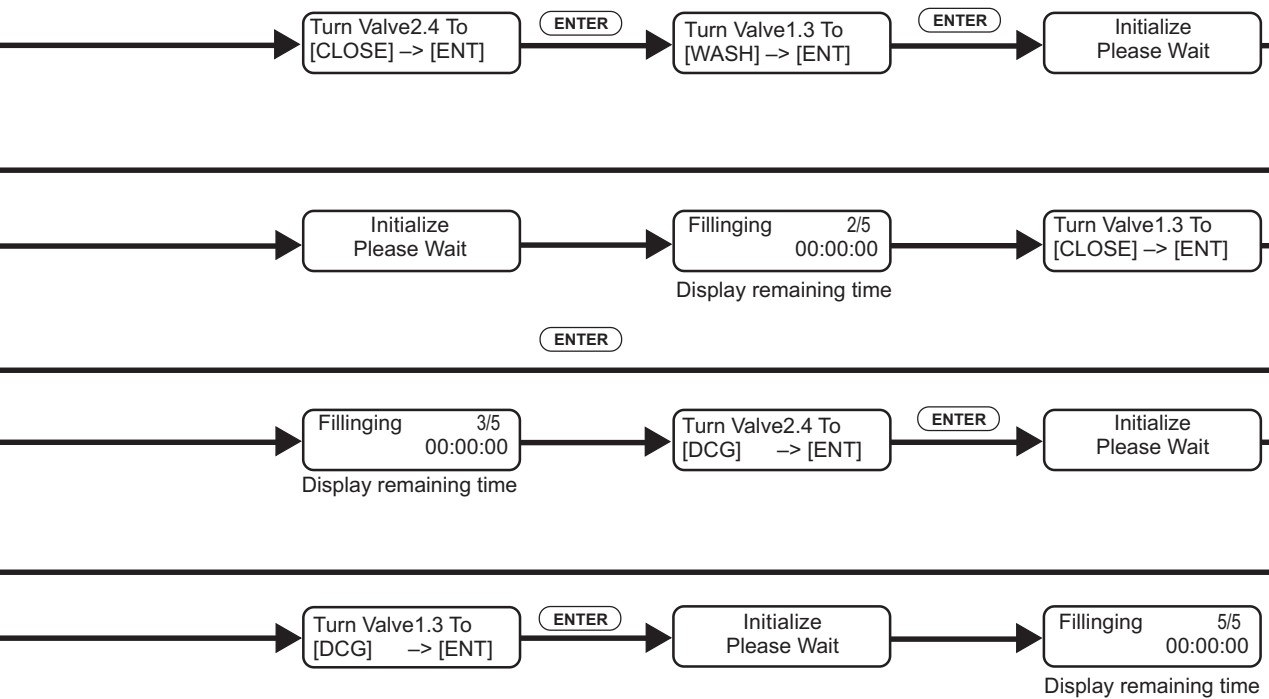
No.	Label						
1	<p>MFR Label</p> <table border="0"> <tr> <td>MODEL-SERIAL NO. 型号名称-制造编号</td> <td>Modell-Seriennummer MODELE-N° DE SERIE</td> </tr> </table> <p>GP-1810D * * * * *</p> <p>MIMAKI ENGINEERING CO., LTD. 御牧高科技股份有限公司 1333-3 Kazawa, Tomi, Nagano 389-0514 Japan</p> <table border="0"> <tr> <td>Year of manufacture 制造年 2005</td> <td>MADE IN JAPAN 日本制造</td> </tr> <tr> <td>Herstellungsjahr Année de fabrication</td> <td>FABRIQUE AU JAPON</td> </tr> </table>	MODEL-SERIAL NO. 型号名称-制造编号	Modell-Seriennummer MODELE-N° DE SERIE	Year of manufacture 制造年 2005	MADE IN JAPAN 日本制造	Herstellungsjahr Année de fabrication	FABRIQUE AU JAPON
MODEL-SERIAL NO. 型号名称-制造编号	Modell-Seriennummer MODELE-N° DE SERIE						
Year of manufacture 制造年 2005	MADE IN JAPAN 日本制造						
Herstellungsjahr Année de fabrication	FABRIQUE AU JAPON						
2	<p>FDA Label</p> <p>This product complies with 21 CFR chapter I and subchapter J. </p>						



Function flowchart



Function Flowchart



L-1

X(Λv)

X(<→)

Origin Setup
X=**** Y=****
XY(Λv<→):JOG MODE

ENTER

Origin Setup
**** Origin ****

Z(Λv)

Head Height
*. *mm
Z(Λv<→):JOG MODE

ENTER

Head Height
*. *mm

VIEW

VIEW
<ENT>

ENTER

VIEW

** VIEW **

DATA

CLEAR

DATA CLEAR
<ENT>

ENTER

CLEAR

** CLEAR **

TEST

TEST PRINT
<ENT>

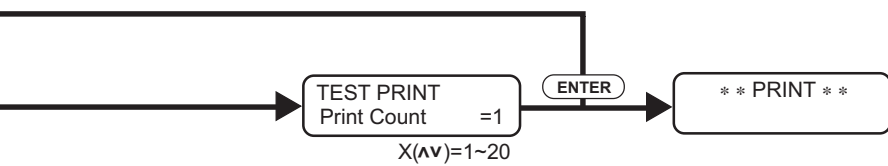
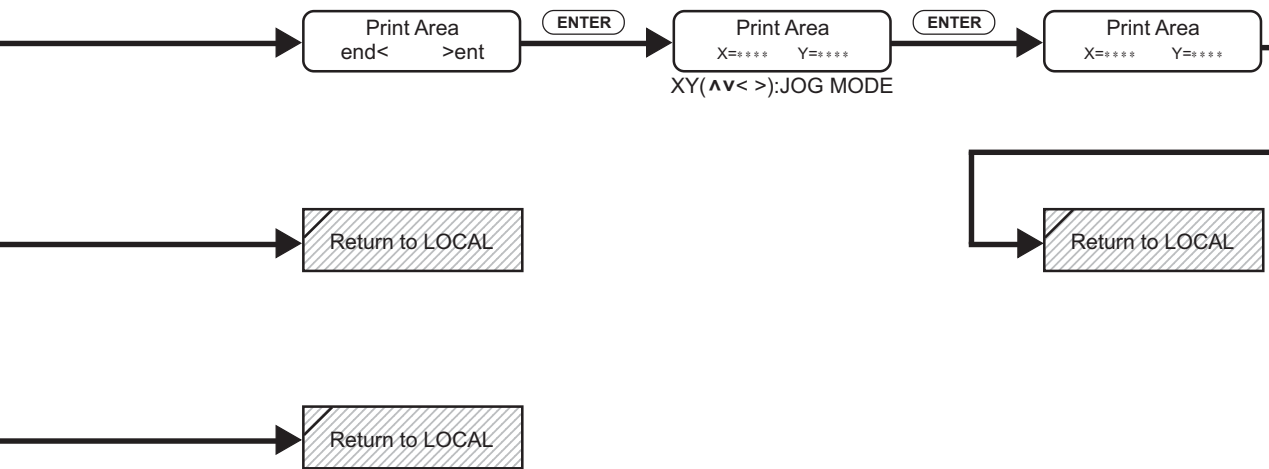
ENTER

TEST PRINT
Head Line :L1234
XY(Λv):L1234
:L12--
:L--34

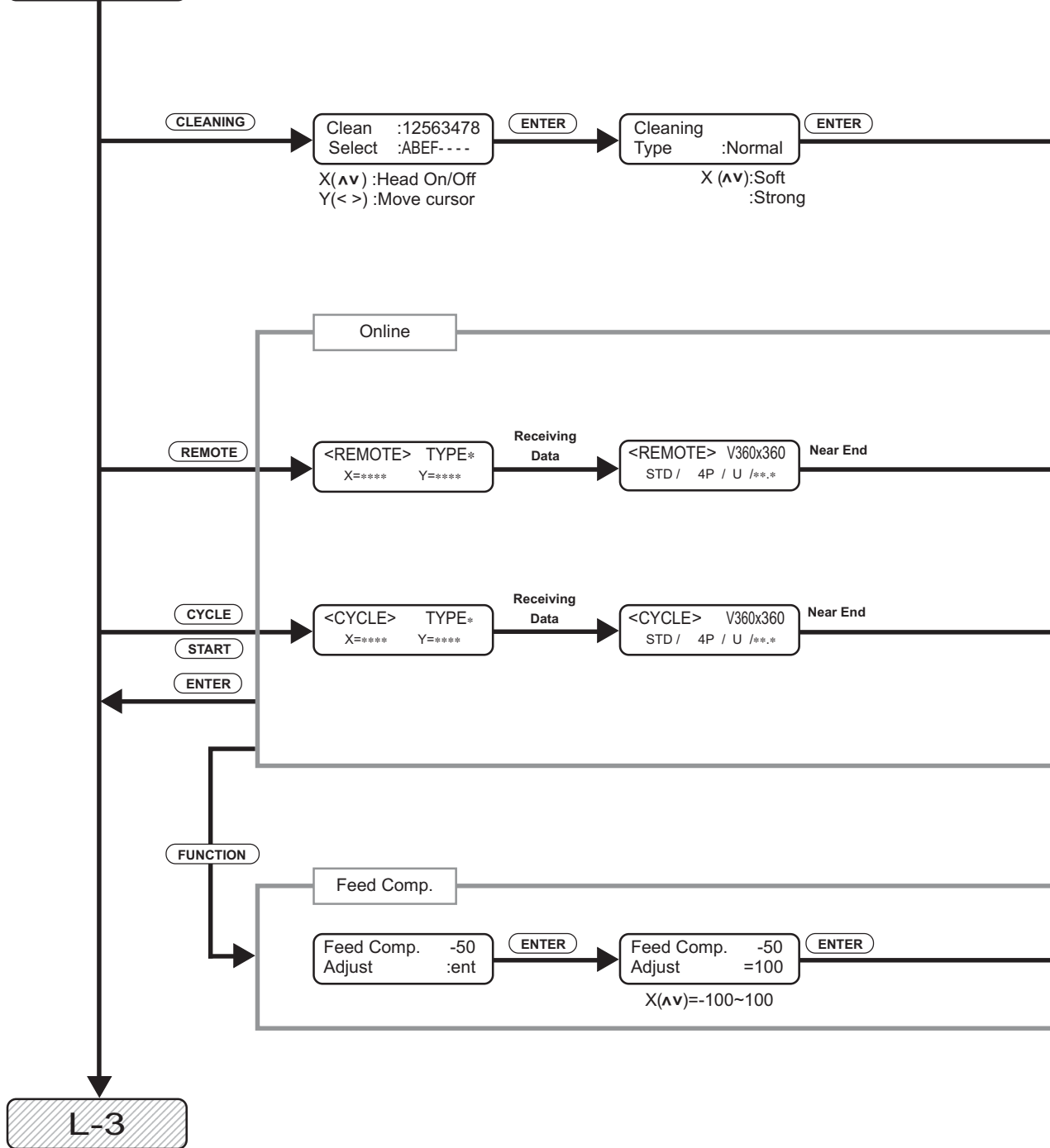
TEST

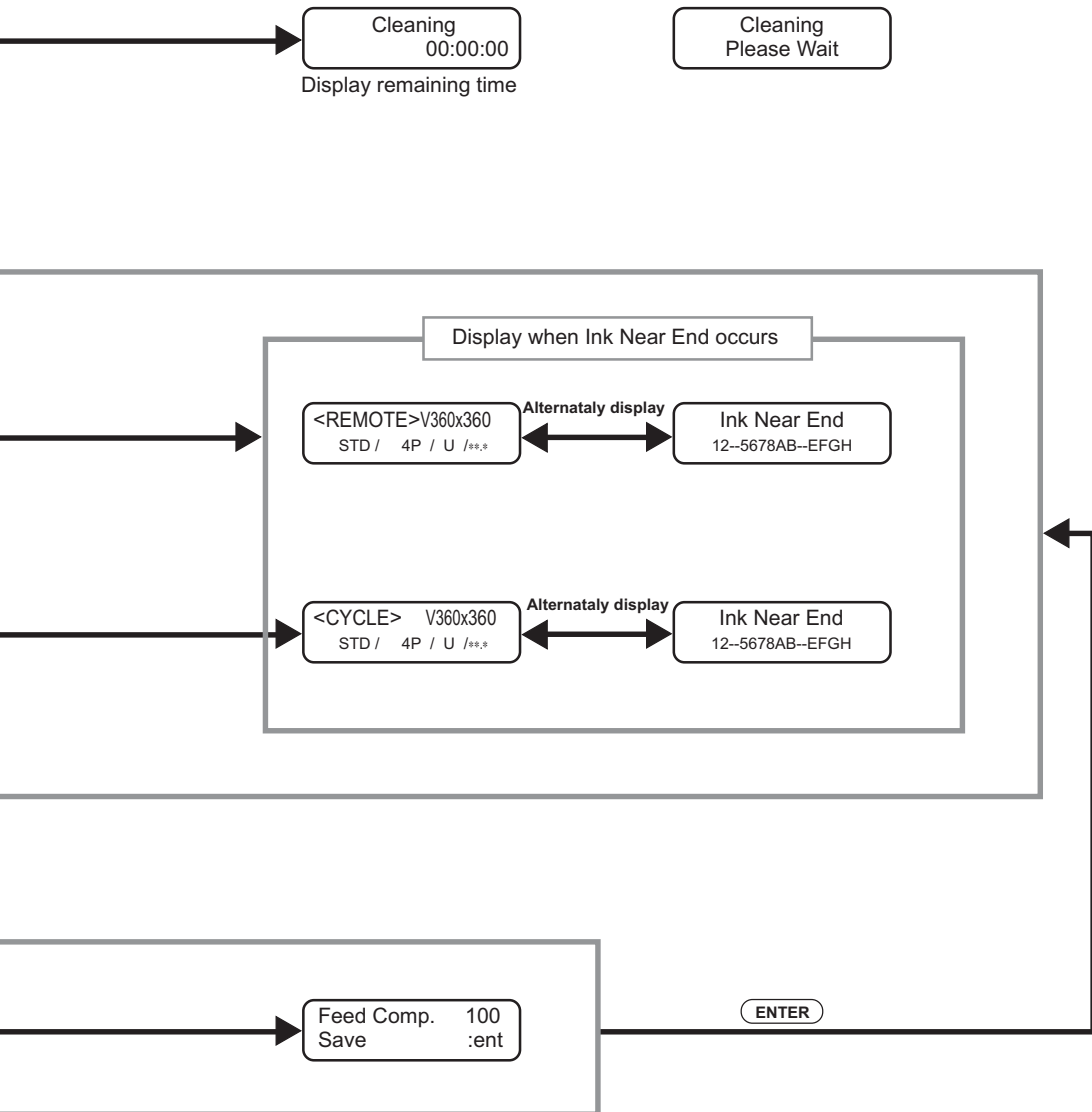
ENTER

L-2



L-2







L-3

ENTER

Guidance display

Ink Level
9999999999999999

ENTER

Head Height
**.*mm

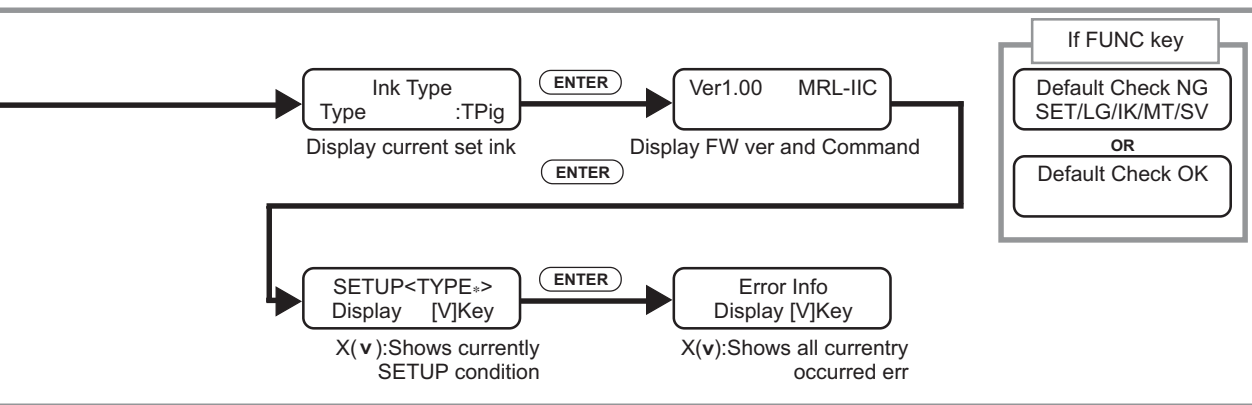
ENTER

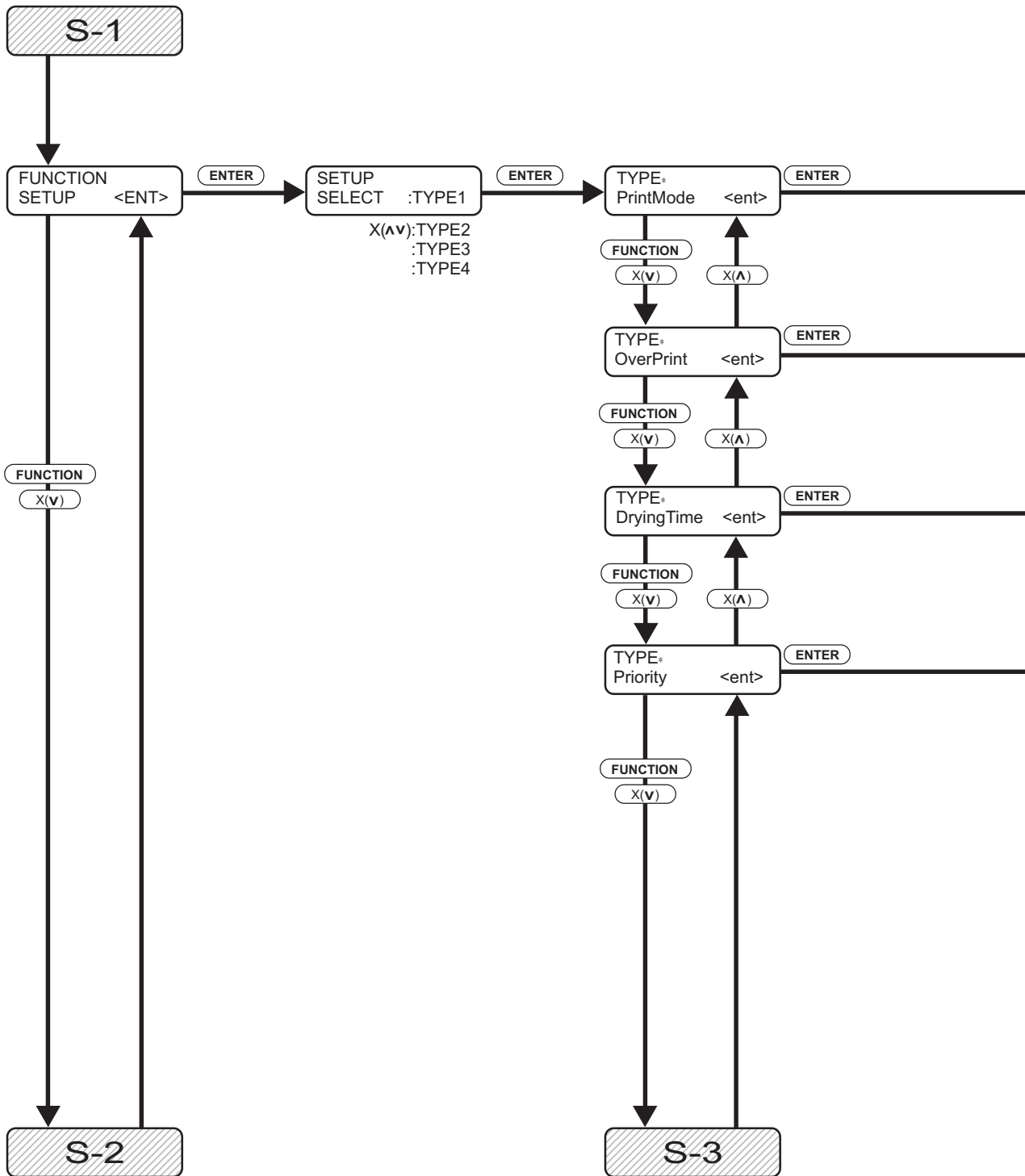
The remaining ink are display
with level 0 to 9

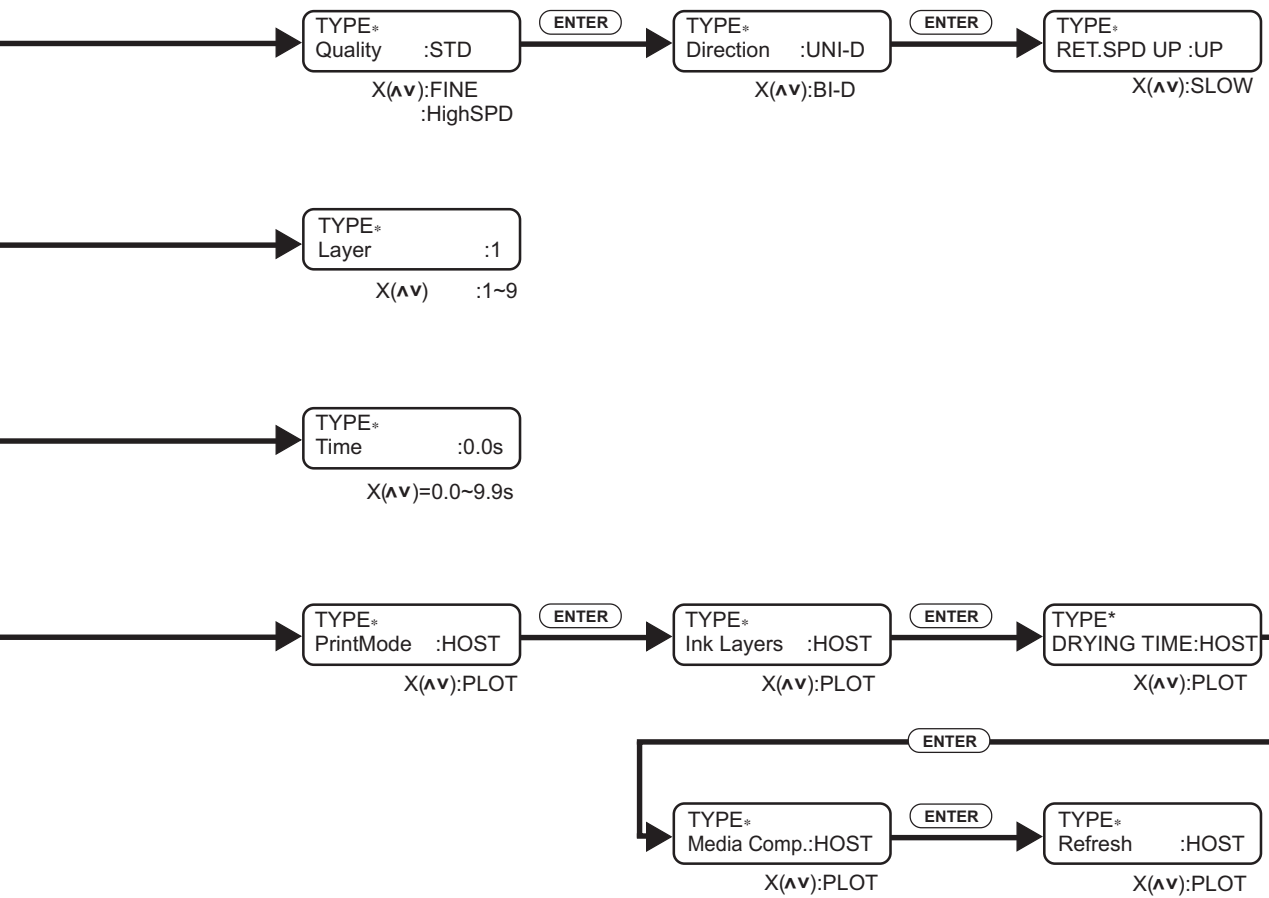
Display current head height

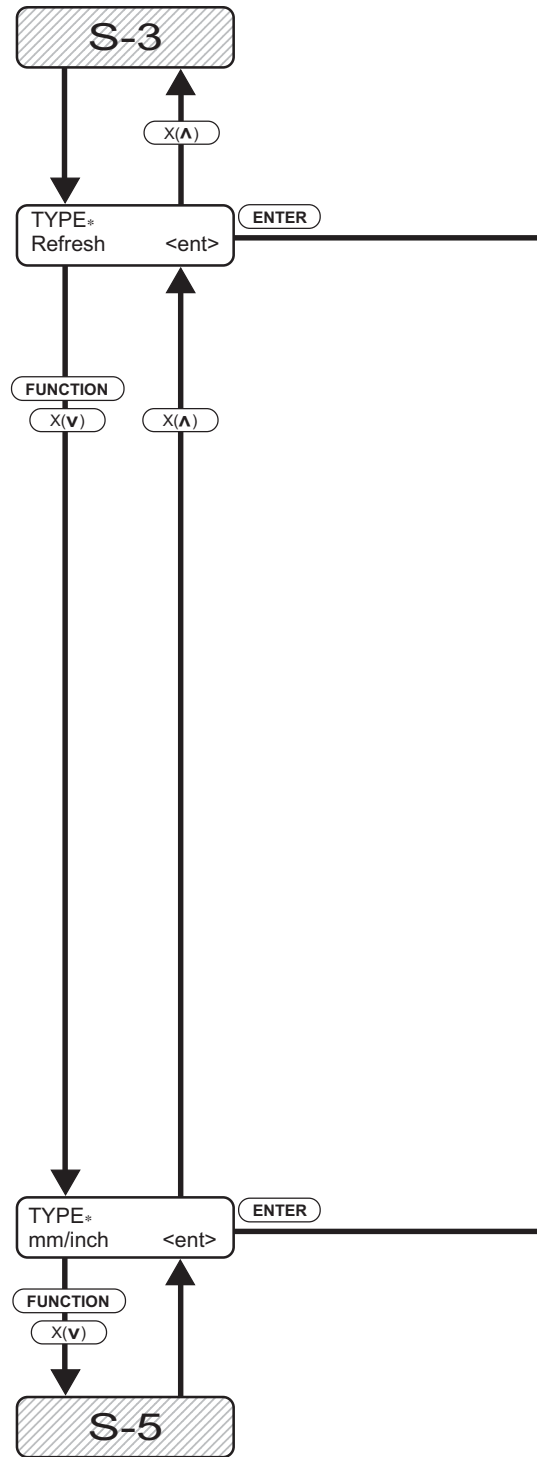
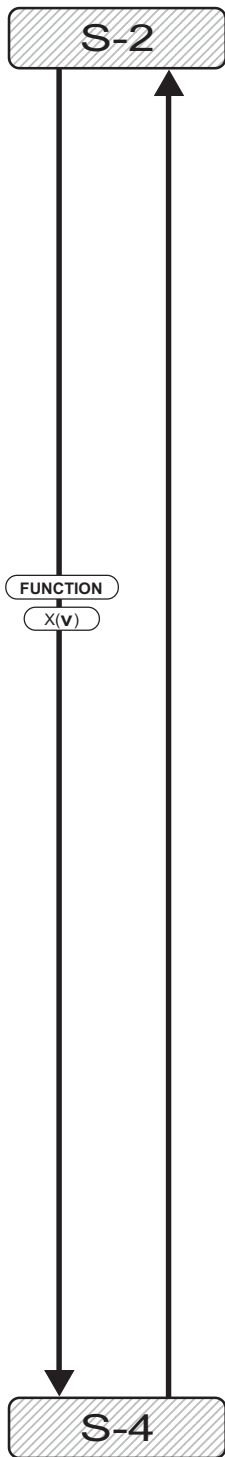
FUNCTION

S-1



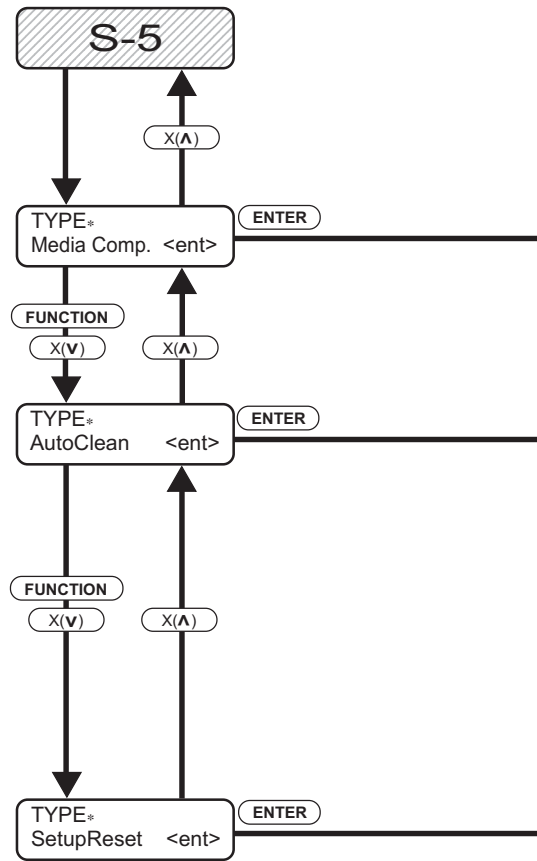
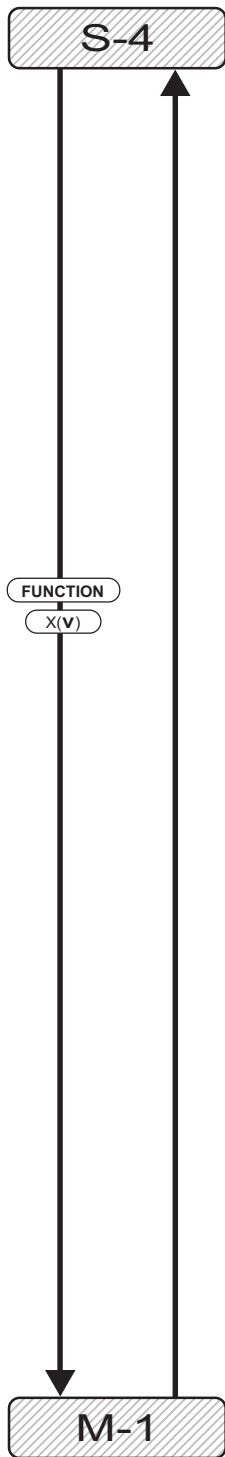


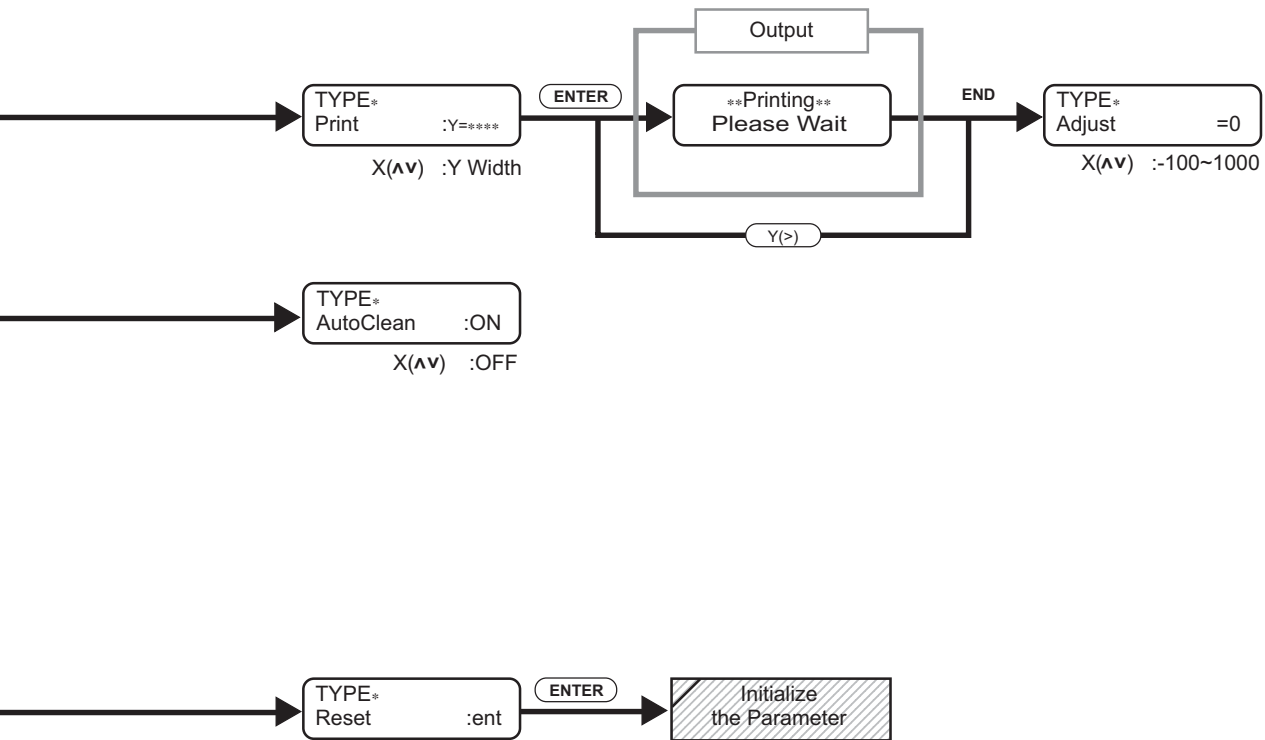


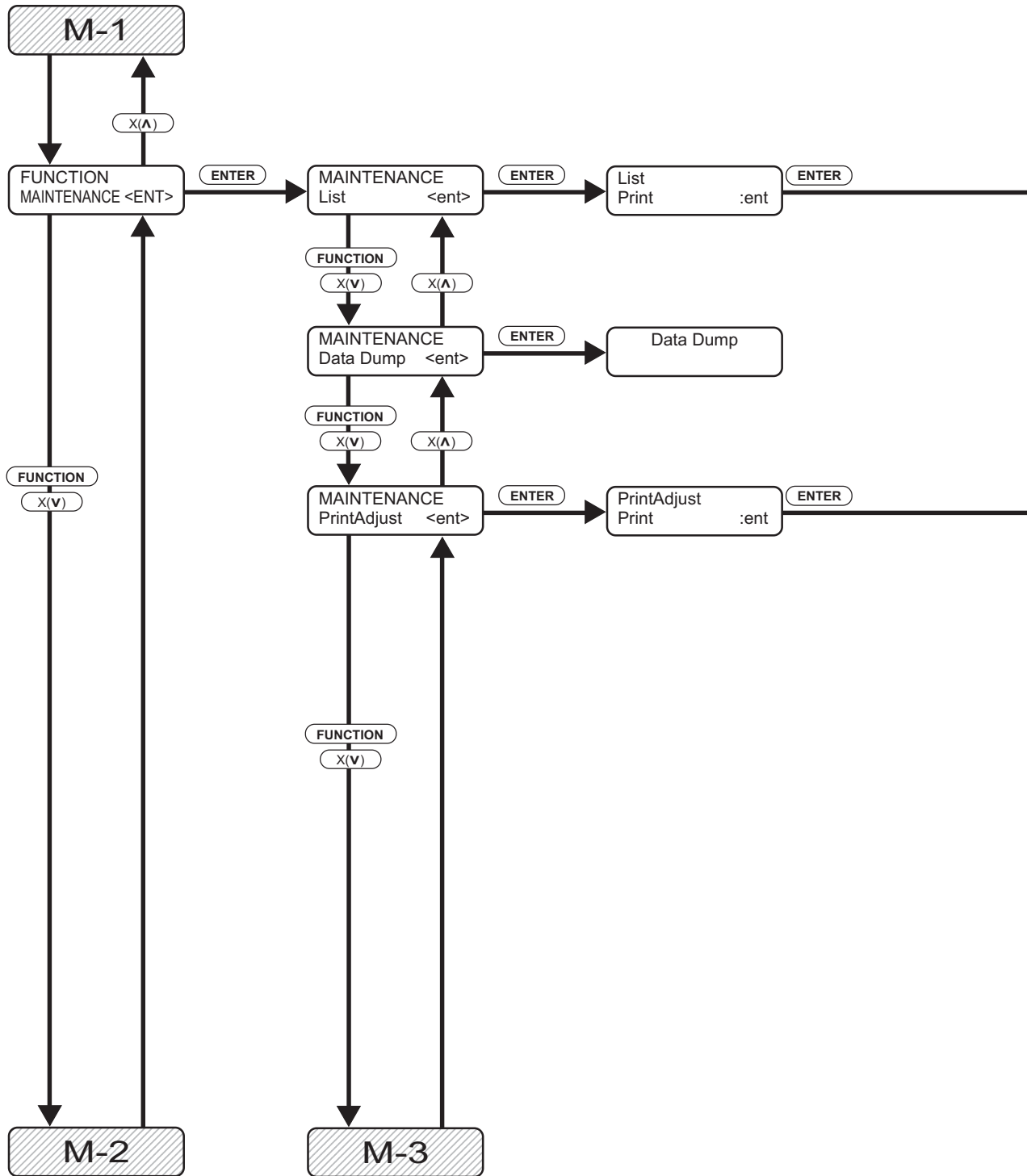


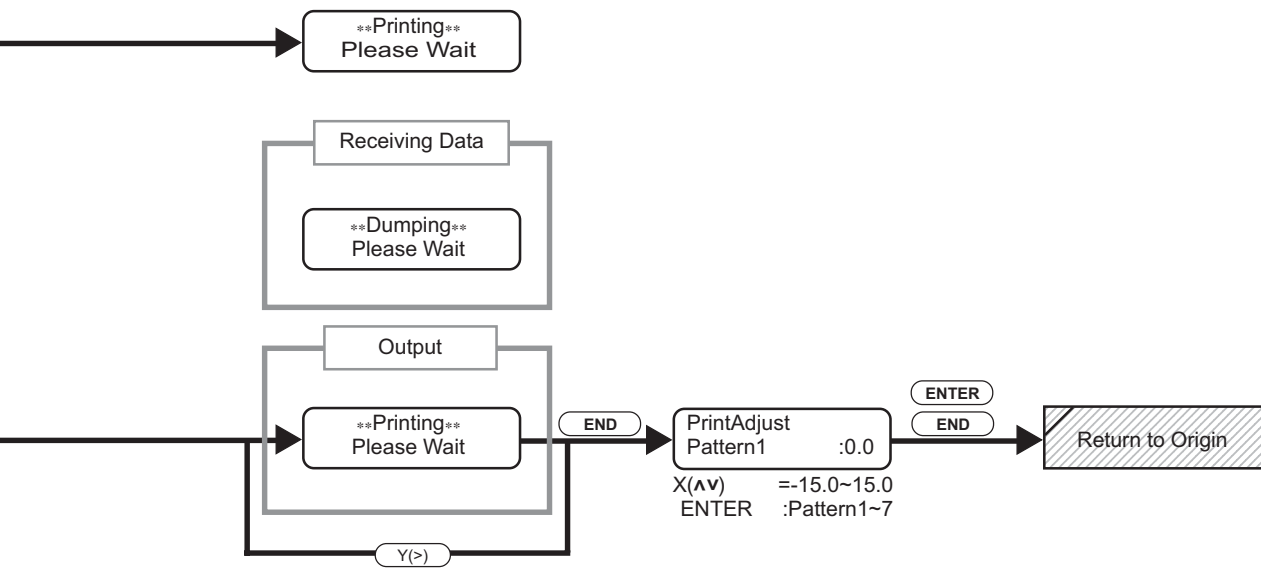
TYPE*
Refresh :Level3
X(Λv):Level0~Level3

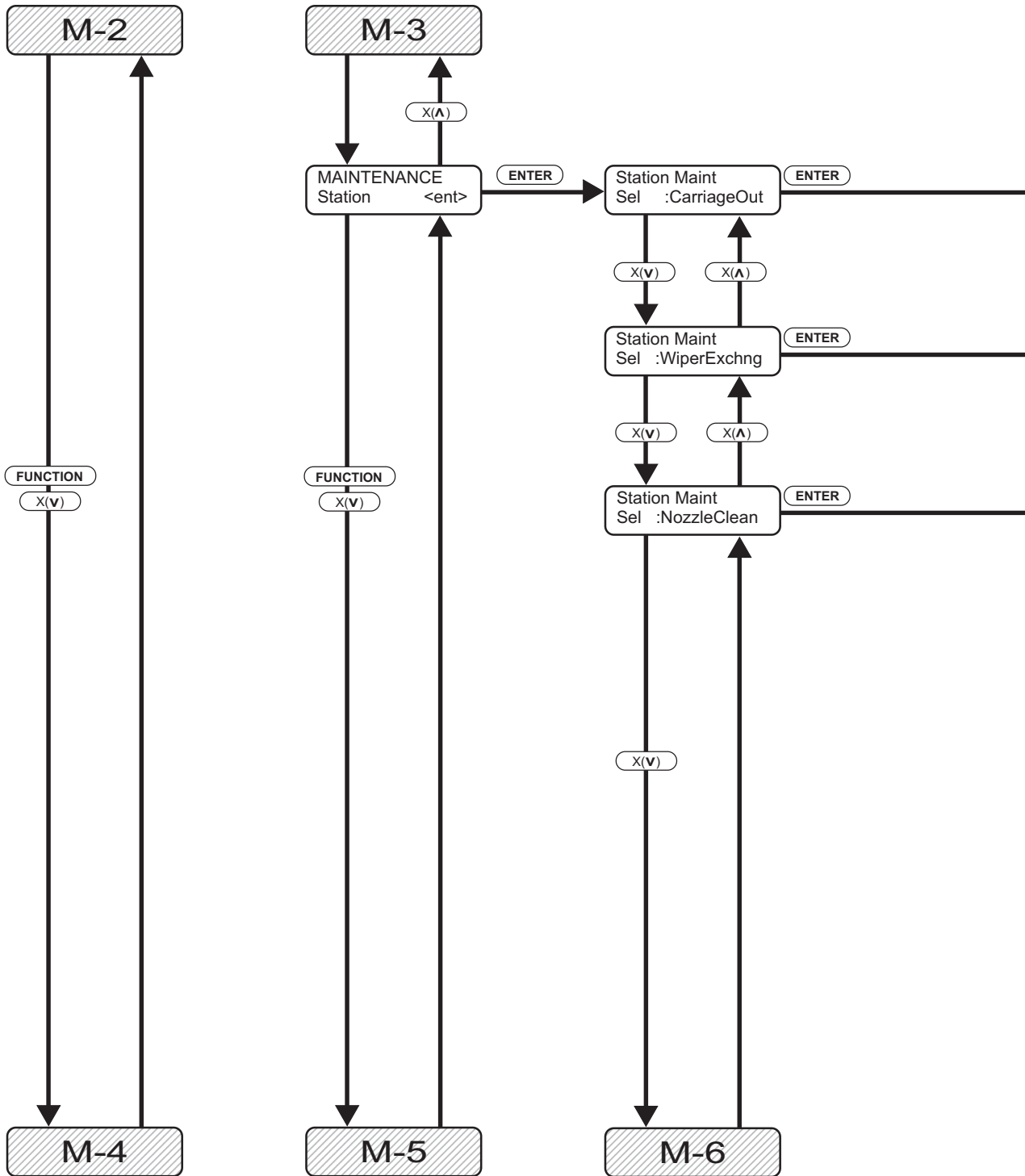
TYPE*
mm/inch :mm
X(Λv) :inch

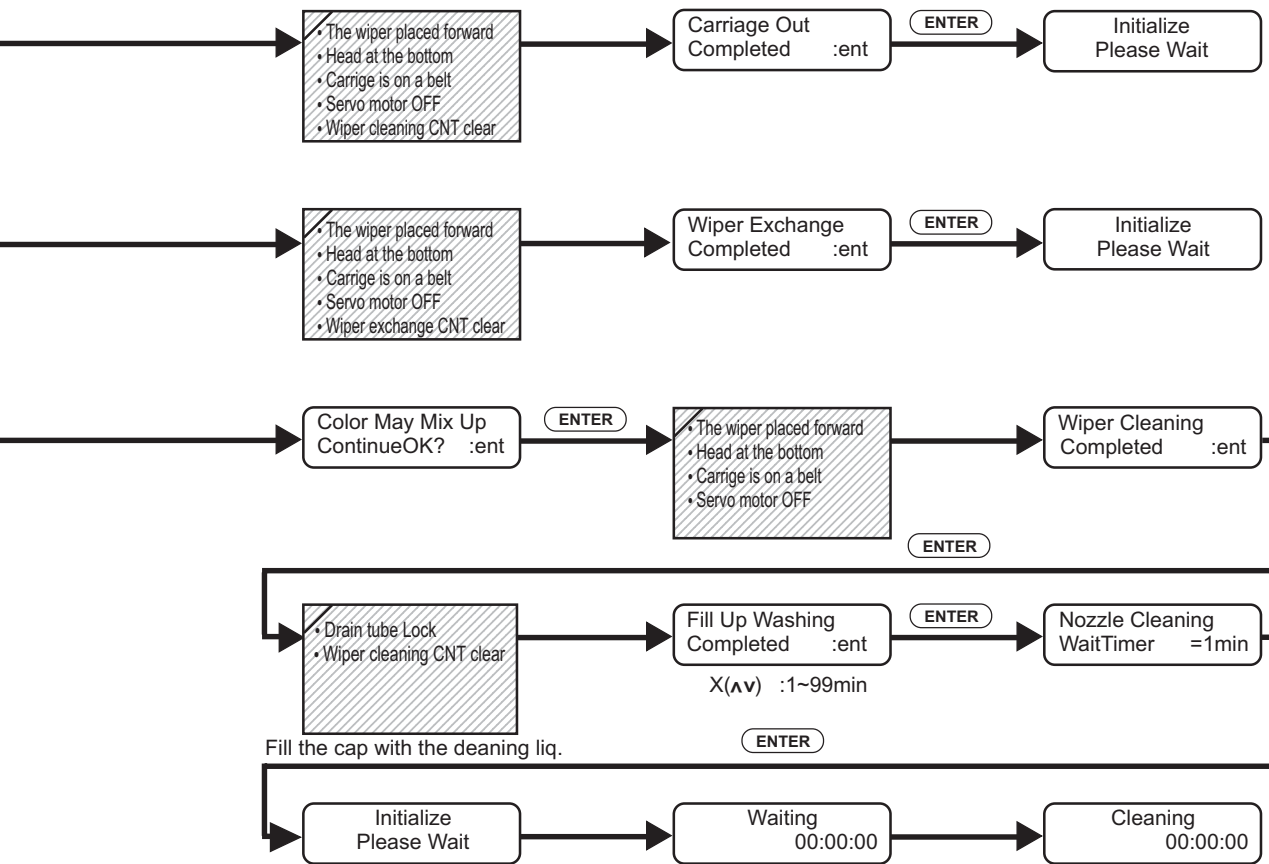


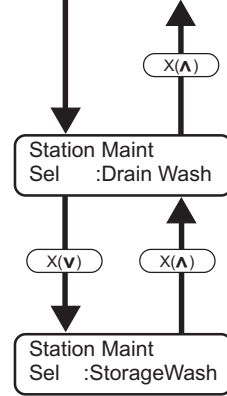
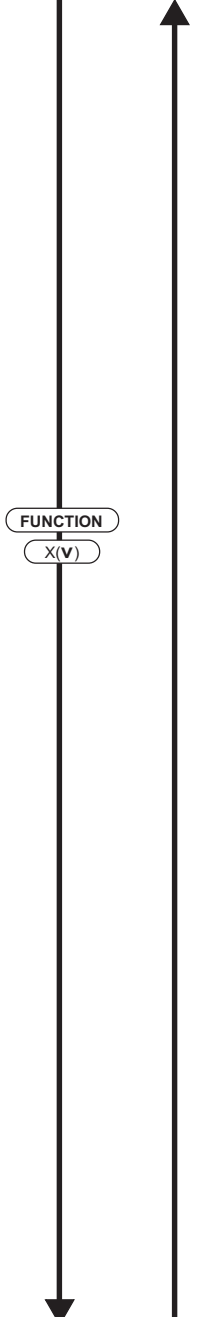
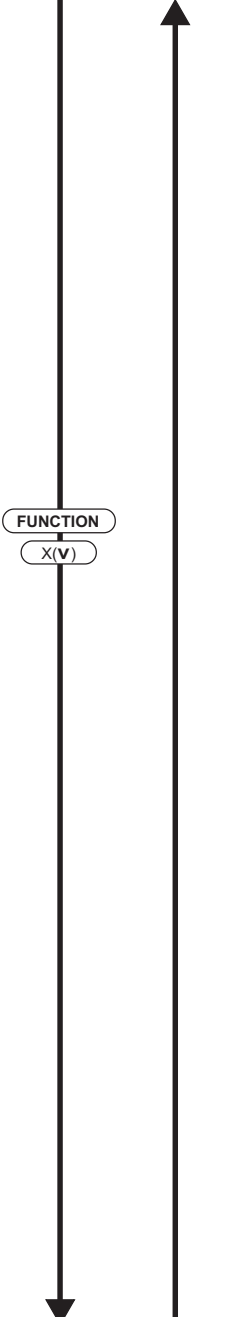


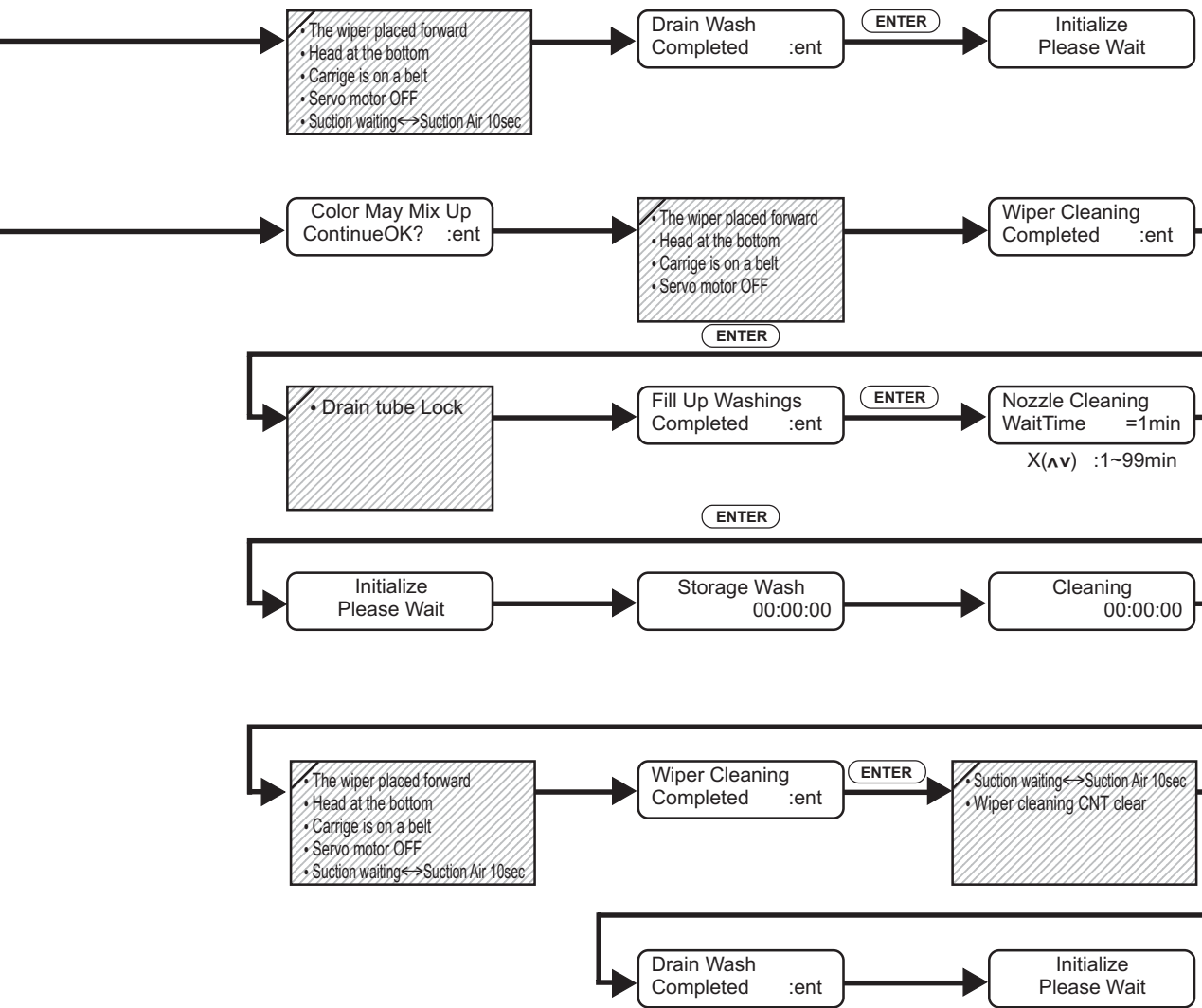


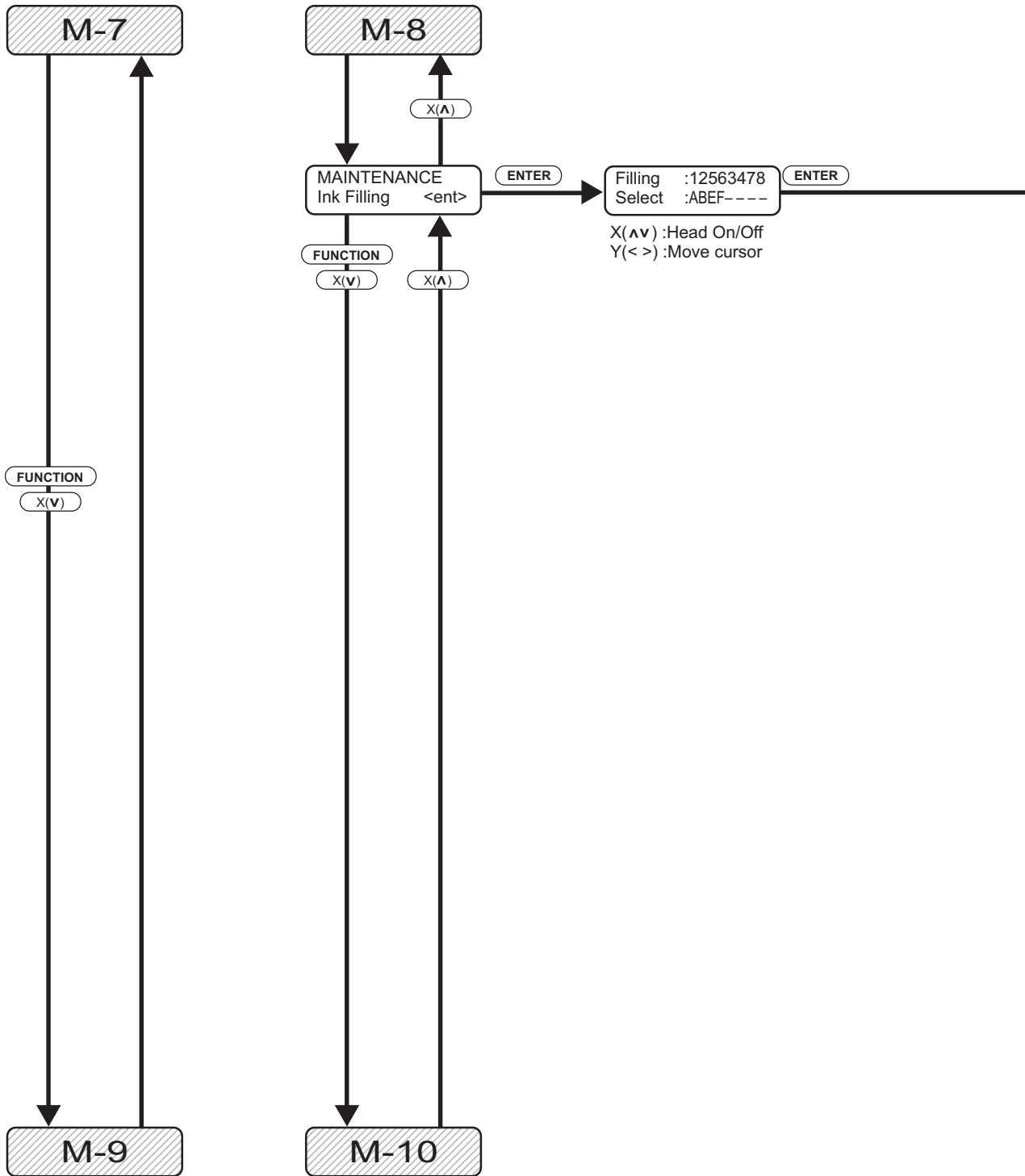


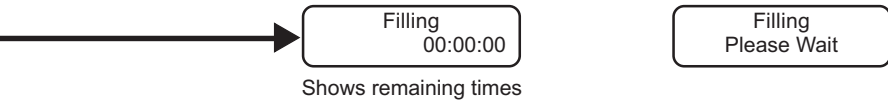


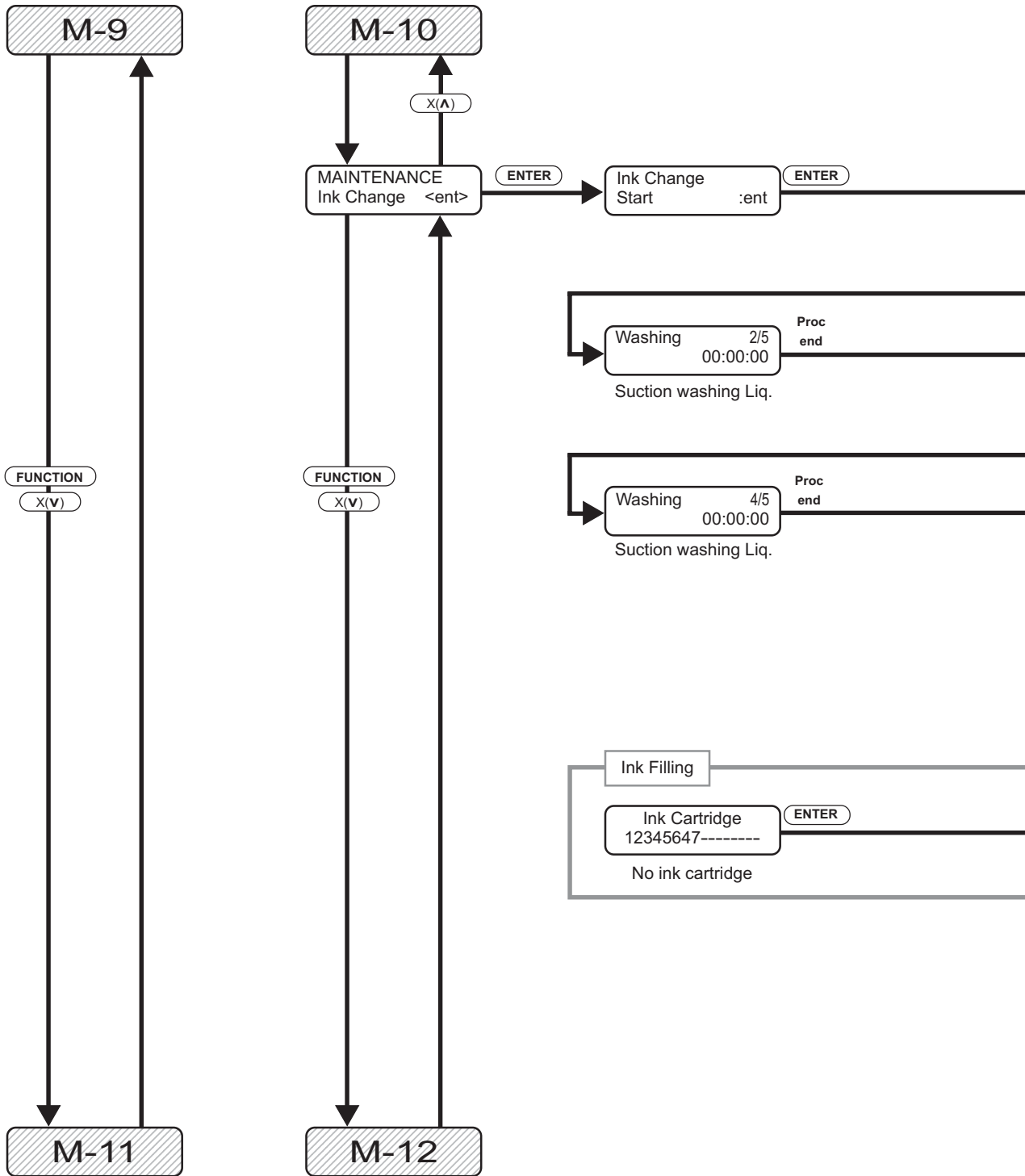


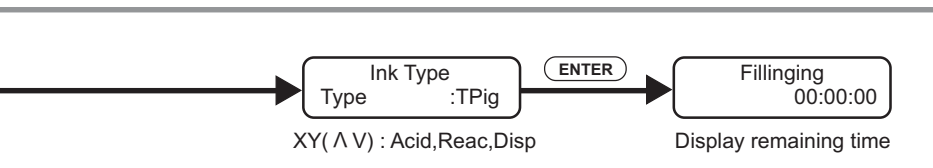
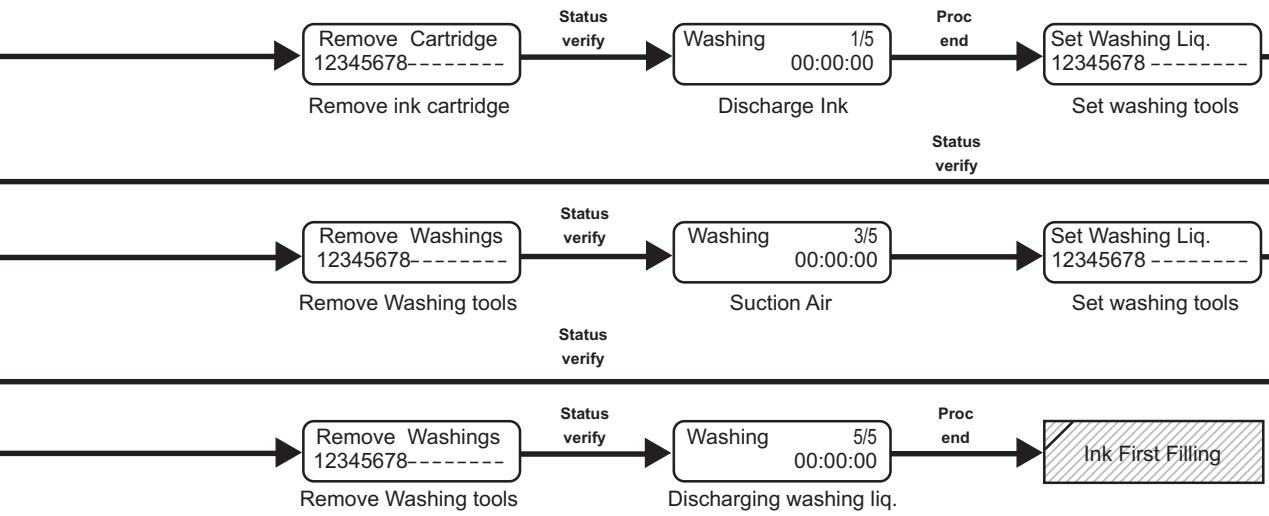


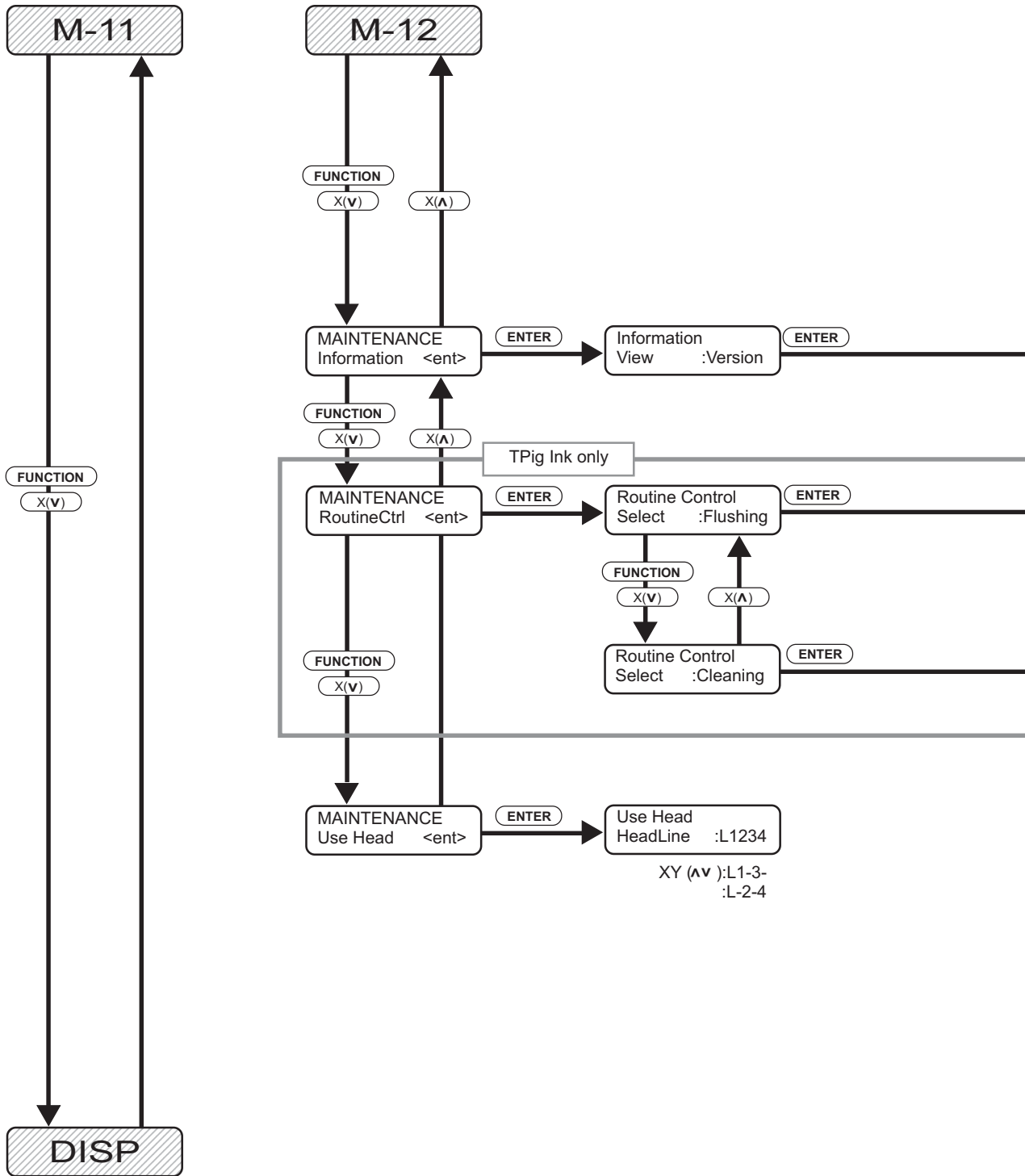


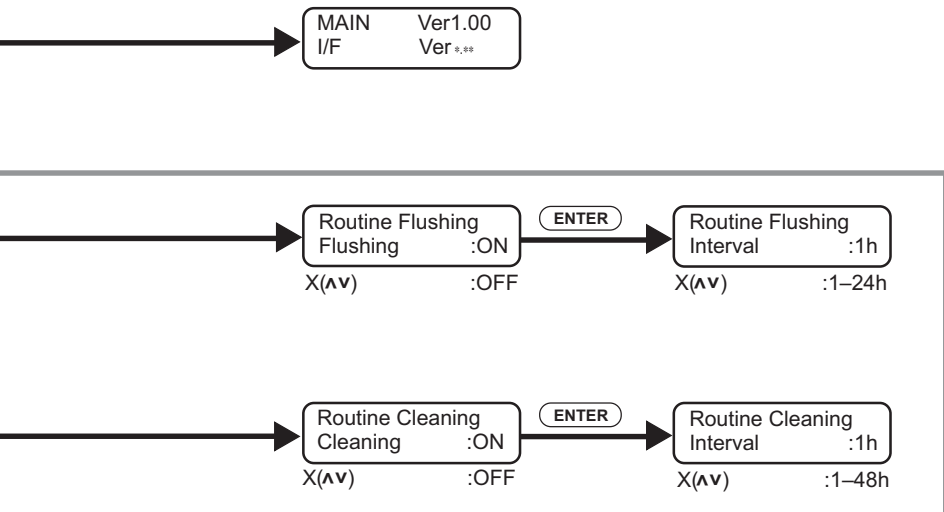


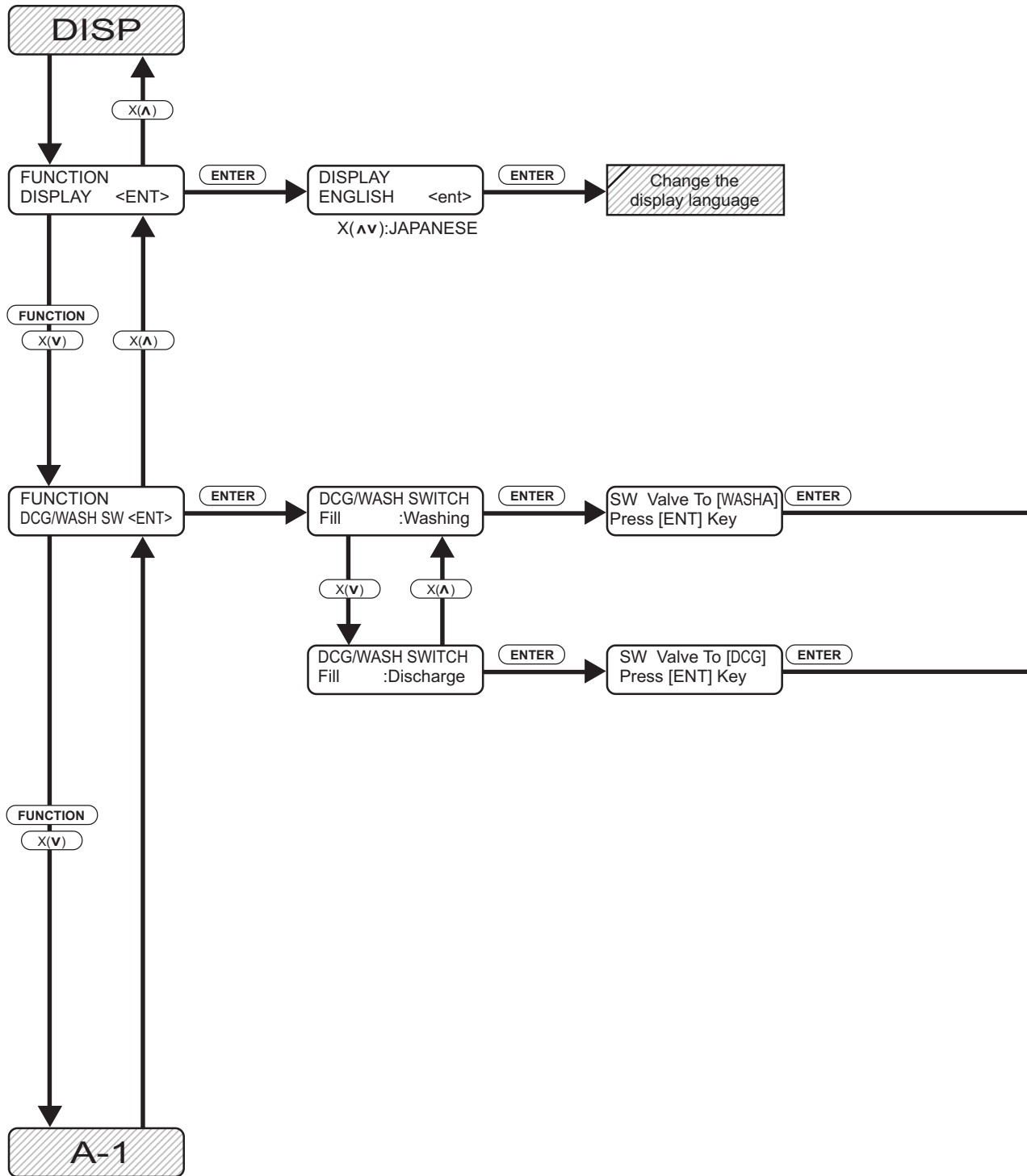


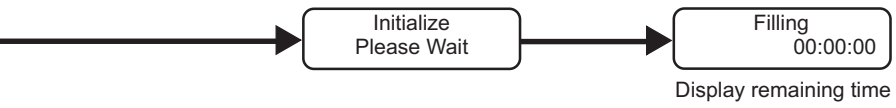
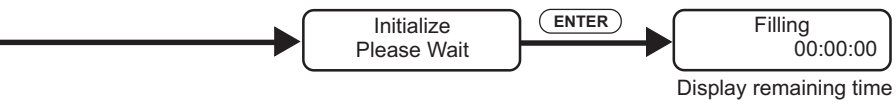














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